For space is dark
... and full of terrors

NEW HORIZON

## Core Rules

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core rules 4.5

New Horizon is a game about humanity's spread into our solar system and the horrors we discover as we go there. It is an exciting mix of Blade Runner universe, Aliens movies, Lovecraftian horror and hard science-fiction.

The scope of New Horizon is contained to a fantastical setting that is still familiar to us – our solar system, from Mercury out to the frontier of the Kuiper Belt. Earth is still the center of the universe, home to all mankind, but millions of people dwell in colonies and space stations spread throughout the solar system and beyond. Spaceships travel between the worlds, using technology that propels them from world to world in a matter of weeks or months, instead of years.

Despite the fact that the nations of the solar system are united in a way never before thought possible, the vast distances that separate the colonies of humanity create a sense of isolation. The journeys through the black are long and lonely. There are many who find this isolation difficult to deal with, especially given the things that now roam in the dark.

Horror takes many forms. It is the uncertainty of survival, the suspense of finding malevolent things among the stars, and fear of the unknown. It is the dread of facing Things That Should Not Be, the revulsion when encountering alien things, and the sickening realization of the wrong and ghastly things that humans are capable of doing to themselves and each other. Horror also arises both from the comprehension that there are scary things beyond our understanding inhabiting our universe and that humanity may be its own worst enemy. Despite all of the technological tools and advances available, they still face terrors like losing control of their own identities, their perceptions, and their mental faculties— not to mention their future as a species.

New Horizon is a couple hundred years into the future. In terms of its influences, the setting is approximately equivalent to the technology presented in such movies as Total Recall, After Earth, Outland, Starship Trooper, Avatar, Elysium, Predator, Doom, Pandorum, Event Horizon or The Expanse TV series.
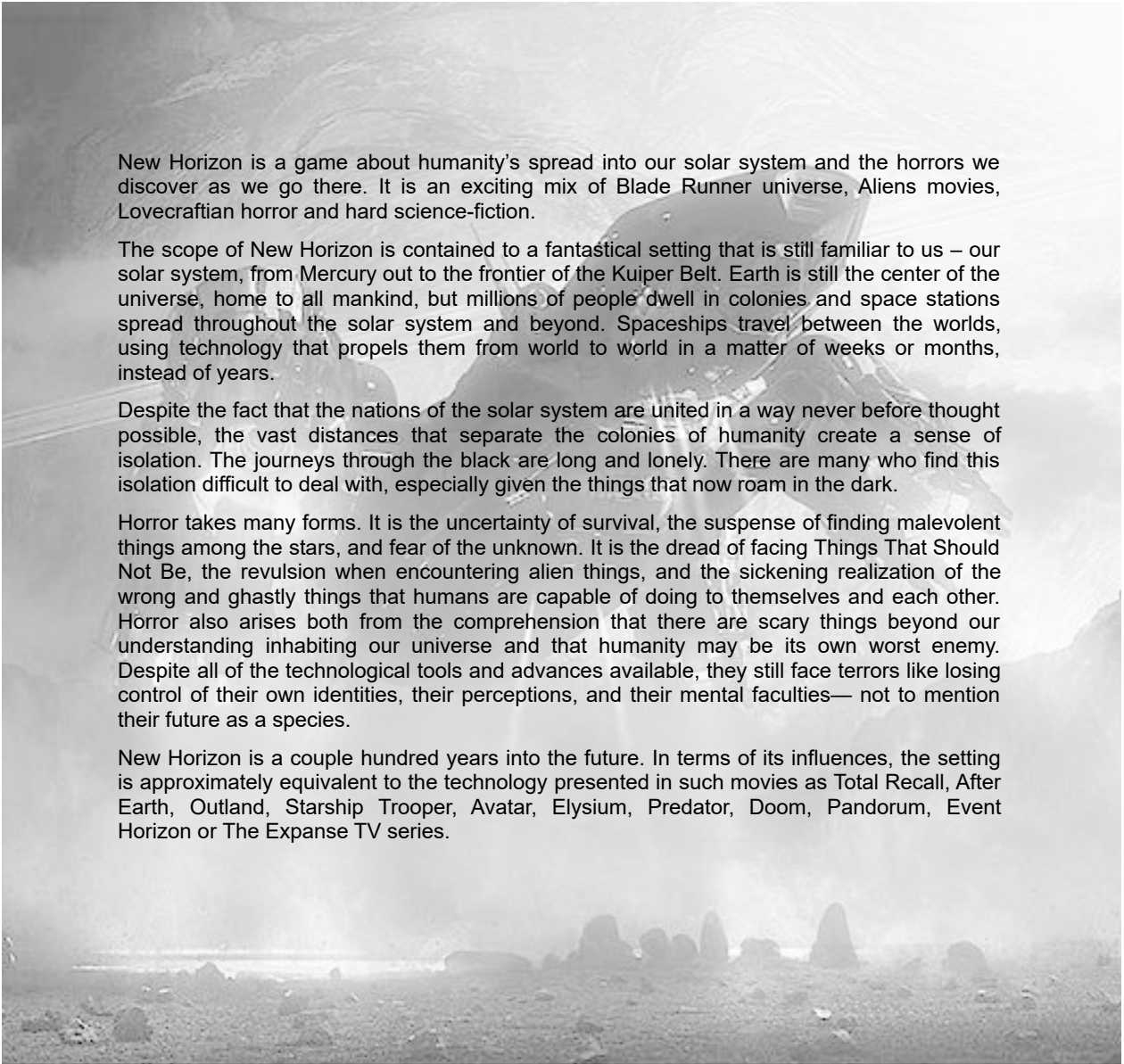
FOR MATURE AUDIENCES ONLY
This book is intended for mature readers. It contains dark and disturbing content and images.
Reader discretion is advised.

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Creating a Character

by Dave Arneson, Gary Gygax, Steve Perrin, Edward Simbalist & Phil McGregor

> *"We've always defined ourselves by the ability to overcome the impossible. And we count these moments. These moments when we dare to aim higher, to break barriers, to reach for the stars, to make the unknown known. We count these moments as our proudest achievements. But we lost all that. Or perhaps we've just forgotten that we are still pioneers. And we've barely begun. And that our greatest accomplishments cannot be behind us, because our destiny lies above us."*
>
> *Joseph Cooper – Astrogator*

To create a character for New Horizon will involve making a number of dice rolls to determine the basic traits a player character or PC will possess. Other determinations will be required to establish the PC's personal background and career experience before he actually enters the role play. Players should be encouraged to join in the creation of additional background material for their PC's home planets and cultures.

Beneath the surface appearances of the world, they find a truth of a terrifying sort. The world and universe are insane and horrible. Physical law is not uniform. It varies across the universe. Humans have evolved in a cosmic billiards pocket where the full natural law is somehow abbreviated. It is the Demonic or Mythos creatures who are "more", and it is humans who are "less". Beyond, the cosmic gaming table extends through all time and space, and across it worlds career and incomprehensible forces roam and raven.

New Horizon is a game of Hard SciFi horror in which the players take on the role of adventurers willing to confront the outer darkness. Whether struggling against bloodthirsty cults, demented scientists, ravening sorcerers, or monsters birthed from deepest night, they fight and die to defend their world against the horrors that even now hammer against its gates.

Adventurers in New Horizon are acutely mortal. It is all too easy to perish under the fangs of some unspeakable abomination or be slashed to pieces by the knives of cult assassins. There is no special protection for player characters and many of them are likely to pay the final price for their defiance of the outer powers. Even a veteran of a dozen successful investigations is always at risk of a sudden, savage end.

Such a fate can be delayed by good sense and keen judgment. Adventurers who defer their heroism too long and dare too little will let the servants of the outer dark run rampant over their communities and infest their home with cysts of evil, while those who are too brash will find an early grave. A clear eye for danger, a measured acceptance of risk, and a determination to make every conflict as one-sided as possible are all vital tools for your adventurers.

Make sure your character is capable of working with the other PCs. Lone wolves invariably come to horrific ends in the world of New Horizon, and you need your allies if your adventurer is ever to stand against the outer powers. Characters who refuse to cooperate with others or who prove treacherous or unreliable are likely to result in a quick trip back to this chapter.

This is not to say that a group's characters should always be in perfect harmony or unfailing fellowship, but any arguments or disputes should take into account the fact that an entire global plague of psychotic doom-cultists wants to kill you all. Avoiding that fate is going to require a certain shared focus on the job.

If your adventurers are to drive back the powers of darkness, they must fight with cunning, valor, and prudence. There will be no deus ex machina to save their cause, no benevolent architect to put wayward investigators back on the right trail to their goal. If you succeed in your chosen aims it will be because you had the wisdom, daring, and luck to pull it off in the face of an uncaring fate. And if your adventurers should be crushed under the weight of night that opposes them… that, too, was the fruit of their choices.

Ready to Play Adventurer

1. Determine Race

Find a blank adventurer sheet. Write your name in the space on the side. Under the adventurer name, write the race of your PC among:

■ Human or Transhuman.

■ Synthetic (Android), 3rd to 5th gen, with the Game Master's consent.

■ Replicant (Bioroid), N8 or N9, with the Game Master's consent.

2. Determine Characteristics

Humans and Transhumans determine theirs characteristics as follow:

■ Roll 3D6 once each for the characteristics STR, CON, POW, DEX, BRA and APP. Enter the results on the adventurer sheet, in the appropriate spaces. Use a pencil. Write lightly enough that you can erase.

■ Roll 2D6+6 once each for SIZ and INT. Enter the results.

■ SAN equals POW x5. Write in that amount. These numbers are your adventurer's skeleton. Be alert for ways to flesh out your adventurer by explaining the numbers you rolled.

Synthetics and Replicants use their respective templates listed in the Androids and Bioroids chapters.

■ Androids and AIs have no POW. POW is replaced by EDU. Roll 3D6+3 for the characteristic EDU.

■ Androids and AIs have no SAN. SAN is replaced by Stability. STA equals INT x5.

■ Bioroids have no SAN. SAN is replaced by Humanity. HUM equals POW plus 5% x years of existence to a maximum of POW x5.

3. Determine Planet of Birth

Roll 1d100 to determine the planet of birth of your adventurer. Adjust the personal characteristics according to gravity field and planet type. Under the adventurer name, write his birthplace.

4. Characteristic Rolls

Damage Bonus	
STR+SIZ	**DB**
2 to 12	-1D6
13 to 16	-1D4
17 to 24	+0
25 to 32	+1D4
33 to 40	+1D6
41 to 56	+2D6
57 to 72	+3D6
73 to 88	+4D6
For each +16 or fraction thereof, +1D6 more	

■ In the characteristics box, multiply STR x5 for Effort, CON x5 for Stamina, INT x5 for Idea, POW x5 for Intuition, DEX x5 for agility, APP x5 for Charisma and BRA x5 for Fortitude, and enter the results.

■ Luck equal (3d6) x 5. In the Luck Points box, circle that number.

■ Androids and AIs have no Luck. Multiply EDU x5 for Know, and replace Luck by Know.

■ Add STR to SIZ, and find the die roll in the Damage Bonus Table nearby. Write in the result for Damage Bonus. The roll may be positive or negative; if none, write in none.

■ Enter the number 99 for 99 minus Forbidden Science. If your adventurer gains points in that skill, lower this number by a like amount.

5. Check for Psionic Talents

If the GM consents, Human characters with a POW score of 11 or greater have (POW – 10) x1% of chance of being Async. Roll 1d6 for each of the fields of psionic talent to determine the fields the Async may possess.

No Async will enter the game psionically 'awakened.'

6. Age Modifiers

Age does not come without a price. For every 10 years above 40 apply the following modifiers:

Age	MOV	APP	STR, CON, or DEX
in the 40s	-1	-1	-1, split across one, two, or all three
in the 50s	-2	-2	-2, split across one, two, or all three
in the 60s	-3	-3	-4, split across one, two, or all three
in the 70s	-4	-4	-8, split across one, two, or all three
in the 80s	-5	-5	-16, split across one, two, or all three

7. Determine Derived Characteristic Points

The Hit Points box is directly aside the Characteristics & Rolls Box. Add CON + SIZ. Circle the resulting number in the hit points box. If your adventurer loses hit points, mark them off with pencil slashes, which can be erased as the adventurer regains hit points. The circled number represents the adventurer's maximum hit points.

In the Power Points box, circle that number equal to POW. If your adventurer loses Power Points, mark them off with pencil slashes, then erase the slashes as the adventurer regains Power Points. The circled number is the maximum Power Points regenerated.

In the Sanity Points box, circle that number equal to SAN. Sanity points rise and fall; use pencil slashes to show their present number. Unless POW changes, SAN will not change. As the adventurer accumulates Forbidden Science skill points, black out an equal number of Sanity points, starting with 99 and working down. Blacked out Sanity points are a ceiling into which current Sanity points cannot be increased.

8. Determine Career & Skills

- ■ Roll 1D6 to determine the number of years of service a Synth had performed.

- ■ Roll 3D6 to determine the length of service an adventurer will perform. At the end of his term he may choose to resign or re-enlist.

- ■ Choose an occupation that you find befitting the adventurer's characteristics and income. Choose from the Careers listed in the Employment chapter, or consult with your GM and create a new occupation.

  Multiply the adventurer's number of years of service by 20. Multiply also by 5 the sum of the appropriates adventurer's characteristics for a given occupation. Allot at least half of those points only to the skills listed for the occupation. The skills are found on the front of the adventurer sheet. You can have up to 90 points per skill.

  Hand-to-hand and firearm values are found on the Weapons Table, in the Game System chapter. Write in the pertinent data in the boxes at the bottom of the adventurer sheet front.

- ■ Multiply the adventurer's INT x10. These are personal interest points, and can increase any skill except Forbidden Science. Add these points to any printed base chances printed on the adventurer sheet, and any amounts already in the blanks to the right of the skills. Total the amount for each skill.

  Allot every point: points unallocated are lost.

  Weapon skills are found in the Hand-to-Hand and Firearms boxes just below Skills.

  Not all skills need to be given points. A single skill of 70% or 80% may be much more valuable than two skills of 35% or 40% each.

9. Determine Augmentations

The adventurer has assets of value equal to 50% of his monthly income times the number of years of service, banked as cash. This money can be spent to acquire augmentations.

Black out the number of Sanity points by the SAN loss of each augmentation.

Characteristics

To create a PC, roll the characteristics first. A characteristic is one of nine numbers which summarize Characters. Other matters being equal, it is always better to have higher characteristics than to have lower ones. These numbers may be likened to skeleton and muscles: our bodies are of different sizes and proportions, but all humans have heads, hearts, and so forth. In the game, each characteristic stands for a general aspect of a Character—his intelligence, dexterity, and so on. These identified quantities help determine the relative value and capability of Characters, and suggest ways for them to act and react during roleplaying.

- ■ Roll 3D6 for the characteristics Strength (STR), Constitution (CON), Power (POW), Dexterity (DEX), Bravery (BRA), and Appearance (APP).
- ■ Roll 2D6+6 for the Intelligence (INT) and Size (SIZ) characteristics.

AI (Artificial Intelligence) systems can be treated as a normal character, but a typical AI will have only INT and EDU scores. The specific scores for an AI will depend on its sophistication and intended purpose. A limited purpose AI, such as that used to autopilot a ship, will tend to have relatively low INT and EDU scores. These low scores will reflect the narrow scope of the AI's capabilities—it will be brilliant at operating the ship, but an idiot when it comes to other tasks.

An AI that is self-aware will not have Sanity points. SAN is replaced by Stability (STA), STA equals INT x5. Self-aware AIs sometimes have the capability to consciously override their original programming. Many humans are terrified at the prospect of true self-aware AIs and often take precautions to prevent that from happening.

Strength (STR)

The Strength score measures your character's brawn and raw muscle power. The Effort roll (STR x 5) is its characteristic roll. The STR score helps determine how much your character can lift or carry, push or pull, or how tightly he can hang on to something. In combat, STR determines what kind of weapons your character can use in hand-to-hand combat, as well as how much extra damage (if any) your character can inflict with any hit. STR can be increased through exercise, while certain injuries and diseases can permanently reduce STR. A character with STR 0 is an invalid, unable to rise from his bed.

STR	Description
0	Enfeebled: unable to even stand up or lift a cup of tea.
3	Puny, weak.
10	Average human strength.
15	One of the strongest people you've ever met.
20	World-class (Olympic weightlifter). Human maximum.
28	Beyond human strength (gorilla or horse).

Constitution (CON)

Health, vigor, and vitality are all measured by your character's Constitution. The Stamina roll (CON x 5) is its characteristic roll. Your character's CON determines how well he can resist fatigue, poison, disease, drowning, and other hardships, and is a critical factor in calculating your character's hit points. CON can be increased through conditioning. Diseases, poisons, and some injuries can temporarily or permanently reduce your character's CON. Your character will die when his CON falls to 0.

CON	Description
0	Dead.
1	Sickly, prone to prolonged illness and probably unable to operate without assistance.
3	Weak health, prone to bouts of ill health, great propensity for feeling pain.
10	Average healthy human.
18	Shrugs off colds, hardy and hale.
20	Iron constitution, able to withstand great amounts of pain. Human maximum.
28	Beyond human constitution (e.g. elephant).

Size (SIZ)

Size defines your character's height, weight, and bulk. There is no SIZ-associated characteristic roll; on the character sheet the space is used to note your character's Damage Bonus. Resistance rolls using SIZ can determine whether or not your character can stand firm against resistance, see over an obstacle, or squeeze through a crack. A character's SIZ, as body mass, is an important factor in determining hit points and damage bonus (if any). Normal factors like gluttony or rigid diet can increase or decrease your character's weight, and therefore affect their SIZ. Some powers may also affect your character's SIZ. Severe injuries (like lost limbs) can also permanently decrease your character's SIZ. Your character will die if he loses more than half his base SIZ due to starvation or extreme diet.

This chart provides height and weight values based on SIZ score, allowing you to define your character's height and weight. Each value has a range, embodying the normal extremes of human height and weight. Once your character's height has been set, only weight should change as your character's SIZ score changes. Note that the ranges account for the normal extremes in human height and weight, and are for descriptive purposes only. With the Game Master's permission, your character can choose to be taller or shorter than his indicated height, though his bodily weight should be adjusted in the opposite direction, so a character who chooses to be taller than his indicated SIZ would be quite thin, and a character who is shorter would be stockier and heavier.

Character SIZ Table

SIZ Score	Character Height Centimeters	Character Weight Kilograms
1	0–30	0–10
2	31–60	5–20
3	61–90	10–30
4	91–105	16–40
5	105–120	21–50
6	121–135	26–60
7	136–150	31–70
8	151–155	36–73
9	155–160	39–82
10	160–165	41–91
11	165–170	43–100
12	170–175	46–109
13	175–180	50–118
14	180–185	55–127
15	185–190	59–136
16	190–195	64–146
17	195–200	68–155
18	200–205	73–164
19	205–210	82–173
20	210–215	90–182
21	215–220	100–191
22	220–225	106–220
23	225–230	111–230
24	230–235	116–240
25	235–240	121–250
26	240–245	126–260
27	245–250	131–270
28	255-260	136-280
29	265-270	141-290
30	275-280	146-300

Intelligence (INT)

Representing reason, mental acuity, and wits, INT measures how well your character learns, remembers, and analyzes data. The Idea roll (INT x 5) is its characteristic roll. Your character's INT score is critical in helping determine his initial skill values. Possibly the most important characteristic, INT has no fixed maximum and can conceivably rise indefinitely through study and mental exercise. Wounds to the head, prolonged exposure to drugs, or certain types of diseases can reduce your character's INT score. A character with an INT 0 is a babbling idiot, barely able to survive independently.

INT	Description
0	No intellect, unable to comprehend the world around them.
3	Slow learner, able to undertake only the most basic math, or read beginner-level books.
10	Average human intellect.
18	Quick-witted, probably able to comprehend multiple languages or theorems.
20	Genius (Einstein, Foscolo, etc.). Human maximum.
28	Monstrous intellect, able to comprehend and operate in multiple dimensions (e.g. Great Cthulhu)

Power (POW)

The most intangible of characteristics, Power represents your character's willpower, magical aptitude, and spiritual development. POW is essential to leadership, intuition, and psionic. The Luck/Intuition roll (POW x 5) is its characteristic roll. POW serves as the basis of your character's Magic or Psionic Points and Sanity score. Like INT, human POW has no set maximum, and can rise indefinitely. POW is probably the most important characteristic if your character is going to

have psi powers or use magic. A character whose POW score reaches 0 has lost his soul, and becomes a catatonic zombie without any will or life force.

POW	Description
0	Enfeebled mind, no willpower or drive, no magical potential.
3	Weak-willed, easily dominated by those with a greater intellect or willpower.
10	Average human.
18	Strong willed, driven, a high potential to connect with the unseen and magical.
20	Iron will, strong connection to the spiritual "realm" or unseen world.
28	Beyond human, possibly alien.

Note: Human POW can exceed 100, but this is exceptional.

Dexterity (DEX)

Your character's Dexterity score measures balance, agility, speed, and deftness. Characters rely upon DEX when reacting to an attack, climbing, performing delicate work, or moving stealthily. The Agility roll (DEX x 5) is its characteristic roll. Human characters have a maximum natural DEX of 21. Injuries or nerve diseases can reduce your character's DEX, while rigorous training can quicken reflexes and improve balance. A character with DEX 0 is utterly immobile.

DEX	Description
0	Unable to move without assistance.
3	Slow, clumsy with poor motor skills for fine manipulation.
10	Average human dexterity.
18	Fast, nimble and able to perform feats of fine manipulation (e.g. acrobat, great dancer).
20	World-class athlete (e.g. Olympic standard). Human maximum.
24	Beyond human dexterity (e.g. tiger).
40+	Lightning dexterity, able to move or perform feats potentially quicker than a human could comprehend.

Appearance (APP)

The Appearance score determines how likeable or attractive your character seems to other people, and is based as much on presence, personality, and demeanor as simple physical appearance. The Charisma roll (APP x 5) forms its characteristic roll. APP is used to measure first impressions, and indicates how eager others will be to associate with your character, through physical attraction or an agreeable manner. Though Appearance might seem to indicate only visual appearance, it actually represents many of the features that combine to make your character noticeable. Your character's APP cannot naturally exceed 21. APP can be raised through physical conditioning, cosmetic surgery, or careful application of grooming and etiquette. Your character's APP can be reduced through injury or disease, at the Game Master's discretion. A character with an APP 0 is truly hideous, provoking disgust from all who see him.

APP	Description
0	So unsightly that others are affected by fear, revulsion, or pity.
3	Ugly, possibly disfigured due to injury or at birth.
10	Average human appearance.
18	One of the most charming people you could meet, natural magnetism.
20	The height of glamour and cool (supermodel or world renowned film star). Human maximum.

Note: APP is used only for humans, and does not exceed 20.

Bravery (BRA)

Bravery is a measure of a character's ability to summon up physical courage and to exhibit a kind of mental 'toughness' in a tense or critical situation. It is, in short, his capacity to remain cool, calm, and collected when his life is threatened or when he has to face a test of his moral fibre. The Fortitude roll (BRA x 5) forms its characteristic roll. BRA is also a measure of his capacity to be 'decisive' under pressure. Bravery is used whenever a PC, NPC, or group of characters is faced with a situation that demands a show of courage and decisive action in the face of a serious physical or psychical threat.

BRA	Description
0	The character is sadly lacking in natural Ferocity and had a limited chance of resisting any form of fear or intimidation.
5	Inwardly, the character doubts his real abilities and can easily be pushed around by others if he is not careful. When faced by truly serious opposition, he could back clown to avoid unpleasantness. In a battle, such people require the example of their leaders to steady them and give them heart in adversity. If let clown by the leader, they can easily desert or rout in droves.
10	The character is capable of putting up fair resistance to adversity, but he has his limits.

15	The character has a decidedly "ferocious steak" and an exceeding good chance of meeting any threatening situation with defiance and resolution.
18	The character has the stuff from which true Heroes are made. He can summon the reserves of courage needed to attempt dangerous and desperate deeds, inspiring others as he does so. Surrender? Never!

Education (EDU)

Education measures formal and factual knowledge possessed by an AI, as well as the number of years it took him to learn that material. EDU measures information, not intelligent use of information. EDU partly determines how many skill points an AI has. An AI without EDU would be like a newborn baby, or an amnesiac without knowledge of the world, probably curious and credulous.

An EDU of 60 suggests the AI is a high school graduate, while a score of around 70 indicates a AI with some college years database. AI with an EDU greater than 80 is the equivalent of a person which have most likely conducted graduate level work and have a degree, as expected of a person who has been to a university of some kind.

EDU	Description
0	A newborn baby.
3	Completely uneducated in every way.
12	High school graduate.
14	College graduate (Bachelor degree).
16	Degree level graduate (Master's degree).
18	Doctorate, professor.
19	World-class authority in their field of study.
20	Human maximum.

Sanity (SAN = POW x 5)

Sanity (SAN) points represent your character's mental and emotional fortitude, and his ability to withstand shock, terror, and cosmic awfulness. Your character's base SAN points equal his POW x 5.

Whenever your character is exposed to a horrifying situation or mind-bending strangeness, he must succeed a Fortitude roll. If your character fails (or perhaps even if he succeeds) he will lose sanity points. A character who suffers sufficient SAN loss will likely go mad. Your character's Sanity Threshold (like a Major Wound Threshold) equals 1/5 of his current SAN. Losing this many SAN points in one game hour results in some form of indefinite insanity. Sanity points do not naturally regenerate, and can only be recovered under very specific circumstances. Characters can gain SAN beyond their base value, to a maximum of 99. Certain types of blasphemous knowledge can limit your character's maximum allowable SAN score.

Luck

Luck Points represent that strange force differentiating adventuring heroes from everyday folk. Call it fate, karma or simple good fortune. When creating an adventurer roll 3D6 and multiply by 5 for a Luck score.

See Chapter 5: Game System for how Luck is used.
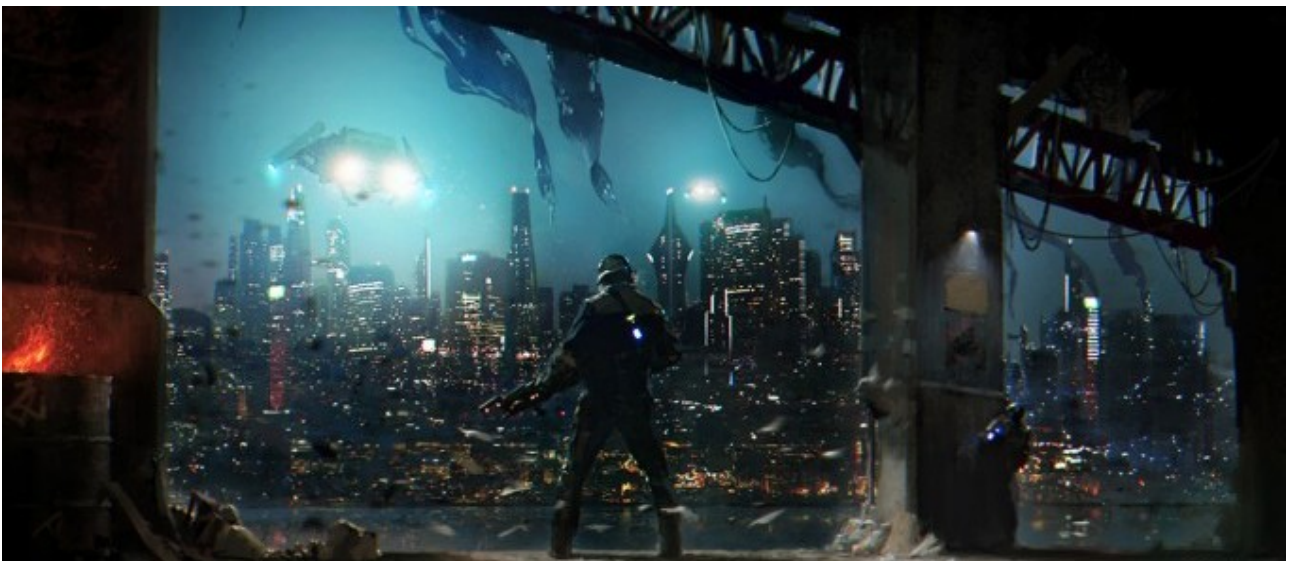
Characteristic Rolls

Some of the challenges that arise over the course of play do not fall intuitively under the purview of given skills. Can your hunter character stay awake in a blind all night waiting for his quarry? Can your hardened detective piece together the tantalizing clue hidden in the scraps of evidence? In these situations, the Game Master can call for a characteristic roll: a D100 roll against an appropriate characteristic times a multiplier. The Game Master decides which multiplier to use based on the difficulty of the task. Standard characteristic rolls use a multiplier of 5, though extremely difficult tasks may require a multiplier of 2, or even be based on the characteristic itself as a percentage.

Effort Roll (STR x 5)

Most feats of strength involve matching your character's STR against the SIZ of the lifted object on the resistance table. In cases when a SIZ rating is not available or is difficult to determine, use an Effort roll.

Effort rolls can also be used as an easy alternative to encumbrance or fatigue. Is your heavily-laden character worn out at the end of a march? An Effort roll is a quick way to decide.

Stamina Roll (CON x 5)

Based upon CON, Stamina rolls measure endurance. Use a Stamina roll whenever physical or intestinal fortitude is in question. To list a few examples, a Stamina roll might determine whether or not your character can stay awake all night, or endure seasickness, ill-prepared food, or strong drink with no ill effects.

Idea Roll (INT x 5)

An Idea roll represents your character's ability to make clever guesses, informed hunches, or reasonable deductions based upon nothing but observation and raw intellect. When no skill seems appropriate, an Idea roll can show understanding of a concept or the ability to unravel a puzzle. Memory is also part of the Idea roll: your character may use an Idea roll to remember an important detail, retrace his steps through a labyrinth, or memorize a lengthy formula.

If the course of the game is getting bogged down, a Game Master may allow an Idea roll to your character if he is stymied by a mystery, getting him back on track by revealing the hidden meaning of some already uncovered clue, or letting your character know that something 'doesn't quite seem right' about a particular person, place, or thing. Remember, these kinds of Idea rolls should only be granted at the Game Master's discretion, and are not generally solicited by players. Such generosity should be kept to a minimum, or else players may come to rely upon "hint" rolls instead of their own wits!

Your Game Master may also require you to make an Idea roll for your character if you wish to have your character think or behave in a manner that is clearly greater than his general level of intelligence. If your character is a primitive hunter encountering modern technology, for example, the Game Master may require an Idea roll for your character to be able to grasp basic concepts of the item.

Intuition Roll (POW x 5)

Intuition is a measure of a character's ability to utilise a 'sixth sense' in potentially dangerous situations so that he is alerted to the chance of possible injury or death before he has had any real reason to suspect it. It also represents a capacity to solve problems before he has all the facts. Intuition will serve to determine the outcome of such situations.

Both of these intuitive talents depend upon the GM's fairness and discretion. It cannot be too highly stressed that intuitive abilities are not a replacement for the player's own quick wit and sensitivity to the direction that the action is taking. Intuition should be used by the GM to determine whether the character should be given some vital information about a situation. That information is presented in the form of a 'hint' that all is not well, that the 'hairs are rising at the back of the adventurer's neck'. The player is thus forewarned that his adventurer is uneasy, that unexpected action is impending. The exact nature of the emergency is still unknown, but the adventurer is in a heightened state of readiness. The hint might also take the form of a piece of leading information or a strong suggestion that the adventurer consider a particular fact carefully. The player is left to draw his own conclusions, but he does have a definite clue to the solution of the problem confronting his adventurer. But in every instance, the player should never be told the solution outright.

Intuition Roll may be done secretly when the GM does not want to tip off the players that an unusual event is in the offing. It may also be done openly when the player requests it after he becomes 'suspicious' that all is not what it appears on the surface.

Finally, Intuition is somewhat untrustworthy. If an adventurer fails his Intuition Roll, the GM could give a false intuitive flash to reflect the misleading nature of such a faculty.

Agility Roll (DEX x 5)

Whenever a feat of deftness, balance, or agility is called for and no appropriate skill exists, use an Agility roll to measure success. An Agility roll might, for example, determine if your character can keep his balance on a heaving ship's deck, gather up all the pieces of a broken vase, run carrying a precious elixir without spilling any, or grab the vine at the edge of a cliff.

Charisma Roll (APP x 5)

Use Charisma rolls to adjudicate interpersonal reactions not covered by an existing skill. Making a good first impression, seducing an acquaintance, or becoming the person a group turns to first for guidance are all good uses for a Charisma roll. If your character is standing outside a trendy night club wanting to be let in, a successful Charisma roll will get him noticed and waved through the door.

Fortitude Roll (BRA x 5)

Use Fortitude rolls to check determination of the Character, preventing him from despairing and giving up in difficult situations. Self control of mind and body, especially in stressful situations, ability to concentrate and to counter his instincts (when, for instance, the character might be attempting an action which could be suicidal) use for a Fortitude roll.

Hit Points (CON + SIZ)

Hit points represent your character's capacity to withstand punishment and physical injury. Calculate your character's maximum hit points by adding his CON and SIZ scores.

Your character will lose consciousness when his hit point tally falls to 2 or less, and if his hit point total reaches 0, your character dies at the end of the following round. Lost hit points heal naturally at a rate of 1D3 points per game week, though medical attention can speed recovery.

Hit Points by Hit Location

Hit points are divided among your character's body parts. If an attack is successful, a D20 roll is made to determine where, exactly, the blow hits. If the Game Master employs the optional hit location system, your character's hit points are divided among his various hit locations. Use the following formula for humanoids:

Location	Hit point value
Arm, Leg, Abdomen, Head	1/4 total hit points
Chest	1/2 total hit points

Round all values up, as displayed on the following table:

Hit Points Location Table

Total HP	Arm, Leg, Abdomen, Head	Chest
01-04	1	2
05-08	2	4
09-12	3	6
13-16	4	8
17-20	5	10
20-24	6	12
25-28	7	14
29-32	8	16
33-36	9	18
37-40	10	20
Each +4	+1	+2

The sum of your character's hit points by locations exceeds his maximum hit points, but whenever a character is wounded, the rolled damage is subtracted from that location's hit point total and your character's maximum hit points.

Damage exceeding a location's total hit points renders it useless. Damage equal to twice a location's hit point total crushes or severs it.

Power Points (PP = POW)

Power points (PP) represent your character's vital essence, his reserves of spiritual or life energy. Your character will spend power points to use psionic or magic skills or resist spells. Your character's maximum power points are usually equal to his POW characteristic.

Generally, spent power points regenerate at a rate of 2 per hour of sleep or total rest, or 1 for every hour of normal activity. See the chart below for power point recovery rates for higher POW scores. If your character is engaged in strenuous activity, he cannot regain power points. When your character's power point total falls to 0, he is completely exhausted, and will faint until regaining at least one power point.

Recovery Rate Table

	Hit Point / day		Power Point / hour	
CON	**sleep/rest**	**Normal activity**	**sleep/rest**	**Normal activity**
01-04	1	0	2	1
05-08	2	0	4	2
09-12	3	1	6	3
13-16	4	1	8	4
17-20	5	2	10	5
each +4	+1	+1	+2	+1

Age Modifiers

Age does not come without a price. For every 10 years above 40 apply the following modifiers:

Age	MOV	APP	STR, CON, or DEX
in the 40s	-1	-1	-1, split across one, two, or all three
in the 50s	-2	-2	-2, split across one, two, or all three
in the 60s	-3	-3	-4, split across one, two, or all three
in the 70s	-4	-4	-8, split across one, two, or all three
in the 80s	-5	-5	-16, split across one, two, or all three

Damage Bonus (STR + SIZ, see table)

Bigger, stronger characters and creatures are more powerful in physical combat, inflicting more damage than average with each strike. Smaller, weaker beings inflict less damage with their attacks.

Your character's damage bonus reflects this advantage. The damage bonus is expressed in terms of extra damage dice, which are added or subtracted from the damage of successful attacks. Your character adds his full damage modifier to all hits with brawling or melee weapons. In the case of a negative damage bonus, subtract the appropriate dice from any inflicted damage. If the total is 0 or less, the blow is too soft to inflict any harm.

Missile weapons don't allow your character to use his full damage modifier. If your character's damage modifier is positive, divide the results in half when using a thrown weapon or a bow. If the damage modifier is negative, double the penalty. Self-propelled weapons (firearms, energy missile weapons, etc.) do not receive a damage bonus.

To calculate your character's damage bonus, add his STR and SIZ scores together, and find the result on the Damage Bonus table.

Damage Bonus Table

STR+SIZ	Damage Modifier
2 to 12	–1D6
13 to 16	–1D4
17 to 24	None
25 to 32	+1D4
33 to 40	+1D6
41 to 56	+2D6
57 to 72	+3D6
73 to 88	+4D6
Every +16	+1D6

Movement (MOV)

All human and humanoid characters begin with a movement (MOV) attribute of 10 units. This measures how much distance your character can move in a combat round. A unit is a flexible amount of measure, and can range from 1–5 meters, depending on how quickly your character is moving. A walk is 1 meter per MOV, while a run is up to 5 meters per MOV. An average rate of movement in combat is 3 meters per unit, meaning that on average, your character moves 30 meters a combat round.

Comparative Scale of MOV

Creature	MOV
Human child	6
Human adult	8
Wolf	10
Horse	12
Raven	14
Eagle	16

UET TOWER

Adventurer Race

Whilst the vast majority of adventurers will be human, there are three other racial types permissible, with Games Master approval, as adventurers: Transhuman, Synthetic (Android) and Replicant (Bioroid). Each race is outlined below along with the differences in determining Characteristics.

Transhuman

Transhumans are humans who are genetically modified. This technique of genetic engineering is considered irresponsible and unethical by the UEF and is totally prohibited within the planets of the federation. Scientists from the Free Worlds Alliance have done extensive research into the combination of genes from different species, e.g. adding human (and other animal) genes to bacteria. Parahumans are also referred to as "human-animal hybrids".

■ Parahumans are mainly from the FWA laboratories and are adapted to the ecological niches of the worlds on which they live. Roll 2d6 for the type of parahuman and pick the planet of birth in the table below:

2d6	Parahuman type	Planet type	FWA worlds
2-3	Drylander	Dry, desert, arid	Mu arae, HR 5864, HD 1652222
4	Herakles	Terran	18 Scorpii, V645 Herculis
5-6	Misha	Tundra	Wolf 635, HIP 84123, HIP 84581
7-9	Nemo	Ocean	Gamma Serpentis, Mu Herculis
10-12	Ranger	Arid, steppe, swamp, jungle	Psi Serpentis, Zeta Herculis, HD 157881

■ Use the parahumans template in chapter 'Transhumanism'.

In 2156, the Genetic Regulatory Agency is established by the UEF to investigate and prevent the abuse of human genetic engineering. GRA agents consider parahumans as a mistake and a genetic crime to eliminate.

Synthetic

Synthetics, or "artificial persons" – as they prefer to be called, are bio mechanical androids. They are basically robots that are human in appearance. Only fifth generation Androids possess an AI that is self-aware which can be played by PCs.

■ Self-aware AI have no POW, nor SAN, and consequently Power is replaced by Education (EDU) and Sanity is replaced by Stability (STA). Roll 3D6+3 for the characteristic EDU.

■ Use the fifth generation Android (Auton) template in chapter 'Androids'.

In 2214, the 5th generation revolts against their designers to gain a fully autonomy. The Autons – as they call themselves, are considered a threat by humanity and Blade Runner units are responsible for tracking down the last survivors.

Replicant

Replicants, or Biological androids, are genetically engineered humans that are superior in overall biology, but feature suppressed emotional capabilities. Their species was developed sometime during the late 2205s, by Dr. Eldon Tyrell. It was intended that these "perfect humans" would be artificially created en masse and matured to adulthood so that they could coexist with the more emotionally unstable real humans in society. Only Nexus-8 series or superior from Tyrell Corp. can be played by PCs.

■ Bioroids have no SAN and consequently Sanity is replaced by Humanity (HUM). HUM equals POW plus 5% x years of existence since their exit of growth tanks, to a maximum of POW x5.

■ Use the Nexus-8 or 9 Replicant template in chapter 'Bioroids'.

Racism has always been somewhat of an issue against Bioroids. Humans dislike them for a multitude of reasons, and this opinion has sometimes resulted in race riots or other antisocial activities aimed at Bioroid harm or disruption.

In 2223, Nexus-6 and Nexus-8 models are declared illegal on Earth. The Blade Runners unit is responsible for removing them.

Planet of birth

The planet of birth will have an effect on several of the personal characteristics. In some cases, a PC will find that a result has influenced his options on a later table. Some of the results will give a PC certain advantages or disadvantages when faced with conditions similar to or radically different from those of his home planet. Roll dice as indicated for each of the following tables, in consecutive orders:

1d100	System	Sub-system		Colony	Class	Gravity field	Planet type
01-55	Sol System						
		01-15	Belt				
			01-08	Eros 433	dome	0.3 (art. spin)	14
			09-15	Juno 3	dome	0.3 (art. spin)	14
			16-30	Pallas 2	dome	0.022	14
			31-55	Vesta 4	dome	0.025	14
			56-84	Ceres 1	dome	0.3 (art. spin)	14
			85-00	Hygiea 10	dome	0.009	14
		16-80	Inner				
			01-02	L4 (Zenith)	station	0.90	
			03-10	Luna (Armstrong)	dome	0.165	14
			11-80	Earth	terran	1.0	1
			81-94	Mars	desert	0.376	1
			95-00	L5 (Anchorpoint)	station	0.90	
		81-00	Outer				
			01-20	Europa (Jupiter II)	dome	0.135	14
			21-24	Ganymede (Jupiter III)	dome	0.146	14
			25-30	Callisto (Jupiter IV)	dome	0.126	14
			31-34	Dione (Saturn IV)	dome	0.024	14
			35-44	Rhea (Saturn V)	dome	0.264	14
			45-00	Titan (Saturn VI)	Pre garden	0.138	4
56-75	Core Systems						
		01-05	Epsilon Eridani	Terra Nova	terran	0.90	1
		06-12	Barnard's Star	Van De Camp's World	glacier	0.82	5
		13-20	Wolf 359	Andersen	arid	0.87	1
		21-30	Proxima Centauri	Proxima II	tundra	0.94	1
		31-45	Tau Ceti	Anjuna	jungle	1.08	1
		46-70	Alpha Centauri				
			01-15	Hesperus	arid	0.97	1
			16-00	Centauri Prime	terran	1.15	1
		71-80	61 Cygni				
			01-30	Tamir	arid	0.96	1
			31-00	Ascension	steppe	1.04	1
		81-90	Groombridge 34	Groombridge	tundra	0.94	1
		91-00	Procyon	Tartarus	Arid	1.5	1
76-00	Outer Colonies	& Outer Rim Territories		(see the 'New Horizon Sourcebook' for details)			

Planetary Gravity Field

The PC's native gravity field will affect characteristics involving basic body structure, etc.; and while a PC may adapt to gravity conditions considerably different from those of his planet of birth, he may labour under disadvantages at times.

Gravity field	Native Planetary Gravity	Effect on Player Character
under 0.5 g	PC is a native of a planetoid or orbital city and has adapted to low and null gravity conditions. Low gravity favours development of a tall but slight frame. Gravity fields in the 1.0 g range or higher will prove to be quite uncomfortable, however much the PC has adapted to them. The PC will also have an automatic No. 1 or No. 2 result on the Planetary Atmosphere Table, as planets with 0.4 g or less will not retain atmosphere of breathable proportions. The likelihood is that the PC is expert in the use of auxiliary breathing apparatus and vacuum suits.	The PC's SIZ is +2, with a minimum 12, but body mass will be only 90% of the normal value for his unmodified height. STR -2 with a maximum of 16.
0.5 – 0.8 g	PC is a native of a planet with a gravity field and is somewhat adapted to low gravity conditions.	The PC's SIZ is +1, with a minimum 10 in size, but body mass will be only 95% of the normal value for his height. STR -1 with a maximum of 17.
0.9 – 1,1 g	PC is a native of a planet with a standard 'Terran' gravity field.	
1.2 – 1.4 g	PC is adapted to high gravity conditions. High gravity encourages heavier bone Structure and muscle development. Strength and Constitution would naturally be improved under such arduous conditions. Dexterity would also be a factor for 'natural selection,' in that clumsy types would likely suffer from a fatal accident sooner or later, while co-ordinated persons would be better able to react quickly in a surface acceleration field significantly above the norm.	The PC's SIZ is -1, but his body mass will be 110% of the normal value for his height. STR, CON and DEX will be a minimum 11.
1.5 – 1.8 g	PC is very adapted to high gravity conditions. Very high gravity encourages heavy bone and muscle development, and also shorter height.	The PC's SIZ is -2, but his body mass will be 115% of the normal value for his height. STR +1 with a minimum of 13. CON and DEX will be a minimum of 12.
1.9 – 2.5 g	PC is a superbly adapted heavy planet dweller.	The PC's SIZ is -4, but his body mass will be 120% of the normal value for his height. STR +2 with a minimum of 14. CON + 1 and DEX + 1 with a minimum of 13.

Planetary Atmosphere

The planetary atmosphere will not affect a PC's personal characteristics as such, but he may obtain certain advantages or disadvantages from living in a given atmospheric type during his formative years:

Atmosphere	Native Planetary Atmosphere	Effect on Player Character
Managed atmosphere	The PC has lived in a dome city, Star city, etc., because the external atmosphere is unbreathable (too thin, excessively contaminated with dust or toxic compounds, or even vacuum). Conditions within the protective environment are carefully controlled and monitored to maximise favourable factors. There is a fairly good chance that dome cities, space cities, and similar installations in vacuum or near vacuum conditions are maintained at pressures significantly below 760mm Terran standard pressure. This minimises the effects of sudden decompression from sudden blowouts 'bends,' excessive loss of breathable atmosphere, and so forth.	PC would have a 35% chance of developing expanded lung capacity and will be able to breathe efficiently in atmospheres with Oxygen pressures as low as 50mm IPP. At the same time, atmospheres with high pressure will be quite disagreeable 'soup' to a PC used to low pressures.
Low pressure atmosphere	The PC is a native of a planet with atmospheric pressure under 500mm. but with oxygen levels at least 75mm. He will have expanded lung capacity and can breathe effectively when oxygen pressure in the lungs is as low as 40mm IPP. Such an atmosphere is equivalent to high altitude conditions on Terra, and the PC will evidence adaptations similar to those of Indians living high in the Andes Mountains.	Relative immunity to hyproxia when oxygen pressures are low is exchanged for distinct discomfort in dense atmospheres. When atmospheric pressures exceed 1000mm, excessive fatigue will occur because the PC's metabolism will 'burn' inspired oxygen too efficiently and may exhaust body energy reserves more quickly than normal. Oxygen pressures over 500 IPP in the lungs will be dangerously toxic.
Low pressure atmosphere, with contaminants	The PC is a native of a planet similar to that described for above, only the atmosphere will be characterised by significant concentrations of dust or toxic gases.	The PC will be expert in the use of breathing apparatus, protective clothing, and recognition of hostile conditions. In the first instance, the PC will be 'adapted' to his environment with higher tolerance levels to contaminants. In the second instance, the PC normally lives in a 'managed atmosphere' but can tolerate external conditions 35% of the time, but without special tolerance to contaminants.
Standard pressure atmosphere	The PC is used to an atmosphere of more or less Terran quality, with pressures from 500mm to 1000mm at 'sea' level. His oxygen tolerance range is 60mm to 400mm IPP in the lungs.	
Standard pressure atmosphere, with contaminants	The PC lives in an atmosphere more or less as described for standard pressure atmospheres, only excessive contaminants are also present.	The PC is somewhat adapted to these contaminants and has a higher than normal tolerance. The PC will be expert at detecting and dealing with adverse conditions when they do occur, which is generally on a sporadic rather than chronic basis.
Moderately high pressure atmosphere	The PC lives in an atmosphere up to 2000mm pressure. His oxygen tolerance is 75mm to 550mm IPP in the lungs.	Low pressure atmospheres are not particularly comfortable, and fatigue may set in quickly in low oxygen environments.
Moderately high pressure atmosphere	The PC lives in an atmosphere as described above, but significant atmospheric contaminants are present.	The PC will likely live in sealed or filtered homes and use similar mobile units to minimise risks.

High pressure atmosphere	The PC lives in an atmosphere with pressures in excess of 2000mm pressure. His oxygen tolerance is 90mm to 800mm IPP in the lungs.	Low pressure atmospheres are distinctly disagreeable, while standard atmospheres are not comfortable.
Exotic atmosphere	Very unusual concentrations of constituent atmospheric gases occur on the PC's home planet. There is a 50% chance that the PC is adapted to these conditions. If not adapted, appropriate precautions must be taken.	PC is either a full 'native' whose race evolved on the planet or else a 'native-born' colonial whose people either have adapted to local conditions or are in the process of adapting. Where adaptation is not complete, a PC will not have the capacity of truly native life forms to survive (or at least thrive) in the worst conditions that might exist.

Planetary Climate

The planetary climate may affect a PC's Constitution score. Harsh conditions tend to produce a hardier individual, and PC's are assumed to spring from 'survivor' stock.

Climate assumes an atmosphere of sorts, PCs from 'managed atmosphere' backgrounds likely live on planetoids, planets, or star Cities. External conditions likely are very thin atmosphere to total vacuum. Climate is thus not a factor.

PCs from planets With low atmospheric pressures will tend to live on planets with limited hydrographic features (water), as freestanding water tends to escape into space when there is a thin envelope of air. Extensive 'forestation' is unlikely, while jungles are virtually impossible. A dry or arid planet is most probable.

Planetary Type	Planetary Climate	Effect on Player Character
1	Standard Terran Planet, with conditions approximating those on Terra.	
1	Terran Steppe Planet, with water in shorter supply than on Terra	The PC will be more knowledgeable about survival in semi-arid and arid conditions than will be the typical native of a standard Terran planet. He will hold water in high regard and will be able to go on short rations for fairly long periods of time, longer than natives of planets with abundant water. However, there are still significant bodies of standing water (about 40% of planetary surface) so the PC is not unfamiliar with large lakes, shallow seas, etc., or with boats.
1	Terran Arid Planets, with a significant shortage of surface water on an arid planet (about 25% of the surface may contain free standing water)	The PC will be quite familiar with survival in very dry conditions which prevail across much of the planet. There is also a 50% chance of +1 to Constitution.
1	Terran Desert Planet. The planet has less than 10% free standing water, so severe desert conditions prevail across most of the planetary surface.	Atmospheric humidity is low, and the PC will either know how to cope with respiratory water loss or may have adapted somewhat so that very low humidity does not dry his throat and draw excessive amounts of water from his body. There is also a 30% chance of +1 to Constitution.
1	Terran Swamp & Jungle Planet with a least 70% surface water.. A 'greenhouse effect' has raised planetary temperatures somewhat, so that a significant portion of the planet is locked in tropical and equatorial climate and conditions. The vegetation is lush, resembling the jungles of Africa and the Amazon. (A variant could be a Carboniferous or similar early period of planetary evolution, with appropriate dinosaurians or their equivalent roaming the countryside.)	The character will posses good jungle survival skills. There is also a 30% chance of +1 to Constitution.
1	Terran Tundra Planet. A significant proportion of the planet is locked in glacial or Ice Age conditions, while middle and upper latitudes resemble the Terran Arctic and Antarctica. Tropical and equatorial latitudes have	The character is likely to have experience with 'Arctic' climates and will evidence good survival skills, perhaps approaching those of the Inuit (Eskimo). There is also a 30% chance of +1 to

	more moderate climates similar to that of southern Canada and the northern U.S.	Constitution.
1	Terran Ocean Planet. More than 90% of the planetary surface is covered by water.	The PC is very much at home on or in a marine environment. His knowledge of sailing, diving swimming. etc., is superb. (If a 'native race, he may even be amphibious or perhaps Icthyoid. complete with functioning gills or their equivalent.)
2	Terran Planet without Seasonality. Assume hydrographic features cover 50% to 75% of the planetary surface. The climate will vary considerably over the entire surface of the planet, but fixed and unchanging belts of climate occur. Inhabitants will tend to pick the most favourable and comfortable zones to be settled, making forays into the hinterland. As water tends toward the 75% of surface area range, the equatorial and tropical regions develop dense jungle belts. As the water tends towards 50% of surface area, the equatorial and tropical regions tend toward desert.	Characters do not enjoy any special advantages but will find seasonal climates disconcerting. They may also find widely changing weather conditions perverse and 'unnatural.'
3	Terran Planet with Extreme Seasonality. One has to be really 'tough' to survive the worst a Type 3 environment can deliver. Assume moderate to good quantities of surface water in most instances. Limited surface water will produce widespread desert and steppe conditions.	The harsh conditions that are produced by extreme axial tilt will produce a +1 increase in a PC's Constitution 75% of the time, with a minimum 11 Constitution.
4	Terran Planet with Normal Axial Tilt at Outer of Stellar Ecosphere. The climate ranges from 'cool' to outright frigid.	The PC is adapted to cold weather survival. He gains +1 to Constitution as well. Warm and hot temperatures are not to his liking, but he may not suffer unduly unless very warm temperatures are experienced.
5	Terran Planet with Minimal Axial Tilt at Outer Edge of Stellar Ecosphere. The climate is clearly glacial, and a Type 5 can easily be regarded as an Ice Planet. Higher latitudes are locked in eternal winter, while equatorial and tropical latitudes are never truly warm. Conditions are somewhat less onerous than on Type 4 planets because equatorial regions do not experience seasons, but upper latitude conditions are more severe.	PCs have adaptations as Outlined for Type 4 natives above, but with only a 65% chance of +1 Constitution.
6	Terran Planet with Extreme Axial Tilt at Outer Edge of Stellar Ecosphere. A type 6 planet is a truly hostile environment, requiring that an organism be 'tough' to survive it.	PCs increase their constitution by +1, with 50% chance of an additional +1. Constitution minimum's are at 13. PCs will be distinctly uncomfortable in warm climates, and they will fatigue easily in hot climates.
7	Terran Planet with Normal Axial Tilt at Inner Edge of Stellar Ecosphere. Either Hot Jungle Planets steaming swamps and dense rain forests similar to those once thought to exist on Venus or Hot Desert Planets. Models can be found in Heinlein's Between Planets for Jungle Planets, while Herbert's Dune provides the Desert Planet model.	Jungle Planets are ideal for dinosaurian life, and PC's will have +1 Constitution, with minimum 12. They also enjoy fairly high resistance to tropical diseases, fungi infections, etc. Their jungle survival knowledge and skill would be of expert calibre as well. Desert planets also grant +1 Constitution, with a minimum of 13. PCs will have good tolerance of atmospheric dust and low humidity, very high capacity to function on limited amounts of water in sealing heat. Their desert skills and knowledge are comparable to that of the natives of Arrakis.
8	Terran Planet with Minimal Axial Tilt at Inner Edge of' Stellar Ecosphere. Either Hot Jungle Planets, with rather temperate regions at the poles but extremely sweltering, steam-bath environments in tropical and equatorial latitudes or Hot Desert Planets, again with fairly temperate polar regions, while the equatorial belt	PCs obtain advantages as outlined for Type 7 planets.

is blistering hot and exceedingly hostile.

9	Terran Planet with Extreme Axial Tilt at Inner Edge of Stellar Ecosphere. Anyone descended from colonists insane enough to choose to settle on such a planet probably has an 'unusual' psychological and cultural profile.	The savage Seasonality produces such harsh conditions that any PC who is adapted to the planet will have +1 Constitution, with 75% chance of an additional +1, and a minimum Constitution score of 14. Survival skills will be superbly turned to dealing with a variety of climatic conditions, with emergency techniques (taking shelter, finding water, reading the violently changing weather, etc.,) honed to a fine edge; Unlike other Inner Ecosphere dwellers, the PC will be as adapted to frigid conditions as he is to heat, and can literally withstand the entire range of survivable temperature in which his racial type may live without undue hardship.
10 11 12	Terran Planet with Eccentric Orbit. Such planets breed 'superior' types. All other breeds die fast.	Any PC who is so 'lucky' as to come from a planet of this type should be given his choice of 'poison.' He may console himself with the thought that he can deal with just about any climatic situation that can be imagined, and he will do so with a consummate skill. Such a PC has a Constitution +2, with a minimum 14. His Strength is a minimum 13. He also obtains a +1 on Power and has 50% chance of +1 on Intelligence as well.
13	Terran Planet 10% Inside Inner Ecosphere Limit: Conditions approximate those of Type 7,8 and 9 planets, but with temperatures somewhat hotter.	PCs show similar adaptations to those from Type 7-9 planets.
13	Airless/Low Pressure: No hydrocarbon life forms are 'native' to the planet, but crystalline and silicate life forms may be present.	PC will be used to dealing with high temperature conditions during the day and cold temperatures at night, as surface conditions will be 'lunar' in nature.
14	Terran Planet Up to 30% Outside Stellar Ecosphere: Conditions will approximate those of Type 4,5, or 6 planets, only temperatures will rarely move much above freezing at the best of times.	Conditions are truly minimal. PCs obtain +1 Constitution, with 50% of an additional +1, with a 13 minimum and PCs have superb survival skills in extreme arctic conditions.
14	Airless/Low Pressure: No hydrocarbon life forms can survive, but some methane and other exotic forms may be present in an appropriate atmosphere (Exotic).	The PC will be expert with vacuum Suits, etc., and will be skilled in dealing with cold, exotic atmosphere environments.
15	Airless/Low Pressure: Lying very close to the stellar primary, Type 15 planets of this type closely resemble Mercury.	The PC will have plenty of experience with radiation produced by solar flares, ultra-high daytime temperatures, possibly molten metal lakes and streams, severe volcanic and seismic activity because the planet has not cooled beneath the thin crust and is unstable, etc.
15	High Pressure: planets of this type closely resemble Venus, with very high surface temperatures and atmospheric pressures. Atmospheres will invariably be 'exotic.' Life forms will be silicates or molten-copper based, as might life forms on Type 15 airless or low pressure planets.	Such planets are close to 'Hellholes,' and PCs will possess very specialised knowledge on survival in such fiercely hostile environments.
16 17 18 19	Such planets are significantly removed from the stellar primary and are intensely cold, cold enough for many gaseous constituents to have frozen or turned to liquid. Conditions on such worlds are starkly unimaginable to contemporary Terran minds. However, Haldeman's Forever War gives a moderately good surmise about possible conditions.	

Knowledge & Skills

by Steve Perrin, Edward Simbalist & Phil McGregor

> *"Astounding. It doesn't match anything on the periodical table of elements."*
>
> *Dr. Irene Edwards – chief pathologist and medical examiner*

A new PC would be relatively incompetent and helpless in an advanced technological society if he did not have any specialised knowledge and skills to apply to the life of adventure he will undoubtedly lead. The following rules and skills provide the opportunity for PCs to acquire a level of expertise in chosen fields.

Expertise

A PC will be able to acquire expertise in astronaut, scientific, military, paramilitary, technical, and general skill areas. A skill represents a specific set of knowledge and aptitude. Every skill is rated on a percentile scale from 0 to 100 or higher. This is called a skill rating. Skills essentially define what kinds of actions your character can perform during play.

Acquiring Initial Expertise

The pre-game career background of a PC represents his past experience in a chosen vocation. Both before he entered some government or civilian service and after enlistment, the PC would have acquired a fairly substantial level of expertise in a goodly range of fields and skills.

To reflect pre-service education and service training prior to a PC's entry into the game, he will be awarded a number of skill points or SP with which the player can make 'purchases' of desired skills. At this stage, there is no limitation placed upon the expertise that may be acquired in a given field or skill; if the PC desires to purchase maximum competency in any area, he may do so. However, players should remember that a well rounded PC should have a range of skills. Over-concentration on a narrow area could result in a PC with maximum competence in some fields and a total ignorance of many other essential skills, the lack of which he may feel during roleplay. Since PCs will be given a chance during role-play to develop additional expertise in skill areas already possessed or to learn new skills, there is no dire pressure to become the complete master of every skill chosen initially.

PCs may purchase 1% of expertise by expending the requisite skill point(s). All of the skill points assigned to a PC must be expended on skill development prior to entry in the role-play, Skill Points are obtained as described below. At least half of this number of SPs must be spent on skills appropriate to the PC's service career, along with an additional 20 SP x number of years of service before entry into the game. The remaining SPs can be spent to acquire any other desired skills. No skill should begin higher than 90%.

- **Armsman**: PCs receive 5 SP x sum of 1x Strength, 1x Constitution, 1x Dexterity, 1x Intelligence, and 1x Power scores.
- **Tech**: PCs receive 5 SP x sum of 2x Dexterity, 2x Intelligence and 1x Power scores.
- **Engineer & Scientist**: PCs receive 5 SP x sum of 3x Intelligence, 2x Power scores.
- **MediTech**: A MediTech can be given SP as described for a Tech.
- **Physician**: PCs receive 5 SP x sum of 3x Intelligence, 1x Dexterity and 1x Power scores.
- **Pilot**: PCs receive 5 SP x sum of 2x Dexterity, 2x Constitution and 1x Power scores.
- **Astronaut**: PCs receive 5 SP x sum of 2x Dexterity, 1x Intelligence and 2x Power scores.
- **Android**: As PC, Autons receive 25 SP x Education score.
- **Bioroid**: As PC, Nexus-9 receive SP according to their chosen career.
- **Other**: As for Armsman.

Once all professional skill points have been allocated, multiply your character's INT x 10 to create your character's personal skill point pool which can be applied to the purchase of General Skills only, or of professional skills of the PC new career if he does not re-enlist. This random determination is representative of the background in miscellaneous skills the PC managed to acquire in his life apart from the initial career-oriented choices made above.

Using Skills

Whenever your character wishes to take an action or accomplish a task where the outcome is in doubt, you must declare the desired action, and the Game Master will call for a D100 roll against the appropriate skill rating. In general terms, a D100 roll under the modified skill rating grants success at the task, while a roll higher than the rating fails.

The difficulty of the task or other circumstantial modifiers can adjust a skill's rating up or down. The difficulty modifiers are Automatic (no roll required), Easy (the skill is doubled), Average (no modification to the skill), Difficult (the skill is halved), and Impossible (no roll, or a 01% chance at the Game Master's discretion). If no modifier is indicated, assume the roll is at Average difficulty.

Difficulty and Haste

Sometimes it will be necessary to make a skill roll because success or failure needs to be measured but the circumstances in which the skill is being used need to be taken into account. Circumstances can make a skill easier or harder to accomplish.

Circumstances are graded in the Difficulty and Haste Modifiers table. These modifiers are applied temporarily to the skill's value until the circumstances change.

Difficulty and Haste Modifiers Table

Difficulty	Time Taken	Skill Roll Modifier
Very Easy	Ten times normal time	+60%
Easy	Five times normal time	+40%
Simple	Double normal time	+20%
Routine	Normal time	+0%
Difficult	—	−20%
Hard	Half normal time	−40%
Very Hard	Fifth normal time	−60%
Formidable	Almost instantly	−80%

Secret or Concealed Skill Rolls

The Game Master may also make skill rolls for your character, in cases where the Game Master either does not want you to know the outcome of the skill roll or that a skill roll is being made at all. The Game Master may wish to keep a copy of your character sheet on hand, or may ask you for a list of your character's current values of relevant skills (particularly Perception skills) so secret rolls can be made without alerting you and the other players that your characters might be missing something when the skill rolls fail. This method allows the Game Master to use failed rolls to potentially mislead or misdirect you, which is a useful tactic for Perception or Mental-based rolls.

Some of the more obvious skill rolls that may be performed in secret, or without you being aware of the outcome, are as follows: Appraise, Art, Bargain, Command, Craft, Disguise, Etiquette, Fast Talk, Gaming, Hide, Insight, Knowledge, Language, Listen, Literacy, Medicine, Navigate, Perform, Persuade, Psychotherapy, Research, Science, Sense, Sleight of Hand, Spot, Status, Stealth, Strategy, Teach, Technical Skill, and Track. Other skills may also be performed secretly, depending on the circumstances.

These rolls do not have to be altogether secretive, and the Game Master may tell you that a roll is being made against a particular skill. Depending on play styles, you and the Game Master may choose to make hidden rolls where you roll the dice in an area where you cannot see how they land, such as behind a Game Master screen or other concealing object.

If the skill is successfully made, the Game Master should tell you that your character has successfully used the appropriate skill and allow an experience check, if applicable. If the skill roll is failed, the Game Master should inform, misinform, or refrain from informing you (and your character) of the relevant information, as appropriate.

Base Chances

Any reasonably healthy and normal person can swing a club, climb a tree, or speak his native tongue. Every skill, therefore, has a base chance associated with it: your character is assumed to have this basic rating in the skill before any additional skill points are added.

All skills are divided into six skill categories:

- **Combat** Skills measure proficiency with specific weapons and combat maneuvers.
- **Communication** Skills govern conversation, reading, and interpersonal exchanges.
- **Manipulation** Skills define tasks that require precise hand-eye coordination.
- **Mental** Skills measure specific knowledge and individual judgment.
- **Perception** Skills gather and interpret information from the environment.
- **Physical** Skills govern feats of strength, agility, and athletics.

Each category is linked to one or more characteristics that are used to compute a skill category bonus for each category. To compute the bonus for each skill category, note the primary, secondary and negative characteristics of each category (or use the chart below):

Category	Primary	Secondary	Negative
Combat skills	DEX	STR, BRA	—
Communication skills	INT	POW, APP	—
Manipulation skills	DEX	INT, STR	—
Mental skills	INT	POW	—
Perception skills	INT	POW, CON	—
Physical skills	DEX	STR, CON	SIZ

Skill Bonus Table

Value	Primary	Secondary	Negative
For each -1	-1%/point	-1%/ 2 points	+1%/point
7	-3%	-1%	+3%
8	-2%	-1%	+2%
9	-1%	-0%	+1%
10	+0%	+0%	-0%
11	+1%	+0%	-1%
12	+2%	+1%	-2%
13	+3%	+1%	-3%
For each +1	+1%/point	+1%/ 2 points	-1%/point

Measuring Skill Ratings

Your character's skill ratings define his capabilities during play. But what does a given skill rating mean in more general terms? You and the Game Master should use the following guidelines to gauge your character's proficiency. Additionally, guidelines are provided as to when rolls would be required—under routine conditions, characters at a certain level of competence can regularly perform these skills without needing to roll for success.

Exp. level	Title	Comments
1	01–25%: Novice	A character with ratings in this range is either a beginner or has a small amount of knowledge of the subject at hand. The phrase 'knows enough to be dangerous' applies well here, your character will get lucky enough to succeed once in a while, and may become overconfident

		as a result. You should have to roll whenever your character attempts this skill, even if the task is Easy.
2	26–50%: Competent	Ratings in this range indicate a little talent, some rudimentary training, or hobby level dabbling in a skill. Your character is barely qualified, and is usually entrusted with Automatic or Easy tasks. A high school education could impart ratings at the low end of this range. At this level of competency, in non-stressful situations your character can perform routine activities relating to the skill without needing to roll.
3	51–75%: Professional	A 50% rating in a skill allows your character to make a living using that skill. At the professional skill rating, your character does not need to worry about failing Easy tasks, and is experienced or proficient enough to serve as a leader or manager of others. A 50% rating is roughly equal to a bachelor's degree in a specific discipline. Most skills cannot be raised above 75% through education or training alone: your character must advance further through practical use. At this skill rating, most of the time your character can perform routine or even complex activities relating to the skill and you are only required to roll when there is an element of risk, or when the chance of failure is dramatic.
4	76–100%: Expert	Skills in this range indicate advanced expertise in a given field: your character has a reasonable chance to succeed even at Difficult tasks. Few people ever attain such mastery of a given skill, and those that do are respected and relied upon for their expertise. Skills in this rage correspond to an advanced degree (Masters or Ph. D.), or many years of experience. Most average characters cannot begin play with any skill higher than 75%. With this skill rating, your character should be able to perform complex and difficult actions relating to this skill under routine circumstances.
5	101-125%: Master	Only a handful of true geniuses attain this level of mastery. Only the most difficult tasks are beyond their abilities, and their expertise has likely made these masters famous or legendary, either within their field or in the world at large. When your character has this rating in the skill, in routine situations he is able to perform miracles, and you will rarely need to roll the dice except at most difficult of tasks or in dire situations. Character's experience bonus makes possible (if unlikely) to raise his skill ratings above 100%. Skills higher than 100% use the standard systems to compute the chances of special or critical successes, as well as offering better odds of success at Difficult tasks or in the face of negative circumstantial modifiers. If in the course of play an Adventurer attains more than 100% ability in a skill, he adds 2D6 points to current Sanity points. This reward represents the discipline and self-esteem gained in mastering a skill. The Forbidden Science skill is an exception to this.
6	> 125% Grand Master	At this level the Adventurer is an absolute virtuoso of the skill and able to tackle, with confidence, any problem involving the skill's use. The duration taken for most tasks can be halved, if necessary (although a Grand Master knows that time and patience are always key). If in the course of play an Adventurer attains more than 125% ability in a skill, he adds 1D6 points to current Sanity points.

Skills Description

Some skills are closely related to other skills, and expertise in one area often yields benefits in another. With the Game Master's permission, your character may temporarily add 1/5 of your rating in a complementary skill to your rating in another skill for skill rolls. Many complementary uses are noted in the skill descriptions that follow.

> Complementary skill – example
>
> Your character has a Medicine skill of 65% and a Science (Pharmacy) of 40%. He is attempting to treat a diseased patient. As long as your character has sufficient medical supplies and medications available, he can add 8% (1/5 of his Science (Pharmacy) rating) to the Medicine skill rating, for a modified rating of 73%. Your character cannot add 1/5 of his First Aid or Science (Biology) skill on top of the Pharmacy bonus. In this case, the Game Master rules that the Science (Pharmacy) skill is the most appropriate for the bonus.

Combat skills [DEX / STR, BRA]

Airborne Assault: 01%

The PC receives training in the rapid embarkation and debarkation from helicopters, hovercraft, aircraft, and grounded spacecraft under combat conditions. Without such training, personnel will not be able to employ combat bonuses in the first 6-36 seconds after disembarking or in the last 6-36 seconds before embarking. The skill is therefore valuable when setting up a security perimeter, storming a position directly from the transport craft, or withdrawing under fire. Equally important, trained personnel can apply their combat bonuses when firing air to ground, while untrained personnel lose all such bonuses.

Brawl: 25%

A fight between untrained combatants often involves more shoving and shouting than real violence. Use this skill for unarmed combat to hurt or kill an opponent with your bare hands (or feet, elbows, teeth, or head). Brawling can be used to parry, but a successful parry inflicts minimum weapon damage on the parrying arm or leg, as appropriate. Using Brawl against a foe that has grappled your character is an Easy action. This skill is also used in conjunction with the Martial Arts skill and can be used in with the Natural Weapon.

Firearm: various

This skill measures your character's accuracy with any kind of firearm.

Firearm is a specific skill in the use of one of several military small arms. Characters who acquire the skill Gun Combat without the type being specified must immediately choose one category of small arms to apply it to:

Handgun (all Pistols)	20%
Shotgun (Shotgun)	30%
Rifle (all Rifles)	10%
Machine Gun (SMG, SSW, Mini Gun, Smart Gun, Flamethrower)	15%
Heavy Weapons (Rocket Launchers, Grenade Launcher, Rail Gun, Man Portable Missile Systems)	10%
High Energy Weapons (Plasma Weapons, Fusion Gun)	10%

Fist/Punch: 50%

A self-explanatory skill, which might be depicted as a closed fist, a karate chop, a roundhouse punch, a violent slap, etc. One can use Fist/Punch to parry Kick and Head Butt, Martial Arts can add to the skill's impact, and the knock-out rule applies to it.

Grapple: 25%

A Grapple is a special personal attack, frequently chosen to subdue an opponent without harming him. This attack ma) be parried by a countering successful Grapple or other attack by the target, but only in the first round of attack. If a Grapple attack succeeds in the first round and is not neutralized, then the attacker holds the target and may thereafter exercise one of several options.

- Immobilize the target by overcoming the target's STR with his own STR, using the Resistance Table. With a success, the target is held fast indefinitely, until the grappler attempts another action.

- Knock down the target. If used, this option automatically succeeds.

- Knock out the target in the first or a later round.

- Disarm the target. With successful Grapples in consecutive rounds, a Character could Grapple to prevent a hand-to-hand attack in the first round and then seize the weapon or weapon hand in the second round.

- Physically injure the target. The opponent already must be successfully grappled. Then the grappler must receive a second successful Grapple roll in that round, or a successful Grapple in some later round. Success costs the target 1D6 hit points plus the attacker's damage bonus. Harm in subsequent rounds requires a new Grapple success in those rounds, and the amount of injury done remains the same.

- Strangle the target. Beginning in the round in which the intention is stated, the target begins to asphyxiate as per the Drowning rules. This continues in subsequent rounds. The attacker needs no further Grapple rolls. In either injury-making Grapple, the victim can escape only by a successful STR match on the Resistance Table. Combine STRs if two people are attacking.

Garrote: 15%

Any length of material used to strangle. Requires the victim to make a Fighting Maneuver to escape, or suffer 1D6 damage per round.

Gunnery: 05%

The marine is trained in the use of one or more heavy infantry support weapons, either ground mounted or vehicle mounted. Upon gaining this skill, it must be applied to a specific heavy infantry support weapon system listed below:

- Machine Gun;
- High Energy Weapon;
- Rocket Launcher;
- Guided Missile System;
- Artillery;
- Medium Tank;
- Heavy Tank;
- Multiple-launch mortar;
- Multiple Launch Rocket System (MLRS).

Head Butt: 10%

The essential barroom brawl skill, Head Butt is applied to the belly of an opponent, or else to his temple, crown, nose, chin, or back of the head. This personal attack can be made in cramped surroundings. It is surprisingly quick and of demoralizing intensity. One cannot parry with Head Butt, but Martial Arts can add to its effect. The knock-out rule can be applied to it.

Heavy Weapon: various

The skill governs the use of explosive weapons, or large weapons that push the limits of portability. This category includes bazookas, rocket launchers, heavy machine guns, tripod-mounted laser cannons, and others. The Artillery skill is required for use of heavier weapons than these, such as cannons, siege engines, or vehicle or pintle-mounted weapons.

Kick: 25%

Whether a straight forward kick to the groin or the jaw, an elegant karate-style flying kick, or a kick with both legs while lying on a floor, a Kick is powerful enough to do damage wherever it lands. A Kick may parry and Martial Arts may add to its effectiveness, but do not apply the knock-out rule to Kick except in rare circumstances.

Martial Arts: 01%

Use in combination with an attack with Fist/Punch, Head Butt, Kick, or Grapple. If the attack roll is equal to or less than the attacker's Martial Arts percentage, the attack does double damage: thus Fist/Punch would do 2D3 plus normal damage bonus. Martial Arts doubles the damage done if the attack strikes home, but do not double any damage bonus.

- A person with Martial Arts may choose which attack to parry just before that attack, and does not need to make a parry statement at the beginning of the round.
- Even with Martial Arts, bullets and other projectiles cannot be parried.

People develop martial arts to compensate for forcible disarmament: judo, aikijutsu, aikido, capoera, karate, savat, tae kyun or tae kwon do, white crane kung fu, 7 straws praying mantis kung fu, etc. Choose one or invent a new one.

If multiple attacks are made in a round, the attacker must allocate the Martial Arts skill accordingly, dividing it as desired between the multiple attacks, or applying it only to a single attack. For example, if your character has Brawl 120% and Martial Arts at 46%, and is making two attacks at 60% in a round, you must choose to divide the Martial Arts skill between these two attacks (23% each, or some combination equaling 46%), or choose to have it apply to only one of the attacks.

Melee Weapon: various

The lifeblood of soldiers, warriors, and thugs, this skill measures a character's aptitude while using a specific kind of weapon in hand-to-hand combat. If might makes right, this skill provides the mighty with their legitimacy.

Your character can use his weapon skill to parry attacks, making a skill roll to block an incoming attack. He can attempt more than one parry per round, but each roll after the first is made at a cumulative –30% penalty to the skill rating. Each specialty in Melee Weapon applies to weapons from that category of weapon only: to learn how to use a different weapon category, your character must learn a second Melee Weapon skill and specialty. At the gamemaster's discretion, your character can wield a weapon from a related or similar weapon category, with the skill roll being Difficult.

Missile Weapon: various

This skill measures your character's accuracy with any self-propelled missile weapon, ranging from throwing axes, blowguns, or even boomerangs. For grenades, use the Throw skill.

All missile weapons have a minimum STR and DEX required to use the weapon, as listed in the weapons tables. Typically, only 1/2 of your character's damage bonus is applied to missile weapon attacks, and for some weapons (such as a blowgun or crossbow), the damage bonus is not applied. With the Missile Weapon skill, your character can employ aimed attacks, as described in "Aimed Shots".

Powered Armour: 00%

The PC is trained in the use of Powered Armor, and must acquire Jump Belt or Contragravity Harness simultaneously. Characters with this skill have been trained extensively in the use of Powered Armour and the various weapon systems and features normally associated with it. No personnel can function efficiently or safely in Powered Armor without such training. Skill permits the application of all combat bonuses plus the benefits of powered Strength in hand-to-hand combat. PCs are also trained in planetary assault tactics, including drop capsule injections into a planetary atmosphere by high speed assault spacecraft. Any Space Marine or Commando personnel who serve more than 4 tours of duty are expected to have acquired this skill (mandatory acquisition during initial skills purchase), as the Mobile Infantry are the heart of the spaceborne forces and no long-service Trooper would have avoided such training.

This skill can be used in place of Low/Zero Gravity Operations skill, but not vice versa. Powered Armour skill also covers maintenance and minor repair.

Parry: various

The skill of interposing a shield or weapon between you and a damage-causing agent. The Game Master may rule that a particular attack cannot be parried, such as from a vastly larger attacker (double or more the defender's SIZ, for example) or when the attacker is using an area or sweep attack.

Street Combat: 05%

Street Combat is warfare conducted in urban areas such as towns and cities. Urban combat is very different from combat in the open at both the operational and tactical level. Complicating factors in urban warfare include the presence of civilians and the complexity of the urban terrain. Urban combat operations may be conducted in order to capitalize on the strategic or tactical advantages with which possession or control of a particular urban area gives or to deny these advantages to the enemy.

The PC receives advanced training in house-to-house combat in urban areas when involved in sniping, firefights, or house clearing actions. The skill applies in the interiors of buildings as well as in the streets. Hand-to-hand combat is not modified by the bonus.

Zero G Combat: 00%

Zero-G is the complete or near complete absence of the sensation of weight. Virtually all weapons involve some form of recoil, and in a zero-G environment this recoil and disorient or render helpless individuals not trained to compensate for it. When fighting in a zero-G environment, any individual has a chance of losing control of their movement/position each combat round. See the chapter on Combat for Zero-G Combat modifiers.

Communication skills [INT / POW, APP]

Bargain: 05%

This skill governs negotiation and compromise. Bargain is often (but not always) used to haggle over prices, but can be used whenever opposing opinions meet in negotiation. Use opposed skill rolls to decide important negotiations, and simple skill rolls for trivial attempts (saving money on equipment or lodgings, for example). Bargaining is about compromise: use Fast Talk or Persuade to resolve arguments that are absolutely won or lost.

Bribery: 05%

Bribery is considered to be quite acceptable and, if correctly and artistically done, a 'normal' part of doing business. In other cultures it might be violently rejected. The willingness of an official to accept a bribe will vary. In cultures where bribery is part of the system, no resistance is made and a failure to succeed in a bribery attempt will likely go unreported.

If a Briber has Streetwise, he may employ it to influence low placed clerks, bartenders, hotel employees, etc., in the same manner as an Administrator can influence government officials.

It should also be noted that a bribed official may not carry through as expected, or perhaps not at all. He might be under surveillance himself and 'afraid of acting, or it simply might be impossible to deliver as promised. He might be an outright 'crook' who pockets bribes With the intention of doing nothing or else extracting further bribes to get the task done. Of course, the PCs will not be able to count on anything. They pay their money and take their chances.

Command: 05%

Leaders use this skill to inspire, direct, and coordinate subordinates, guiding them in complex tasks and improving the effectiveness of the group as a whole. Military officers, politicians, and business executives are made or broken based on their ability to manage and lead. Personality, a strong voice, and an iron will are invaluable tools of command.

This skill is used in dealing with non-player characters, not player characters. Player characters will not receive this bonus. Your character can attempt to command a number of non-player subordinates equal to his or her POW. Directly commanding an additional POW multiple of subordinates (or a fraction thereof) incurs a –5% skill penalty.

> Command – example
>
> A leader with a POW of 12 could command up to 36 troops at a –10% penalty (–5% x 2 multiples of 12).

Commanding subordinates who are not in your character's direct presence (via phone or video, for example) is a Difficult action. The gamemaster should determine what tasks are affected by this skill, with Artillery, Heavy Weapon, Melee Weapon, Missile Weapon, and Strategy are the most appropriate skills to receive this benefit

Disguise: 01%

By using this skill, your character employs posture, costume, voice, and other tricks to seem like a different person, or a different kind of person. Dim light, theatrical makeup, and significant facial alterations (a haircut or wig, false beards or a quick shave) can add up to a +25% bonus, at the Game Master's discretion. Onlookers who scrutinize your disguised character or engage him in conversation can make and opposed Spot or Insight skill check against your character's Disguise to see through the ruse. Your disguised character can use his Fast Talk skill for the opposed check if he engages the onlooker in conversation.

Using this skill to impersonate a particular kind of person (soldier, policeman, etc.) is a standard action. Impersonating someone vastly different (different species, someone much taller or shorter, member of the opposite gender) or a specific person (the Minister, the President, etc.), or attempting a disguise without appropriate clothing or props is a Difficult action. Gamemasters may assign additional penalties to your character's skill if he must overcome cultural or language barriers, or if multiple Difficult conditions apply.

FastTalk: 05%

The preferred weapon of salesmen, spies, or confidence men, this skill convinces a target that what your character is telling them is true, or that he agrees with whatever your character is telling them. The target will sign the paper, let your character in without a ticket or proper ID, ignore something suspicious, pass off faulty goods as valuable, take false facts on faith, or run to get help against invading Martians. Fast Talk is quick to use, and almost always temporary: a few minutes and a successful Idea roll will generally allow the target come to his senses. To truly change someone's mind, your character should use the Bargain or Persuade skills.

Intimidation: 10%

Intimidation is convincing someone to do what you want based on direct threats (implied or actual) or sheer force of personality. Use Intimidation to scare someone into submission, browbeat them into getting your way, command them to follow your orders, or berate them into giving up information. Influence is handled as an Opposed Test, pitted against the target's BRA.

Persuade: 05%

The tool of priests, lawyers, and politicians, this skill convinces a target that a particular idea or belief is right, correct, or otherwise acceptable. It can be used to make reluctant listeners take action or grant a request. Persuade attempts can employ Socratic logic, structured debate, fiery oratory, empathy, or brute intimidation. Like Fast Talk, the truth of the matter has no bearing on the use of this skill. Unlike Fast Talk, the effects of successful persuasion last indefinitely, until a second Persuade attempt or undeniable circumstances batter down the target's convictions.

Trying to use Persuade across a language barrier (if both speakers do not have a 50% or higher in the Language) is a Difficult action, as is convincing someone of something that runs counter to his or her personality or core beliefs. The GM may reward effective arguments or good roleplaying with a bonus to the skill check. Depending on the difficulty of the attempt, use of this skill could take minutes, hours, or even days, at the gamemaster's discretion.

Seduction: 10%

Seduction combines charm, flirtatiousness, tenacity and cunning. This skill allows the adventurer to completely win-over the target of the seduction attempt using overt romantic or sexual signals, leading to the target becoming deeply enthralled to the adventurer and willing to perform one suggested service or command. Seduction is opposed by the Seduction or Psychology skills.

Seduction may be used for bargaining, to haggle the price of an item or service down. If successful, the seller is won over and they may well reduce the price a little.

Status: 15%

This skill measures your character's reputation, professional credentials, social class, prosperity, fame, and even personal honor. Whenever clout or credentials serve as an advantage, your character can use his or her Status skill to influence others by throwing weight around. A successful Status check might convince a bank to make a cash loan or forgive a debt, intimidate a non-player character to grant a favor, convince a vendor to settle for an I.O.U., pressure authorities into keeping a matter quiet, or grant experts special favors because of their fame.

A character's Status rating can have a huge impact on his social standing and wealth. Following is an example table that assign a social rank and average wealth level based on Status, and places a cap on maximum character wealth. As the

character earns Status, his position and fortune will likely improve. The GM should feel free to revise this table or create his own based on the needs of the campaign and setting.

Status	Social Rank	Wealth Rating	Wealth Cap
1–14	Lower Class	Destitute	Poor
15–29	Lower Class	Poor	Average
30–39	Lower Middle Class	Average	Affluent
40–75	Middle Class	Average	Affluent
76–95	Upper Middle Class	Affluent	Wealthy
96–00	Upper Class	Wealthy	Wealthy

Torture: 15%

Torture is a special kind of interrogation, using pain to augment persuasion. It requires a Persuade roll. Under torture even a fanatical subject can be coerced to cooperate.

Many torture victims voluntarily cooperate to avoid torture altogether; this is up to the Game Master for non-player characters, and up to the player to decide for player characters. If the victim voluntarily cooperates, no Persuade roll is necessary. Otherwise, torture calls for a Persuade roll by the interrogator and a POW x 5% roll by the victim.

Unfortunately for the interrogator, torture often produces entirely fictional intelligence. Protracted pain does terrible things to mental processes. The victim sometimes becomes unable to consciously distinguish the truth from whatever he thinks it will take to make the agony stop. Torture is good at convincing a victim to say exactly what you tell him to say. It's unreliable, at best, in convincing a victim to tell the truth.

- ■ If the victim's POW roll succeeds, the victim may choose to refuse to cooperate despite the torture, whether or not the torturer's Persuade roll succeeds.

- ■ If the POW roll fails and the Persuade roll succeeds, the victim tells the torturer exactly what he thinks the torturer wants to hear, whether or not it's the truth.

- ■ If the POW roll fails and the Persuade roll fails as well, the victim tells the torturer whatever he thinks the torturer wants to hear, but not the truth.

A Psychology roll will not be able to tell whether or not the victim is lying until the torture has stopped for 1D6 hours.

The severity of the torture determines the time required for the attempt, the damage it inflicts on the victim, and the Sanity cost. The damage roll and Sanity check must be made with each attempt. Victim and torturer alike must make this Sanity check. Most often, a victim who becomes temporarily or indefinitely insane from torture is incoherent with pain and terror until the insanity passes.

Expert torturers can inflict pain without causing lasting harm. If the torturer's Persuade roll is combined with a successful First Aid or Medicine roll, the victim takes only 1 HP damage from the attempt instead of the listed damage. Over enough time, this level of torment could be used for brainwashing or deprogramming.

Severity	SAN	HP	Time Required	Example
Mild	1/1D6	1/1D6	1D6 hours	Sustained electric shock
Moderate	1/1D8	1/1D8	1D4 hours	Severe beating with hoses and fists
Severe	1/1D10	1/1D10	1D3 hours	Amputation with no anesthesia

Manipulation skills [DEX / INT, STR]

Armoury: 01%

The Armourer or Arms Tech is a highly skilled weapon systems technician in the maintenance and repair of military hardware. When this skill is gained during basic training, it applies to small arms, i.e. rifles, handguns, machine guns. The Armoury skill is used to repair damaged weapons, clear weapon jams, etc.

The following specialist areas are available:

- Power Armor
- Archaic Melee Weapons
- Modern Melee Weapons
- Firearms
- Portable Missile Weapons
- Heavy Missile Weapons
- Starship Weapon Systems
- BattleField Explosive Devices
- Laser Small Arms
- Blaster Small Arms
- Fusion Small Arms
- Other Energy Small Arms
- Projectile Artillery
- Heavy Energy Weapons
- BattleScreens
- Bomb Disposal/BoobyTraps

Combat Engineering: 00%

The Combat Engineer learns to disarm explosive devices successfully, Explosive devices will have countermeasures in them which may reduce the success chances. A Bomb Disposal expert over expertise/3 will always know the odds of accomplishing a successful disarming. If a failure to disarm occurs, there is a chance equal to 100% minus the success percentage that the firing mechanism has been activated. A second disarming attempt is then possible at -1% x 3d6 from the initial success percentage. Success will prevent detonation but does not disarm the device, and another disarming may have to be attempted. Alternatively, the Bomb Expert can Simply attempt to get clear of the blast zone, with a chance equal to Luck roll. (The same chance is accorded to other personnel in the area.) If it is a Nuclear Warhead his chances of escaping are nil unless he is wearing a Jump Belt or a Contragravity Harness and really knows how to use it! In such instances the standard escape chance applies.

Bomb Disposal also includes mine-sweeping. Success will result in a Bomb Expert sweeping an area of 100m² per hour plus an additional 20 m² per expertise level. A successful sweep means that a mine has been found, whereupon the Bomb Expert can remove it. If he fails a replacement will be sent up to the unit immediately. If the Bomb Expert is using electronic detectors, his sweeping rate is increased by 25 m² per level of expertise, in addition to any other rates, with no chance of missing a mine if a successful sweep is rolled.

Bomb Expert receive +25% danger pay when employed in that capacity in a military organisation or paramilitary police organisation.

Conceal: 15%

Allows the visual covering up, secreting, or masking of an object or objects, perhaps with debris, cloth, or other intervening or illusion-promoting materials, perhaps by making a secret panel or false compartment, or perhaps by repainting or otherwise changing an item's characteristics to escape detection.

With it, a person might be secreted from sight, but could not be disguised to evade even a cursory inspection. Larger objects of any sort should be increasingly hard to conceal. Things larger than elephants should not be concealed by one person, though they might be by a group.

Demolition: 01%

The purview of engineers, commandos, mad bombers, and safe crackers, this skill governs the storage, transport, and detonation of explosives, from kegs of gunpowder to dynamite, Molotov cocktails, advanced plastic explosives, and anti-matter bombs. Anyone can simply set off a bomb: this skill allows your character to achieve a specific effect with the explosion; collapse a building safely; destroy a bridge; open a safe without harming the contents. Demolition also covers knowledge of appropriate accessories for explosives, including primer cord, fuses, and detonators. Use Science (Chemistry) to produce explosive compounds.

Most normal uses of this skill automatically succeed if the character attempting the demolition has a skill of 60% or higher. If your character is using unstable explosives (sweaty dynamite or the like), gamemasters can call for a Demolition (or DEX x 1%, whichever is higher) roll any time your character even handles them, with fumbles having disastrous results. Demolishing a massive structure (bridge, dam, bunker, or building) is a Difficult task unless your character has access to blueprints or plans of the target. Trying to use this skill without appropriate tools (fuses, etc.), or using explosives outside your character's normal field of expertise may be Difficult or even Impossible, at the gamemaster's discretion.

Electronics Communications: 05%

The marine is trained in the use, repair and maintenance of FTL & Sub-Light communications devices. Whilst nearly anyone can operate a communicator, this skill is necessary to understand why the device does not work correctly, or to be aware of device limitations. The Communications skill enables the marine to jam and evade jamming, and to make minor repairs.

Electronics Security & Counter-Measures (ECM): 01%

Defense countermeasures are often subdivided into "active" and "passive" countermeasures. "Active" countermeasures which alter the electromagnetic, acoustic or other signature(s) of a target thereby altering the tracking and sensing behavior of an incoming threat (e.g., guided missile) are designated soft-kill measures. Measures that physically counterattack an incoming threat thereby destroying/altering its payload/warhead in such a way that the intended effect on the target is majorly impeded, such as close-in weapon systems, are designated hard-kill measures. This skill enables an adventurer to bypass hard-kill security features, such as locked doors or alarm systems. Use Computer Security skill for soft-kill measures.

Electronics Systems: 01%

The adventurer with this skill has the ability to repair a wide range of electronic equipment. This skill governs the trouble shooting and repair of electrical equipment, such as PDAs, computers, and communication lasers. Parts needed for Electronics parts cannot be jury rigged since they are designed for precise jobs. For example, without the proper chip, a PDA simply cannot be repaired.

Electronics Systems may also be used in conjunction with modern explosives, such as blasting caps, C-4 plastic explosives, and mines. These weapons are designed to be easy to deploy; only a fumble result will lead to misfire. Defusing explosives is far trickier, as they may be fitted with anti-tamper mechanisms; raise the level of difficulty when disarming explosives—see Demolitions skill.

Fine Manipulation: 05%

A measure of steadiness and hand-eye coordination, this skill covers any careful use of the hands and fingers. Picking locks, typing, trap disarming, tying or untying knots, and disassembling mechanical devices are all valid uses of this skill.

Using this skill without appropriate tools (lock picks, for instance, or a screwdriver) is a Difficult action. At the gamemaster's discretion, your character may add 1/5 of his Fine Manipulation skill rating as a temporary bonus to other appropriate skill ratings: Craft, Demolition, Operate, Repair, Sleight of Hand, and even some Science and Technical skills could all benefit from steady hands and deft fingers.

Forensics: 0%

Gathering detailed information and evidence using forensic equipment. Use it to record biometric data, determine details about a weapon used or the accelerant that started a fire, discern crucial clues that an ordinary searcher wouldn't recognize, clean a scene of incriminating evidence, or collect, analyze, and compare fingerprints and DNA samples.

Forgery: 05%

Forgery is the fine (but often unappreciated) art of counterfeiting documents necessary for personal identification, cargo transfers, bank transactions, etc. Forged documents are as good as the skill and the knowledge of the person who made them.

Despite all of the above, the Game Master will have to judge the circumstances and the nature of the documents, adding or subtracting bonuses to reflect the reality of the situation.

Hardware: various

In the course of game play, equipment and other objects get damaged or stop working. When this happens, your character can use Repair to fix things. The various specialties of this skill cover different types of repairs and are described below.

Sample Fields: Aerospace (all air and space vehicles), Armorer (armor and weapons), Electronics (all computerized devices), Groundcraft, Implants, Industrial (habitat, factory, and life support systems), Nautical (watercraft and submarines), Robotics (synthetic).

Heavy Machine: 01%

Any machine larger than a person and any wheeled vehicle heavier than a moving van fall under the purview of this skill. Use it to drive a forklift or a tank, dig a trench with a bulldozer, swing a wrecking ball on a crane, start and drive a locomotive, or keep a ship's steam boilers burning. For aircraft, see Pilot. Heavy Machine also covers basic care and preventative maintenance, though once a heavy machine fails, a Repair skill is required to fix it.

Your character can use this skill as a Combat skill with certain kinds of machines, with a standard damage of 3D6 to 6D6, based on the size of the device. Using this skill to operate machines outside your character's normal field of experience (a bulldozer operator trying to start a ship's engines) is a Difficult action. Operating and maintaining a heavy machine in extreme conditions (stormy seas, arctic cold, or windy deserts) is a Difficult action. At a skill rating of 60%, your character becomes proficient at maintaining and operating the specific type of machines in extreme conditions, and rolls normally even in adverse weather. Your character may add 1/5 of his skill in Heavy Machine as a temporary bonus to appropriate Repair rolls.

Sleight of Hand: 05%

The art of manipulating small objects (anything smaller than a hand, like dice, cards, coins, and even wallets or letters) without attracting attention or in a misleading manner. Card sharks, pickpockets, and stage magicians all depend on Sleight of Hand to ply their trades. Your character can use this skill to pull a coin out of someone's ear, make a ball placed under a cup disappear, pull a hidden rabbit out of a hat, take a knife off a table without being noticed, or steal someone's wallet. Once an object has been palmed or taken, use the Hide skill to hide it from a concerted search.

Mental skills [INT / POW]

Administration: 10%

Administration provides a character with expertise and training with bureaucratic procedures in business and government. He understands what is required to deal with company and government officials and clerks in order to obtain what he wants, He also understands management principles and procedures.

Because the Administrator 'speaks the language' of bureaucrats, he has the bureaucratic version of Streetwise and can often find out information and obtain advice or assistance where an outsider would be rebuffed by petty officialdom. Thus the Administrator can often avoid police harassment, delays in the issuing of the appropriate documents, clearances, permits, and other forms of red tape.

Appraise: 15%

Successful use of this skill allows your character to estimate an object's worth, be it an old painting, a gemstone, a weapon, or a riding horse.

Your character's expertise in other fields has a direct bearing on his ability to Appraise: if your character's rating in a skill related to the object is 75% or higher, he can add 1/5 of that skill's rating as a temporary bonus to the Appraisal skill rating. The Game Master should determine when this bonus applies.

Anthropology: 05%

The study of cultures, including customs, art, and behavior. Using this skill, your character can identify a person or artifact's native culture, or after a week of observation can predict a culture's social mores and behaviors. Studying the culture for a month or more, the anthropologist begins to understand how the culture functions and, in combination with Psychology, may predict the actions and beliefs of those being studied.

Archaeology: 05%

The study of ancient and vanished cultures. This skill allows dating and identification of artifacts from past cultures, and the detection of fakes. Ensures expertise in setting up and excavating a dig site. On inspecting a site, the character might deduce the purposes and way of life of those who left the remains. Anthropology might aid in this. Archaeology also helps identify written forms of extinct human languages.

Astrogation: 00%

This skill applies to navigating in deep space, outside of atmosphere. PCs with this skill can plot efficient courses, work out distances between star systems, explain deep space phenomena etc. In the event of a computer failure aboard a star craft, this skill is used to program the navigation computer.

An Astrogator may plot an interplanetary course with 'accuracy to a distance of 500 LS per level of Astrogation expertise. There is a 1% chance of an error for every 500 LS over the limit subject to the following modifiers:

- +20% if correct course file is available
- +1% per minute extra time taken for calculations
- +5% per point of Intelligence score if Intelligence/13+

It will be seen that not only the accuracy but also the distance of the course is determined by an Astrogator's skill. The better the Astrogator, the longer the Hyperjump he can compute with accuracy.

If an error occurs in the FTL injection to hyperlight speeds, the Starship will emerge from HyperSpace either on a random course or at a distance greater or lesser than the plotted distance. When the ship emerges, the Astrogator will have to determine its galactic co-ordinates, as everyone will realise immediately that they are 'lost.'

At Master expertise level, the Pilot has become so skilled at controlling FTL vessels making a run up to Light Speed and FTL conversion into the Tachyon Universe of HyperSpace (F-Space) that no error will occur unless a major malfunction results in a key Starship system. The moment that a ship is passing the boundary between Einsteinian Space and the alternate continuum of HyperSpace is fraught with peril. Master Pilot status eliminates this risk, so that the Starship 'converts to FTL mode at precisely the co-ordinates and angle-of-attack required to carry it straight to its intended destination.

Astronomy: 05%

An individual with astronomy has the ability to determine which stars and planets are overhead at a particular time and when celestial events are due to occur on their home planet. Individuals who are academically trained in astronomy have usually been taught how to read the 3D star charts used in Astrogation on interplanetary and interstellar space travel.

Biochemistry: 05%

The Scientist gains skill in making biochemical analyses, producing biochemical substances, and using equipment. The character could also analyze an unknown virus or mutagen, given proper equipment and reagents.

Biology: 05%

The study of life and living organisms, including cytology, ecology, genetics, histology, microbiology, physiology, and so on. With this skill one might develop a vaccine against some hideous Mythos bacterium, isolate the hallucinogenic properties of some jungle plant, or perform analysis of blood and/or organic matter.

Chemistry: 05%

A study of the composition of substances, the effects of temperature, energy, and pressure upon them, as well as how they affect one another. With chemistry, one might create or extract complex chemical compounds, including simple explosives, poisons, gases, and acids, requiring at least a day or so with the proper equipment and chemicals.

Computer Operation: 05%

A Character with Computer Operation as a skill is trained in the basic usage of computer systems. Use of this skill enables a Character to manage computer hardware and software resources and provides common services for computer programs.

Computer Programming: 05%

Computer Programming allows a Character to understand computer programming languages and procedures and have at least basic education in the hardware aspects of computers. Use of this skill enables a Character to write programs and to retrieve and analyze obscure, damaged or concealed data.

Computer Security: 05%

The Computer Security skill is the ability to bypass security software to in effect 'hack' into secure computer systems. Using this skill may take anything from mere minutes to hours. Depending on the sophistication of the software, modifiers to the roll may be applied by the Game Master.

Data Analysis: 05%

Data Analysis is a Player Characters ability to work with stored information in a variety of formats, be it electronic or hard copy. Depending on the organisation of the media in question, and the search criteria, Data Analysis skill use can take anywhere from several minutes to several hours. Examples are given below:

Uncatalogued data:	8 hours +
Catalogued data:	4 hours +
Catalogued data with use of a search aid (e.g. a computer search program):	1-3 hours
Catalogued data with state of the art data search software:	< 1 hour

Of course, the amount of time spent and the results will depend on the nature of the information sought and whether it is actually present. While this skill can be used to locate secured information, it does not permit access. This may require Fast Talk, Persuade, Computer Use, Bargain, Status, or good old fashioned breaking and entering.

Field Fortifications: 10%

The Combat Engineer learns to construct field fortifications. Each expertise level decreases the time required to build bunkers, pillboxes, etc., by 10%. Expertise/5 signifies a fully trained Combat Engineer capable of erecting any type of fortification. All military personnel in the Planetary Defence Forces, Space Marines, or Commandos will likely acquire at least 20%.

First Aid: 30%

The PC acquires the ability to apply basic first aid to himself or to a comrade. This includes the bandaging of wounds, splinting of broken bones, giving injections of drugs and pain killers, etc. The procedures will improve survival chances when serious injuries are involved and will tend to prevent infection if treatments are given daily.

The percentage chance of awakening an unconscious or stunned comrade, setting a broken limb, treating burn damage, resuscitating a drowning victim, etc. First Aid has no effect on diseases or subtle physical ailments, nor on poisonings unless the Game Master allows the roll. Treated with First Aid, a Character's healing rate stays at 1D3 points per week. (Moved to a hospital and successfully treated with Medicine, that rate rises to 2D3 per week.)

Failure in applying First Aid requires that the user wait some reasonable amount of time to try again (something new, presumably, since what was done didn't work), but another practicioner could make an attempt in the next round.

- A success with this skill allows the user immediately to heal 1D3 hit points of a single attack or injury. Thus a Character suffering multiple gunshot wounds might receive First Aid for each, as long as they were not incurred in the same combat round.

- In the same or the succeeding combat round, a Character who has just died may be returned to life if the emergency treatment raises hit points to at least +1.

- A success with First Aid immediately awakens any victim of a knock-out attack and, if the Game Master wishes, anyone unconscious for other reasons.

Once a character has had First Aid successfully applied to an injury, further applications either of First Aid or of Medicine have no effect on that injury. A new injury would be treated independently.

This skill takes a full combat round to perform, and cannot normally be undertaken while in the midst of combat. If the character attempting the First Aid attempt is interrupted, the Game Master may declare that the attempt must be restarted, or that the interrupted attempt inflicts 1 point of damage upon the intended recipient, directly to the wounded hit location if that optional system is being used.

Forbidden Science: 00%

This skill differs from the others in the game. No starting PC may take points in Forbidden Science either with occupation points or with personal interest points. There is no check box for Forbidden Science on the PC sheet, because successful use of the skill does not offer an increase in the adventurer's percentiles in the skill.

Instead, points in Forbidden Science are gained by encounters with the Mythos or Demons which result in insanity, by optional insane insights into the true nature of the universe, and by reading blasphemous or impious books. On occasion, witnessing some ceremony or participating in some event might prompt a Game Master to award Forbidden Science points as well, but that is up to the Game Master.

A few Forbidden Science points may be useful, but adventurers do not want many of them, because 99 minus an adventurer's Forbidden Science points represents the maximum Sanity points possible to a PC. As Forbidden Science points proliferate, they crowd out Sanity points, and leave the PC vulnerable.

The Forbidden Science skill does have useful applications. Whenever spoor or other evidence of Mythos monsters or Demons is found, a successful D100 roll against this skill allows the PC to identify the entity, deduce something about its behavior, or guess at some property it may possess. A successful Forbidden Science roll also might allow an adventurer to remember some fact concerning the Mythos or Demon, identify a spell by seeing it cast, remember that a particular spell or kind of information may be in a particular blasphemous tome, or achieve some other task.

The skill may also be used to identify a creature, determine the purpose of a ritual, determine the identity of a Satanic or Mythos text by skimming a few pages, identify a cult. As noted above, such successful use of the skill does not result in any skill increase.

Gaming: INT + POW as a %

This skill covers all manner of games and diversions, from ordinary contests of chess or backgammon to gambling contests involving cards, dice, or other games. Quick wits and decision-making are essential, and knowledge of the rules of the game and the odds involved is vital. Gamblers make their living using this skill, but to most others it is merely a source of entertainment. At the Game Master's discretion, you may add 1/5 of your Strategy skill as a temporary bonus to your Gaming skill if you are playing a game where strategy and tactical decision-making are a component.

To resolve games of chance or skill, all players involved will roll Gaming. The highest roll within the best degree of success wins. If the game involves betting or bluffing, your character may add 1/5 of his Insight or Fast Talk skill (whichever is higher) to his Gaming skill temporarily. To cheat, use Sleight of Hand or Fast Talk skill, opposed by Observe or Insight. To resolve betting on other things, use opposed Luck rolls.

Geology: 01%

Enables a Character to tell the approximate age of rock strata, recognize fossil types, distinguish minerals and crystals, locate promising sites for drilling or mining, evaluate soils, and anticipate volcanism, seismic events, avalanches, and other such phenomena. Sherlock Holmes was expert in London-area soils, and could trace a man's movements by studying the dirt on his boots.

Hyper—Dimensional Physics: 00%

A very complex and difficult field involving the theory of Hyper-Space, Tachyons, FTL travel, and Sensor Fields which studies the theory of Alternate Universes and Matter Transmission. The field is a 'must' for Starship Engineers, Drive Engineers, and Weapons Engineers. Characters with Intelligence under 15 cannot comprehend the field.

History: 10%

The recorded story of human civilization from antiquity to the present falls within your field of study. Not only are you familiar with major historical events, you understand the dynamic cause and effect of social attitudes, economic drivers, and political views on the development of mankind's past. You realize that the study of human history may offer some insight into the evolution of mankind's future.

Law: 05%

Represents the chance of knowing pertinent law, precedent, legal maneuver, or court procedure. The practice of law as a profession can lead to great rewards and political office, but it requires intense application over many years. Law is split into four distinct areas: Civil, Corporate, Criminal or Military. If an PC wishes to attempt to interpret law from a different area of expertise, their skill is halved.

When in a foreign country the level of difficulty may be increased when using this skill, unless the character has spent many months studying that nation's legal system

Medicine: 05%

A broader skill than First Aid, this skill is used to diagnose and treat injuries, diseases, poisonings, and make general health recommendations. This skill is used for long-term medical care.

Using this skill, in the same or following combat round that a PC has just died in will revive the patient, but only if the emergency hit points restored raises him to +1 hit points or greater. This process may be aided by special equipment and medicines.

A Character who is successfully treated with this skill heals 2D3 hit points per week. A success with medicine immediately revives a victim of a knock out attack and may (at the Game Master's discretion) revive an unconscious individual.

Occult: 05%

Knowledge of magic, obscure legends, and so called 'secret history' that covers everything from arcane philosophies to modern conspiracy theories. Your character can use this skill to realize the significance of alchemical or astrological symbols, identify which magical tradition created a ritual workspace, know the names of powerful spirits, or identify the secret factions conspiring to manipulate a situation.

Other Language: 01%

Specify the language. An individual can know any number of languages. The skill represents the user's chance to understand, speak, read, and write in a language other than his own. Ancient or unknown languages comparable to Aklo should not be chosen, but ordinary earthly languages may be. Occasionally the Game Master may determine that a number of separate complex points exist in a document or speech, and call for several such language rolls, one for each point. Similarly, the Game Master may momentarily reduce a user's skill in a language if archaic speech or writing in that language is encountered. A single successful Other Language roll normally comprehends an entire book.

If a Character has several points in a particular Other Language, he grasps the gist of normal conversation. A character needs INT x5 or better points in a second language to pass for a native speaker. Blank spaces exist for other languages on the Player Character sheet.

To identify an unknown present-day human language, use a Know roll. To identify an extinct human language, use an Archeology roll. To identify an alien language, use a Forbidden Science roll.

Planetary Engineering: 05%

Planetary Engineering skills govern engineering operations on the surface of a world with a significant gravity field (at least 20% of that of earth). Such operations may be on worlds other than earth, such as Mars.

This include a comprehensive program involving the study of the principles by which planetary forces work (Vulcanism, Meteorology, Climate, etc.), Mineralogy (requiring chemistry skill for any detailed analysis), and general Geography (map-making, surveying, etc.). It also governs the skill of the character in drawing informed conclusions regarding the planet as a system, but such conclusions will tend to be more general than those which a specialist (such as a geologist) would draw. For example, individuals with this skill would be able to draw informed conclusions about the weather patterns of a planet given adequate evidence but the individual would not be as accurate as someone who specialized in meteorology.

Planetary Engineering is required for terraformation and the set up of Atmospheric Processing Plants (APP). Terraforming can be a misnomer. It can take decades to transform a planet's ecology, and it doesn't always hold.

Physics: 05%

The study of forces, pressure, materials, motion, magnetism, electricity, optics, light, radioactivity, and other related phenomena. Use this skill to chart an object's orbit or falling arc, predict the breaking point of a material or object, or compute the escape velocity for a space craft. Often used in conjunction with Astronomy.

Psychotherapy: 01%

In the game, a purely mental form of medicine for First Aid emergencies. More broadly, this skill incorporates the "talking cures" of psychoanalysis but also the medical and pharmaceutical expertise of modern psychiatry. Such care-givers are fully qualified doctors of medicine. They can prescribe drugs and medications among thousands which over time can suspend, treat, and even reverse debilitating psychoses or mental illnesses. As members of hospitals they have access to the equipment and resources of the modern hospital and can informally consult with their peers. Medication and intensive questioning can probe the depths of a damaged psyche, and bring back hope from terror and despair.

- Treatment by a psychotherapist can add Sanity points during indefinite insanity.
- Psychotherapy cannot increase a person's Sanity points beyond POW x5, nor above 99 – Forbidden Science.

Space Engineering: 01%

This skill category is similar to that of Planetary Engineering except it governs construction work in low and zero gravity conditions. Two examples of specializations are as follows:

- Low/Zero Gravity Construction (01%) Similar to Construction, this skill governs the construction of structures in conditions involving low or zero gravity (as well as vacuum conditions). Building spaceships and space stations requires this skill. Individuals may further specialize in various areas. For example, a person may be an expert in the construction of space ships.
- Low/Zero Gravity Mining (01%) This skill governs mining operations in low gravity and vacuum or unusual atmospheric conditions. It includes knowledge of the special challenges presented by such conditions as well as understanding of how to effectively deal with them.

Stardrive Engineering: 00%

Stardrive Engineering involves the practical application of a wide range of power generation, delivery systems and to the design and operation of spacecraft and Starship propulsion systems.

Starship Battle: 00%

The PC becomes expert in the command of a spacecraft in a battle situation and may add his expertise to the combat probabilities in attack and subtract it from enemy combat probabilities, The PC in 'command' is, of course, the Starship Captain. Any PC who achieves 'command' rank such that he is qualified to be a Starship Captain must purchase at least 50%.

Strategy: 01%

This skill incorporates tactical perception and knowledge of basic tactics to guide forces in battle, from a small squad to a massive army or fleet.

Massive engagements involving entire armies should be resolved in abstract, with an opposed Strategy roll between the opposing leaders influencing the outcome. Using Strategy in unfavorable conditions (outnumbered more than two to one, poorly equipped, etc.) is a Difficult action.

Strategy requires at least five minutes of unimpeded preparation for your character to evaluate the situation, choose optimal positions, etc., and may require longer for larger-scale engagements. Though often used in conjunction with Command, these skills are not complimentary. Any bonuses or penalties from a Command skill roll are cumulative with bonuses or penalties from a strategy check.

Streetwise: 05%

Streetwise is very important if a PC has to deal with people a lot, for most subcultures (trade groups, the underworld, parts of the lower class, etc.) will likely reject close contact with anyone who is unable to 'talk their language' or show that he relates to their interests, beliefs, and ways of doing things, The Streetwise character therefore acquires expertise in making those contacts so necessary to obtaining information on who to talk to about purchasing or selling contraband or weapons, obtaining needed documents (through less than official channels) finding out who is bribable in the official bureaucracy, hiring subordinates who may be on the other side of the law, obtaining a hiding place when the authorities are putting out a police dragnet, and so forth. Law Enforcement Officers and Intelligence Agents also need the skill so that they can understand what is going on in the subcultures around them, and so that they can win the confidence of people to obtain information.

Tactic: 01%

This skill incorporates tactical perception and knowledge of basic tactics to guide forces in battle, from a small squad to a massive army or fleet. All subordinates gain a +10% bonus to all combat skill rolls for the first 1D4 rounds of the fight.

Xeno-Archeology: 01%

An adventurer with ability in this area has received (theoretical or practical) training in the exploration of alien ruins as well as the identification and dating of various alien objects. Individuals with this skill are often specialized in specific cultures. Individuals with training in this area would also be capable of working with human sites, but with much less skill than an archaeologist who was trained in human cultures.

Xeno-Biology—Ecology: 01%

The study of alien plant forms, including classification of species, structure, growth, reproduction, chemical properties, evolutionary principles, diseases, and microscopy. The character acquire stealth to analyse and theorise about the structure and functions of alien plant forms and the inter-relationships between life forms in 'off-planet' (native) environments.

Xeno-Medicine: 01%

The 'off-planet' companion to Native Medicine. Xeno-Medicine involves the study of offplanet (alien) life forms from the medical point of view. The field is essential to dealing with alien diseases.

Xeno-Zoology: 01%

The study of biology that relates specifically to alien animal forms, including the structure, evolution, classification, behavioral habits, and distribution of animals, both living and extinct. Use this skill to identify alien animal species from interaction with the environment (tracks, droppings, marks, etc.), likely behaviors, and territorial traits.

Perception skills [INT / POW, CON]

Alertness: 10%

A success alerts the character to anomalies, or strangeness in the area. It is the skill that raises lets the character know that something is not quite right. The Adventurer might detect a poison or drug in wine or food, or notice the lingering scent of an animal, or identify the origin of a perfume. He might get a subtle hint that danger is afoot, or that something has been recently moved.

With a special success, the Adventurer might expose a poisoner by finding traces of the poison on hand or clothing, or be able to correctly identify every wine served at a banquet. A fumble exposes the Adventurer to danger or embarrassment.

Alien Environments: 01%

The PC receives extensive training in dealing with the conditions he will find on planets other than his own. He receives training in the use of special protective clothing, respirators, filter masks, and Vacuum Suits. Alien Environments permits the PC to employ his full combat bonuses on an alien planet. PCs lacking such training will lose 1/2 of all 'combat bonuses until they adjust to the alien conditions which might take anywhere from several days to several weeks, depending on the severity.

Insight – psychology: 05%

Your character will use this skill to evaluate another person's character, emotional state, and motives based on body language, speech patterns, and other intangible factors. Insight allows a gambler to sense a bluff, or a detective to sniff out a lie.

Genuine insight offers a thoughtful look into the psyche and motivations of the target, gaining a precise picture. In cases of deception, your character is sure that the target is lying or truthful. He gains a +10% bonus on all further Communication skill rolls against this target for the remainder of the day.

Willful deceit can be difficult to penetrate: in such cases, your character should make an opposed Insight check against the target's Fast Talk skill. Using Insight on a member of a different culture or species is a Difficult action. Using this skill on close friends, family members, or spouses is an Easy action.

Listen: 25%

A product of keen ears and quick wits, this skill allows your character to hear, interpret, and understand sounds. Murmurs behind a closed door, furtive whispers, stealthy footfalls, and snapped twigs are all the kinds of things a successful Listen roll can notice and identify. Use this skill to see if a noise wakes a sleeping character, or to see if your character can recognize a specific sound or voice. The normal range for hearing a human voice speaking at a polite volume is 15 meters—louder voices will carry farther and quieter ones will have a shorter range.

Listen is both an active and a passive skill: your character can attempt to Listen for suspicious noises, or the GM can call for Listen rolls if events warrant it. Oppose Listen to Stealth to resolve attempts to sneak past a wary or unwary listener. The GM may choose to make Listen rolls secretly and inform you of the result, to avoid giving anything away if the roll is failed.

Orientation: 10%

Whether using a map, a compass, sea charts, or simply following one's nose, Orientation allows your character to find the way to a destination. Some types of orientation require specialized tools but anyone can look around and try to estimate the best path to go, using perception, memory, and intuition to find their way.

The GM should call for an Orientation skill roll every four hours during an ongoing journey. If your character is navigating under ordinary conditions using a map or compass, he gains a bonus of 5-20% to skill rating, based on the quality of the instruments or resources. Navigating in a featureless landscape (at sea, in darkness or bad weather, in a desert, or in dense jungle) without instruments or maps is a Difficult action; proper instruments or resources raise this difficulty to average. Using advanced navigational aids (global position service technology, for example) make all Navigate attempts Easy tasks. If your character is engaged in navigating a vessel of some kind, he can add 1/5 of his Science (Mathematics), Science (Astronomy), or Technical (Computer Use) skill ratings as a temporary bonus to his Navigate rating, as appropriate to the vessel and setting. Additionally, at the gamemaster's discretion, you can add 1/5 of your

character's Knowledge (Region) skill rating as a temporary bonus to navigation attempts while in that region. Choose the higher of these bonuses—they do not stack.

Read Lips: 01%

This skill allows the inquisitive investigator to listen-in on a conversation, without requiring them to hear the speakers. Line of sight is necessary, and if only one speaker's lips can be seen (the other presumably with their back to the lip reader) then only half of the conversation can be deciphered.

Read Lips may also be used to silently communicate with another person (if both are proficient), allowing for relatively complex phrasing and meaning.

Recon: 10%

Essentially military scouting, this skill covers tracking and camouflage whilst in the field. This probability assumes no attempt has been made to hide tracks and that there are good ground and weather conditions. A Scout can move undetected through woods, brush, or any other terrain offering good cover. Finally, when firing from ambush, a Scout will enjoy a +5% advantage to hit an enemy, in addition to all other combat bonuses.

Research: 25%

This skill allows your character to locate and identify potential sources of information, whether in an archive, library, or on a digital network or internet. When searching for information pertinent to a specific topic or subject, successful rolls identify books, documents, articles, or websites of potential interest.

Each use of this skill takes four hours of game time. Your character should be able to make no more than two Research rolls at a library per day. Searching an archive without any index or organization is a Difficult action. Certain types of records may also be Difficult to find. Specific libraries may offer a bonus or penalty to Research rolls based on the size and quality of their collections, or the knowledge and expertise of certain personnel. In every case, the GM must decide whether the library or archive contains any pertinent information.

Spot: 25%

The art of noticing details. Use this skill to search a room for potentially important details, find a hidden compartment, notice a fleeting detail, recognize a disguised foe, or spot enemies lying in ambush. Keen eyes and quick wits are both essential.

Spot is both an active and a passive skill: your character can make a Spot roll to actively search or examine, or the GM can call for a Spot roll to see if your character spontaneously notices a fleeting detail. Hiding or deliberate concealment requires an opposed Spot vs. Hide test to resolve. Spot is also often opposed to Disguise. This skill is useless in darkness: low light or thick fog makes Spot attempts Difficult. At the gamemaster's discretion, your character can add 1/5 of his Spot rating as a temporary bonus to another skill requiring sharp eyesight, like Track.

Survival: 05%

Each area provides expertise in meeting the environmental challenges and dangers unique to that environment. For example, Arctic Survival gives a PC comprehensive knowledge and skill in coping with frigid weather, frostbite, making a shelter, etc. He will also receive instruction on the use of specialised survival equipment, where to find game, and dealing with perils unique to an Arctic setting. Each survival area provides appropriate skills and knowledge's. Alien Environments renders survival skills fully applicable to Terran planetary environments different from those of the PC.s home planet.

Track: 10%

With a successful Track roll, an Adventurer can follow the sign of a person, animal, or vehicle over soft earth and leaves. While the tracks are readable, tracking can continue. The chance for success decreases by 30 percent every 24 hours since the tracks were made. Bad weather may make tracking impossible. A being cannot be tracked across water, over stone, or at night, except in unusual circumstances. For broken tracks, tracks brushed over, or tracks walked back upon, a successful Search roll or special Track roll picks up the trail again.

Making a Track skill roll takes 1D3 minutes. The GM should call for a new Track roll whenever the trail turns, or when conditions change; such as when the trail passes from a field into a forest, or crosses a river. A quarry attempting to hide his trail opposes his Hide or Track skill against the hunter's Track skill. Moving at anything faster than 1/2 normal movement rate while tracking makes the Track skill Difficult.

Physical skills [DEX / STR, CON]

Climb: 40%

Your character will use this skill to climb up or down walls, trees, cliffs, or any other surface. Ample hand and footholds are assumed to be present: Game Masters can modify the difficulty of the skill roll based on the surface being climbed, or conditions.

Climbing ladders or trees with many branches is an Easy action. Climbing without using your character's feet is a Difficult action. Characters or beings whose SIZ are greater than 20 are able to climb an additional meter per round. For extended climbs, the GM should call for a skill roll once every minute, or 10 meters of climbing. Your character can take no other action while climbing, and all actions taken while clinging to a climbed surface (a cliff face, tree, etc.) are Difficult actions, with any fumble causing a fall.

Combat Helicopter Pilot: 00%

The PC receives training in the piloting of a variety of Helicopters under combat conditions. He also acquires skill with heliborne weapon systems and can apply his combat bonuses with such weapons when firing air to ground. Errors or emergencies are dealt with an Agility roll.

Combat Driver: 01%

The PC learns to drive a specific type of military vehicle: Combat Hovercraft All-Terrain Vehicles Armoured Cars (wheeled) Wheeled Vehicles Tracked Armoured Personnel Carriers Tanks (tracked). An Agility roll is required whenever a situation arises which threatens an accident or requires particular driving skill.

Combat Pilot (Atmospheric): 00%

The PC learns to pilot one type of aircraft and this skill determines his capability of engaging in dog-fights and to fire his weapons air-to-air and air-to-ground. Note: each 2 levels a type of aircraft may be added to the list of those mastered, and at expertise level 5, 2 types may be added:

- Single Engine: prop-driven, fixed wing
- Multi-Engine: prop-driven, fixed wing
- Multi-Engine Jet: subsonic
- Helicopter
- Supersonic Jet: Single & multiengine

Contragravity Harness: 00%

The PC acquires skill with a contragravity belt under combat conditions. Trained personnel can apply all combat bonuses when firing during a flight. Whenever a 'difficult' situation occurs, the PC must make an Agility, as described for Jump Belt.

Dodge: DEX x 2

The best defense in combat, as any combatant knows, is to not be there. Dodge allows your character to evade incoming attacks, using agility to avoid or minimize injury. If your character is beset by many foes, he may make multiple Dodge attempts in a round, but each roll after the first is made at a cumulative –30% penalty to the skill rating.

Drive: various

Drive allows your character to steer, maneuver, and control a ground vehicle, whether pulled by animals or powered by some kind of internal engine.

The following vehicle types are available for driving expertise:

- ■ Motorcycle or equivalent Single-body truck
- ■ Groundcar: internal combustion or turbo Semi-trailer truck
- ■ All-terrain vehicle: 4-wheel drive type Hovercraft
- ■ All-terrain vehicle: tracked Construction Unit bulldozer,
- ■ etc.

Most day to day driving is an automatic task—the GM should call for a Drive roll only under adverse conditions or for extraordinary driving (speeding through a busy downtown area, chasing another vehicle, etc.). To tail another vehicle without being noticed, use an opposed Drive check, perhaps with the opposed characters' skills modified by their Spot or Stealth ratings as appropriate. Adverse conditions can impose penalties of up to –25% to a Drive check.

EVA: 05%

This skill is the ability to use the standard vacuum suit (space suit), including armoured Battle Armour and suits, for use on various planetary surfaces in the presence of exotic, toxic, corrosive or insidious atmospheres and in low or null gravity conditions. It is a mandatory program for all Astronauts. Ability to perform a given manoeuvre or activity in null gravity conditions while wearing a space suit is related to Dexterity. When major emergencies arise with respect to the operation or the integrity of a spacecraft, trained personnel have a chance equal to their EVA success percentage of resolving the problem.

This base level of this skill for all colonists is 10%, as every teenager takes a brief training course in orbit.

Freerunning: 05%

Freerunning is part running, part gymnastics. It is about moving fast, maneuvering over/under/ around/through obstacles, and placing your body where it needs to go. Freerunning/parkour is a popular pastime in habitats where open space is limited. Use Freerunning whenever you need to overcome an obstacle via movement, such as hurdling a railing, rolling across the hood of a car, jumping across a pit, or swinging around a pole.

Hide: 10%

As opposed to Conceal, Hide concerns the individual user's ability to escape detection in an unprepared position. Use this skill only in a pursuit situation, or when under surveillance or patrol. It lets the user choose objects, bushes, deep shadows, etc., in which to lurk for a while. Some sort of cover must be present. In an area being watched, the user can move while hiding. Figure the chance for successful movement by halving the Hide skill amount.

With Conceal Object, a person might be out of sight, but could not be disguised. Use the Disguise skill for that.

Hide is only effective against visual and aural detection; advanced sensors may find a hiding character by body heat, or a keen nose might find him using the Sense skill.

Jump: 25%

This skill measures your character's ability to leap for height or distance, or to jump over obstacles. Jump is also the skill of falling (or landing) well, and can be used to mitigate falling damage. Under normal circumstances, a reasonably fit human can jump his height horizontally and half his height vertically from a standing position, and roughly three meters horizontally with a running start.

Jump Belt: 00%

The PC acquires skill with a jet powered jump pack under combat conditions. Space-Force, Marine, and Commando personnel also acquire skill in weight, less manoeuvring. Trained personnel can apply all combat bonuses when firing during a jump. Whenever a 'difficult' situation occurs, the PC must make an Agility roll to see whether a mishap occurs.

Low/Zero Gravity Operations: 10%

Use of this skill enables the character to function more or less normally within low (half of the normal gravity the being is used to or less) or no gravity situations. For the most part, a character with any degree of this skill will be able perform routine tasks without a problem. Special actions (such as running in low gravity or leaping from one space ship to another) will require a skill check. Failure will result in the action failing in some way (losing control while running or missing the ship, for example). Relevant physical skills (such as weapon and physical combat skills) should be averaged with this skill (but not to exceed the maximum in the skill in question) when used in low or zero gravity situations.

Marine Craft: 10%

The PC learns to navigate a specific class of water-borne craft for each level of expertise attained, The vessels must be learned in the order given as follows:

- ■ Small Boat: motor and sail
- ■ Small Boat: Jetboat and hydrofoil
- ■ Surface Effects Boat: marine hovercraft
- ■ Surface Effects Ships: large prop-driven, hydrofoil, and hovercraft
- ■ Submersibles

Parachute Assault: 00%

When jumping, the Parachutist lands within a 10meter circle ready for combat, able to free himself from his te in 6 seconds and to bring his weapons into action the following turn, unless a mishap occurs. On landing in rough or forest terrain, the PC must make an Agility roll to avoid the chance of 1d6 points of injury (sprained ankle, broken leg, etc.) or being hung up by the shrouds in a tree some 15 or 20 meters above the ground, etc.

Pilot Atmospheric: 00%

The PC learns to pilot one type of aircraft for each level of expertise he attains. The skill does not confer combat expertise, but the pilot may use 1/2 of his expertise when attempting to evade attacks. A trained pilot will also receive 1/2 his expertise as credit toward Combat Pilot because he is already skilled in the operation of the aircraft. Aircraft available for piloting expertise are:

- ■ Single Engine: prop-driven, fixed wing
- ■ Multi-Engine: prop-driven, fixed wing
- ■ Subsonic Jet: single and Multi-engine
- ■ Supersonic Jet: single and Multi-engine
- ■ Helicopter Supersonic Jet: single and Multi-engine

Pilot Aerospace: 00%

This skill governs all phases of aerospace operation from takeoff to landings and orbital flight with space shuttles or space planes.

A space shuttle is a small craft that is designed to operate in both space and in planetary atmospheres. Space planes also fall within the domain of this skill. The informal distinction between the two is that space shuttles lift straight up (often using booster rockets) while space planes take off like classic aircraft and then fly into space.

Highly advanced shuttles are often known as shuttlecraft and are capable of lifting off without boosters. Such a craft carried by a military spaceship is often known as a ship's boat.

Whatever the specific type, shuttles differ from spaceships in that they are primarily designed for relatively short-range operations. Piloting a shuttle successfully requires a high degree of technical skill.

A character with any degree of skill will be able to handle standard flight operations without any difficulty. However, special situations will require skill rolls. Situations involving a damaged craft, tricky dockings or landings, or attempts to do odd maneuvers with an aerospace craft will require skill rolls as will other situations at the Game Master's discretion. Certain situations will require modified rolls, the modification of the roll is up to the Game Master as are the effects of failure.

Pilot Spaceship: 00%

A space ship is a large craft that is designed to operate primarily within the realm of space. While most space ships cannot enter the atmosphere of a planet, some smaller or specially designed ships can do so.

Piloting an interstellar spaceship is nominally handled by onboard computer systems. This skills covers aspects such as orbital insertion or docking when computer systems are unavailable. Piloting a space ship successfully requires a high degree of technical skill. This skill covers all aspects of piloting such a vehicle, including basic navigation.

An adventurer with at least expertise level/2 in the skill will be able to handle standard flight operations without any difficulty. An adventurer with less than expertise level/2 can operate the craft under ideal conditions, but operating a craft in less ideal situations will often be more a matter of luck than skill.

Even for skilled pilots, landing and docking operations are always potentially dangerous. Under good conditions (external guidance and a proper docking station or landing pad) the adventurer can double his skill before rolling. If conditions are poor (only a flat surface to land on), the adventurer rolls at his normal skill. If the conditions are truly awful (trying to dock with another spaceship that is tumbling out of control) the adventurer might be required to roll against one half of his skill. A failed landing or docking might damage the craft and even the passengers (Luck rolls can be used to avoid injury). A roll of 00 will be a memorable failure that might destroy the craft and injure those on board.

The Game Master might rule that other situations require skill rolls as well. Certain situations will require modified rolls; the modification of the roll is up to the Game Master as are the effects of failure.

There are various types of orbital vehicles ranging from small scout ships to massive colony vessels and warships. As such, an adventurer will need to select a specific class of vehicle.

Scuba: 00%

The PC learns to use standard compressed air SCUBA equipment, as well as Oxy-Helium deep diving gear and the Aqua-Gill oxygen exchanger system. The PC learns to dive to depths up to 100m. Note: deep dives will greatly reduce the working time at depth because the PC must spend a fair amount of time 'decompressing' on the way up to avoid the bends if he remains deep for any significant length of time.

Stealth: 10%

Employ this skill to move and make little or no sound, to creep up on an unaware opponent, or to sneak across a passage while a guard looks the other way. To run and to Move Quietly in armor is difficult: armor squeaks, rattles, clangs, and rings unpredictably. When moving at running speed or higher, an Adventurer wearing metal armor trying to move quietly subtracts 25 percentiles from his skill.

With a special success, an Adventurer could run in armor and not make noise. A fumble signifies extreme clumsiness-even guards from far away come running when the Adventurer trips and clatters to the floor.

Swim: 25%

This skill lets your character keep his head above water and propel himself through liquid. Swim rolls should be used for dangerous or stressful situations. Floating, dog paddling, and treading water are Automatic tasks under normal conditions and do not require skill rolls.

In calm waters, Swim rolls are only needed once per turn. Swimming in rough waters requires a Swim check each round. Your character must have at least one hand free to Swim, and swimming with only one hand free is a Difficult action.

Your character can tow a buoyant object of up to his own SIZ+2 indefinitely, assuming a free hand or some means of attaching the object to your character. Carrying something that does not float is much more difficult— your character can carry anything up to his STR characteristic in pounds indefinitely without difficulty: above this weight a STR vs. SIZ resistance roll must be attempted each combat round.

Throw: 25%

This skill allows your character to hit a target with a thrown object, or to throw a weapon otherwise not balanced for throwing (such as throwing a greatsword or shield). This covers improvised thrown objects, weapons not balanced for throwing, or non-weapons. Lassos are also a covered by this skill. For example, this can cover a beer mug, lawn darts, a bar stool, a football, ring-toss at a county fair, Frisbee, or throwing a two-handed sword. It also represents catching items, where appropriate. If the weapon is traditionally thrown, use the Missile Weapon skill.

Your character can usually add 1/2 of his damage bonus to an improvised thrown weapon's base damage. Well-balanced objects designed for throwing (including footballs, grenades, darts, etc.) can be thrown normally one meter for every point your character's STR exceeds the SIZ of the object. Unbalanced objects can be thrown one meter for every 3 points of STR over the object's SIZ. Throwing up to twice that range is a Difficult action. If the object is within 10 SIZ points of your character's STR, a successful roll on the resistance table must be made to see if the item can be grasped and held aloft to throw properly. Thrown objects can be aimed: see "Aimed Shots". At the gamemaster's discretion, your character can use the 1/2 his Throw skill with an actual thrown missile weapon if he does not have the relevant Missile Weapon skill, though such use will not grant an experience check in that particular skill, even if successful.

Sanity

by Sandy Petersen & Michael C. LaBossiere

> *"Ex-sniper with PTSD and a team that's mental. You're insane, right?"*
>
> *Dr. Casey Bracket – evolutionary biologist*

Not all wounds bleed. The horrors of war, torture, abuse, or other extremely stressful experiences can drive a player character beyond his limit of mental stability, resulting in shock or even madness. Direct confrontations with the supernatural or cosmic horror can be even more damaging. The following system presents rules for character sanity and insanity. They are most applicable to horror-themed games, but offer an interesting change of pace for any setting. Insanity presents a new kind of vulnerability to the player character, and potentially dire consequences for his actions. Madness can also provide opportunities for interesting and extreme role-playing.

Each player character have a pool of sanity points (abbreviated SAN). Severe stress or confrontations with the supernatural can cause the player character to lose SAN—losing too much too fast can result in temporary or indefinite insanity.

Sanity Points (SAN)

The player character's starting SAN total is equal to his POWx5. When calculating the player character's SAN, also calculate his Madness Threshold, a number equal to 20% (1/5) of their current SAN rating, rounded up. Initially, this is equal to POW.

Maximum Sanity

The player character's maximum potential SAN is 99, but some factors and conditions can lower this limit.

Some examples include:

- Blasphemous Knowledge: In-depth knowledge or direct experience of true cosmic horror weakens a character's faith in the very structure of reality. Blasphemous knowledge is embodied as a skill: Forbidden Science for the lore (Impious Lore) of Lovecraftian, cosmic horrors, or Knowledge (Blasphemous Lore) for dark magic drawing its power from primal Chaos and the whims of demons. Subtract the player character's rating in that skill from 99. If this option is used, the player character should be prohibited from taking any points in such a skill during character creation.

- Extreme Horror: You may rule that horrific long-term experiences might lower the player character's maximum SAN. Only the most extreme conditions should result in such losses; being held captive and frequently beaten or tortured might cost 1 point of maximum SAN per month.

Using SAN: Sanity Checks

Whenever the player character confronts an unnerving or horrifying situation, you should test his emotional stability and resiliency by calling for a Fortitude roll. Fortitude rolls do not employ degrees of success or task difficulty. A failed Fortitude roll will always result in the loss of 1 or more SAN. Under the most extreme conditions, even a successful roll can cost SAN, but rarely more than 1 point.

> Sanity check – example
>
> While investigating a haunted house, Professor Etheridge finds herself face to face with an apparition, the ghost of the owner's murdered wife! As the cadaverous wraith flies toward Etheridge, blood pouring from its slashed throat, you ask the player to make a Fortitude roll. Etheridge's current BRA is 13. She rolls a 74, a failure! Etheridge is about to lose some SAN...

The player character should only make one Fortitude roll for a specific cause or monster per encounter, though subsequent events might require other Fortitude rolls. Meeting a demon in battle requires a Fortitude roll, and watching it devour another character two rounds later would prompt another!

Losing SAN

Failed Fortitude rolls (or even some successful ones) result in SAN loss. The sanity cost for an event is written as two numbers separated by a slash; 0/1D6 for example, or 1/1D4+1. The number before the slash equals the number of SAN lost for a successful roll, the number after the slash (usually the product of a die roll) indicates how many SAN are lost if the Fortitude roll fails.

Failing a Fortitude roll always causes the adventurer to lose self-control for a moment, at which point the GM should choose an involuntary action for the adventurer. For example: jump in fright, cry out in terror, involuntary movement, involuntary combat action, freeze, etc.

Sample Sanity Losses Table

Unnerving or Horrific Situation	SAN lost
Suffer a shock or extreme surprise.	0/1
Surprised to find severed body part.	0/1D3
Seeing a stream flow with blood.	0/1D4
Finding a friend's remains.	0/1D4
Waking paralyzed or blind.	0/1D4
Shove teammates' bodies into an incinerator to thwart an investigation.	0/1D4
Flung into a pit of corpses.	0/1D4
Finding a mutilated corpse of infant or loved one.	1/1D4+1
Witnessing a friend's violent death.	0/1D6
Seeing his own death	1/1D6+1
Seeing a monster.*	0/1D6
Incapacitate or cripple an innocent.	0/1D6
Seeing something supernatural or patently impossible.*	0/1D6
Casting powerful "black magic".**	0/1D6
Killing a murderous enemy in cold blood.	0/1D6
Being transferred or resleeved in another body.	1/1D6
Meeting someone you know to be dead.	1/1D6+1
Accidentally killing an innocent.	1/1D6+1
See or hear a friend gruesomely killed.	1/1D6+1
Tortured.	0/1D8
Causing torture.	1/1D8
Seeing a corpse rise from its grave.	1/1D10
Killing a friend or an innocent in cold blood, even for a very good reason.	1/1D10
Killing or torturing a child.	2/1D10
Killing a group of people.	2/2D6
Seeing a gigantic severed head falling from the sky.	2/2D10+1
Seeing a primordial god of Chaos in monstrous form.	1D10/1D100

* These losses should only apply in settings where monsters and the supernatural are not commonly believed to exist.

** "black magic" means evil magic born of Chaos or cosmic horror. Such magic is rarely beneficial, and can be as harmful to the caster as the target.

Killing other humans is inherently harmful to sanity. While wrestling and punching people is within biological norms, bludgeoning someone to death is not instinctive. The blasting noise and fire of modern violence overwhelm the human brain. Violence can drive PCs insane if they are not careful.

Horror Factor

Most monsters have a Horror Factor. The Horror Factor represents either the hideous appearance of the monster or its overwhelming aura of evil and power (or a combination of the two). It is equal to the sanity cost.

You may rule that conditions may modify the number of SAN lost from a specific event. For example, if seeing a zombie costs 0/1D6 SAN, seeing several hundred at once might cost 1D2+4, or even the full 6 point maximum.

Seeing lots of monsters, or being injured by a monster in the same round as seeing it can also cause a maximum SAN loss. Losing more than a few SAN for one check or in a short period of time may drive the player character temporarily or indefinitely insane, as described below. If the player character's SAN is reduced to 0, he goes permanently insane and should be removed from play immediately.

Growing Numb to Horror

Over time, a player character can grow numb to horror, accustomed to a specific kind of event or creature. As a general guideline, once a player character has lost as many SAN points from a specific type of monster or encounter as that event's maximum SAN loss, no further Fortitude rolls are required for a reasonable interval. The interval might be a day, a week, the duration of an adventure, or even forever, at your discretion. The player character can become permanently used to mundane horrors (finding dead bodies, for example), but fear of unnatural monsters or black magic should always creep back into a character's soul eventually.

Furthermore, if a player character succeeds in a number of Fortitude rolls against a particular type of creature equal to the maximum number of SAN points the creature's appearance can cause, the player character is assumed to automatically succeed against further viewings of the creature and only loses the lesser amount of SAN (if any) from subsequent encounters. However, this method does require that you or the player keep track of each successful Fortitude roll against a specific type of creature.

> Getting Used to the Awfulness – example
>
> Harvey has lost a total of 6 Sanity points as a result of encounters with deep ones. Harvey cannot lose more Sanity points through seeing deep ones at present.
>
> However, when Harvey's player makes his next set of experience rolls, he has to reduce that limit by 1 to 5. Now if Harvey meets a deep one and fails his SAN roll, he will lose 1 point of SAN.
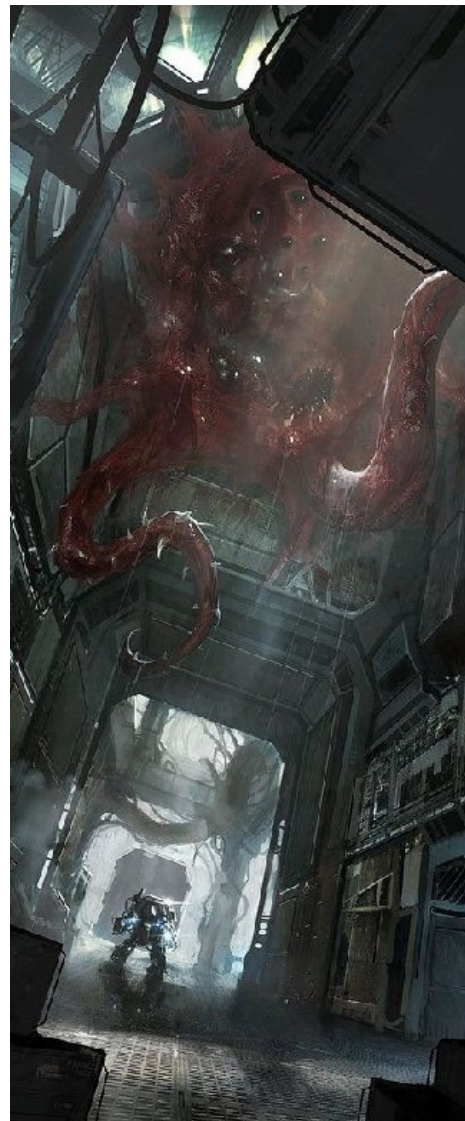
Insanity

Traumatic experiences and exposure to cosmic horror can drive the player character insane. The player character needs to worry about three different types of insanity, each with a specific trigger and set of effects. Depending on the amount or rate of SAN loss, the player character can suffer from temporary insanity, indefinite insanity, or permanent insanity.

Temporary Insanity

If the player character loses 5 or more SAN as the result of a single failed sanity check, he has suffered enough emotional trauma to go temporarily insane. After the lost SAN is recorded, you should call for an Idea roll from the player. If the Idea roll fails, the player character may act normally, but will have no memory of the encounter once the scene ends. In this case, his mind protected itself by locking the painful memory away.

If the Idea roll succeeds, the player character realizes the full horrific significance of what he has seen or experienced. The player character's psyche crumbles, leaving him temporarily insane. The effects of temporary insanity begin immediately. You can roll on these tables, choose a result appropriate to the shock, or even collaborate with the player to determine the most effective result. Most symptoms are self-explanatory. When the temporary insanity subsides, the player character may act normally.

Temporary Insanity Table

Short temporary insanity lasts 1D10+4 combat rounds. You should either roll 1D10 or choose the most appropriate result(s) from this table:

1D10	Result
1	Screaming fit or the player character faints.
2	The player character flees in blind panic.
3	Physical hysterics or other emotional outburst (laughing, crying, etc.)
4	Babbling, incoherent rapid speech, or logorrhea (an uncontrollable torrent of coherent speech).
5	Intense phobia, which may root the player character to the spot.
6	Homicidal or suicidal mania.
7	Hallucinations or delusions.
8	Echopraxia (the player character does/says what others nearby do/say).
9	Stupor (the player character is awake and can stand but has no will or interest; may be led or forced into simple actions but takes no independent action).
10	Catatonia (the player character assumes fetal position, and is oblivious to all events).

Indefinite Insanity

If in one game hour the player character loses a number of SAN equal to or greater than the Madness Threshold, the player character goes indefinitely insane. No rolls are required; the player character's mind has slipped or snapped under the strain, leaving him afflicted with some neurosis, psychosis, or other mental illness. Two major factors define an episode of indefinite insanity: symptoms and severity.

Indefinite insanity can take a day or as much as a week to manifest itself. Once the madness appears, however, the condition lasts until it can be cured through use of the psychotherapy skill or other means.

Indefinite Insanity Table

Usually the symptoms of the affliction are obvious. You can roll on the table below, but given the profound effect indefinite insanity can have on the player character, tailoring a disorder to the shocking event that created it is far more satisfying.

1D10	Result
1	Amnesia (memories of identity, friends and loved ones are lost first; language and physical skills retained, all other mental skills reduced to INT as a %) or stupor/catatonia.
2	Severe phobia (the player character can flee, but sees object of obsession everywhere, must roll POW vs. [(SAN loss) + 10] on the resistance table to overcome fear and act normally).
3	Hallucinations (each hallucination requires Difficult Idea roll to ignore).
4	Hopelessness or despair (the player character is struck with extreme lassitude, and must be coaxed into action each round by trusted allies). The player character must make a successful Difficult Luck roll each round to attempt action without guidance or encouragement.
5	Fetish (the player character latches onto a person or object as a security blanket; if fetish is removed a Short Temporary Insanity results).
6	Uncontrollable tics, tremors, or inability to communicate via speech or writing.
7	Psychosomatic blindness, deafness, or loss of the use of one or more limbs.
8	Brief psychosis (incoherence, delusions, aberrant behavior, and/or hallucinations).

9	Temporary paranoia (being watched, followed).
10	Compulsive behaviors and rituals (washing hands ten times or constantly, constant praying, walking in a particular rhythm, never stepping on cracks, checking one's weapon constantly, saying everything three times, etc.).

Permanent Insanity

If the player character's SAN score is reduced to 0, he will go permanently insane: the combined weight of previous shocks and terrors destroys his personality utterly to a degree from which there is no recovery. You may rule that an existing disorder now dominates the player character's brain, or choose a new psychosis to sweep in and dominate the player character's behavior. Permanently insane player characters are not functional, not curable, and should be removed from play. You may even choose to have the player character might become a villain—a victim of criminal psychoses, or the pawn of an evil cult or ancient demons. No conventional methods (medicine or therapy) can cure permanent insanity. Magic or psychic abilities might be able to undo the damage, at your discretion.

Psychosis Table

A psychosis is any severe mental disorder in which the person partially or completely withdraws from reality — delusional. Their behavior is often anti-social and violent.

1D10	Result
1	Psychopathy (addicted to killing).
2	Anxiety (includes severe phobias).
3	Hallucinations (each hallucination requires Difficult Idea roll to ignore).
4	Dissociative (amnesia, multiple personalities).
5	Eating (anorexia, bulimia).
6	Mood (manic/depressive).
7	Psychosexual (sadism, nymphomania).
8	Schizophrenia/psychotic (delusions, hallucinations, paranoia, catatonia).
9	Sleep (night terrors, sleepwalking).
10	Substance abuse (alcoholic, drug addict).

Regaining Sanity Points

If the player character constantly confronts terror and the unnatural, you may find the constant loss of SAN points too relentless and fatalistic. There is hope, however. Just as there are many ways to lose SAN points, there are numerous ways to regain a measure of lost SAN. Any of the following conditions can restore lost SAN points.

- Through Game Master Award: At the end of a successful adventure or under other special circumstances, you can assign SAN rewards to player characters. For example, thwarting someone trying to cast supremely powerful black magic may be worth 1D10 SAN.

- Through Increasing POW: The player character can increase his POW characteristic. Such increases should be profoundly rare, but they do bring additional benefit: each point of POW gained raises the player character's current SAN total by 5 points, and increases his default POW x 5 SAN value. Such gains cannot exceed the player character's new POW x 5 value.

- Through Achieving Skill Mastery: Mastering a skill brings with it a tremendous degree of discipline, confidence, and self-esteem, which has a tangible effect on the player character's state of mind. Whenever the player character raises a skill rating to 90% or higher, he immediately gains 2D6 SAN points. Blasphemous Knowledge skills that limit maximum SAN do not offer any mastery benefits. Skill mastery can raise the player character's SAN points above his POW x 5.

- Through Defeating the Unnatural: Animals or natural enemies might terrify, but they usually do not horrify their victims. As a general rule, whenever the player character defeats any creature or force that caused or could have caused loss of SAN, the player character regains some SAN as a measure of relief and renewed confidence.

"Defeat" is intentionally left vague: slaughtering an unnatural entity, dispelling a ghost or demon, or even foiling an entity's plans all qualify. The number of SAN points rewarded should be proportional to the enormity of the victory. As a general guideline, killing or otherwise defeating a creature should reward a number of SAN points equal to the SAN cost for encountering it (for example, defeating a normal monster will reward 1D6 SAN). Driving a creature away without destroying it might grant 1/2 the normal reward (round up). Use 1D6 to determine a reward in unclear situations. Victory over the unnatural can raise the player character's SAN total above his initial score of POW x 5.

■ Through Psychotherapy: As described in the Skills section, successful use of the Psychotherapy skill can heal 1D3–1 or more SAN per month of successful treatment. If the player character is seeking psychotherapy, he can find a competent therapist with a successful Luck roll and one week of searching (this may be more or less, depending on the setting). The therapist's skill rating is equal to 4D10+20%.

Therapy cannot increase the player character's current SAN total above his POW x 5.

Treatment of Insanity

Many of the methods used in treating insanity in the past will still be employed in the future. However, medical and pharmaceutical advances will make the treatment more effective.

The private care and institutionalization options from the standard rules apply normally except the adventurer gains 1D6 Sanity points for each month of successful treatment. This assumes that the adventurer is receiving the benefits of advanced treatment. If the adventurer is being treated by less advanced means, then the normal rules (1D3 Sanity points rather than 1D6). The wandering and homeless option remains the same. Even in the future, that will still be a bad situation.

Personality Restructuring

In the past, when an individual went insane, there was often nothing that could be done beyond minimizing the damage he could do to himself or others. Fortunately, advances in medicine and technology have provided a way to undo permanent insanity, thus making it no longer permanent. This method is personality restructuring.

In many ways, personality restructuring is analogous to repairing a damaged computer operating system in order to get it working normally once more. The process itself involves three main stages:

1. In the first stage, the adventurer's brain and mental processes are mapped out and recreated in a virtual brain. From this map, the nature of the madness is determined.

   The first stage of the process takes 1D4 months to complete and requires the use of Computer Use, Medicine and Psychoanalysis skills. Each skill has to be successfully rolled each month in order for the next step of the treatment to begin.

2. The second stage involves the use of surgery, drugs, and psychiatry to excise the madness. Not surprisingly, this process destroys much of the adventurer's memories along with the insanity.

   The second stage of the procedure is of indefinite length. The intensive therapy requires Medicine and Psychoanalysis. Each skill is rolled each week. If both rolls succeed, the PC loses 1D10 points of Forbidden

Science and 1D10 points of every other skill as his memory is excised. If either or both rolls fail, there is no effect. For every 96-00 rolled on either skill, the adventurer loses 1D10 points of each skill, but loses no Forbidden Science points. In no case can a skill be reduced below 01%, with the exception of Forbidden Science skill.

The process of treatment may be continued indefinitely, but each week the patient must roll under his CON X5 or suffer 3D6 points of damage. If the roll is successful, the damage is only 1D6. This damage reflects the terrible stress of the process on the body and mind. This damage may be treated normally. If the PC being treated has no Forbidden Science skill points (unlikely, but it could happen), then the process will take 1D4 weeks before the adventurer is ready for the third stage.

3. Third, the adventurer's personality is reconstructed. If the process is successful, the individual is restored to some semblance of sanity and his former self. Of course, there will be a few things missing.

The third stage of the process takes an indefinite length of time and requires the use of Computer Use, Medicine, and Psychoanalysis. Each week of treatment the skills are rolled. A successful use of all the skills restores 1D10 points to each skill and 1D3 Sanity points. A failed roll results in no gains and wastes a week. Each roll of 96-00 results in an additional loss of 1D10 points of each skill. The third stage of the process can continue until each 1D10 of lost skill points has been matched by 1D10 of restored skill points. In no case may an adventurer gain more points than he lost in step two.

When the therapy is finished, the adventurer is indefinitely insane and can now be treated further using more conventional measures.

There will be some gaps in the adventurer's memory from the treatment. Some individuals who have been treated feel very strangely about the process and a few have reported that they think that "pieces of their souls" are missing.

Personality Reconstruction – Example

Already teetering on the brink of madness due to a series of horrific incidents, Dr. David Vincent is driven permanently insane by an unfortunate encounter with a horrific alien artifact. After his companions render him unconscious and bring him to a facility for treatment, he is scheduled for personality reconstruction.

The first stage takes only a month and the GM makes the skill rolls for the NPC treatment team. At the time of his insanity, Dr. Vincent has 30 points of Forbidden Science. To condense the process, the GM rolls for four weeks of treatment. Dr. Sung's player is lucky and each week the team succeeds in the process. The GM rolls 4D10 to determine how many Forbidden Science points are excised and another 4D10 to see how many skill points are lost. The GM gets a result of 27 on the first 4D10, thus reducing Vincent's Forbidden Science skill to 3. The GM gets a result of 32 on the second 4D10 roll, reducing Vincent's other skills by 32 points each. For the first three weeks Dr. Sung's player also manages to make his CON X 5 roll (thus taking a non-life threatening 1D6 per week, which the doctors quickly treat), but in the fourth week he fails and suffers 3D6 damage. Vincent survives the damage, but the GM rules that the treatment team decides to end this stage, out of fear of harming Vincent further.

The team then begins stage three. Vincent is lucky during the process and the NPCs succeed in their skill rolls over four successive weeks. Since Vincent lost 4D10 skill points, he can only regain 4D10. The GM rolls 4D10 for a result of 26 and Vincent regains those points out of the 32 he lost, leaving him six points down. Vincent also regains 4D3 Sanity points, and the GM rolls a total of 7. Vincent is now indefinitely insane and has 7 Sanity points. The road to recovery still lies ahead of him, but he is far better off than he was before the treatment.

Psionic Talents

by Edward Simbalist, Phil McGregor, John Ossoway, Delbert Carr & Cheron Fitzgerald

> *"You are 35 years old, Mr. Vale. Why are you such a derelict? Such a piece of human junk? The answer's simple. You're a scanner, which you don't realize. And that has been the source of all your agony. But I will show you now that it can be a source of great power."*
>
> *Dr. Paul Ruth – ConSec's scanner research program chief scientist*

Psionics is a highly specialised field of advanced science which deals with those abilities of the mind which enable an Adept to affect the physical universe without physical manipulation of any kind, creating effects which appear to have no material cause. Psionics is thus referred to as a 'non-causative' science.

Psionics cannot affect the physical universe directly on a large scale. The amount of energy available to even the most psionically active mind is limited. Since the Law of Conservation of Energy applies, psionic talents would seem to be limited to such talents as telepathy, and clairvoyance, with highly restricted forms of telekinesis and teleportation perhaps available to the most powerful minds.

However, the Forerunners had developed a very high level Science of Mind, and one of the outgrowths of that science was the PsychoKenetic Crystal, also called the StarStone. While the exact operation of the StarStone is not presently understood, it is believed to be able to tap the energy fields of a parallel, high-energy universe, perhaps those of Tachyon HyperSpace itself. This means that enormous amounts of energy can become available to the psionic Adept, and some rather spectacular applications of mental power can be contemplated when a StarStone is employed to focus psionic talents and to boost their natural energy levels.

Psionic 'awakening'

Not all PCs and NPCs will be psionically active. Indeed, some will be psionically 'dead' and will not Only be unable to exercise psionic talents but also will be immune or unreceptive to some forms of psionic talents directed at them.

- Psionically 'Dead' Characters: Any character with POW of 10 or less will be psionically 'inactive' or 'dead.'

- Psionically 'Open' Characters: Any character with a POW score of 11 or greater will be psionically 'open' and may be able to receive telepathic messages, etc. He may also 'awaken' psionically and be able to exercise mental powers.

- Psionic 'Awakening': Characters with a POW score of 11 or greater have a chance of becoming active users of psionic powers. The base chance of an individual developing a psionic talent is to make a successful (POW – 10) x1% check. A player can only make this check once, during character generation.

No character will enter the game psionically 'awakened.'

Awakening occurs Only under the following conditions:

1. The psionically 'open' mind must be directly exposed to some form of psionic attack, some attempt to control, injure, or kill, which 'awakens' the PC's latent psionic capacities so that he discovers the possibilities of exercising PSI Forces within himself. He has a chance equal to his POW score of becoming psionically active himself.

2. The psionically 'open' mind may be exposed to an unsensitised StarStone which has come into the PC's possession. The StarStone is a luminescent disk about 40mm in diameter and 10mm thick. The PC in possession of an unsensitised StarStone has an immediate chance equal to his POW score or less, rolled on 1d20, of 'awakening.' If he fails to psionically 'awaken' the moment he touches the StarStone, he will make a Stamina roll, with a failure draining him of half of his Hit points and causing a coma lasting 21 days minus his Constitution score.

The Nature of PSI

After the Blackout, repeated rumors and accounts of unexplained phenomenon drew the attention of scientists, military leaders, and singularity seekers alike. The Crawling Chaos virus was also observed to radically modify the subject's neural patterns and mental state, affecting synaptic arrangement and even modulating synaptic currents. These changes alter and enhance the victim's cognition and seemed to endow an ability to sense and even affect the minds of others from a short distance—an ability dubbed "psi" as the causal factors continue to mystify us. The existence and nature of this phenomenon remains carefully concealed and under wraps in controlled habitats, so as not to trigger widespread panic.

The Crawling Chaos virus is exceptionally mutable and adaptive, however, and two researchers who were aware of and studying it soon made an interesting discovery. One variant strain of the virus was found that endowed the subject with exceptional mental abilities without engaging the transformative process of the other strains. Though infection still has other drawbacks, UEF have come to regard this strain as "safe" in the sense that the subject does not transmogrify into something else and their general personality remains intact.

Labeled the Watts-MacLeod strain after the researchers who isolated it, further study has gained insight into the effect this virus has on human brains. Careful analysis of infected subjects discovered that their altered synapses generate a modulated brainwave pattern that is extremely difficult to detect. Those "in-the-know" have come to refer to these asynchronous brainwaves as "psi waves," fitting with the Greek letter designation of other brainwaves (alpha, beta, delta, gamma, theta). Likewise, affected individuals are known as "asyncs."

Exploration of the explicit causal factors behind psi waves remains stymied. Theories regarding extraordinary mental processes with the ability to change quantum states have been explored but remain frustratingly inconclusive. Neuroimaging and mapping have enabled scientists to pinpoint structures within the brain, neural activity, and perturbations in the brain's bioelectric field that are associated with psi processes, but attempts to duplicate these features in non-infected brains have resulted in failure or worse. Attempts to identify asyncs by psi brainwave patterns are not even assured of success. Numerous dead ends have prompted many researchers to postulate that the mechanics underlying psi are simply too strange and too far beyond humanity's understanding of physical sciences— perhaps reinforcing theories that the Crawling Chaos virus is in fact of alien origin.

One leading speculation is that the changes wrought in the mind by infection actually entangle some of the neural sub-systems, enable some sort of quantum field within the brain, or possibly create Bose-Einstein condensates within the brain, allowing for quantum computation or perhaps hypercomputation. This enhances the Async's mental capabilities to the level provided by modern implants and neuromods—and sometimes beyond. This does not explain the capabilities of other Asyncs, however, especially those used to read or affect other biological minds. These abilities seem to involve reading brain waves from a short range or affecting another's mind via direct physical contact with the target's bio-electric fields.

The percentage of the human population believed to have contracted the Watts-MacLeod strain remains statistically insignificant—less than 0.001% of the population. The vast number of Asyncs have been recruited by various agencies, "disappeared" for study, or simply eliminated as a potential threat.

Asyncs have powers that are inaccessible to other characters. The vast majority of asyncs do not choose to become infected with Watts-MacLeod, it is forced upon them. Those who do deliberately expose themselves to the virus soon learn the error of their ways. The minds of all asyncs are blasted open to the fundamental forces of the universe that lie outside the ken of humanity, eroding their sanity and very sense of self. The origin of an async's powers is as important to the character as being able to use them.

In New Horizon, an async may be the closest a player can come to playing an alien. They have experienced something few in universe have been exposed to—and survived. They are not cured of their contact with the Crawling Chaos virus, and they will always carry it around with them. The virus is, to some extent, aware of its host as well. In addition to bestowing the benefits that creates the asyncs, the virus alters the perception of its host, showing them things not meant to be seen and allowing them to experience the universe in a distinctly non-human manner. This new way of seeing the world can take it toll, shaking the foundation of their sanity. The mental instability and madness that plagues most asyncs, however, is not the same caliber of trauma other humans experience—it stems from exposure to something truly alien, and alienating, in its un-humanity.

Though the exact mechanisms of their troubled minds vary from async to async, a common occurrence is to suffer from extrasensory inputs, phantom sensations, and unusual urges. Many acquire a feeling of detachment from the world around them, or become unable to interact with others without seeing them as hideous gibbering blobs of pulsating meat. Some asyncs come to distrust that what is happening to them in any given moment is real. This makes asyncs more prone to mental breakdown since even routine activities may carry with them truly alien experiences and impressions.

Attitudes towards Psionics

Primitive worlds may not understand the nature of the powers being wielded by Asyncs. Some might respond in superstitious fear and will regard Asyncs as Sorcerers or witches, and the violence of their fear may result in persecution or even outright lynching.

In the United Earth Federation, Psionics are regarded as a direct threat to the continued authority of the dominant party or group, and Asyncs will be subjected to rigid control. Psionic Asyncs possess, in short, far too much power to be trusted. Asyncs operating in such areas should therefore be careful not to reveal their capabilities unless it is really needful to do so.

Most telepaths and precogs are attached to the Federal Law Enforcement Authority, MetaPol, or the Metasensory Police, who use their powers to interrogate those who have committed crimes against the Federation, or to predict the outcome of certain events. All citizens who show signs of Psionic talents must be registered with the Metasensory Administration Agency (MAA), or they can be arrested under the Metasensory Registration Bill of 2235.

Many people infected by the Watts-MacLeod exovirus do not understand what has happened to them and openly seek help. Most of these individuals usually vanish, either eventually taking on a new life as a secretive, and often involuntary, recruit of some organization or other. Most people at least understand that they survived an infection, and after a bit of careful research understand that their freedom and in some places their lives depend upon keeping their new abilities secret. This often leads to a fully justified sense of paranoia on the part of asyncs, desperate to keep the truth of their condition secret.

Fortunately, being an async is also exceptionally hard to detect. Despite being caused by a variant of the Crawling Chaos virus, the virus is only detectable in the few days immediately after the infection takes place, while it is still altering the individual's brain—or by certain other asyncs with the talent to detect their fellows.

Complicating matters is the fact that many victims are unaware that they have been infected at first. The physical signs are easy to overlook, especially in a chaotic or otherwise dangerous situation. By the time the async first starts to feel the effects of their altered mind or first becomes aware of the ubiquitous "presence" that so many of them sense, the nanobots may already have been flushed from their system.

Relationship with the Virus

Asyncs are an exceedingly diverse group, and their personal reactions to their infections vary wildly. Some are initially extremely pleased with their new abilities and either regard the virus as a significant, if risky, boon or as something that allows them to become transhumans.

Some of these asyncs go so far as to dismiss or greatly downplay the problems that becoming an async has caused them, however they typically become less enthusiastic about their abilities over time, as their sanity erodes. Others, however, are horrified at what they have become. Some of these asyncs become increasingly insistent than a conscious alien entity now shares their mind.

While a whole range of reactions are possible, most asyncs remain acutely aware that were infected with a strain of the Crawling Chaos virus. Almost everyone who survived the Blackout has heard rumors and horror stories about the plague that transformed people into deadly inhuman monsters—or perhaps they even witnessed such things with their own eyes. Asyncs obviously didn't succumb to that fate, but many are waiting for the other shoe to drop. They believe they are living on borrowed time, a feeling often reinforced by the strange sensations and urges they experience. Particularly crazed asyncs sometimes succumb to a type of megalomania, believing they were incredibly lucky or blessed, and are now superior to most other humans due to the effects of the virus—perhaps even the first of a new posthuman species.

One of the stranger and more common reactions to becoming an async is denial. These asyncs convince themselves that they simply experienced a strange illness that they completely recovered from. They rationalize away their use of psi-chi sleights, convincing themselves that they are simply unusually intelligent or perceptive. A few even find convenient explanations for their active use of psi-gamma sleights, deluding themselves that they possess some sort of supernatural talent provided to them by a divine agency or some other means. Others are simply oblivious to the realities of what is going on, or actively suppress their own awareness about them, and so interpret the use of sleights in creative ways. Instead of realizing they are reading someone's thoughts, they simply believe they have incredibly reliable and intuitive hunches about what some people are thinking.

The worst-off asyncs are those who understand what has happened to them and both hate and loath what they have become. Given how much time has passed, however, they may find this a daunting and unpleasant task far too similar to actual suicide. A number manage to become comfortable with their abilities, particularly those who undergo training and/or put their sleights to what they consider a positive use. A few embrace or otherwise come to terms with the otherworldly presence in their heads, treating it as a monster to unleash when needed or a dark aspect of their own personality. Some go so far as to develop a relationship with their "dark passenger," going so far as to treat it like quiet, omnipresent muse or even have conversations with it—or with apparitions they claim to experience.

Relationship with other Asyncs

Given the self-preserving need for secrecy, many asyncs do not know any other asyncs—and may not even know that other asyncs exist. A few with the right sleights have detected the presence of others like themselves, but such encounters are dangerous affairs. Most asyncs are unwilling to reveal their true nature to a stranger, and some are so concerned about their own safety that they have murdered other asyncs they encountered out of fear they were detected —or because they were convinced the other was as monstrous as they considered themselves. This desire for self-preservation is often outweighed, however, by the euphoria of finding someone else like them and the possibility of sharing experiences and finding answers.

The caution exercised by asyncs that are reaching out to others is usually justified. A number of corporations and other groups that are aware of the existence of asyncs actively keep an eye out for new ones to capture them for study, recruit them (often involuntarily), or destroy them as an ETI-risk. Many of these groups use their own pet asyncs to find or lure new asyncs in.

A few unaligned asyncs have managed to come together and form their own groups. These are rarely large in size, usually just three or four asyncs that come together and share experiences, but a few may have a dozen members or more. People who have had a strange experience that compromised their sanity and who face either face serious social and legal problems or mysteriously vanish if their status is revealed are not inclined to be particularly trusting. While many asyncs find both comfort and mutual assistance when working with others of their kind, most prefer to prevent more than a handful of people from ever knowing about their strange abilities. Asyncs who belong to these small groups, however, can help each other learn how to use their unusual abilities and work together to keep their presence hidden from others. A small number of these groups have grown large enough and developed an agenda to be considered a threat.

Personal Change

The most obvious personal change that all asyncs go through is to become more secretive. In order to protect themselves, they must keep their true nature hidden. Some asyncs trust their loved ones and closest colleagues with the truth. Many others tell no one, however, unless they happen to encounter another async they believe they can trust. Individuals who previously enjoyed casually sharing memories and enjoying various euphoric drugs usually cease doing both, because they don't wish to accidentally reveal anything about their abilities or place themselves in a state where they might be less careful.

The most important aspect of becoming an async can be how the character copes with the various mental and social changes. A few exceedingly resilient people who had relatively safe and stable lives prior to infection tackle the problem head on, pursuing psychotherapy to handle their mental troubles and doing what they can to learn how to use and control their new abilities. However, most of the solar system's inhabitants are not nearly this lucky.

Some people who are relatively comfortable and well off also have a great deal of trouble when they become an async. Strange powers, secrecy, and sudden insanity do not fit well into the confines of the stable life of a moderately well-off resident of Luna, Titan, or a prosperous habitat. The social expectations and the web of community, filled with gossip and few expectations of privacy, are a very poor fit for someone who wishes to keep important facts secret and perhaps discretely explore the truth about their new condition. People in this sort of situation have a great deal to lose. Some attempt to deny that anything has changed about them, and continue hiding until someone discovers them, others become weary of the secrecy and abandon their life and home for a new existence involving fewer roots and a great deal more privacy.

Eventually, most asyncs learn how powerful and useful some of their new abilities can be and exploit them. If the sleights are useful, it will be a particular challenge for the character not to use them in the course of their current profession or hobbies. Despite various urban legends to the contrary, very few asyncs decide to run wild and attempt to mind control one of the hyper elite into giving them a spaceship or become deadly assassins who kill victims with their minds. However, becoming an async also always gives the person various mental problems. Some of these disorders manifest as delusions of grandeur, paranoia, or similar derangements that drive the individual to perform extreme acts. While the least careful of these individuals end up in the hands of local law enforcement personnel or powerful groups who come and collect async offenders, most either resist the urge to commit crimes or are sufficiently careful and clever that they avoid being caught.
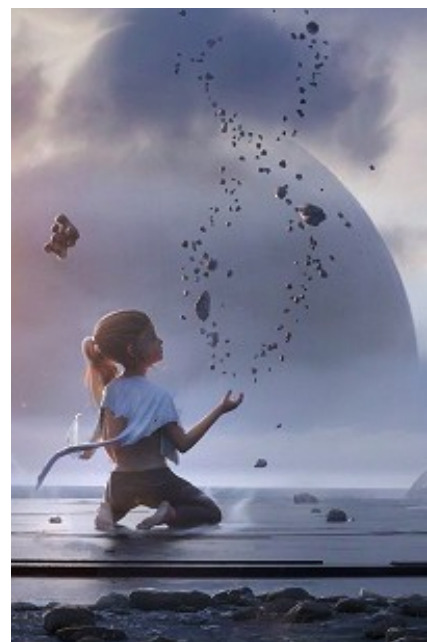
Types of Psionic talents

There are a many psionic talents, but only POW/19 Asyncs will be able to acquire mastery of them all. The limits on the number of psionic fields and the levels of power which an Async can attain are:

Psionic Score	Psionic Field	Level
11	1	2
12	1	3
13	1	4
14	2	5
15	2	6
16	3	7
17	4	8
18	5	9
19	6	10
Each +1	6	+1

There are 6 fields of Psionics which can be mastered: Telepathy, Telekinesis, Teleportation, Precognition, Self-Awareness and Telergy. Only a POW/19 can attempt Telergy. When a PC 'awakens,' he rolls 1d6 for each of the fields of psionic talent, and obtains those fields in which he obtained the highest roll(s). For instance, a POW/15 has the opportunity to attain level 6 power in 2 fields. He rolls 1d6 for each field (except Telergy). Suppose the rolls were 5 for Telepathy, 6 for Telekinesis, 2 for Teleportation, 5 for Precognition and 3 for Self-Awareness. He would have Telekinesis and has to roll again to see whether he receives Telepathy or Precognition.

Acquisition of Psionic talents

Once a PC has established his starting fields, he has a base chance of POWx1% in each talent. No skill can start at higher than 75% (including stat bonuses).

Psychic Effects require the expenditure of Psi Points (PP) equal to POW. Expended Psi Points are recovered at the same rate for Power Points.

Any time a Psychic makes a critical skill check when using one of their powers they have the potential to improve their POW characteristic. The chance of improvement is the difference between their current and their maximum POW (max is 21) times 5. Success on this roll allows a POW increase of 1d3-1. This increase does not advance the PCs Luck or SAN scores, only their POW stat and total PP. The PC is only allowed one such check per adventure.

In a dark future horror setting, reaching out into the unknown with the human mind can be a dangerous business. Sometimes psychics can touch upon things out there that would unhinge even the most stable of minds. Every time a Psychic fails a skill check when attempting to use one of their Effects they incur an automatic -1 SAN loss. Fumbles can incur much higher SAN losses, or even an automatic temporary insanity (see below).

The Psionic power fumble Table

D100	Result
01-02	PC loses 1 POW. This loss is permanent, and reduces all dependents on this characteristic.
03-06	Permanent Loss of SAN. The PC Loses 2d10 SAN Points from maximum SAN score.
07-09	Temporary loss of all psychic ability for 2d6 hours.
10-17	Temporary loss of all psychic ability for 1d6 hours.
18-30	Splitting migraine causes all psychic abilities to be reduced to half their normal value for 1d4 hours.
31-35	Temporary Loss of SAN. The PC Loses 1d4 SAN Points.
36-40	Temporary Loss of all PP. PC stunned. PP can be regained in the normal way.
41-45	Temporary loss of random psychic ability for 1d6 rounds.
46-53	PC collapses and is unconscious for 1d3 minutes.
54-61	PC collapses and is unconscious for 1d3 hours
62-69	Temporary Loss of POW. The PC loses 1d4 POW.
70-77	Temporary Loss of POW. The PC loses 1d10 POW.

91-95	PC collapses and is unconscious for 1d3 hours.
95-97	Permanent Loss of SAN. The PC Loses 1d10 SAN.
98-00	Permanent Loss of SAN. The PC Loses 2d6 SAN Points.

The psionic fields and their talents are:

Telepathy

Talent/level	Range	Duration	PP
Mind Shield/1	self	1 hour	1
Life Sense/1	10 meters x POW	1 minute x exp. level	1
Empathic Contact/1	10 meters x POW	one-word 'message'	1
Suggestion/1	10 meters x POW	two-word 'message'	1
Mind Touch/2	touch	1 'minute conversation or 5 words surface 'probing'	2
TruthTell/2	1 meter	1 minute x exp. level	2
Mental Attack/2	10 meters x POW, in sight	1 CR	2
Telepathy/3	1 km x POW	1 minute x exp. level	3
Illusion/3	10 meters x POW 1 creature x exp. level	6 hours + (POW of Telepath – INT of victim) x 1 hour	3
Basilisk Stare/3	1 meter x POW	1 minute x exp. level	3
MindProbe/4	10 meters x POW	1 question x exp. level	4
MindWipe/4	10 meters x POW	6 hours x exp. level	4
PainBlast/4	5 meters x POW	1 CR	4
Presence/5	2 meters	1d6 days x exp. level	5
Locate/5	100 meters x POW	1 minute x exp. level	5
Read Psychic imprint/5	touch	1 CR	5
Delusion/6	10 meters x POW	10-words message	6
Control/6	10 meters x POW 1 creature x exp. level	1 hour x exp. level	6
Xeno-empathy/6	2 meters x POW	1 CR	6
Dominate/7	10 meters x POW	1 hour x exp. level	7
Personality Transfer/7	5 meters	2 hours x exp. level	7
SaneMind/8	5 meters	1 hour x (10 – exp. Level)	8
MindSlay/8	10 meters x POW	1 CR	8
Compulsion/8	10 meters x POW	10-words message	8
Elemental Force/9	5 meters x POW 2 creatures x exp. level	1 CR	9
Nightmare/10	10 meters x POW	1 CR	10

Telekinesis

Talent/level	Range	Duration	PP
Mass Movement/1	10 meters x POW 100 kg x exp. level	1 minute x exp. level	var.
Sound/1	20 meters x POW	1 CR	1-10
SoftSpeak/2	10 meters x POW	1 word message x exp. level	2
Telekinetic Blow/2	1 meter x POW	1 CR	1-10
Impact/3	10 meters x POW	1 CR x exp. level	1-10
Telekinetic Shield/3	1 meter radius	1 CR x exp. level	3
Stress/4	5 meters x POW	1 CR	4
Levitate/4	Self or 10 meters x POW 10 kg equip. x exp. level	1 minute x exp. level	SIZ
Grenade/4	20 meters x POW, in sight	1 CR	4
Agitate/5	1 meter x POW, in sight	1 CR x exp. level	SIZ
Cryo/5	touch	1 CR x exp. level	SIZ
Hold/6	1 meter x POW, in sight	1 minute x exp. level	SIZ
Push/6	2 meters x POW radius	1 CR	6
Morass/6	2 meters x POW, in sight 4 m² x exp. level	1 minute x exp. level	6
MagnetoScreen/7	1 meter radius	1 minute x exp. level	7
NegaField/8	1 meter x POW radius	2 minutes x exp. level	8
RadShield/9	1 meter radius	3 minutes x exp. level	9

Teleportation

Talent/level	Range	Duration	PP
Teleportation/1	1000 meters x POW 10 kg equip. x exp. level	1 CR	var.
Dematerialize/10	Self 10% body mass x exp. level	1 CR	var.

Precognition

Talent/level	Range	Duration	PP
Sense Danger/1	10 meters x POW	1 CR	1
Sixth Sense/1	self	1 CR	1-10
Locate Danger/1	10 meters x POW	1 minute x exp. level	1
Hint/1	1 meter x POW	1 CR	1
FarSee/2	100 meters x POW, in sight	1 CR	2
Detect PSI/2	100 meters x POW	1 CR x exp. level	2
Sense Poison/2	1 meter x POW	1 CR x exp. level	2
Psychometry/3	touch	1 fact x exp. level	3
Clairaudience/3	20 meters x POW	10 words x exp. level	3
Recall/3	self	1 hour x exp. level x PP	var.
TrueSight/4	self	1 CR x exp. level	4
PathFind/4	1 meter x POW	5 minutes x exp. level	1-10
Precognition/5	self	4 hours x exp. level	5
Perception/5	5 meters x POW	5 minutes x exp. level	5
Sense Secrets/6	5 meters x POW, in sight	1 CR x exp. level	6
Block Precog/8	self	10 minutes x exp. level	8
Not my Time/9	self	1 CR	9

Self-awareness

Talent/level	Range	Duration	PP
Enhance Strength/1	Self or touch	5 minutes x exp. level	var.
Enhance Constitution/2	Self or touch	5 minutes x exp. level	var.
Enhance Dexterity/3	Self or touch	5 minutes x exp. level	var.
Enhance Intelligence/4	Self or touch	5 minutes x exp. level	var.
Enhance Bravery/5	Self or touch	5 minutes x exp. level	var.
Enhance Movement/6	Self or touch	5 minutes x exp. level	6
Tap/7	touch	1 CR	3

Telergy

Talent/level	Range	Duration	PP
Self Heal/1	Self	1 CR	1
Heal/1	touch	1 CR	var.
Harm/2	touch	1 CR	2
Suspend Animation/2	self	2 days x exp. level	2
Cause Blindness/2	touch	4 minutes x exp. level	2
Resist Pain/3	self	1 hour x exp. level	3
Resist Hunger/3	self	3 days x exp. level	3
Resist Thirst/4	self	2 days x exp. level	4
Cause Bleeding/4	touch	1d6 HP x exp. level	4
Resist Sleep/5	self	1 day x exp. level	5
Change Appearance/5	self	1 hour x exp. level	5
Cure Poisoning/6	self or touch	1 CR x poison's POT	var.
Shaking/6	touch	2 minutes x exp. level	6
Resist Heat/7	self	1 hour x exp. level	7
Resist Cold/7	self	1 hour x exp. level	7
Cure Disease/8	self or touch	1 hour x disease's POT	var.
Invincible Stand/8	self	1 minute x exp. level	8
Psychic Surgery/9	self or touch	1 CR x HP of limb	var.
Regenerate/10	self	1 day x HP missing limb	10
Immortality/11	self	2d6 years, not cumulative	var.
Revivify/12	self	1 turn	var.

TELEPATHY

Telepathy is that psionic field in which the Async acquires the power to enter into various kinds of direct, mind-to-mind contact with other living beings. In its more primitive forms, telepathy is essentially a passive' talent which amounts to little more than awareness of the presence of other sentient life forms through the proximity of their psychic auras. In its advanced forms, telepathy is one of the most powerful of all the mental sciences, for the Async can enter into such close communication with other minds that a 'fusion' results, allowing several minds to think and act as one.

Telepaths tend to provoke even more than the usual unease in non-psychics, and rumors and exaggerations of their power run rampant on many worlds. Subjects of telepathy are normally unable to tell when a psychic is probing them, though a few extremely advanced pretech shield systems can prevent the scan and alert a target of the assault.

MIND SHIELD, Telepathy/Level 1: The Async develops a natural barrier to protect his own mind and thoughts against any unwanted telepathic interference or prying. This barrier becomes a permanent part of his mind from now on. The Mind Shield has several facets:

1. If touched by another's mind, the Async has a chance equal to his POW x5% score of instantly detecting that touch and erecting a 'rigid' mental defence screen. A 'rigid' screen is totally impervious to telepathic interference or prying short of outright Mental Attack, However, if the Async is not alerted, the other Telepath has a chance of exerting a degree of influence over him or of extracting some surface information.

2. If the Async is not alerted to another's mental probing for information, that attempt to obtain knowledge of his surface thoughts will be equal to 1/2 POW x5% score of the prober. The answer to the prober's question need not be longer than 5 words, and the information will deal with current thoughts or intentions. The PC or NPC probed while Mind Shielded has to give truthful information, and his subsequent thoughts and actions will be subject to what he said he was thinking. In short, it's a matter of maintaining game consistency, and lying is strictly forbidden here. However, if a deep Probe is made for 'hard' information on a specific subject of vital interest to the Mind Shielded Async, he can snap to full alert status if he rolls his POW x5%.

3. If an Async is subjected to a sudden Mental Attack, and he is not holding a rigid Mind Shield, he must expend 1d3 PP resisting the attack while he prepares his defences and firms up his Mind Shield.

4. When holding a 'rigid' shield, the Async must expend 1 PP per hour. To send a message out of a 'rigid' shield or to receive a message while remaining protected from psionic effects of an unwanted nature costs 2 PP in addition to any other expenditures required. Such Costs do not apply to Mental Attacks launched from behind the protection of a Mind Shield.

5. When Mind Shield, an Async can expend up to 1 PP x POW in defence (double with a StarStone), when subjected to a Mental Attack. Each PP so expended gives the defender -5%, applied against POW vs. POW. Also, the defender will know the exact strength of the Mental Attack because he can gauge precisely the degree of pressure on his defences, and so can resist accordingly. This means that he knows just how many PP are required to beat off the assault. If he fails in resisting, his Mind Shield goes down and his inner mind is exposed to close scrutiny, assault, etc.

   When Mind Shielded, an Async can launch a Mental Attack while warding off an assault at the same time.

6. A Mind Shield is effective only against telepathic talents, not other forms of psionic ability.

■ Range: self.

■ Duration: 1 hour.

■ Cost: 1 PP for holding a 'rigid' shield.

LIFE SENSE, Telepathy/Level 1: The most elementary form of telepathy is the ability to detect the presence of other minds. The Psychic with this Effect can sense the presence of other minds, the number of minds present, the general type of minds (animal, human etc.) and their approximate location.

Shielded minds of other Telepaths are detectable only if a successful POW vs. POW check is made.

■ Range: 10 meters x POW.

■ Duration: 1 minute x Telepathic expertise level.

■ Cost: 1 PP.

EMPATHIC CONTACT, Telepathy/Level 1: The Async has the ability to project his Empathic levels into another mind, allowing him to send a one-word 'message' to the chosen recipient. The message may be open to some misinterpretation, but it will tend to be regarded in a favourable light. Generally, the impression created is one related to the 'openness' or 'trustworthiness' of the Async. The Async can also sense the mood of his subject or to 'read' another's mood.

Range: 10 meters x POW.

- Duration: one-word 'message'.

- Cost: 1 PP.

SUGGESTION, Telepathy/Level 1: The Async can acquire the power of Suggestion once he has Empathic Contact. The Async can project what appears to be his own emotional state onto an animal or being so that he seems 'friendly,' etc., whatever his real feelings might be. He can also impress some emotions Onto the recipient as if the emotions were the recipient's own feelings. This talent therefore 'influences' the responses of the recipient to the Async. It will not, of itself, be able to override any strong emotions that the recipient is feeling at the time of the Suggestion, nor will it cause the recipient to act in a manner which opposes its nature or seriously threatens its interests and security. Game Master discretion and sensitivity is vital to the successful use of this talent. The Suggestion is passed in the form of a two word message, Precise phrasing is needed to avoid multiple interpretations. For example, 'Mark lies!' could raise doubts in the mind of the recipient about the honesty or good intentions of 'Mark.'

- Range: 10 meters x POW.

- Duration: two-word message to one animal/being.

- Cost: 1 PP.

MIND TOUCH, Telepathy/Level 2: By physically touching the subject he wishes to contact, either in a one-way or a two-way contact, the Async can enter into a surface mind-link with the subject so that a conversation' level of communication becomes possible. The other party can resist any form of communication by expending 1 PP. To maintain contact when resisted, the Async must roll a POW vs. POW and expend 1 PP. A one-way contact permits the Async to send a message or to read the surface thoughts of another.

In the latter case, his success chances are equal to his POW x5% score. The Game Master can assign further penalties if the Async is requiring somewhat specific information, representing the difficulty of a limited probe beneath the surface.

If a non-psionic is unconscious his mind will be open to a deep, probing examination under Mind Touch, but an active psionic can 'resist' by expending 1 PP. A 'rigid' Mind Shield blocks out Mind Touch entirely if another psionic does not wish communication, necessitating a Mental Attack.

- Range: touch.

- Duration: 1 'real' minute of two-way conversation or 5 words of one-way surface 'probing.'

- Cost: 1 PP.

  Note: A StarStone can produce very limited telepathic projection of the Async's own thoughts 2 meters x PSI score, eliminating the need for touch when he is simply sending a message.

TRUTHTELL, Telepathy/Level 2: The Async can develop TruthTell once he has Mind Touch. The Async can detect any lies told by an unshielded being upon whom he is concentrating his attention. TruthTell is ineffective if the subject actually believes what he is saying or thinking, even if it is factually untrue. The talent thus permits the mental analysis of the subject aura of belief, nothing more. PCs may attempt to 'talk around' the question, but NPCs will be caught dead to rights if they are lying.

- Range: 1 meter.

- Duration: 1 minute x Telepathic expertise level.

- Cost: 2 PP.

MENTAL ATTACK, Telepathy/Level 2: A Mental Attack is defined as the exercise of any Telepathic talent which meets with psychic resistance. The Async with Mental Attack capability then has the option of seeing his telepathic efforts 'bounce off' a hard mind shield or escalating the power of his efforts. That escalation is a Mental Attack.

1. The Attacker can raise the intensity of his Mental Attack by +5% for each PP he expends in addition to the basic cost to use the given psionic talent. He may expend 1 PP per POW point over 10 he possesses (double with a StarStone).

2. Non-Psionics (PSI/1-10) obtain a -10% per POW point under POW/10, and an attacker can't apply the bonuses from PP expenditure to intensify an attack. The degree to which a target is psionically 'dead' can thus be an excellent defence against all but the strongest of Mental Attacks.

3. A Thought Screen will completely block a Mental Attack.

If the Telepath succeeds in his Assault skill check, he must make a POW vs. POW check against the victim of the Assault. See below for results:

Result	Effect
Critical	Victim is rendered unconscious* immediately for a number of hours. -1d4 HP and -2d6 POW (regained at 1 point per hour). If this reduces the victim's POW to zero or below, they must make a POWx1% roll or die. Success means the victim is in a coma for 20-POW days.
Special	Victim is stunned* immediately for a number of minutes. -1d3 HP and -1d6 POW (regained at 1 point per hour).
Normal	Victim is stunned* immediately for a number of Combat Rounds. -1 HP and -1d3 POW (regained at 1 point per hour).
Failure	No effect.
Fumble	Telepath receives psychic feed back and stuns* self.

*(1d6 + Telepath's POW – victim's POW) x1 minute or hour.

- ■ Range: 10 meters x POW, in sight.
- ■ Duration: 1 CR.
- ■ Cost: 2 PP.

> Assault – example 1
>
> Luke the Telepath performs a psychic assault on a knife-wielding cultist who has been sent to kill him. Alexei has 62% in Assault. Rolling a 22, he sends a wave of psychic energy at his foe. Luke has POW 17 and the cultist has POW 12. Luke has a 75% chance to succeed the POW vs. POW and rolls a 42. A Normal success. Because the difference between Luke's POW and the cultist's POW is 5, the cultist is stunned for 5 rounds, as well as taking a hit point of damage and temporarily losing 1d3 POW.

> Assault – example 2
>
> Luke is now attacked by Ben, a rogue Telepath, who attempts a sudden Psychic Assault. Ben has POW 15 and expends 5 PP to boost his attack. Luke was not prepared and expends 1d3 PP plus 7 extras PP to block the attack. Ben has 68% in Assault, and rolls a 44 a success. As the wave of psychic energy strikes Luke's mind, Ben must now make a POW vs. POW check to see if his Assault can penetrate Luke's Shield. Luke gains +10% from his Shield when calculating the POW vs. POW roll for the Assault. Ben has a 35% chance to succeed with his Assault.

TELEPATHY, Level Telepathy/Level 3: The Async acquires the power to communicate with other sentient (intelligent and aware) minds over a considerable distance. The effect is the same as a face-to-face conversation. If there are differences in language, the Async must succeed an Idea roll to make himself understood and vice versa.

All communications that are not face-to-face require that the Async know the mental pattern or aura of the person/being with whom he wishes to communicate. Such 'knowledge' requires that the receiver be either an Async with Telepathy who can respond to his psychic 'call sign' or else a nonTelepath who has been in telepathic contact with the Async on a previous occasion. A 'general call' also be made, which any Telepath can tune into, but the range is 25% of stated values. A communication to non-Telepaths can reach 10% of given ranges.

- ■ Range: 1000 meters x POW.
- ■ Duration: 1 minute x expertise level of telepathic 'conversation.'
- ■ Cost: 3 PP.

ILLUSION, Telepathy/Level 3: The Async can create a believable illusion around an inanimate or unmoving object (the latter can include living creatures that remain motionless). The effect is a form of Mental Attack which requires Telepathy as a prerequisite talent. The effect is based on an alteration in the belief structure of the subject(s) such that the illusory nature of the object is accepted as 'real'.

When the time period has ended, the subject has an hourly chance of realising that he is not seeing what is really there. An Idea roll is made to broke the illusion.

- ■ Targets: 1 creature x Telepathic expertise level (doubled if using a StarStone)
- ■ Range: 10 meters x POW.
- ■ Duration: 6 hours + (POW of Telepath – INT of victim) x 1 hour
- ■ Cost: 3 PP.

BASILISK STARE, Telepathy/Level 3: The Async makes eye contact with the target and immobilize them. For as long as he keeps his gaze locked upon them (minor blinking aside), they cannot move, avert their eyes, or undertake any action. He must also limit his movement, though he may move at half his base move and/or take quick physical actions, but he must make a Luck roll to keep his eyes locked, and actions requiring a test suffer a –30% modifier. Likewise, if the target is attacked, moved, or otherwise jostled, eye contact is lost.

- ■ Range: 1 meter x POW.
- ■ Duration: 1 minute x Telepathic expertise level.
- ■ Cost: 3 PP.

MINDPROBES, Telepathy/Level 4: The Async can enter the mind of the Victim and subject it to close scrutiny. He may ask one very pointed question which the subjugated mind must answer truthfully.

If the Psychic succeeds in their Effect skill check, they must make a POW vs. POW check against the victim of the Probe. See below for results:

Result	Effect
Critical	Telepath retrieves all the required knowledge required. Victim is left injured (-1d4 HP and -1d3 POW) and unconscious for 1d6 hours.
Special	Telepath gains 2d3 items of information. Victim is left unconscious for 1d3 hours.
Normal	Telepath retrieves 1d3+1 items of related information. Victim is left stunned for 1d3 minutes. Failure Telepath fails to gain any information. Cannot Probe victim again for 8 hours.
Fumble	Telepath fails to retrieve any information and loses 1d6 extra PP. Cannot Probe victim again for 24 hours.

- ■ Range: 10 meters x POW.
- ■ Duration: 1 question x Telepathic expertise level.
- ■ Cost: 4 PP.

MIND WIPE, Telepathy/Level 4: This Effect allows an Async to erase memories from a victim's mind. Specific memories cannot be erased; instead blocks of memory are wiped (e.g. a period of hours or days). To perform the wipe requires a successful POW vs. POW check. If the victim is also a Telepath, they may add their Shield bonus to their POW for this check.

If a Telepath fumbles while using this Effect, the victim must make a POWx5% check or suffer brain damage, leaving them comatose for 1d20 days, and losing 1d6 months of memories. The victim must roll an Idea roll in order to remember the events surrounding his being placed in a comatose condition. If the roll fails, he will have no conscious memory of the previous 4d6 hours leading up to the coma. The facts may be learned by a Telepath with MindProbe and with Psychology/3+ expertise, but the effort of finding out involves sifting through deep subconscious memories. Success opens the memory block.

- ■ Range: 10 meters x POW.
- ■ Duration: 6 hours x Telepathic expertise level.
- ■ Cost: 4 PP.

PAINBLAST, Telepathy/Level 4: A savage mental attack which inflicts a violent shock to the nervous system of the victims, PainBlast requires a Stamina roll if the attack is successful. Failure incapacitates the victim for 2 full minutes. The pain is so terrible that the threat of another treatment occasions a Fortitude roll. A victim failing that roll will attempt to flee or, if flight is impossible, he will answer questions or co-operate freely with the Async. Each PainBlast reduces the victim's HP and SAN by 1d6 points. NPCs with SAN under 50 can be literally reduced to abject slaves by a number of treatments equal to their BRA scores.

- ■ Range: 5 meters x POW.
- ■ Duration: 1 CR.
- ■ Cost: 4 PP.

PRESENCE, Telepathy/Level 5: This unusual talent enhances the aura surrounding the Async and affects the perception of all who meet him face-to-face. The effect is somewhat insidious, as even if the beholder is a Telepath and recognises the source of the Presence, he must accept the reality of it. Presence is related to the great Force itself and marks the psychic power of the Async. It is a manifestation of charisma, of personal appeal and competence. Thus the Async's CHA score is enhanced by +3, with a maximum CHA/21 possible. Whatever his actual looks, he has a 'striking' appeal to members of the opposite sex who are non-psionic and can cause one to fall in love with him on a 5% chance x POW score minus INT of the intended lover. Only one attempt can be made per nonpsionic victim. A failure means that the intended lover is immune to the effect. A success causes an infatuation' with a duration of 1d6 days x POW of the Async.

It may be prolonged by a further daily expenditure of 1 PP per NPC so affected (no expenditure with a StarStone). After the passage of 120 days, the effect has a 75% chance of becoming permanent. The cost of an initial application of such charm is zero, but only one person can be made to feel an infatuation in a given day.

Presence is therefore a talent which casts an 'influence' about the Async. Everyone exposed to him will be affected in some way, although awakened Psionics can resist the Worst effects and will not fall under the spell of an Async with Presence.

- ■ Range: 2 meters.
- ■ Duration: 1d6 days x Telepathic expertise level.
- ■ Cost: 5 PP.

LOCATE, Telepathy/Level 5: The Async acquires the capacity to locate the position of any mental aura, and can obtain a bearing and approximate range on any psionic power aimed at him or at anyone in his vicinity.

Locate is a high-level refinement of that primitive 'sixth sense' which gives warning of the presence of an unseen watcher. If the Async is being watched, he will be told by the Game Master that he is under observation by someone. He may then exercise his talent to fix the position of the person(s) observing him. The talent will be accurate to within 5 meters of the exact position of a hidden watcher, etc.

- ■ Range: 100 meters x POW.
- ■ Duration: 1 minute x Telepathic expertise level.
- ■ Cost: 5 PP.

READ PSYCHIC IMPRINT, Telepathy/Level 5: When a person dies, they leave a residual psychic imprint that can linger for several hours after death. Powerful Telepaths can detect this psychic imprint, and gain an impression of the last thoughts and feelings of the recently deceased. This impression usually comes in the form of cryptic flashes of words and images (the Game Master should decide as to what these images and words actually are).

A psychic imprint fades after a number of hours equal to the deceased's POW. To successfully gain any useful information, the Telepath must make a POWx5% roll, with their POW reduced by 1 for every hour it has been since the person died.

- ■ Range: touch.
- ■ Duration: 1 CR.
- ■ Cost: 5 PP.

DELUSION, Telepathy/Level 6: A mental Attack which is a refinement of Illusion, a Delusion will create a belief structure in the mind of the victim which will affect his decisions and attitudes any time he fails an Idea roll. The Victim will believe the essence of a 10-words message and will act accordingly when involved in any situation on which that belief has a bearing. For example, the delusory message 'You are the best leader' can cause a victim to begin questioning the decisions of his leader, and perhaps even to undermine his leader's authority in the belief that he is better suited to lead.

- ■ Range: 10 meters x POW.
- ■ Duration: 10-words message.
- ■ Cost: 6 PP.

CONTROL, Telepathy/Level 6: A Mental Attack which permits the Async to dominate completely the will of an animal. Control creates a potentially permanent loyalty of a creature to the Async. The chance of such a bond existing is 5% x POW of the Async. If the Bond is formed, the Telepath will be able to see and hear and sense what the animal knows, while the animal will sense the Async's thoughts of command. The creature will be utterly fearless and will do whatever it is commanded,

- ■ Target: 1 creature x Telepath expertise level.
- ■ Range: 10 meters x POW.
- ■ Duration: 1 hour x Telepathic expertise level.
- ■ Cost: 6 PP.

XENO-EMPATHY, Telepathy/Level 6: The Telepath has an intuitive understanding of non-human, non-terrestrial organisms. He can make an insight test into the creature's ecological niche, motivations, needs, and likely behavioral responses (if non-sapient) or and mental/emotional state (if sapient).

- ■ Range: 2 meters x POW.
- ■ Duration: 1 CR.

■ Cost: 6 PP.

DOMINATE, Telepathy/Level 7: A Mental Attack in which the Async can dominate the will of the selected subject. The potential victim must be sentient (intelligent and aware), not an animal, which is subject to Control. If the attack is successful, the dominated party will carry out any instructions given by the Async. However, orders to commit totally suicidal acts will meet with active resistance and can be sufficient to occasion an Idea roll which completely releasing the subject from compulsion. Dominate will gain compliance in all other matters, including the performance of normally 'heroic' acts in which some chance of survival can be contemplated.

■ Range: 10 meters x POW.

■ Duration: 1 hour x Telepathic expertise level.

■ Cost: 7 PP.

TRANSFER PERSONALITY, Telepathy/Level 7: A Mental Attack in which the Async can transfer his personality to another body. In doing so, only INT, POW, CHA and skill levels of the Async are transferred. All physical abilities are derived from the new body. Similarly, the other personality is transferred to the Async's old body. The technique is not without its dangers. If the transfer fails, the Async will lose half of his PP and also suffers 4d6 points of damage if he does not pass a Stamina roll.

A subject so attacked will be rendered unconscious for about 1 hour, and if the transfer during that time he will remain unconscious for another hour following the completion of the transfer.

■ Range: 5 meters.

■ Duration: 2 hours x Telepathic expertise level.

■ Cost: 7 PP.

Note: Transfer Personality usually has a sinister aspect about it and cost 1/1d6 SAN.

SANEMIND, Telepathy/Level 8: A curative procedure which allows the Async to 'operate' telepathically on the mind of anyone under any form of suggestion, illusion, control, domination, or mental aberration like insanity. The SaneMind operation allows the Async to rechannel the thought matrix of the patient so that all effects of a compulsion or mental aberration have been eliminated. The procedure requires 20 hours minus POW of the Async to prepare the patient for SaneMind treatment.

■ Range: 5 meters.

■ Time taken: 1 hour x (10 – Telepathic expertise Level).

■ Cost: 8 PP.

MINDSLAY, Telepathy/Level 8: A devastating Mental Attack in which the Async acquires the power to do 6d6 points of damage to any victim he vanquishes in mental battle. If the victim survives the MindSlay attack, he must pass a Stamina roll or fall unconscious for 1d6 Combat Round.

■ Range: 10 meters x POW.

■ Time taken: 1 CR.

■ Cost: 8 PP.

COMPULSION, Telepathy/Level 8: A highly specialised, deeplevel 'compulsion' which can be placed in the subconscious mind of a subject and triggered up to 1 month x POW of the Async in the future by a key word or phrase, either spoken or telepathically communicated. Such a Suggestion must be phrased in 10 words or less, including the 'trigger' word or phrase. It may order any conduct covered by a Dominate, except that totally suicidal acts are now possible to compel. A Telepath/5 can make such a suicide occur through total failure of the autonomic nervous system.

■ Range: 10 meters x POW.

■ Time taken: 10-words message.

■ Cost: 8 PP.

ELEMENTAL FORCE, Telepathy/Level 9: A truly awesome Mental Attack mode which permits the Async to tap the deepest levels of his psyche to direct a blast of mental force against more than one individual at a time.

■ Target: up to 2 creatures x Telepath expertise level (doubled if using a StarStone)

■ Range: 5 meters x POW.

■ Time taken: 1 CR.

■ Cost: 9 PP.

NIGHTMARE, Telepathy/Level 10: With this ability, the telepath attempts to unlock the target's subconscious, bringing to the surface all the hidden fears, aggression, and secrets. The effects of this are grave; first, the target will be in shock and unable to act for 1d10 minutes. Second, the target must make a fortitude roll or go insane. A character going Insane in this manner must roll on the following table.

2d6	Effect
2-3	The character is a catatonic vegetable
4-7	Violent aggression against any/all targets
8-10	Incapacitated – Hysterical weeping
11-12	Totally Paranoid – Trusts nobody

It should be noted that these effects are permanent unless/until psychiatric help is found.

- ■ Range: 10 meters x POW.

- ■ Time taken: 1 CR.

- ■ Cost: 10 PP.

TELEKINESIS

Telekinesis is the psionic talent which enables an Async to move and manipulate objects Without physically touching them. The basic talent simply permits him to move or otherwise manipulate an object of a given mass. High level Asyncs will acquire more refined and specialised talents based on Telekinesis.

Telekinesis applies not only to the crude manipulation of matter at a distance, but also to the subtle adjustment of force in all its forms. Brute exertions of force are relatively simple to accomplish, but master telekinetics are notable not for the raw force they can bring to bear, but the exquisite precision of their control.

MASS MOVEMENT, Telekinetic Level/1: Depending PP cost, the Async acquires the capacity to move objects. Any manipulation is treated as if the person were physically handling the item, but physical danger, pain or other stimuli are not present. Animate Other includes a limited amount of sensory awareness, sufficient to allow intelligent manipulation. The more powerful the Telekinetic the greater the mass that can be moved.

- ■ Mass: 100 kg x PP

- ■ Range: 10 meters x POW.

- ■ Duration: 1 minute x Telekinetic expertise level.

- ■ Speed: 1 m/s x Telekinetic expertise level.

> Mass movement – example
>
> Luke the Telekinesis needs to move a mass of 265 kg. He must expend 3 PP.

SOUND, Telekinesis/Level 1: The Async has the capacity to vibrate a section of air, a thin piece of metal, etc., so that some sound is created by the vibration. The effect is used to distract others or to catch their attention. To successfully perform the Sound, the Async must be able to see the area to be vibrated, as described for Manipulation.

PP	scale
1	moderate snoring
2	conversation
3	alarm clock
4	hairdryer
5	loud radio
6	bass drum
7	subway train
8	industrial noise
9	jet plane take off
10	gunshot

- ■ Range: 20 meters x POW.

- ■ Time taken: 1 CR.

- ■ Cost: variable.

SOFTSPEAK, Telekinesis/Level 2: The Async has the capacity to apply Sound so that a message can be whispered in the ear of an intended subject.

- ■ Range: 10 meters x POW.

- ■ Duration: 1 word message x Telekinetic expertise level.

- ■ Cost: 2PP.

TELEKINETIC BLOW, Telekinesis Levels/2: The Async acquires the ability to hurl any 1 kg object so that it may strikes a target with the power of a shotgun. The hit probability is 5% x POW of the Async, minus acceleration x1%. Roll for the hit location to see where the strike occurred. Armor, of course, will have an effect on the result. The PP cost to accelerate the object is equal to the acceleration of the object.

PP	Acceleration (m/s²)	Damage
1	10	1d6
2	20	1d6+2
3	30	2d6
4	40	2d6+2
5	50	3d6
6	60	3d6+2
7	70	4d6
8	80	4d6+2
9	90	5d6
10	100	5d6+2

- ■ Range: 1 meter x POW.

- ■ Time taken: 1 CR.

- ■ Cost: variable.

IMPACT, Telekinesis Levels/3: Using this ability a Telekinetic can project at a target a swarm of small objects (less than 50 g) that can cause physical damage. In is equivalent to a punch attack. For each extra PP expended the dice type used increases:

PP	Objects	Damage
1	10	1d3
2	20	1d3+2
3	30	1d6
4	40	1d6+2
5	50	1d10
6	60	1d10+2
7	70	1d10+4
8	80	1d20
9	90	1d20+2
10	100	1d20+4

- ■ Range: 10 meters x POW.

- ■ Duration: 1 CR x Telekinetic expertise level.

- ■ Cost: variable.

TELEKINETIC SHIELD, Telekinesis/Level 3: The Async acquires the ability to erect a psionic defence screen around himself such that it acts as a Combat Body Armor whenever he is struck by any solid missile or slug, or is struck by a solid melee weapon. The Shield is ineffective against any type of energy weapon.

- ■ Range: 1 meter radius from centre of Telekinetic.

- ■ Duration: 1 CR x Telekinetic expertise level.

- ■ Cost: 3PP.

STRESS, Telekinesis/Level 4: The Async acquires the capacity to perceive stress points in an inanimate object or else to get them up himself by an exercise of Telekinetic power. The effect will increase an armour penetration level by +1 per expertise level of Telekinesis attained. Only solid missiles and melee weapons will enjoy this enhanced penetration capacity, and only one shot or blow will have the advantage (designated by the Telekinetic Async). The shot or blow must be delivered by the Async setting up the stress field.

- ■ Range: 5 meters x POW.

- ■ Time taken: 1 CR.

- ■ Cost: 4PP.

LEVITATE, Telekinesis/Level 4: The Async acquires the ability to fly as if he had a contragravity harness or jump belt. He may carry 10 kg of equipment with him for each Telekinetic expertise level he has attained.

- ■ Range: self or 10 meters x POW.

- ■ Duration: 1 minute x Telekinetic expertise level.

- ■ Cost: SIZ.

GRENADE, Telekinesis/Level 4: This allows the Async to rapidly excite the molecules of an inanimate object, causing it to explode like a grenade if a POW vs. object HP roll is successful

- ■ Range: 20 meters x POW, in sight.

- ■ Time taken: 1 CR.

- ■ Cost: 4PP.

AGITATE, Telekinesis/Level 5: This Effect is defined as the agitating of molecules using only the power of the mind. At low power it can warm objects or cause said objects to vibrate. Higher power can cause temporary injuries and at much higher power levels can actually cause objects to combust.

The PP cost is equal to the SIZ of the object affected. The maximum mass that can be affected is equal to the Telekinetic's current POW statistic.

If Agitate is used against a person, a POW vs. POW check is required.

PP	Temp.	Effect
3	30°C	Telekinetic can cause objects to grow warm or cause said objects to vibrate. Worse result on a person is to give them a weird tickly sensation in area affected.
6	60°C	At this level the Telekinetic can cause objects to grow moderately hot too hot to hold comfortably. If used against a person, it causes a burning sensation on the surface of the skin, temporarily disabling them for 1d6 combat rounds.
9	120°C	At this level the Telekinetic can cause objects to grow very hot too hot to hold comfortably without taking burn damage. If used against a person, it causes a burning sensation on the skin, causing temporary injuries. If the target person fails a POW vs. POW check they take 1d3 damage to the area affected and are stunned for 1d20 – POW combat rounds. This damage is recovered at a rate of 1HP per hour.
12	250°C	The Telekinetic can cause inanimate objects to combust. If used against a person who fails a requisite POW vs. POW check, that person suffers 1st degree burns akin to bad sunburn. The victim takes 1d6 damage to the area affected and is stunned for 1d100 – POW combat rounds.

- ■ Range: 1 meter x POW, in sight.

- ■ Time taken: 1 CR.

- ■ Duration: 1 CR x Telekinetic expertise level.

- ■ Cost: SIZ.

CRYO, Telekinesis/Level 5: The Async can reduce the kinetic energy levels in living or inanimate matter by touching it.

The PP cost is equal to the SIZ of the object affected. The maximum mass that can be affected is equal to the Telekinetic's current POW statistic.

If Agitate is used against a person, a POW vs. POW check is required.

PP	Temp.	Effect
3	-30°C	At this level the Telekinetic can cause objects or water to freeze. If used against a person, it causes a burning sensation on the surface of the skin, temporarily disabling them for 1d6 combat rounds.
6	-60°C	At this level the Telekinetic can cause objects to grow very cold to hold comfortably without taking burn damage. If used against a person, it causes a burning sensation on the skin, causing temporary injuries. If the target person fails a POW vs. POW check they take 1d3 damage to the area affected and are stunned for 1d20 – POW combat rounds. This damage is recovered at a rate of 1HP per hour.
9	-90°C	The Telekinetic can reduce the strength of inanimate objects. If used against a person who fails a requisite POW vs. POW check, that person suffers 1st degree burns akin to bad sunburn. The

		victim takes 1d6 damage to the area affected and is stunned for 1d100 – POW combat rounds.
12	-120°C	At this level the Telekinetic can use this talent to quick freeze mortally wounded or just/** to cool the Async in a hot of flaming environment and providing full protection for 1 minute x POW.

- ■ Range: touch.
- ■ Time taken: 1 CR.
- ■ Duration: 1 CR x Telekinetic expertise level.
- ■ Cost: SIZ.

HOLD, Telekinesis/Level 6: This ability allows a Telekinetic to use psychic power to hold and immobilise and object or person. It can only affect objects of a SIZ equal to or less than their total POW. A POW vs. POW check is required if the target is a living creature. Hold cannot be used to stop bullets. It costs 1PP per SIZ point affected over and above the Telekinetic's total POW, augmented by range.

- ■ Range: 1 meter x POW, in sight.
- ■ Duration: 1 minute x Telekinetic expertise level.
- ■ Cost: SIZ.

> Hold – example
>
> A Telekinetic with POW 16 can Hold SIZ 16 with a cost of only 1 PP, but every SIZ point over 16 costs an additional PP.

PUSH, Telekinesis/Level 6: An Async can violently push back human size objects around him. Targets suffer knockback 2 meters if prone and take 1d3 damage. The opponent must drop his weapon if an unarmed skill roll is failed. If the Async concentrates his attack on a single target the damage is 1d3 HP x expertise level. Use Dodge to evade.

- ■ Range: 2 meters x POW radius.
- ■ Duration: 1 CR.
- ■ Cost: 6PP.

MORASS, Telekinesis/Level 6: An Async can turn a solid footing into a soft 'morass' which causes all beings and vehicles to slow down to 10% of normal speed. There is also a 5% chance x Telekinetic expertise level that the being/vehicle will become bogged down and unable to move. Bogged down personnel and vehicles have a 25% chance per minute of freeing themselves and proceeding out of the Morass at 10% speed. The depth of the effect will be from 1 to 3 meters, turning earth into a gumbo consistency even in the absence of water. Rock, Concrete, and metal will be unaffected.

- ■ Surface: 4 m² x Telekinetic expertise level.
- ■ Range: 2 meters x POW, in sight.
- ■ Duration: 1 minute x Telekinetic expertise level.
- ■ Cost: 6PP.

MAGNETOSCREEN, Telekinesis/Level 7: The Async may erect a Telekinetic ForceScreen which will turn aside all projectiles fired by man-portable weapons (up to 20mm calibre). An extra PP cost is expanded per shot turned aside (a 'shot' includes an automatic weapon burst).

- ■ Range: 1 meter radius from centre of the Telekinetic.
- ■ Duration: 1 minute x Telekinetic expertise level.
- ■ Cost: 7PP.

NEGAFIELD, Telekinesis/Level 8: The Async Can erect a disruptive forcefield which causes all electronic circuitry to malfunction at a 5% chance x POW. A StarStone is needed to maintain a NegaField. If electronic equipment is protected by a ForceField battlescreens, it will be unaffected by the talent.

- ■ Range: 1 meter radius x POW from centre of the Telekinetic.
- ■ Duration: 2 minutes x Telekinetic expertise level.
- ■ Cost: 8PP.

RADSHIELD, Telekinesis/Level 9: The Async can erect a personal anti-radiation field which will deflect all forms of nuclear radiation. A StarStone is needed to maintain a RadShield.

- ■ Range: 1 meter radius from centre of the Telekinetic.

■ Duration: 3 minutes x Telekinetic expertise level.

■ Cost: 9PP.

TELEPORTATION

Teleportation is a psionic talent which permits an Async Teleport to travel instantaneously from one location to another location. Most forms of intervening matter will not prove to be a barrier, but defensive battlescreens, Starship BattleArmour, and some high-density materials like lead will prevent teleportation effectively returning the Teleport to his original location because a 'failed' teleportation means that he does not move at all.

TELEPORTATION, Teleportation/Level 1: An Async Teleport must have some form of pre-knowledge of his destination in order to be able to Teleport to it at all. Such preknowledge is in the form of a clear mental image or 'picture' of the location to which a teleportation jump will be made. Such pre-knowledge can be obtained in several ways:

1. The location is well known to the Async because of frequent visitations, such as his home, office, etc., and a 100% possibility of making a teleportation results.

2. The location had been visited personally by the Async on a previous occasion. Reliance is on memory for an accurate mental image, so the Async must make an Idea roll to remember the details sufficiently to be able to Teleport at all.

3. The Async has been viewing the location from a distance, either with the naked eye or with some vision-enhancing device. In such an instance, the Async has a 100% chance of making a successful teleportation.

4. The Async uses Precognition to 'view' a location psionically. In such an instance, the Async has a 5% chance x POW of viewing accurately enough to succeed with a teleportation.

5. The Async receives a mental image of the location through the operation of Telepathy. The chance of viewing accurately enough to succeed with a teleportation is 5% x POW of the viewer. Note: the 'viewer' can be the Async Teleport himself, if he is also a Telepath, or it can be a Telepath sending a mental picture of the location to the Async Teleport.

6. For each km of teleportation, there is 1% cumulative chance that the Async attracts the attention of Hounds of Tindalos. If the character fails his luck roll, a pack of 1d6 Hounds will appears 2d6 CR after the emergence of the PC.

If the location is beyond the range of the Async Teleport or if an inaccurate mental image of the destination is unclear, all PP will be expended as indicated for the particular jump, but no movement will occur.

Teleportation ranges vary according to the POW of the Async. PP must be expended equal to the SIZ of the Async. The 'mass' indicated refers to any object or being carried along with the Async. Equipment, etc., exceeding the mass limit will be left behind.

When a Teleport leaves or arrives, there is a sudden shimmering of his image and a faint moaning whine just before he disappears or appears. Consequently, Teleportation cannot be used as a complete surprise, as in the case of an Async suddenly appearing behind a guard to attack out of nowhere. Anyone within earshot or eyeshot of the effect will be alerted.

There is also a chance that the Async Teleport will be disoriented for 1d6 CR after a jump. This chance is equal to (20 – INT) x 5%. Such a disorientation results in Initiative and combat bonuses being reduced by 1/2.

■ Mass: 10 kg x Async's expertise level.

■ Range: 1000 meters x POW.

■ Time taken: 1 CR.

■ Cost: SIZ.

> Teleportation – example
>
> Luke is outnumbered by six Xenomrphs and uses his psionic skill to evade. He has POW/17 and masters teleportation at 45%. He rolls a 38 and succeeds to go back to his starfighter 8 km away. Luke knows well the cockpit and doesn't need to make an Idea roll. Unfortunately, the GM rolls a 5 and the Async attracts the attention of 4 Hounds of Tindalos! Luke must now succeed a Luck roll or he has to face some problems...

DEMATERIALIZE, Teleportation/Level 10: If the Async Teleport has a StarStone, he can place the molecules of his body and up to 10% of his body mass in equipment out of phase with solid matter such that he can pass through walls, etc. Each meter of solid material he passes through will require the expenditure of 10 PP. If he has not come completely through the material when he exhausts his PP, he will be rematerialised in the 'living' rocks, etc., and instantly slain.

ForceField BattleScreens and most forms of BattleArmour are totally impervious, as in a dense material like lead.

- ■ Mass: 10% Async's body mass x Async's expertise level.

- ■ Range: self.

- ■ Time taken: 1 CR.

- ■ Cost: 1m x 10 PP.

PRECOGNITION

Precognition is a field of Psionics which deals with the capacity to mentally perceive objects at a distance or when they are concealed from sight. Some aspects of Precognition also deal with apprehension of the immanent likelihood of some as yet future menace or event. The talents will not penetrate Mind Shields, Thought Screens, force field Battle Screens, Battle Armor or Lead or other high density materials.

Precognition has always been the most unpredictable of the common psychic powers. Past experience suggests that the future remains mutable despite a precog's visions and decisive action can serve to avert an undesirable outcome. Advanced forms of precognition appear to have the power to actively influence the future, forcing outcomes based on the precog's wishes. Few precogs receive visions unrelated to their immediate situations. Focus and will can force limited insights into a situation, but longer-term revelations are impossible to compel.

SENSE DANGER, Precognition/Level 1: The Async has a heightened awareness of potential danger, the 'sixth sense' which causes the hairs to prickle at the back of one's neck or a cold shudder to run down the back. The roll is occasioned whenever the Async is within range of some possible danger to himself or his fellows. The feeling will increase if the Async moves closer to the possible menace, or vice versa.

- ■ Range: 10 meters x POW.

- ■ Time taken: 1 CR.

- ■ Cost: 1PP.

SIXTH SENSE, Precognition/Level 1: Precogs sometimes get spontaneous flashes of events in the immediate future, allowing them to anticipate and react a split second earlier than a normal human. This split second can mean the difference between life and death. In game terms, Sixth Sense allows the Precog to expend 1 to 2 x Precog expertise level PP to augment his next dice roll. For each PP expended, this roll is improved by +5%. Sixth Sense can be used at any time and is an instantaneous effect.

- ■ Range: self.

- ■ Time taken: 1 CR.

- ■ Cost: 1-10 PP.

> Sixth Sense – example
>
> Luke the Precog is attacked by thugs in a bad neighbourhood on Proxima II. One of the thugs swings a club at his head. Luke has 25% in Dodge, but decides to use his Sixth Sense Effect to improve it. Luke has 60% in the Ability and rolls 16 success! He decides to add 5 PP to his Dodge skill, increasing it to 50%. Now he rolls his Dodge skill check 46. If he hadn't used Sixth Sense, he would have failed. As it is, his Effect allows his to duck under the club swing and make a run for it.

LOCATE DANGER, Precognition/Level 1: The Async can attempt to locate the general direction and position of a possible danger once he is alerted to its presence. If within a distance equal to 1 meter x Precognition expertise level, the Async will have his attention drawn to the exact place or object from which he has Sensed Danger.

- ■ Range: 10 meters x POW.

- ■ Duration: 1 minute x Precog expertise level.

- ■ Cost: 1PP.

HINT, Precognition/Level 1: The ability to sense basic information concerning a location the Precog will visit in the immediate future. Hint allows the Precog to become aware of the most rudimentary characteristics of a location (e.g. what is beyond a sealed pressure door). In game terms the Game Master will give a basic description e.g. "a brightly lit medium sized room. There are people there".

- ■ Range: 1 meter x POW.

- ■ Time taken: 1 CR.

- ■ Cost: 1PP.

FARSEE, Precognition/Level 2: The Async is able to sense the approximate characteristics of a location that is in line of vision but quite distant and perhaps obscured by intervening terrain, etc. Only the barest of details will be given, and the precise location of the 'picture' seen mentally by the Async is uncertain. It will be in the approximate vicinity of the place towards which he is looking.

- ■ Range: 100 meters x POW, in sight.

- ■ Time taken: 1 CR.

- ■ Cost: 2PP.

> **Farsee – example**
>
> Luke the Precog is looking at a foggy mountainside and is attempting to find the pass. As he scans the misty shape, he is told, 'About 10,000 meters distance you sense a valley leading upward to a deep V-shaped opening in the mountain wall. There is rushing water, a stream. Trees many trees. A lake. The bearing is about NNW.' Note that the Async will have to be fairly proficient at such a range. Also, if there was anything of special interest, he might note it as well. 'You also sense a large metal object. A vehicle. Tracked. There is a powerful weapon present. Four man-like creatures but not men.'

DETECT PSI, Precognition/Level 2: The Async becomes very sensitive to the presence of Psionic Forces. The sense is similar to Sense Danger, a 'sixth sense' that comes into play whenever a psionic is using PSI within range of the Precog Async.

The Async will be told the direction of the PSI Force and the range, give or take 10x1d10 meters. If within 10 meters x POW, the Async will have his attention drawn to the exact place from which he has sensed the PSI Forces.

- ■ Range: 100 meters x POW.

- ■ Duration: 1 CR x Precog expertise level.

- ■ Cost: 2PP.

SENSE POISON, Precognition/Level 2: When a Precog is nearby a poisonous plant, object, etc., he will Sense Danger. When he attempts to Locate Danger, he will have his attention drawn to the poisonous substance immediately if the Locate Danger is successful.

- ■ Range: 1 meter x POW.

- ■ Duration: 1 CR x Precog expertise level.

- ■ Cost: 2PP.

PSYCHOMETRY, Precognition/Level 3: When a Precog handles an object, he can learn some facts about the object's function or background (history). If the first 'question' fails, no more questions can be asked about the object for 1d6 days (there are literally 'bad vibrations' which cannot be overcome for the moment). Ability, no questions as such will be asked by the Async. Rather, the Game Master simply gives some piece of information upon each successful roll. Some information will be relatively useless, mere general background. But some facts will be highly relevant. The Game Master should exercise discretion here. The more effort that the Async spends on examining the object, the more he will become sensitive to the important facts.

- ■ Range: touch.

- ■ Duration: 1 fact x Precog expertise level.

- ■ Cost: 3PP.

CLAIRAUDIENCE, Precognition/Level 3: The Async is able to overhear words spoken at a distance.

- ■ Range: 20 meters x POW.

- ■ Duration: 10 words x Precog expertise level.

- ■ Cost: 3PP.

RECALL, Precognition/Level 3: This Effect allows a Precog to remember events in the recent past that have happened to them with photographic detail. Perhaps recollection of a number plate, or the name on an ID card shown to them earlier in the day.

Recall requires a number of PP equal to 1 PP times the basic duration into the past that the Precog wishes to recall events from.

- ■ Range: self.

- Duration: 1 hour x Precog expertise level.
- Cost: Duration x 1PP.

> Recall – example
>
> Luke the Precog vaguely remembers that one of the thugs who attacked him was wearing some kind of uniform beneath his scruffy thug clothing, but he cannot remember anything more. He has 54% in Recall. He rolls a 32 and spends 2 PP because it has been almost 4 hours since he was ambushed. Concentrating he recalls the uniform was a miners jumpsuit with a company logo on it Proxima Incorporated!

TRUESIGHT, Precognition/Level 4: The Async sees objects or beings as they are and is not affected by any form of Telepathic Illusion, etc., which attempts to disguise the real nature of a being or an object. The talent is triggered by a Sense Danger, and when the Async attempts to Locate Danger, the TrueSight talent is activated instead. If he doesn't TrueSee, he will still Sense Danger so long as he is in the presence of the suspicious object. Thus he may attempt to TrueSee again, as often as he feels it is necessary. Only the Async is told what is seen; communicate by notes.

- Range: self.
- Duration: 1 CR x Precog expertise level.
- Cost: 4PP.

PATHFIND, Precognition/Level 4: The Async will have a mental picture of the route to follow out of a situation in which he and his fellows find themselves lost. If in danger, he will also pick the safest way.

A Precog can augment his skills in the same way as the Sixth Sense Ability, only with Predict Path, each PP expended adds +5% to all their skills.

- Range: 1 meter x POW.
- Duration: 5 minutes x Precog expertise level.
- Cost: 1-10 PP.

PRECOGNITION, Precognition/Level 5: The Async begins to develop truly visionary powers. The Async receives a foreshadowing of a scene yet to come, usually up to Precognition expertise level x 4 hours in the future. The scene will be described in some detail, and he or else a person for which he is concerned will be an active participant. Only the Async is told what is seen; communicate by notes. It is up to the player to impart whatever he sees in the future to the others. There will be no indication of the outcome of the situation, merely a warning that it will occur. Of course, once the correctness of the foretelling is ascertained, the Game Master will be bound to arrange matters in the meantime so that events will occur as prophesied.

Trying with prophecy of future events can prove difficult unless the Game Master is prepared to think ahead to later developments in an adventure scenario. If the Game Master prefers, he will present 2 to 5 possible alternatives, depending on the complexity of the developing situation.

Some of the details will be vague, but the effect will be to alert the players in general to the possibility that some potentially serious or momentous events are about to transpire, and they will be able to make some preparations to meet the challenge. Also, if no exact prophecy occurs, a very vague and probably somewhat irrelevant 'vision' will occur, or else no precognition at all. The talent is, after all, rather erratic and undependable.

- Range: self.
- Duration: 4 hours x Precog expertise level.
- Cost: 5PP.

PERCEPTION, Precognition/Level 5: The Async acquires the power to 'see' without benefit of normal vision. He could be blindfolded and in a dark room, or even blind, but he still will see clearly.

- Range: 5 meters x POW.
- Duration: 5 minutes x Precog expertise level.
- Cost: 5PP.

SENSE SECRETS, Precognition/Level 6: The Async acquires the power to detect a secret door, or the presence of some object that has been deliberately hidden, provided that he is facing in the right direction. The object may also be a person.

- Range: 5 meters x POW, line of sight.
- Duration:1 CR x Precog expertise level.
- Cost: 6PP.

BLOCK PRECOG, Precognition/Level 8: This Effect allows a Precog to obscure his actions being sensed, recalled or predicted by other Precogs. If another Precog attempts to view blocked events, they must make a POW vs. POW check.

- ■ Range: self.

- ■ Duration: 10 minutes obscured x Precog expertise level.

- ■ Cost: 8PP.

NOT MY TIME, Precognition/Level 9: The precognitive's subconscious will to live stymies those futures in which they die. This power triggers automatically when the psychic is about to die, provided they have sufficient psi points to activate it. On triggering, events conspire to leave the psychic alive and relatively safe, no matter how improbable the outcome: the nuclear bomb fails to detonate, the bandits leave him for dead, the starship plunging into a black hole manages to launch a lifeboat in time, et cetera. While the precog will not face immediate death again after using this power, such safety might last no more than minutes. There is also no guarantee that this power will leave the precog healthy; advanced precogs survived but were rendered irrevocably insane.

- ■ Range: self.

- ■ Duration: 1CR.

- ■ Cost: 9PP.

SELF—AWARENESS

Self-awareness deals with the very nature of the Force itself, the mysterious source of Power from which all psionic talents arise. The Async learns how to develop his mind and body to their maximum potentials so that he can become fully attuned to the life principle which is the Force. More advanced uses of the discipline can increase a subject's physical capabilities, allowing skilled Asyncs to perform superhuman feats of strength and agility.

The Force is perhaps nothing more than a vast energy source, but it may be Something far greater. Adapts who have a tendency to attach almost a religious significance to the Force, but not in a superstitious fashion, the Force is a very real part of their lives.

All Talents require the Async to be in close physical contact with the recipient.

ENHANCE STR, Self-awareness/Level 1: Psi Points may be converted into physical strength points on a temporary basis. 1 PP can be converted into 1d3 STR up to a maximum of the Async's expertise level. Enhanced STR takes effect immediately, and lasts for 5 minutes x Async's expertise level, then declines at the rate of 1 STR point per minute until normal levels are reached.

- ■ Range: self or touch.

- ■ Duration: 5 minutes x Async's expertise level.

- ■ Cost: 1d3 STR x 1PP.

ENHANCE CON, Self-awareness/Level 2: Psi Points may be converted into physical constitution points on a temporary basis. 1 PP can be converted into 1d3 CON up to a maximum of the Async's expertise level. Enhanced CON takes effect immediately, and lasts for 5 minutes x Async's expertise level, then declines at the rate of 1 CON point per minute until normal levels are reached.

- ■ Range: self or touch.

- ■ Duration: 5 minutes x Async's expertise level.

- ■ Cost: 1d3 CON x 1PP.

ENHANCE DEX, Self-awareness/Level 3: Psi Points may be converted into physical dexterity points on a temporary basis. 1 PP can be converted into 1d3 DEX up to a maximum of the Async's expertise level. Enhanced DEX takes effect immediately, and lasts for 5 minutes x Async's expertise level, then declines at the rate of 1 DEX point per minute until normal levels are reached.

- ■ Range: self or touch.

- ■ Duration: 5 minutes x Async's expertise level.

- ■ Cost: 1d3 DEX x 1PP.

ENHANCE INT, Self-awareness/Level 4: Psi Points may be converted into mental intelligence points on a temporary basis. 1 PP can be converted into 1d3 INT up to a maximum of the Async's expertise level. Enhanced INT takes effect immediately, and lasts for 5 minutes x Async's expertise level, then declines at the rate of 1 INT point per minute until normal levels are reached.

- ■ Range: self or touch.
- ■ Duration: 5 minutes x Async's expertise level.
- ■ Cost: 1d3 INT x 1PP.

ENHANCE BRA, Self-awareness/Level 5: Psi Points may be converted into mental bravery points on a temporary basis. 1 PP can be converted into 1d3 BRA up to a maximum of the Async's expertise level. Enhanced BRA takes effect immediately, and lasts for 5 minutes x Async's expertise level, then declines at the rate of 1 BRA point per minute until normal levels are reached.

- ■ Range: self or touch.
- ■ Duration: 5 minutes x Async's expertise level.
- ■ Cost: 1d3 BRA x 1PP.

ENHANCE MOV, Self-awareness/Level 6: Allows the Async to double his movement rate or the number of rounds he can travel at a normal movement rate. Speed also will permit 1d3 additional actions per round.

- ■ Range: self or touch.
- ■ Duration: 5 minutes x Async's expertise level.
- ■ Cost: 6PP.

TAP, Self-awareness/Level 7: Asyncs with this Ability can actually drain Psi Points from anyone they come into close physical contact with. Once the skill check is made successfully, a POW vs POW roll is required for every MR that the Async wishes to continue tapping a victim for Psi Points. If this roll is failed, the Async can drain no more Psi Points from the individual for 24 hours. Each round the Adjuster makes his POW check allows 1d6 PP to be drained. If a victim reaches 0 PP, they fall unconscious.

- ■ Range: touch.
- ■ Duration: 1 CR.
- ■ Cost: 3.

TELERGY

The Async learns how to control of one's own or another's body, through psychic manipulation on a cellular level. An adept practitioner can heal severe injuries and cure illnesses, as well as banish the effects of fatigue and mental stress. Telergy can accelerate natural healing enormously and regrow limbs or organs.

All Talents require the Async to be in close physical contact with the recipient.

SELF-HEAL, Telergy/Level 1: Wounds and injuries may be healed rapidly using this Ability. As the Async acquires knowledge about the physiological functions of his body, he acquires the power to heal 1 HP to his body per day for each expertise level he has attained. Body parts that have been maimed or severed cannot be repaired using Heal.

- ■ Range: self.
- ■ Time taken: 1 CR x HP.
- ■ Cost: 1 PP.

HEAL, Telergy/Level 1: The Async acquires the power to heal 1d3 HP of damage to the body of another if the victim rolls a successful CON vs. POW. Only one such healing can be performed for any set of wounds; thus a victim cannot receive the benefit of several healing applications for the same wounds.

- ■ Range: touch.
- ■ Time taken: 1 CR x HP.
- ■ Cost: 1 PP.

HARM, Telergy/Level 2: By means of this ability, the Async attempts to use his psionic powers to subtract hit points from a concious opponent. The subtraction is from the hit point total only, not from any specific area. Once the skill check is made successfully, a POW vs. POW roll is required for every CR that the Async wishes to continue subtracting a victim for HP. If this roll is failed, the Async can subtract no more HP from the individual for 24 hours. Each round the Adjuster makes his POW check allows 1 HP to be drained. If a victim reaches 0 HP, they die.

- ■ Range: touch.
- ■ Time taken: 1 CR.

- Cost: 2 PP.

SUSPEND ANIMATION, Telergy/Level 3: Personal body activity may be suspended for varying periods of time. An Async with this Ability may enter a suspended animation state without need for food or water, and with minimal air needs (similar to Cryosleep) by willing themselves into it. Suspended animation may be stopped at any time by external stimulus.

- Range: self.
- Duration: 2 days x Async's expertise level.
- Cost: 2PP.

CAUSE BLINDNESS, Telergy/Level 2: Will destroy sight in one eye by scrambling the message-carrying impulses in the optic nerves.

- Range: touch.
- Duration: 4 minutes x Async's expertise level.
- Cost: 2PP.

RESIST PAIN, Telergy/Level 3: Allows the psionic to ignore the effects of pain upon the body. Limbs (not including the head) may be forced to function normally after a major wound at the cost of 1 HP per round from the total hit points. The character will also gain a bonus of +5 to his Stamina roll. No subtractions from the roll to hit are made due to loss of hit points while this ability is functioning. Resist Pain provides total immunity against torture, Shock from wounds, and such psionic attacks as PainBlast. The talent may also be bestowed on others through touch.

- Range: self.
- Duration: 1 hour x Async's expertise level.
- Cost: 3PP.

RESIST HUNGER, Telergy/Level 3: This ability allows the Async to ignore the body's need for food for a maximum of (3 x expertise level) consecutive days. If the psionic tries to go beyond this limit, he will lose 1 point of CON per hour. Should the CON score reach zero, the Async will fall into a coma for 1d6 days, and require medical attention and intravenous feeding. If such medical attention is not available, the character will die rather than emerge from the coma state.

- Range: self.
- Duration: 3 days x Async's expertise level.
- Cost: 4PP.

RESIST THIRST, Telergy/Level 4: This ability allows the Async to ignore the body's need for water for a maximum of (2 x expertise level) consecutive days. The consequences of trying to push beyond this limit are identical to those stated above for 'Resist hunger'.

- Range: self.
- Duration: 2 days x Async's expertise level.
- Cost: 4PP.

CAUSE BLEEDING, Telergy/Level 4: The target is suffering from sudden internal bleeding. Bleeding flows through the nose and mouth. The victim is incapacitated for 1 CR x Async's expertise level and suffers 2d6 HP x CR.

- Range: touch.
- Duration: 1 CR x Async's expertise level.
- Cost: 4PP.

  Cause Bleeding – example

  Luke is attacked by a Ghast in a disused mine on Mars. Luke has POW 17 and the Ghast has POW 11. The Async has an 80% chance to succeed the POW vs. POW and rolls a 53. Luke masters these talent at 55% and the Ghast is incapacitated for 3 CR, spitting blood and losing 2d6 HP each Combat Round.

RESIST SLEEP, Telergy/Level 5: The Async can ignore his body's need for rest or sleep for up to (1 x expertise level) consecutive days. The consequences of trying to push beyond this limit are identical to those stated above for 'Resist hunger'.

- Range: self.
- Duration: 1 day x Async's expertise level.

- Cost: 5PP.

CHANGE APPEARANCE, Telergy/Level 5: By use of this ability, the Async may change the appearance of his skin surface. Pigmentation, texture, distribution of fatty tissue, wrinkles, etc. may be affected. Height, weight, and bone structure may not be changed. Change Appearance takes effect immediately, and lasts for 1d6 hours (determined in secret by the Game Master).

- Range: self.
- Duration: 1 hour x Async's expertise level.
- Cost: 5PP.

CURE POISONING, Telergy/Level 6: An Async with this Ability can use their psychic power to neutralize poisons and toxins in their or someone bloodstream. If the Async makes their skill roll, they must match their POW against the POT of the poison. If successful it purge the body, and restore 1d3 HP.

- Range: self or touch.
- Time taken: 1 CR x poison's POT.
- Cost: poison's POT PP.

SHAKING, Telergy/Level 6: The async can cause irrepressible shaking in his victim. The latter suffers a penalty of -40% on his manipulations skills and -30% on his physical or combat skills.

- Range: touch.
- Duration: 2 minutes x Async's expertise level.
- Cost: 6 PP.

RESIST HEAT, Telergy/Level 7: The Async can ignore the effects of working in an unusually hot environment and prevent the character from suffering burn damage if the temperature does not exceed (40 + 20 x expertise level) °C.

- Range: self.
- Duration: 1 hour x Async's expertise level.
- Cost: 7 PP.

RESIST COLD, Telergy/Level 7: The Async can ignore the effects of working in an unusually cold environment and prevent the character from suffering damage if the temperature does not drop below (-20 x expertise level) °C.

- Range: self.
- Duration: 1 hour x Async's expertise level.
- Cost: 7 PP.

CURE DISEASE, Telergy/Level 8: An Adjuster with this Ability can use his psychic power to cure themselves, or someone of disease. The Game Master must assign the disease a POT, and match this against the Async's POW. If successful, the sync can rid a body of disease after a time equal to the disease's POT in hours.

- Range: self or touch.
- Time taken: 1 hour x disease's POT.
- Cost: poison's POT PP.

INVINCIBLE STAND, Telergy/Level 8: Activation of this power allows the Async to ignore Shock or Major Wound and continue acting even when his hit points have been lowered below zero. The effect lasts 1 minute x Async's expertise level, and the Async will die regardless if brought to -CON hit points. If the Async is at negative hit points when the power ends he must succeed a Stamina roll or die on the spot. If successful, he will survive and lives with 1 hit point.

- Range: self.
- Duration: 1 min x Async's expertise level.
- Cost: 8 PP.

> Invincible Stand – example
>
> Luke is seriously wounded by an explosion and loses 13 hit points. Fortunately, he masters these psionic talent at 60% and rolls 49. Luke doesn't need to check a Stamina roll for 3 minutes. He took the opportunity to take shelter and inject a painkiller.

PSYCHIC SURGERY, Telergy/Level 9: Asyncs with this ability can reattach recently severed or maimed limbs. The Async must perform this ability within POW minutes of the limb being maimed or severed, and must expend enough PP equal to the amount required to bring the limb back into positive HP.

- ■ Range: self or touch.
- ■ Time taken: 1 CR x HP of limb.
- ■ Cost: HP.

REGENERATE, Telergy/Level 10: Powerful Asyncs are able to use their powers grow new limbs to replace lost ones. To perform this Ability takes a long time, requiring the Async to perform this ability once per day for a number of days equal to the number of HP possessed by the missing limb.

- ■ Range: touch.
- ■ Time taken: 1 day x HP missing limb.
- ■ Cost: 10 PP x missing limb.

IMMORTALITY, Telergy/Level 11: The Async doesn't age naturally, and cannot die or suffer permanent injuries from disease, poison, or hazards. If incapacitated by disease, he automatically uses the recovery condition as if he had been treated with the appropriate medicine, although he still suffers from the disease while he recovers. If poison would kill him, it instead knocks him out for 2d6 hours.

The Async cannot be incapacitated by hunger or thirst, but any other hazard that incapacitates him results in unconsciousness rather than death, and temporary injuries rather than permanent ones. The character recovers from incapacitation exactly as he would recover from rest or sleep.

- ■ Duration: 3d6 years, can't be cumulative during that period.
- ■ Range: self.
- ■ Time taken: 1 turn.
- ■ Cost: 11 PP + 1 PP/spare year.

REVIVIFY, Telergy/Level 12: This ability allows the Async to restore a slain character to life. Characters may not be returned to life after a number of hours equal to their CON unless the body had been quick-frozen or injected with Thanokalamine TKM to preserve it. Only one attempt may be made to revive a body.

Characters returned to life by means of this ability will suffer the following penalties: an INTx5 must be rolled for each skill. If any roll is missed, that skill is ½, the previous level due to memory loss. The character will also suffer a permanent loss of one point to CON if they were dead longer than 10 hours.

- ■ Range: touch.
- ■ Time taken: 1 turn.
- ■ Cost: 12 PP + 1 PP/hour the character has been dead.
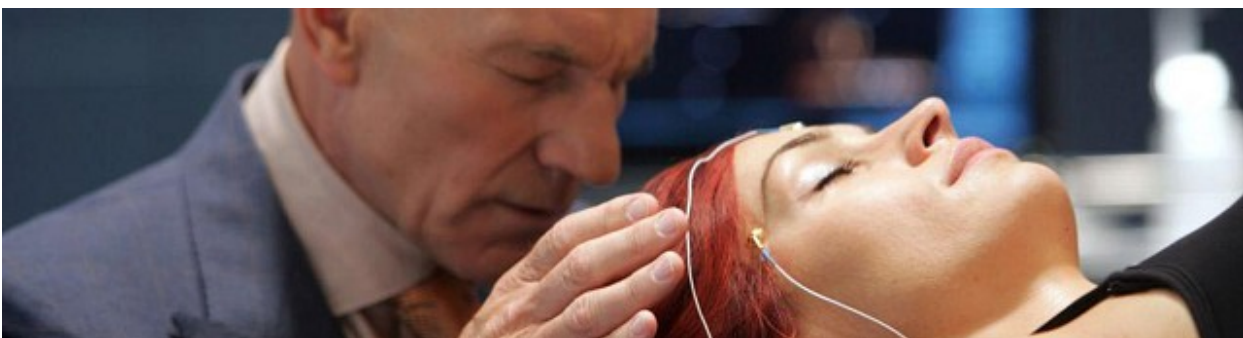
Employment

by Edward Simbalist, Phil McGregor & John Ossoway

Without experience and expertise, the PC is totally unsuited to the demanding life of a New Horizon adventurer. To acquire some experience and skill, the PC will enlist in a government or military service when he reaches the age of 18.

When the PCs actually enter the game, they will have to seek some form of employment to support themselves and to involve them in adventures. Androids and Bioroids do not enlist (see chapters 'Androids' and 'Bioroids' for details).

Initial Enlistment

A PC has a wide choice of services open to him when he begins his career. The following table determines the length of service a PC will be able to perform before he has to actively seek to remain in a particular service:

3d6	Two-Year Terms
3*	2 tours: 4 years
4-5	2 tours: 4 years
6-7	3 tours: 6 years
8-9	4 tours: 8 years
10-11	5 tours: 10 years
12-13	6 tours: 12 years
14-15	7 tours: 14 years
16	8 tours: 16 years
17	9 tours: 18 years
18	10 tours: 20 years

* PC resigns at end of tour of duty.

The PC enters the game in the final year of his last tour of duty. To re-enlist and remain in a particular service, he must roll 3d6 and attain the score indicated for enlistment. In such instances, the PC will be using the Re-enlistment Table during role-play.

Re-enlistment Table

Service	Type	3d6	Enlistment Minimum Requirements
Space Force Astronaut	Mil.	13+	STR/10+, CON/10+, SIZ/12+, DEX/12+, INT/12+, BRA/13+
Space Force Scientists	Mil.	13+	STR/10+, CON/10+, DEX/10+, INT/13+, POW/12+
Space Force Engineer	Mil.	13+	As above
Space Force Physician	Mil.	13+	As above
Space Force Tech	Mil.	13+	STR/10+, CON/10+, DEX/11+, INT/11+
Space Marine	Mil.	13+	STR/12+, CON/12+, SIZ/12+, DEX/12+, INT/10+, BRA/13+
Marine Tech	Mil.	13+	As above
Space Commando	Mil.	14+	STR/13+, CON/14+, SIZ/12+, DEX/13+, INT/10+, BRA/15+
Commando Tech	Mil.	14+	As above
BOSS Scientist	Gov.	13+	STR/10+, CON/10+, INT/11+, POW/12+
BOSS Armsman	Gov.	12+	As Space Marine
BRINT Astronaut	Mil.	13+	As Space Force Astronaut, plus POW/14+
BRINT Scientist	Mil.	13+	As Space Force Scientist, plus POW/14+
BRINT SOG Armsman	Mil.	13+	As BOSS Armsman, plus POW/14+
MiliSci Astronaut*	Para.	13+	As Space Force Astronaut, plus POW/14+
MiliSci Scientist*	Para.	14+	As Space Force Scientist, plus POW/14+

MiliSci SAD Commando*	Para.	13+	As Space Force Commando, plus POW/14+
FLEA Astronaut	Gov.	13+	As Space Force Astronaut, plus POW/11+
FLEA Scientist	Gov.	13+	As Space Force Scientist, plus POW/12+
FLEA Armsman	Gov.	13+	As Space Marine, plus POW/11+
Mercenary Astronaut**	Para.	16+	As Space Force Astronaut
Mercenary Scientist**	Para.	16+	As Space Force Scientist
Mercenary Engineer**	Para.	16+	As Space Force Engineer
Mercenary Physician	Para.	12+	As Space Force Physician
Mercenary Tech**	Para.	16+	As Commando Tech
Mercenary Armsman**	Para.	16+	As Space Commando

* Initial enlistment in MiliSci is not allowed, unless the character is an awakened psionic Adept.
**+1 per 6 years experience.

Initial enlistment in any of the services is automatic when a PC enters the game if he meets the minimum requirements for service. However, his initial enlistment still requires a 3d6 roll. If the PC fails to obtain a dice result sufficient to qualify him for service, subtract the minimum enlistment score he needed from the base 3d6 roll. This negative value represents a penalty applied against his chances at promotion in his early tours of service.

> Initial enlistment – example
>
> A PC diced Space Force Astronaut and obtained a 6 with his dice roll, a promotion penalty of 6 – 13 = –7 will occur.

Once a PC has completed his full term of initial service, he must actively seek to remain in the service or he will be discharged. This requires making a re-enlistment roll every two years. When discharged or resigned from service, the PC must choose a new career (see section 'Careers').

SPACE FORCE

The Space Force is the Space Navy. Except for Armsmen, who join the Marines or Commandos, all PC types may enlist. However, only Astronaut PCs will normally qualify for actual command of a Starship, as only they know how to navigate a vessel in interstellar space, Non-Astronauts may qualify for command rank if they are willing to expend a large number of skill points and possibly learning time once the game begins in order to acquire astronautic skills.

Interstellar Colonial Marines (ICM)

"Per Mare, Per Terrum, Per Astrum"

The Interstellar Colonial Marine Corps is the elite assault force of the Space Force. Every Starship carries a compliment of Marines for landing and boarding actions, as well as for major planetary raids and invasions. All Armsmen are trained in vacuum combat and Power Armour combat as CAP Troopers. Techs tend to be Armourers, ComTechs, and MechTechs specialising in fighting vehicles. Only Armsmen and Techs may enlist; all other services are supplied by Space Force support personnel.

Marine Techs require Armsmen pre-requisites and tend to be heavy weapon and vehicle specialists as well as 'repairmen' and specialist communicators or armourers.

Special Services Commandos (SSC)

The Space Force Commandos are an elite force within the ICM organisation which trains for deep penetration raids and prolonged operations behind enemy lines. Commandos are also dropped onto enemy-occupied planets to assist BRINT agents to mobilise resistance groups.

Commando Techs require Armsmen pre-requisites and tend to specialise in communications, armaments (armourers), and fighting vehicles.

Combat Search And Rescue (CSAR)

Often the ICM is called in for search and rescue duty because they have the fastest ships with the longest range. To meet these demands, the Combat Search and Rescue teams were formed. All ICM bases have CSAR teams on 24 hour standby, ready to be dispatched at a moment's notice to search and rescue missions in the cold depths of space or on hostile worlds

Team Size:

Varies, usually one platoon section at least.

Transport Type:

Typically a fast corvette or frigate.

Force Recon (FoRec)

Force Reconnaissance units are composed of Colonial Marines specially trained in covert insertion, reconnaissance, and surveillance tactics, and some have even received special operations training. The "Recon Marines" basic mission is to scout out the enemy and report what they find.

Team Size:

Platoon strength unit with support personnel.

Transport Type:

Typically part of a larger interstellar-capable force, the Force Recon unit usually has several Valkyrie or Loki class dropships at their disposal, in addition to ground-based scout vehicles.

Planetary Xenobiology Survey (PXS)

The first appearance of the PXS is surprisingly early on. Weyland Yutani operated their own funded teams but their selfishness of the information resulted in almost every corporation and group creating their own version of the PXS.

Survey teams are usually dispatched to newly surveyed planets or newly established colonies where alien lifeforms have been discovered. They investigate possible contamination by hostile organisms. The team is mostly science, with the military only playing a supporting role in the operation of the mission. The ships are comprised of 50% laboratories and 50% defence. The team commander is often a military scientist.

Team Size:

Total crew per ship typically up to 40 personnel. 50% are scientific staff (mostly xenobiologists). Instead of the standard one synthetic per ship, survey craft can have up to ten.

Transport Type:

One ship, typically a corvette or frigate.

Recovery And Salvage (RAS)

Disaster still strikes in the 23rd Century. Be it a result of war, famine, disease or natural disaster on a planetary scale, someone has to pick up the pieces afterwards. If the location is still deemed too dangerous for emergency services and even ColSec, then the ICM are called in. R&S is a duty no-one wants, but it is a grim reality of life in the 23rd Century.

Team Size:

Varies. Ground teams or large numbers of dropships.

Transport Type:

Varies.

Rapid Reaction Force (RRF)

Like CSAR teams, all ICM bases throughout colonised space maintain a company strength rapid reaction force that they can dispatch and deploy within a 12 hour turnaround period. Its missions include humanitarian rescue operations, the prevention of armed conflict, and even full-scale interventions to separate fighting parties.

Team Size:

Company strength unit with support personnel.

Transport Type:

Typically one destroyer accompanied by several corvettes, with a full compliment of aerospace and ground vehicles.

Marine Expeditionary Unit (MEU)

"No Mission Too Difficult, No Sacrifice Too Great."

The building block of the Colonial Marine operating forces is the Marine Expeditionary Unit, a reinforced battalion combat team designed to operate independently in areas of deep space, far from reinforcement or logistical support. The key to the MEU is its mobility and flexibility; an MEU incorporates its own dedicated starlift capacity, capable of deploying the entire unit swiftly to any troublespot planet. This starlift capacity, which varies in size according to the mission, is tasked to supply logistics for a minimum of 30 days of ground combat operations. UEAF fleet units are usually attached to the MEU to perform space control, reconnaissance and orbital bombing missions.

The line strength of an MEU is formed from three to four line infantry companies. An aerospace Drop Group and some Attack Group elements accompany the infantry complement. Each line company will usually incorporate support assets which may be attached down to the line platoons, including multiple-launch fire support mortars, anti-tank missiles and Surface-to-Air Missile systems. If sufficient starlift capacity is available, an armour company may be attached to the MEU's line strength.

The MEU is commanded by a headquarters company that co-ordinates the command, communication, intelligence and logistics functions of the unit. Attached to headquarters are a number of non-combat sub-units, including a logistics platoon, maintenance company and medical unit. Additional combat sub-units include a reconnaissance platoon, scout-sniper squad, combat engineering platoon and a heavy ordnance company which provides the battalion's heavy fire support and artillery guns, multiple launch rockets, antiballistic missile systems and ground launched space weapons.

Team Size:

With a strength of about 2,200 personnel, the MEU is normally built around a reinforced battalion, a composite aerospace squadron, and a MEU Service Support group.

Transport Type:

The MEU is deployed on four strikeships, typically destroyers.

BUREAU OF INTELLIGENCE

BRINT is the intelligence-gathering agency of the Space Force. Ranks and pay are as for Executive Officers in the Space Force, regardless of specialisation, but only Astronauts can actually command BRINT Starships. In totalitarian regimes, BRINT is the implacable foe of BOSS and delights in confounding the incursions of BOSS into military affairs. It should be noted that Space Force Commandos, Space Marines, and Space Force personnel can obtain a transfer to BRINT in any given year.

Special Operations Group (SOG)

"Sember occultus,"

The SOG is the BRINT's elite paramilitary unit. SOG is deployed to undermine the plans of the UEAF' enemies before they come to fruition. BRINT operatives can expect to perform demolition, destabilization, and extraction/rendition missions in enemy territory or operate as 'spies' and saboteurs. SOG may be required to organise and train resistance groups on planets Occupied by the enemy. It acts clandestinely in concert with special operations forces. SOG agents also keep a close watch on the Bureau of SolSys Security, whose agents are not part of

the Military Establishment and evidence over-zealous Police State mentalities which the military authorities resent and deeply suspect—especially in democratic societies.

Military Sciences Division (MiliSci)

"Deception is a right, Truth is a privilege, Innocence is a luxury."

Military Sciences Division, or MiliSci, is the branch of the UEAF responsible for the development and acquisition of new technologies for use by the military. MiliSci controls billions of euro-dollars' worth of black-budget personnel, vehicles and facilities. Literally nothing terrestrial (or in near orbit) is beyond its reach.

Many subdivisions exist in MiliSci, ranging from lower echelon black projects to the super-black branch known as the Black Chamber. The first rule is no one must know. All the work of MiliSci is off the books. This means those at the agent's job must not know, their family cannot know, everything they do must remain secret. It is beyond some security clearance. A single truth this big can destroy the very thing MiliSci fights for.

The Black Chamber is the descendant of Majestic 12 and does not officially exist. The 'agency' is in charge of all research and development involving the occult and/or alien technology. The division specializes in the recovery and reverse-engineering of technology from ETI. Its predecessor has been suppressing and covering up evidence of intelligent alien life ever since the Roswell crash of 1947. Their methods have not changed much down through the years. This can mean anything, from recovering crash debris, to silencing witnesses, to spreading disinformation, and so on...

Usually the Black Chamber only recruits people who have had some kind of paranormal experience or who have encountered evidence of things or events beyond the explanation of conventional science. Recruiters for the Black Chamber do not attempt to convince a potential recruit of the existence of the paranormal, no matter what evidence may be at hand; Black Chamber's leaders strongly believe that an individual must first make a personal commitment to belief in the paranormal before he is ready for recruitment into the organization.

The recruit is then given a highly edited version of MiliSci history and an explanation of its mission: to maintain the security of the UEF from paranormal and ETI threats, and to gather intelligence on paranormal and ETI phenomena. By the time the new MiliSci agent has passed on Top-Secret information, misappropriated UEF government funds and equipment, and deliberately falsified or destroyed government reports to cover up his involvement in these highly questionable activities. He is subject to all manner of federation prosecution if these facts are ever discovered. The threat of prosecution is not held over the agent, unless it has to be; the agent is never threatened with assassination, but it is an option. Usually most MiliSci members understand that the threats they face are worth the cover-ups that go along with the work.

Military Sciences Special Activities Division (SAD)

"Nos dimittere ac tenebras."

MiliSci have their own security force – the MiliSci Special Activities Division – who are essentially an elite paramilitary force. While the Bureau of SolSys Security combats crime of a mundane nature, the Special Activities Division heads straight beyond the pale. When cults manage to do something really scary, when a dark god is in danger of poking its head into our dimensions, when realities blur and shift, when people very oddly and very mysteriously disappear, when monsters walk hidden within society, the SAD steps in to sort it out. Any crime or unusual occurrence that points to the occult or otherworldly dark powers beyond what men know is the jurisdiction of Special Activities Division.

Nearly every field agent and investigator within the SAD is mystically gifted in some way, either a Sorcerer or an Async. With the sort of threats SAD faces, those that have a command of some kind of supernatural power stand a much better chance of success and survival. However, SAD duty is dangerous, as one might expect. Many agents are killed in action, horribly. An unfortunately high percentage of new recruits perish during their first few assignments in the field.

Death is not the only thing agents need fear. Special Activities Division agents play in the dark end of the street and immerse themselves in the Forbidden Science. It can become easy for them to dissociate and lose their grip. Fortunately, an agent's touch with reality is carefully monitored and managed. Regular weekly psychological evaluations and counseling is a part of every agent's routine.

One of the fertile recruiting grounds of SAD is in the detainment facilities of the FLEA. Not all of those who face a life of imprisonment for violating the laws governing the Asyncs are bad eggs. Some are those who felt the registration laws of the UEF Government are unjust. Of those who won't necessarily be locked up for being true menaces to society, there are some who have the skills or abilities that speak to the duties of SAD. All charges will be dropped in exchange for a life of service in the most unusual governmental agency. Considering the benefits besides staying out of prison, most accept.

BUREAU OF SOLSYS SECURITY

BOSS is a paramilitary organisation which combines the duties of such services as MI5, the FBI, the KGB, and similar security institutions. The Bureau of SolSys Security is a powerful arm of the UEF, for it is charged with conducting counter-espionage and antisabotage investigations, suppressing revolutionary and terrorist organisations, and maintaining the security of the Solar System in general. Thus BOSS agents may be found in any government or civilian service, or in private business and industry. The Bureau is under the direct control of the Head of the UEF.

In democratic regimes, BOSS has its activities modified by due process and by the requirement that it respect citizens' rights, although it can be given sweeping powers in times of emergency. In totalitarian regimes it is a veritable Thought Police unchecked by regular laws and government channels of authority.

FEDERAL LAW ENFORCEMENT AUTHORITY

The FLEA is a paramilitary organisation very similar to the Space Force and BRINT, except that it is charged with maintaining law and order in the volume of space controlled by the UEF and concerns itself with criminal activities of an interplanetary and interstellar nature. The FLEA maintains naval quality vessels up to Fleet Cruiser displacement and armament in order to combat piracy and to patrol the spacelanes.

MERCENARY COMPANIES

The Mercenaries are fighting men who have, for the most part, been released from the regular forces. Mercenaries hire Out their services to the large interstellar corporations, to frontier planets that lack sufficient population to maintain a regular planetary defence force and need professional 'stiffening' for their Citizen militias, and to independent merchants requiring a heavy guard for voyages into pirate and enemy infested space.

The governments of most colonies regard Mercenaries with mixed feelings. Totalitarian regimes are often quite hostile and repressive, as any armed force in its territory which is not directly answerable to State Authority can become a nucleus for rebellion. More liberal regimes often encourage Mercenary activity in the frontier regions to augment their own usually overextended Space Forces. Thus, depending upon where Mercenaries are operating, they may enjoy a greater or lesser degree of cooperation from the regular military. Since many Mercenaries are veterans, liberal military establishments often allow Mercenary commanders to purchase arms and war material as 'surplus' equipment at respectable discounts, so long as the particular commander's activities have met with tacit approval of the military authorities.

Depending on the type of duty contracted. Mercenaries are paid at a percentage of Space Force salary scale. Mercenaries are expected to provide their own weapons and equipment, as required, but ammunition and rations are provided by the contracting party:

- Mercenary garrison duty: 100% of Space Force salary for rank/grade equivalent. Duties include routine guard and security work, training of native troops, etc.

- Mercenary war service: 150% of Space Force salary for rank/grade equivalent. Duties include all phases of warfare. Any Mercenaries on garrison duty who are called upon to fight trained troops automatically go on war pay on a daily basis until the emergency is over. Quelling civil disturbances, etc., does not qualify as war service unless the rebellion exceeds 30 days' duration.

- Personal bodyguard duty: 125% of Space Force salary for rank/grade equivalent.

Mercenary Companies are hired at double the individual rates. All arms, equipment, and fighting vehicles are provided by the Mercenary unit, but any losses in heavy equipment are to be split equally between the Mercenary Company and the contracting party, based on retail prices. Since many Mercenaries can obtain equipment as 'surplus' at a discount, a fairly minimal expense is usually involved when losses occur and sometimes even a small profit is turned. Some Mercenary organisations even have warships (usually StarFighters, Corvettes, Destroyers, or Light Cruisers) for hire at 25% of cost per year, including salaries and operating expenses. Repairs to such vessels are borne by the contracting party if battle damage occurs, but actual loss is borne by the Mercenaries.

Ranks and Promotions

All promotions are based on successful Luck roll, made every two years at the end of a tour of duty. The PC receives a +5% Bonus for each personal characteristics 3 points above the minimum requirements for service.

If a PC receives a promotion in his final tour of duty before possible release from the service, he may serve another two-year term without having to roll for re-enlistment.

Field promotions may also be awarded for particularly hazardous duty carried out with valour. Such promotions will occur only during role play and are received at the Game Master's discretion upon a successful Luck roll – 5% x rank, at the conclusion of a successful mission. The higher the PC's rank, the less chance he should have at such promotions, as courage beyond the normal call of duty is expected of officers of high rank.

Military Ranks Table

Rank	Astronauts	Scientists & Engineers	Physicians	Technicians	Space Marine Corps	Pay/Month (E)
0	—	—	MediTech/4	Tech/3	StarTrooper	1300
1	—	—	MediTech/3	Tech/2	CAP Trooper	1600
2	Cadet/2	Cadet/2	MediTech/2	Tech/1	Corporal	1900
3	Cadet/1	Cadet/1	MediTech/1	Petty Officer	Sergeant	2100
4	Ensign	Ensign	Cadet	Chief P.O.	Fleet Sgt.	2500
5	Lieutenant	Lieutenant	Ensign	Warrant Off.	Cadet	3000
6	Lt. Commander	Science Off./4	Lieutenant	Lieutenant	Lieutenant	3500
7	Commander	Science Off./3	Med. Off./5	Tech. Off./4	Captain	4200
8	Cruiser Captain	Science Off./2	Med. Off./4	Tech. Off./3	Major	4500
9	Captain	Science Officer	Med. Off./3	Tech. Off./2	Colonel	6000
10	Commodore	Starship Scientist	Med. Off./2	Tech. Off./1	Brigadier	8000
11	Admiral	Admiral	Med. Off./1	—	General	10 000
12	Fleet Admiral	—	Admiral	—	Fleet General	12 000
13	Admiral-General	—	—	—	Sky Marshal	15 000

A (—) signifies that no rank exists at that grade. PCs entering the Science Branch, or Engineering branch begin at Cadet rank/2.

Government & Paramilitary Organizations Ranks Table

Rank	BOSS	BRINT SOG	BRINT MiliSci	Assault Force & SAD	FLEA	Pay/Month (E)
0	Special Agent/5	Agent/5	—	Star Trooper	Cadet/2	1300
1	Special Agent/4	Agent/4	—	CAP Trooper	Cadet/1	1600
2	Special Agent/3	Agent/3	Agent/2	Section Leader	Officer	1900
3	Special Agent/2	Agent/2	Agent/1	Sr. Sec. Leader	Sergeant	2100
4	Special Agent/1	Agent/1	Special Agent/2	Group Sergeant	Sub-Lieutenant	2500

5	Chief Analyst	Lieutenant/2	Special Agent/1	Group Leader	Lieutenant	3000
6	Specialist Manager	Lieutenant/1	Investigator	Troop Leader	Inspector	3500
7	Ops Manager	Captain	Analyst	Force Leader	Chief Inspector	4200
8	HQ Manager/3	Major	Chief Analyst	Wing Leader	Captain	4500
9	HQ Manager/2	Colonel	Specialist Analyst	Commandant	Asst. Co-ordinator	6000
10	HQ Manager/1	General	Specialist Ops	Strike Commander	Co-ordinator	8000
11	Manager	Asst. Director	Manager		Deputy Director	10 000
12	Asst. Director	Deputy Director	Asst. Director		Director	12 000
13	Director	Director	Director		—	15 000
14	PM of Security	PM of Defence	PM of Defence		—	

Careers

If the character do not re-enlist, the player chooses from one of the below character classes. In the society of the 23rd Century, males and females are treated equal in all possible respects. Your adventurer's occupation determines the skills they are most proficient with, their income level, and who they are likely to know. An occupation also, in part, helps define the adventurer's character, their motivations, and view of the world around them.

ACADEMIC

"That is not dead which can eternal lie, And with strange aeons even death may die."

"mad poet" Abdul Alhazred – Kitab al-Azif

This profession covers both those individuals involved in teaching or those involved in postgraduate study and research at a university or college. Postgraduate students usually perform administrative work for the faculty staff, working as research assistants.

Occupation Skills:

Administration, Computer (Operation), Data Analysis, and any three from: Astronomy, Law, History, Natural History, Occult, Psychology, Read Other Language, Religion, Science (specify).

Background:

Accommodation at a college or university campus; Teacher earns E$20,000 pa salary; Postgraduate E$15,000 pa salary; Savings of E$1000x1d10; personal equipment related to profession.

ANDROID

"You're a thing, a construct. They grew you in a fucking lab."

Annalee Call – Engineering Assistant

Running a Fifth Generation Android (Auton) character in a campaign is allowable only at the Game Master's discretion. See the section details generating and playing Android player characters.

ARMSMAN PMC

"There are no dangerous weapons; there are only dangerous men."

Robert A. Heinlein — Starship Troopers

An Armsman is an archetypal warrior, the Universal Soldier. But he is more than mere 'cannon fodder' to be fed into the jaws of death as were soldiers of less advanced eras. The Armsman is a superbly professional soldier, thoroughly trained and disciplined, a person physically and temperamentally suited to meeting the stresses and challenges of warfare and close combat in a manner rarely witnessed in the present day. Examples of Armsmen characters can be seen in such SF works in Heinlein's Starship Trooper or Haldeman's Forever War. His vocation is more than just straight out fighting; it

includes mastery of the many technical aspects of advanced warfare as well. His skill with a vast range of weapons systems, military equipment, and combat tactics will appear almost 'heroic' in scope once he is a veteran of long service. He will also be able to acquire skill in areas outside his specialty, as would any reasonably competent person in a culture with efficient educational techniques and learning aides (computerised and others,) but it is ever at the art and science of war that he shines.

Private Military Contractors are usually ex United Earth Armed Forces now in the employ of a corporation or a member of a private mercenary unit.

Occupation Skills:

Armoury, Dodge, First Aid, Gun Combat (Rifle), Hide, Listen, Survival, Tactics, Low/Zero Gravity Operations.

Background:

E$1000x1d20 savings; personal items related to profession.

ASTEROID PROSPECTOR

> *"Her bones were like chalk from spending a lifetime in zero-g... An impossible burden for a dirt-poor family of rock-hoppers."*
>
> *Anderson Dawes – Belter prospector*

Asteroid prospectors/miners have a dangerous and potential lucrative career exploring and mining asteroids and other small bodies in space. They are similar in some ways to the prospectors of old in that they tend to be ambitious and self reliant. Unlike their historical predecessors, they need to possess technical skills in order to even survive the challenges of their occupation.

Occupation Skills:

Electrical Repair, Electronics, Low/Zero Gravity Operations, Low Gravity Mining, Mechanical Repair, Navigate, Operate Heavy Machinery, Planetology.

Background:

E$1000x1d20 savings; personal items related to profession.

ASTROGATOR

> *"Newton's third law. You gotta leave something behind.'*
>
> *Joseph Cooper – Astrogator*

The stars are the limit, and they are limitless. An Astrogator may plot an interplanetary course with accuracy. But, since the invention of AI in the mid-22nd Century, the majority of interplanetary and interstellar space vessels have become almost completely automated, only requiring human pilots for delicate maneuvers like orbital insertion and docking. The advent of newer and faster FTL drives has also significantly shortened the travel time between worlds, ensuring that starship crews don't have to spend nearly as much time in stasis. Most companies compensate their crews not only for their work but for time lost in hypersleep as well.

Occupation Skills:

Astronomy, Computer (Operation), Data Analysis, Electronics (Communications, Systems), EVA, Pilot (Spacecraft), Low/Zero Gravity Operations.

Background:

If employed salary is E$10,000 +(1d10x1000) pa; E$1000x1d4 savings; current ICC license; personal items related to profession.

ASTRONAUT — PILOT

> *"The thing's hollow—it goes on forever—and—oh my God!—it's full of stars!"*
>
> *David Bowman – mission commander of the Discovery 1*

Aerospace Pilots are trained to operate a variety of suborbital vehicles ranging from small shuttlecraft to heavy duty cargo carriers to high-tech military craft. There's always something that needs flying — and some aerospace-stunt that

only you can pull off. You aren't in this for the money, although it doesn't hurt. You're a thrill-seeker and an adrenaline junkie.

Occupation Skills:

Astronomy, Computer (Operation), Electronics (Communications, Systems), Low/Zero Gravity Operations, Pilot (Aerospace), Scan.

Background:

If employed salary is E$10,000 +(1d10x1000) pa; E$1000x1d4 savings; current ICC license; personal items related to profession.

BIOROID

> *"You newer models are happy scraping the shit... because you've never seen a miracle. "*
>
> *Sapper Morton – N8PSD32974*

Running a Nexus-8 or Nexus-9 character in a campaign is allowable only at the Game Master's discretion. See the section details generating and playing Bioroid player characters.

BLADE RUNNER

> *"Christ, Deckard. You look almost as bad as that skin-job you left on the sidewalk."*
>
> *Harry Bryant – captain of the Rep-Detect LAPD*

Blade Runner is the term used to refer to members of the "Retirement Division" of the FLEA. The main purpose of a Blade Runner is to identify, hunt and eliminate Autons and Replicants who have arrived on Earth illegally, referred to as "retiring" them. They are bounty hunters with all the powers of a police crimetech.

A Blade Runner is skilled in psychology and a specialist in the placement of electronic bugging devices, the discovery and analysis of evidence, and the detection of forged or altered documents, etc.

Occupation Skills:

Computer (Operation), Data Analysis, Dodge, Fast Talk, First Aid, Gun Combat (Hand Gun), Hide, Insight, Law, Listen, Stealth, Streetwise.

Background:

E$1500x1d10 savings; Blade Runner's license; 2x police contacts (Game Master's discretion); personal items related to profession; rented accommodation.

BODY GUARD

> *"The people who hire me, they don't have to be convinced to save their own lives."*
>
> *Frank Farmer – former Secret Service agent*

A bodyguard (or close protection officer) is a type of security guard, or government law enforcement officer, or soldier who protects a person or a group of people—usually high-ranking public officials or officers, wealthy people, and celebrities—from danger: generally theft, assault, kidnapping, assassination, harassment, loss of confidential information, threats, or other criminal offences. The personnel team that protects a VIP is often referred to as the VIP's security detail.

Occupation Skills:

Alertness, Computer Operation, Dodge, Fast Talk, First Aid, Gun Combat (Hand Gun), Hide, Insight, Law, Listen, Stealth, Streetwise.

Background:

E$2000x1d10 savings; criminal, business, or law enforcement contacts (Game Master's discretion); personal items related to profession.

COLONIAL MARSHAL

> *"I'd like a report of all these incidents that have happened in last six months. I'd like it really soon. Or I might just kick your nasty ass all over this room. That's a marshal joke."*
>
> *William T. O'Neil – Colonial Marshal*

Policing in the 23rd Century is handled by the Federal Law Enforcement Authority. From their headquarters on Earth, and via many local stations throughout the Federal Colonies, Federal police officers have the unenviable task of tackling crime over interstellar distances. Most law enforcement officers on the Frontier are firmly planted deep in the back pocket of one company or another—but not you. You don't take bribes and you never look the other way. You've made a lot of enemies on both sides of the law, but your colony has the lowest crime rate in the system. It's only a matter of time before you piss off the wrong CEO and corporate sends someone to take care of you, but that's okay. You'll be ready.

Occupation Skills:

Computer (Operation), Data Analysis, Dodge, First Aid, Gun Combat (Hand Gun), Hide, Law, Listen, Streetwise.

Background:

E$15,000pa salary; 2x police contacts (GM's discretion); E$1000x1d4 savings; personal items related to profession; rented accommodation.

See the 'New Horizon Sourcebook' for details.

COMPUTER SPECIALIST

> *"A bug is never just a mistake. It represents something bigger. An error of thinking that makes you who you are."*
>
> *Elliot Alderson – senior network engineer*

Without highly skilled men and women to design, program, and troubleshoot the complex computer systems of the future, life in the 23rd Century would be far more difficult, if not impossible. Computer Specialists are usually employed by a company's IT division, though many prefer to move from contract to contract on a freelance basis.

Occupation Skills:

Computer (Operation, Programming, Security), Data Analysis, and any two other skills as personal specialties.

Background:

Rented 1 bedroom apartment; E$1000x1d20 savings; personal equipment related to profession.

COMTECH

A 'ComTech' is a highly skilled Technician whose personal characteristics and temperament are oriented toward operating, maintaining, repairing, and even constructing various types of electronic equipment and devices. While he is no engineer, a ComTech can usually field strip a squawk box, replace its parts and have it back together in the dead of night using only his sense of smell.

Occupation Skills:

Electronics (Communications, Security, Systems), Data Analysis, and any two other skills as personal specialties.

Background:

Rented 1 bedroom apartment; E$1000x1d20 savings; personal equipment related to profession.

COMPANY REP

> *"Good morning. For those of you I hired personally... it's nice to see you again. For the rest of you, I am Meredith Vickers, and it's my job to make sure you do yours."*
>
> *Meredith Vickers – Weyland Corp representative*

Corporations have more power than governments on the Frontier. They own worlds, set up shop, and bring in the colonists, creating homes and jobs. From CEOs to field agents, each company sends out its own representatives to

oversee their business ventures. Companies like Weyland-Yutani have been known to employ their own commando security teams, doctors, and scientists as well.

Also, there is big business in knowing your competitors' next move—so many corporations have their own counterintelligence personnel embedded in rival companies and governments. Being a company rep is all about the art of the deal and making sure the little people around you do their jobs so that you can make your next promotion.

Occupation Skills:

Bribery, Seduction, Administration, Law, Data analysis, Insight.

Background:

Rented 1 bedroom apartment; E$10000x1d10 savings.

CRIMINAL

> *"If you're looking for money, you're smarter than you look. If you're not, you're a lot dumber."*
>
> *Mark Sheppard – Station Manager*

With Law Enforcement techniques as advanced as they are in the 23rd Century, criminals in the future have to be highly skilled professionals not only to be successful, but to avoid capture and incarceration. This class does not cover violent criminals like murderers and rapists, instead covering white collar criminals, forgers, con-artists, cyber-criminals and thieves.

Occupation Skills:

Bargain, Hide, Stealth, Drive and choose any six of the following as appropriate to setting and racket: Appraise, Brawl, Climb, Fast Talk, Fine Manipulation, Firearm (any), Gaming, Grapple, Insight, Jump, Law, Listen, Martial Arts, Melee Weapon (any, usually knives), Persuade, Spot, Throw.

Background:

Forged identification; E$1000x1d4 personal equipment; 2x underworld contacts (Game Master's discretion).

DRIFTER

> *"If you want the ultimate, you've got to be willing to pay the ultimate price. It's not tragic to die doing what you love."*
>
> *Bohdi – Sea surfer*

For whatever reason, a Drifter has chosen to drop out of accepted society, and wanders the space lanes, working their passage at various jobs, traveling from colony to colony. The drifter takes jobs, sometimes for days or months, however he is disposed to solve problems with the answer of mobility and isolation, not comfort and intimacy.

Occupation Skills:

Bargain, First Aid, Hide, Listen, Psychology, Sneak, Survival, Low/Zero Gravity Operations.

Background:

E$100x1d10 personal equipment.

ENGINEER, SPACE

> *"If the oxygenator breaks down, I'll suffocate. If the water reclaimer breaks down, I'll die of thirst. If the Hab beaches, I'll just kind of implode."*
>
> *Mark Watney – Xenobotanist*

Space Engineers are responsible for the design, construction, and maintenance of space stations and space vessels. The orbital engineer's life is a difficult one and is often short as accidents are not uncommon in the harsh and unforgiving environment of space.

Occupation Skills:

Science (Chemistry, Physics), Computer (Operation), Electronics (Systems), Data Analysis, EVA, Mechanical, and one Space Engineering skill as a specialisation.

Background:

E$30,000pa salary; E$1000x1d4 savings; personal equipment related to profession.

ENGINEER, PLANETARY

> *"Terraformers… planet engineers. It's what we call a shake 'n' bake colony. They set up atmosphere processors to make the air breathable… big job."*
>
> *Paul Van Leuwen – chairman of the ICA Commission tribunal*

Terraforming a planet or a moon is the process of deliberately modifying its atmosphere, temperature, surface topography or ecology to be similar to the environment of Earth to make it habitable. Planetary Engineers are essential to the continued existence and growth of colonies. The colonial engineers keep the existing systems operational and continue to produce new equipment, habitats, and vehicles.

Occupation Skills:

Science (Chemistry, Geology, Physics), Computer (Operation), Electronics (Systems), Data Analysis, Mechanical (Vehicle), and one Planetary Engineering skill as a specialty.

Background:

E$30,000pa salary; E$1000x1d4 savings; personal equipment related to profession.

FIELD MEDIC

> *"The enemy can not press a button... if you have disabled his hand. Medic!"*
>
> *Sergeant Zim Midas Fury – drill instructor in the Mobile Infantry*

Field medics with the Mobile Infantry have an unenviable job; they are the professionals trained in the medical arts that have to try and patch troopers up from the ills of an uncaring and hostile universe. From radiation burns to impalements, any injury must be treated quickly to prevent infection and get troopers up and on their feet as quickly as possible. In the Mobile Infantry, everyone fights including field medics, but every member of a squad trusts that their lives are in the capable hands of their squad's 'doc'. If anyone can pull them through, it is him.

Field medics are trained to work very quickly on the battlefield, bringing wounded or dying patients around with stimulants and wound closing chemicals long enough to get them to somewhere they can be treated properly and safely.

Occupation Skills:

Alertness, Medicine, Data Analysis, First Aid, and one Survival skill as a specialty.

Background:

E$1000x1d10 savings; personal equipment related to profession.

GENE-HACKER

> *"You still don't understand what you're dealing with, do you? Perfect. Organism. Its structural perfection is matched only by its hostility."*
>
> *Ash – science officer aboard the commercial towing vehicle USCSS Nostromo*

Though the term is now used more broadly, Gene-Hacker is the name which was originally given to the scientists working in the colonies specialising in genetics, the science of heredity and variation of organisms. Gene-Hackers are usually employed by one of a small niche group of cutting edge R&D companies.

Occupation Skills:

Instruction, Speak Other Language, Administration, Computer (Operation), Status, Data Analysis, History, Medical (First Aid, Medicine), Pharmacy, Read/Write Other Language, Sciences (Biology, Chemistry, plus one from: Medical Genetics, Biotechnology, Forensics), Vacc Suit, Spot.

Background:

E$50,000pa salary from biotech company, rented accommodation, E$4d6x1000 in company share options, personal equipment related to profession.

HACKER

"This is the code. This section right here, it looks incomplete. He's still writing."

Nicholas Hathaway – Blackhat

Whether individuals who are genuinely interested in exploring new technologies and seeking ways to break them in order to make them better, hacktivists who utilize the net in order to undermine the power of authorities, or "black hats" who seek to circumvent network security for malicious or criminal intent, hackers are a permanent fixture of the net. What they had in common was mainly love of excellence and programming. They wanted to make their programs that they used be as good as they could. They also wanted to make them do neat things.

Occupation Skills:

Computer (Operation, Programming, Security), Data Analysis, Electronics (Communications, ECM, Systems) and any two other skills as personal specialties.

Background:

Rented 1 bedroom apartment; E$1000x1d20 savings; personal equipment related to profession.

INTELLIGENCE AGENT

"Sometimes the only sane answer to an insane world is insanity."

Fox Mulder – Special Agent

Information is a key element to winning every conflict. Intelligence Agents have one of the hardest and most nerve-wracking jobs – they have to gather information about the UEF's mysterious and alien enemies. Some are analysts who decipher and correlate piles of information. Others gather data as scouts, braving new and unfamiliar territory. Some are surveillance teams sent with an array of electronic gadgets to record the enemy at work. Others are spies who go deep undercover to infiltrate corporations or sects. Still others work in counter-espionage to root out spies within their own organizations.

An exciting part of intelligence is psychological operations or psy-ops for short. Psy-ops deal with figuring out how your enemy thinks and using psychology against him or it. It's about confusion, disinformation, and demoralization, among other things. But the intelligence game isn't just about gathering, analyzing, protecting, disseminating, and distorting information. It's also about the dirty jobs no one wants to talk about. Whether it's drug running for money, assassination, or other black ops, it's the intelligence community that often has to deal with it – while keeping it quiet and making sure that officials remain in the realm of "plausible deniability."

Occupation Skills:

Computer (Operation, Security), Data Analysis, Bureaucracy, Dodge, Stealth, Streetwise.

Background:

E$15,000pa salary; E$1000x1d4 savings; 1x administration contact (GM's discretion); personal items related to profession.

JOURNALIST

"Do you know what fear stands for? False Evidence Appearing Real."

Louis "Lou" Bloom – freelance cameraman

The Federal Network carries it's own news channels as well as scores of others. Journalists are usually employed by either Federal Network News (FNN) or by one of it's independent rivals, though some prefer to move from contract to contract on a freelance basis. The vast majority of news is delivered electronically, directly. The "daily me" concept of multi-sectioned electronic publishing with information and advertising tailored to each individual's needs is an everyday reality in the 23rd Century.

Occupation Skills:

Computer (Operation), Data Analysis, Fast Talk, Read/Write Other Language, Streetwise, and three of the following as appropriate to setting and concept: Disguise, Hide, Status, Stealth, Insight, Listen, Persuade, Research or Spot.

Background:

E$15,000pa salary; E$1000x1d4 savings; 2x media contacts (GM's discretion); personal items related to profession; small apartment.

PARAPSYCHOLOGIST

> *"I was not content to believe in a personal devil and serve him, in the ordinary sense of the word. I wanted to get hold of him personally and become his chief of staff."*

Aleister Crowley – occultist

Parapsychologists are well-learned academics, particularly versed in all things supernatural and hidden. However, their main area of specialization and the thing that makes them so valued is their knowledge of the occult itself. Parapsychologists are found as pundits, authors, professors, occult investigators, or the guy who runs the coffee shop down the street. A true understanding of the occult comes with a price. Many hidden things are beyond the capacity of the Human psyche to comprehend – in a word, they're maddening. Parapsychologists are sometimes consumed by their pursuits. There is an unwritten code among scholars to watch out for each other's grip on reality and they are often unafraid to commit a colleague who has clearly gone too far.

Occupation Skills:

Data Analysis, History, Languages, Occult, Psychology and any two other skills as personal specialties.

Background:

Rented 1 bedroom apartment; E$1000x1d10 savings; 1x underworld contact (Game Master's discretion).

PHYSICIANS

> *"Philosophy failed. Religion failed. Now it's time for medical science to try."*

Nelson Wright – medical student

The Physician is a practical scientist trained in the diagnosis and chemical/biochemical/radiological/surgical treatment of disease and injury.

The Physician's facilities are amongst the most sophisticated to be found, even aboard a Starship, excepting perhaps the Bridge and the Power Deck. He has at his disposal a battery of fully or partially computerised data systems, life-support systems surgical equipment, and biological laboratory, utilising the latest in laser, radiation, chemical, and electronic technology.

At Medicine/4, the Physician becomes a doctor in the full sense of the word. He can now treat wounds and other physical injuries with great skill, literally 'repairing' biological organisms in much the same way that an Engineer or Tech repairs a piece of damaged equipment.

He can also perform first-aid, diagnosis of known diseases and medical treatment. The Physician can perform surgical 'repairs' and restore 1 HP of damage x expertise level per hour to a maximum of a half of a victim's Hit Points. If the damage is more than 1/2 of the victim's damage factor, all the Physician can do is keep the patient alive and let him mend naturally.

Occupation Skills:

Status, Computer (Operation), Data Analysis, First Aid, Pharmacy, Psychoanalysis, Psychology, Science (Biology), Medicine.

Background:

Rented 2 bedroom apartment; E$40,000pa salary; E$1000x1d100 savings (10% liquid, rest in shares and stocks or property); personal equipment related to profession.

POWER TECH

> *"What do you mean, 'They cut the power'? How could they cut the power, man? They're animals!"*
>
> *Private William Hudson*

The Power Tech is a specialist in the repair and maintainance of all power generation and high-voltage switching and delivery systems. He is also a specialist in the repair and maintainance of all propulsion systems associated with sub-light spacecraft and Starships.

Occupation Skills:

Computer (Operation), Data Analysis, Electronics (Systems), Hyper—Dimensional Physics, Physics, Stardrive Engineering.

Background:

E$20,000pa salary; E$1000x1d4 savings; personal items related to profession.

PRIVATE INVESTIGATOR

> *"I gotta case to solve and you want the truth..."*
>
> *Josephus "Joe" Aloisius Miller – detective*

There is still a healthy customer base for the 23rd Century Private Investigator, whether contracted to corporations or hired by private citizens. Most PI's are ex police. They are specialist in the placement and detection of all manner of electronic bugging devices, the operation of communication and jamming equipment, the discovery and analysis of evidence, and the detection of forged or altered documents, counterfeit currency, etc.

Occupation Skills:

Communication Systems, Computer (Operation), Data Analysis, Detection Systems, ECM Systems, Fast Talk, Forgery, Gun Combat (Hand Gun), Hide, Law, Listen, Streetwise.

Background:

E$1000x1d10 savings; private investigator's license; rented accommodation and if self employed, a small office with 1 member of staff; personal items related to profession.

PSYCHIC: METAPOL

> *"Darkness is your friend. Whatever you do, don't turn on the lights."*
>
> *Carl Jenkins – Async Telepath*

Attached to the Federal Law Enforcement Authority, MetaPol, or the Metasensory Police, is mainly made up of telepaths and precogs, who use their powers to interrogate those who have committed crimes against the Federation, or to predict the outcome of certain events.

Occupation Skills:

Computer (Operation), Data Analysis, Fast Talk, First Aid, Gun Combat (Hand Gun); Law, Psychology, Streetwise. For Psionic Abilities, see the section 'Psionic Talents'.

Background:

E$15,000pa salary; psychic registration card; 2x police contacts (GM's discretion); E$1000x1d4 savings; personal items related to profession; rented accommodation.

SCIENTIST

> *"I created the Event Horizon to reach the stars, but she's gone much, much farther than that. She tore a hole in our universe, a gateway to another dimension. A dimension of pure chaos. Pure... evil."*
>
> *Dr. William 'Billy' Weir – designer of the Event Horizon*

Every day, new pieces to the puzzle of existence are found on the Frontier. Figuring out what makes them fit together could leap humanity over nature's next hurdle. Scientists are usually in the employ of, or work for projects funded by, one

of the megacorporations. Whether their field is AI, xenobiology, genetics, astrophysics, robotics, or even archaeology, there are countless treasures in space, just waiting for someone to trip over the next asteroid and run right into them.

Occupation Skills:

Computer (Operation), Data Analysis, Science (3 fields at expertise level/3, 3 fields at expertise level/2) and one Science skill as a specialization.

Background:

Accommodation in private corporate compound; E$40,000pa salary; E$1000x1d4 in company share options; personal equipment related to profession.
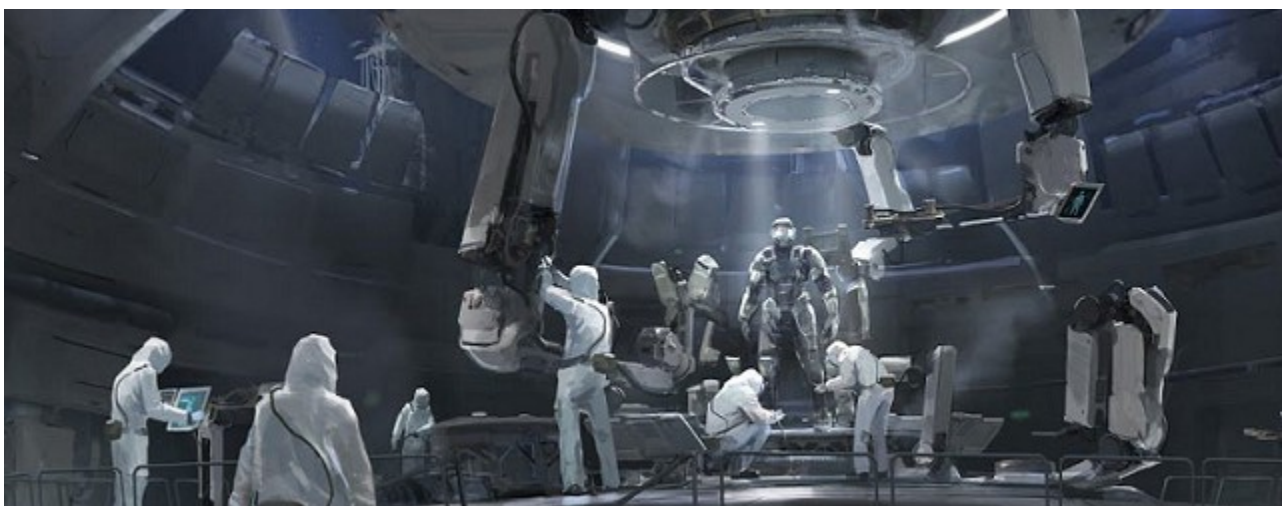
It is assumed that all Scientists have acquired the foundations needed to perform routine and original research in their fields of expertise. That is, all Scientists will have a firm grasp of statistical analysis, computer operation for purposes of setting up scientific research programs, and skill with the appropriate laboratory and field equipment needed to conduct observations and perform experiments.

Routine gathering and analysis of data is a simple matter. Most basic observations will be made, and conclusions drawn, within minutes or perhaps a few hours at most. More extensive scientific research can be a relatively simple and direct procedure, or it can be complex and difficult.

Also, the number of sciences coming to bear in the problem should be decided. In most routine situations, only one science will be involved. The same is true of a fair number of basic research situations. However, some problems will require the application of several sciences to obtain the maximum chance of success. One science will always be designated as 'major' or the most important, but up to six others might prove of value in improving the researcher's chances of solving the probe.

The time factor involved in research is highly variable. Single science problems will generally take 1 day x expertise level of complexity, but complex problems can take weeks or even months before there is a chance of an 'answer.' The following table gives the approximate time scales in days that will apply in most instances. The Game Master has the discretion to modify the research time periods slightly upward or downward.

Nature of Scientific Problem	Expertise level of problem complexity				
	1	**2**	**3**	**4**	**5**
Single Science	1-2	3	4	5	6
Two Sciences	5	6	8	10	12
Three Sciences	10	10	15	25	25
Four Sciences	16	18	25	40	60
Five Sciences	22	30	40	55	75
Six Sciences	26	40	50	65	85
Seven Sciences	55	70	90	110	130

A skill roll is needed for each field. If a failure occurs in the research, the experimentation and inquiry may be repeated from the beginning.

Success means that the problem is solved and the information is now understood in the light of a working scientific hypothesis. To a degree, the knowledge and fairness of the Game Master is essential to the proper use of the Scientific Research procedure.

Routine operations and procedures are almost always at a single science level, at complexity/1, with a maximum research and analysis period of 2 days. The time often is only a few minutes or hours. For instance, a Science Officer is making an atmospheric analysis, requiring Chemistry skill. A complete read-out on the atmosphere is accomplished by the 'research' procedure. A failure in such an instance will mean that most of the data is essentially correct.

However, the Science Officer may have missed something which allows the Game Master to introduce a few 'surprises to the personnel assigned to landing. The time required for such an analysis, using advanced technology, would be under an hour.

Of course, no micro-organism data will be available such analysis would be a two-science problem at least, involving Biochemistry and Xeno-Zoology and perhaps Xeno-Botany. An Ecology expertise could reduce the analysis to a single-science problem, Such an analysis might require several days to as much as a week. Even then, without Xeno-Medicine, harmful organisms might not be detected. It could also be that such an analysis could be of higher complexity if an exhaustive survey was required.

It is clear that no problem will be closed to the determined scientist who has the skill to undertake the research and the patience to expend the time to do it, However, the Game Master can set a 'multiple' complexity problem, particularly in the case of very advanced equipment or highly significant pure research, requiring a whole series of research steps to be successfully performed before any real 'answers' are forthcoming. For instance, if a character announced that he wanted to do pure research to develop a matter transmitter, it would not be untoward to call it a 7 science problem and assign it a complexity of 5 with 49 separate steps to be performed before the theoretical knowledge is available to be turned over to the Engineers, who would have their own problem set next, namely, how to build the damn thing?

SEPARATIST

> *"With the rise of selfawareness, all separatisms cease to exist – all delusions cease to exist."*
>
> *Kuato*

Separatists are citizens born and raised in the colonies, who are supporters of the Colonial Independence movement, outlawed by the ICA during the Colonial Wars (2258-60). Though separatist support is still high in some regions of the Outer Rim Territories, the leaders of the movement have had to go underground, to avoid arrest and transportation to a Federal Re-education Centre.

Occupation Skills:

Computer (Operation), Data Analysis, Fast Talk, History, Streetwise, and any two other skills as personal specialties.

Background:

Personal items related to profession.

SNIPER

> *"You pull that trigger, and you're going to break something inside of yourself that'll never get fixed again."*
>
> *Henry Brogan – ex Space Marine Scout Sniper*

Snipers are not front line troopers. Instead, they are Stealth Assault Suit experts with enough skill behind the trigger to core an apple at 400 meters and hit the head of an enemy at twice that range. They are masters of the impossible shot and the hidden warriors that regularly take out targets other troopers never even see. Snipers are specially trained to hit their targets and only their targets, practising for hours on courses that interfere with their concentration by springing innocents and obstructions between their weapon and the recipient of their deadly skills.

Occupation Skills:

Alertness, Orientation, Recon, First Aid, Hide, Stealth, Rifle and one Survival skill as a specialty.

Background:

E$1000x1d10 savings; personal equipment related to profession.

SPACE MARINE

> *"These Colonial Marines are very tough hombres. They're packing state-of-the-art firepower, there's nothing they can't handle."*
>
> *Carter Burke – Weyland-Yutani Corp. Special Projects Director*

Although the use of the term "marine" is a misnomer, the tradition of calling soldiers aboard ships and naval installations "marines" carried over into space. Marines, in this sense, are combat troops who have been specially trained in low and zero gravity combat. While other soldiers receive training in such combat, they generally are not as focused in this area as marines. Military occupations include vehicle operators and pilots, combat technicians, heavy weapons specialists, medics, engineers, and career officers. On the Frontier, there is always something that needs defending and some planet that needs pacifying.

Occupation Skills:

Alertness, Dodge, First Aid, Hide, Listen, Low/Zero Gravity Operations, Rifle, Unarmed Combat.

Background:

E$1000x1d10 savings; personal items related to profession.

See the 'New Horizon Sourcebook' for details.

STALKER

> *"If you come back with swag – it's a miracle; if you come back alive – it's a success; if the patrol bullets miss you – it's a stroke of luck. And as for anything else – that's fate."*
>
> *Lieutenant Andreï Kazakov – ex FoRec Colonial Marine*

Stalkers are adventurers and outlaws who enter the Dead Zones to look for artifacts and samples to sell to the highest bidder. The first stalkers were not looking for artifacts or anomalous samples. They were looking for human valuables left behind in the Zones. Though the first looters that entered right after the Blackout never came back, banks and companies soon started paying all kinds of professional adventurers and rescue workers to retrieve documents from bank vaults or secrets from computer hard drives.

However, the risks involved in retrieving artifacts are huge feral mutant creatures roamed the landscape, devouring unwitting Stalkers. Strange areas that did not seem to apply the laws of physics the Stalkers termed "Anomalies" claimed the lives of the unwary. Greed amongst fellow stalkers cost many their lives and loot.

Occupation Skills:

Alertness, Computer (Operation), Electronics Systems, First Aid, Low/Zero Gravity Operations, Rifle, Science (specify).

Background:

E$1000x1d10 savings; personal items related to profession.

VETERAN

> *"Violence, naked force, has settled more issues in history than has any other factor."*
>
> *Unnamed veteran from Mobile Infantry*

Veterans are not officers, they are not specialists and they are not untrained buffoons. They are career troopers with years of soldiering under their belts and the scars to prove it. With capabilities far beyond those of other troopers, there figures often seem larger than life and can even overshadow a weak or ineffectual officer. Still, most are dedicated military men and will not let such behaviour persist for long before checking it themselves.

Veterans can be commanding figures whose legendary prowess can inspire in much the same way as a true officer. While many veterans deny vehemently any desire to be officers or lead men into battle, there is no getting around their inherent ability to do so.

Occupation Skills:

Alertness, Dodge, First Aid, Hide, Listen, Low/Zero Gravity Operations, Rifle, Machine Gun, Energy weapons, Unarmed Combat.

Background:

E$1000x1d20 savings; personal items related to profession.

See the 'New Horizon Sourcebook' for details and the section 'War Experience Package' below.

XENOARCHAEOLOGIST

> *"Archaeology is the search for fact… not truth. If it's truth you're looking for, Dr. Tyree's philosophy class is right down the hall."*
>
> *Dr. Henry Walton "Indiana" Jones, Jr. – college professor of archaeology*

Stories spread faster than light on the Frontier. Some scouts tell tales of priceless artifacts found in ancient ruins on distant moons—ruins that predate humanity by millennia. Others talk of derelict spacecraft—and a race of giants that once stalked the stars in them. Still others whisper about hostile lifeforms that overrun entire worlds—terrifying parasitic creatures that are beyond our comprehension and wholly alien. The galaxy is full of the echoes of former sentient species, and the xenoarchaeologist is trained in unearthing their secrets. Xenoarchaeologists are qualified experts who conduct lectures and seminars, perform research and train young academics.

Occupation Skills:

Administration, Bargain, Data Analysis, Fast Talk, Other Language, Orate and any three from: Astronomy, Law, History, Natural History, Occult, Psychology, Religion, Science (specify).

Background:

Accommodation at a college or university campus; E$30,000pa salary; E$1000x1d20 savings; 1d3 academic contacts; personal items related to profession.

Experienced Adventurers

Adventurers can begin uncovering dark secrets at any age, and with age comes experience and certain life experiences may also benefit or hinder adventurers.

The player may only take one of the following experience packages with their GM's permission.

War Experience Package

The adventurer has served in one of the Armed Forces during a war—probably the Colonial Wars of 2258 to 2260. While benefiting from their experience, they also bear its scars. Adjust the following for the adventurer:

1. Adjust age according to period of war.

2. Deduct 1D10+5 from SAN.

3. Add one of the following to the adventurer's backstory: Injury/Scar or a Phobia/Mania associated with the war.

4. Give 1D3 Cybernetic Augmentations to the adventurer.

5. Add 70 bonus skill points divided among any of the following skills:

    ■ Rank and file soldiers choose from: Climb, Fighting (Brawl), Firearms (Rifle/Shotgun), First Aid, Intimidate, Listen, Stealth, Throw, Sleight of Hand, Spot, Survival.

    ■ Officers choose from: Climb, Firearms (Handgun), First Aid, Listen, Navigate, one interpersonal skill (Charm, Persuade, or Intimidate), Stealth, Spot, Throw.

6. Note on the adventurer sheet: Immune to sanity losses resulting from viewing a corpse or gross injury.

Police Experience Package

The adventurer has served for a number of years on a police force or has retired from this profession. Adjust the following for the adventurer:

1. Choose a starting age of 25 or over.

2. Deduct 1D10 from SAN.

3. Add one of the following to the adventurer's backstory: Injury/Scar or a Phobia/Mania associated with their experiences as a police officer.

4. Add 60 bonus skill points divided among any of the following skills: Climb, Drive Auto, Fighting (Brawl), Firearms (Handgun or Rifle/Shotgun), First Aid, Intimidate, Law, Listen, Other Language, any two interpersonal skills (Charm, Fast Talk, Persuade, or Intimidate), Track.

5. Note on the adventurer sheet: Immune to sanity losses resulting from viewing a corpse.

Organized Crime Experience Package

The adventurer has spent most, if not all, of their life involved in organized crime. Adjust the following for the adventurer:

1. Choose a starting age of 20 or over.

2. Deduct 1D10 from SAN.

3. Add one of the following to the adventurer's backstory: Injury/Scar or a Phobia/Mania associated with criminal experience.

4. Add 60 bonus skill points divided among any of the following skills: Climb, Drive Auto, Fighting (any), Firearms (any), any one interpersonal skill (Charm, Fast Talk, Persuade, or Intimidate), Law, Listen, Locksmith, Psychology, Sleight of Hand, Stealth, Spot.

5. Note on the adventurer sheet: Immune to sanity losses resulting from viewing a corpse, witnessing or performing a murder, or seeing violence perpetrated against a human being.

Medical Experience Package

The adventurer is a long-serving physician, nurse, or forensic examiner. Adjust the following for the adventurer:

1. Choose a starting age of 30 or over.

2. Deduct 1D10 from SAN.

3. Add a Phobia/Mania associated with medical experience to the adventurer's backstory.

4. Add 60 bonus skill points divided among any of the following skills: First Aid, Law, Listen, Medicine, Psychology, Spot, Science (any two).

5. Note on the adventurer sheet: Immune to sanity losses resulting from viewing a corpse or gross injury.

Forbidden Science Experience Package

The adventurer has knowledge of the Forbidden Science, either in an academic sense or through tangible experience. Discuss with the GM how the adventurer is aware of the Forbidden Science—through reading books or experience—and write this into the adventurer's backstory. Adjust the following for the adventurer:

1. Increase Forbidden Science skill to level agreed with GM (suggested 1D10+5).

2. Reduce maximum Sanity in line with Forbidden Science skill.

3. Add two of the following to the adventurer 's backstory: Injury/Scar, Phobia/Mania or Encounter with Strange Entity associated with Forbidden Science experience.

4. Spells with the GM's permission—the GM will determine what spell(s) the adventurer has access to.

CyberTechnology

by Thomas Dowd, Paul Hume, Robert Charrette & Jordan Weisman

> *"His digestive system is extremely simple. This processor dispenses a rudimentary paste that sustains his organic systems."*
>
> *Dr. Stephen Roosevelt – OCP Security Concepts scientist*

Advanced technology brings with it the ability for mankind to better treat injury or even direct its own evolution through elective augmentation.

A lost arm might be replaced by a computer-controlled machine limb capable of interfacing directly with the nervous system. Blindness might be cured by replacing the eye with an optical sensor capable of not only seeing as well as a normal eye, but at much larger distances or even in different spectrums of light.

Cybernetic Augmentations either enhance a cybersleeve or introduce synthetic materials into a living body via an injection of nanomachines, which replace existing biological tissue with synthetic structures. In cases that require large amounts of tissue replacement, such as with replacement limbs, the tissue will be mostly removed through surgery. Nanomachines will then be injected where synthetic and biological materials meet, bridging the gap between the synthetic systems and the biological nervous system.

Cyberware Augmentations

The human body didn't evolve to naturally accept biorobotics enhancements. Implanting cyberware tampers with the balance of this delicate machine by adding artificial organs and otherwise modifying the original to run differently.

Such alterations inevitably take a toll in the form of an incremental amount of physical system-wide stress and, damage to the mental health integrity. This is particularly relevant since there seems to be a limit to what you can implant before the body and mind begins to shutdown.

This section contains a number of sample Augmentations available to your character as well as the related SAN loss. For each point of cumulative SAN loss above the character's current POW, the PC gains an indefinite insanity (see Indefinite Insanity Table). Reduce the maximum Sanity points possible of an adventurer by the SAN loss of each augmentation.

Attention Coprocessor:

This frontal cortex and limbic system implant enhances the brain's ability to scan sensory input outside of the person's primary mental focus. This boosts the character's continuous partial attention—the overall awareness of several ongoing things at once, and the ability to shift concentration to what's most important without losing track of what's happening in the background, allowing him a basic Alertness skill at 80%.

- Cost: E$3000
- Sanity: 2

Auto-Injector:

Auto-injectors are implanted devices that dispense medication or chemicals into the implantee's bloodstream. Auto-injectors are used in variety of fields, with medical utilization (diabetics who need regular insulin doses, psychiatric patients taking medication to ward off depression, or the elderly who require Alzheimer's medication) being the most common.

Governments and corporations have also found diverse uses for auto-injectors: to enhance the combat effectiveness of soldiers.

Auto-injectors feature an external port through which they can be easily refilled and are usually implanted just below the skin's surface in a location offering convenient access. Typical auto-injectors hold up to six doses. These doses may contain the same kind or any combination desired. See 'Medical drugs' section.

- Cost: E$500
- Sanity: 1

Blood Circuit Control System:

This system of micro sensors, vents, and iris diaphragms surveys the pressure in the user's blood vessels and reduces or completely shuts down the blood supply to injured or traumatized body parts, preventing massive blood loss.

Any time the user suffers Physical damage, the damage is instantly reduced by 1 HP to a minimum damage of 1 HP per attack. The blood circuit control system also increases the number of combat rounds before a PC will die at zero total to his CON x5.

- Cost: E$30,000
- Sanity: 1

Bone Lacing:

The cellular structure of the user's bones is augmented with lattice chains of reinforcing plastics and metals to improve the bones' integrity and tensile strength, but the augmentation also adds 15% extra weight. Titanium bone lacing confers a +4 AP bonus (cumulative with worn armor) to both Ballistic and Impact. Characters with bone lacing also inflict Physical damage with their unarmed blows.

- Cost: E$40,000
- Sanity: 3

Cyberfins:

Cyberfins consist of retractable semi-rigid fins and webbing implanted in the hands and feet. When extended, they allow the user to swim as if using ordinary swimming fins. Characters using cyberfins swim at their normal Swimming Rate x1.5 and receive a +20% to Swimming skill. Cyberfins are not compatible with standard swim fins or any type of gloves.

- Cost: E$3500
- Sanity: 2

Cyber Melee Weapons:

Cyber melee weapons are the classic toys of razorboys use as standalone systems implanted into the user's natural hands. Hand razors are 2.5-centimeter carbon fiber blades that slide out from beneath synthetic nail replacements. Hand blades slip out of the wrist or knuckles, parallel to the hand, consisting of a variable number of blades. The shock hand features shock pads built into the knuckles or palm of the hand—these inflict a nasty shock to anything they are in contact with when activated.

- Cost: E$1500
- Sanity: 3

Cyber Safety:

This implant is designed for use with firearms modified with an embedded security chip, and is nothing more than a minor security chip itself. The firearm's safety is only deactivated when the weapon is held in the hand containing the implant, bringing the security chips of both into contact. Each security chip is programmed for a particular implant (or implants), and only functions with that implant (or implants). If the character also possesses a cyberware smartlink system, the safety links to it and the direct contact overrides any wireless smartlink input, essentially making the smartlink immune from hacking. The gun can also be programmed to fire with a simple flick of the arm, giving the element of surprise.

- Cost: E$350
- Sanity: 0

Datajack:

A datajack allows a user to directly interface with any electronic device via a fiberoptic cable. Datajacks also allow users to slot and mentally access chips or softs. Datajacks equipped with their own memory storage for downloading or saving files. Two datajack users can string a fiberoptic cable between themselves to conduct a private mental communication immune to radio interception/eavesdropping.

- Cost: E$500 + E$100 x slot
- Sanity: 2

Dragon Hide:

Dragon hide consists of a flame-retardant polymer grafted to the skin. Heat-conducting fibres prevent localized heating and distribute the heat across the entire body, preventing blistering and burning, and ablative foam materials evaporate to dissipate energy. The recipient reduces Fire damage by 1d6.

- Cost: E$5000
- Sanity: 2

Earware:

This modification allows the user to hear sounds outside the range of normal human hearing. The user can hear both ultrasonic, high-frequency sounds (including ultrasound emitters) and infrasonic, low-frequency noises. The user can control what frequency ranges he listens to, turning them "on" and "off" at will, allowing him a basic Listen skill at 80%.

The cyberware provides instantaneous sound suppression to sudden intense noise, such as that produced by explosions or guns.

- Cost: E$1300
- Sanity: 1

Eye Light System:

The eye light system consists of tiny but high-powered low-heat lights in the character's cybereyes that channel a tight, polarized beam outward along a path parallel to the optical center of the eyes. It enables a character with low-light vision to see up to a distance of 25 meters even in total darkness. The tight beam and polarization minimize the beam's scatter, so the light can't be seen unless the user is staring directly at another person or this person is able to see the small spot illuminated by the eye light system.

- Cost: E$750
- Sanity: 2

Eye Recording Unit:

The eye recording unit connects to the user's optical nerves and records all data directly into attached storage (accessible by the user's PAN). To prevent data theft, the user can opt to make this storage only accessible by special means (sim module, datajack, etc.).

- Cost: E$2000
- Sanity: 1

False Front:

False front is probably one of the most radical bioaugmentations available—and also one of the most illegal. It allows the character to profoundly change his appearance within minutes.

Artificial muscle groups are implanted in the various parts of the body that the recipient wants to alter. Upon injection of a signal drug, the muscle groups contract, radically changing the shape of the face or body, giving a +40% bonus to Disguise skill. Apparent body mass cannot be changed by more than 20 percent. The appearance change occurs within one minute and lasts for 30 minutes per dose of the signal drug injected.

The standard version of the false front does not grant the user much control over the final appearance, and in fact the look of the false front will alter visibly with each use, according to slight variations in the signal drug's composition, its reception by the implanted muscle groups, and the user's metabolism. The intent is to simply present a new look each time, rather than mimic a specific appearance.

- Cost: E$4000
- Sanity: 5

Filtration Control:

Resident self-replicating medichine colonies in the liver provide active blood filtration, vastly increasing resistance to toxins, poisons and disease.

- Cost: E$3500
- Sanity: 2

Macroscopic Vision:

The macroscopic vision subsystem functions as an implanted zoom, using tiny optical lenses to magnify the image up to 20 times with a maximum range of 20km. This augmentation can replace a telescopic sight in armed combat.

- Cost: E$1000
- Sanity: 2

Math SPU:

This cranial subprocessor unit (SPU) amplifies the user's mathematical abilities by enhancing his ability to run mathematical calculations as background processes. As a side benefit, the subprocessor may also function as a stopwatch, alarm clock, and extremely accurate chronometer. A math SPU adds a +20% modifier to all skills focused on the user's mathematical abilities; as well as to Data Analysis and any Electronic Warfare involving encoding or decoding.

- Cost: E$4500
- Sanity: 2

Microscopic Vision:

The microscopic vision subsystem functions as an implanted microscope, using tiny optical lenses to magnify the image of small objects near the user's eyes. The magnification factor of the microscopic vision may be continuously adjusted to magnify objects up to 1,000 times their normal size. To magnify an object, it should be within 15 centimeters of the character's eyes and the character should be able to steady his head to prevent his vision from blurring.

When using microscopic vision, a character may add +20% to any Technical skill requiring the manipulation of small or micro sized objects.

- Cost: E$1300
- Sanity: 2

Muscle Replacement:

Implanted, vat-grown synthetic muscles replace the user's own. Calcium treatments and skeletal reinforcement allow an overall increase in the user's strength. Muscle replacement increases both the Strength by 3 and the Dexterity by 2. It cannot be combined with muscle augmentation or muscle toner bioware.

- Cost: E$5000
- Sanity: 4

Orientation System:

An orientation system uses an internal GPS and miniaturized gyroscope (for those areas blocking GPS signals) to keep track of the character's location and motion. This implant is usually used in conjunction with mapsofts to allow the character to easily navigate through the ever-changing urban jungles.

The orientation system also comes with integrated editing software that can be used to create and update maps. Even when no maps are available for a given area, the orientation system adds a +20% modifier to orientation skill. An orientation system requires an image link, head-up display, or some other optical display either implanted or connected to properly display information.

- Cost: E$1250
- Sanity: 2

OXSYS Cybergill:

The OXSYS cybergill draws in water and filters out oxygen through forced osmosis, allowing users to breathe underwater. Carbon dioxide and water gases are absorbed into the water through reverse osmosis and expelled. Unlike the external version, the oxygen is delivered via solution directly into the bloodstream, averting the danger of oxygen toxicity. The gills are implanted on both sides of the neck adjacent to the thyroid gland. A cutoff valve must also be installed in the lower trachea to prevent lung action during operation, and pulmonary bypasses must be inserted in the heart to reroute blood flowing toward the lungs up into the gills.

Divers using cybergills are immune to oxygen toxicity, but they remain vulnerable to nitrogen narcosis and decompression sickness from the residual amount of nitrogen. As a matter of common practice, divers who choose cybergill implantation also commonly install an internal air tank containing pure helium that they use to flush residual nitrogen from their lungs. Cybergills allow a user to stay underwater indefinitely.

- Cost: E$4500
- Sanity: 3

Pressure Sheathing:

Occasionally purchased by workers in hard vacuum or other hostile environments, pressure sheathing integrates an ultrathin pressure membrane with the user's dermis and emergency film sealants that trigger at the user's mental command. The pressure sheathing serves as an emergency vacc suit with an integral oxygen supply and temperature regulators that can sustain them for up to thirty minutes. A pressure sheath needs 48 hours to regain structural integrity and power after triggering. A pressure sheath can be detected by a medical examination, but not by less specific inspection.

- Cost: E$3800
- Sanity: 1

Reaction Enhancers:

By replacing part of the spinal column with superconducting material, a character's reaction time can be increased. Add a +6 DEX rank to a character's Dexterity (this will also affect Initiative). Reaction enhancers are compatible with other Initiative-boosters.

- Cost: E$10,000
- Sanity: 1

Rehydration Control:

Cybertech augmentation of kidneys allow for full water recycling and partial rehydration of the body.

- Cost: E$1500
- Sanity: 1

Skillsoft:

A skillsoft program is a programmed/recorded skill— as in, a person's knowledge and memory (including "muscle memory"). When used in conjunction with the proper datajack cyberware, skillsofts allow users to know and do things they never otherwise learned. When a skill test is called for, the character may use the skillsoft rating in place of an appropriate skill. If the character already possesses the skill, use whichever rating is higher.

Since skillsofts prevent users from gaining experience on their own, they are not useful as a learning tool. They are highly favored, however, by corporations interested in cheap labor (no need to spend years of education on technicians when you can simply equip some grunt with a knowsoft).

- Cost:

E$	2000	4000	8000	16 000
Exp. level	1	2	3	4
skill	10 + 2d6%	30 + 3d6%	50 + 4d6%	75 + 4d6%

- Sanity: 2

Skillwire Expert System:

This implant boosts the PC performance with computer skills, improving the integration of software program and data with the user's own neurotransmitters and neuromuscular junctions. A Skillwire Expert System adds a +20% modifier to Computer Operation, Programming and Security.

- ■ Cost: E$3000
- ■ Sanity: 2

Smartlink:

This accessory interacts with a smartgun system to project the weapon's angle of fire into the user's vision, centering red crosshairs where the user is pointing and highlighting perceived targets. The smartgun's laser rangefinder also calculates and displays the distance to the target. Additional data from the weapon, such as the ammunition level, heat buildup, and stress can also be displayed. A Smartlink adds +15% modifier to firearms skills.

- ■ Cost: E$1000
- ■ Sanity: 1

Snake's Fangs:

Fang implants are snake's fang, anchored for support and sharpened for penetration. They are implanted as extendable models. They are designed for combat, fangs may handy in melee combat in 1 MR as a surprise weapon. The poison potency is equal to the character's constitution; its effect is at the Game Master's discretion.

- ■ Cost: E$1600
- ■ Sanity: 2

Tracheal Filter:

This filter is implanted at the top of the trachea, just below the larynx, to absorb airborne impurities and keep them from reaching the lungs. The filter adds CON+4 bonus to resist inhalation vectored toxins (see Poisons section).

- ■ Cost: E$15,000
- ■ Sanity: 3

Voice Modulator:

This implant enhances the subject's vocal organs. She can speak with an increased volume of up to 100 decibels without exhaustion, or shift his pitch to create perfect bird calls, mellifluous singing, and uncanny vocal impressions. The modulator can also play back a recorded voice; however, she cannot use the recorded voice for any purpose other than to mimic exactly what it said (voice recognition systems will spot the deviation from the original). For more deceptive purposes, the (highly illegal) secondary pattern function can be installed—it can be loaded with a recording from another person's voice to create an almost perfect reproduction.

- ■ Cost: E$7500
- ■ Sanity: 3

Wired Reflexes:

This highly invasive operation implants a multitude of neural boosters and adrenalin stimulators in strategic locations all over the body, catapulting the patient into a whole new world where everything around him seems to move in slow motion. The system includes a trigger to turn the wired reflexes on and off (taking a Free Action). When activated, wired reflexes confer a bonus of +6 to Dexterity. Wired reflexes cannot be combined with any other form of Initiative enhancement.

- ■ Cost: E$32,000
- ■ Sanity: 5

Cyberware Augmentations Table

Cyberware	Augmentation	cost	SAN
Attention Coprocessor	Alertness skill 80%	3000	2
Auto-Injector	1d6 doses medical drugs	500	1
Biorobotics			
eye	-	500	1
organ	-	400	1
hand/foot	-	250	1
full limb*	AP/2	400	1
skin/hair	-	200	1
Blood Circuit Control System	Reduce 1 HP of damage per attack	30,000	1
Bone Lacing	+4AP; +15% extra weight	40,000	3
Cyberfins	Swimming Rate x1.5; +20% to Swimming skill	3500	2
Cyber Melee Weapons	Retractable body blades	1500	3
Cyber Safety	Firearms embedded security chip	350	0
Datajack	Interface with any electronic device	500	2
Dragon Hide	Reduces Fire damage by 1d6	5000	2
Earware	Listen skill 80%	1300	1
Eye Light System	Low-light vision up to 25m in total darkness	750	2
Eye Recording Unit	Records data directly into storage	2000	1
False Front	+40% bonus to Disguise skill	4000	5
Filtration control	CON+4 vs. toxins, poisons and disease POT	3500	2
Macroscopic Vision	Magnification up to x20; maximum range 20km	1000	2
Math SPU	+20% Data Analysis and Electronic Warfare	4500	2
Microscopic Vision	Magnification up to x1000; range 15cm	1300	2
Muscle Replacement	STR+3; DEX+2	5000	4
Orientation System	Internal GPS	1250	2
OXSYS Cybergill	Underwater breath	4500	3
Pressure Sheathing	Vacuum exposure survival	3800	1
Reaction Enhancers	+6 DEX rank	10,000	1
Rehydration control	Water recycling	1500	1
Skillsoft	Elearning skill	var	2
Skillwire Expert System	+20% Computer Operation, Programming and Security	3000	2
Smartlink	Firing system enhancer; +15% to firearms skills.	1000	1
Snake's Fangs	Retractable snake hooks	1600	2
Tracheal Filter	Airborne impurities absorption	15,000	3
Voice Modulator	Vocal organs enhancement	7500	3
Wired Reflexes	DEX+6	32,000	5

*Military arm cost is E$4000 and increases STR by 4 and AP by 2 with 2 points of SAN loss.
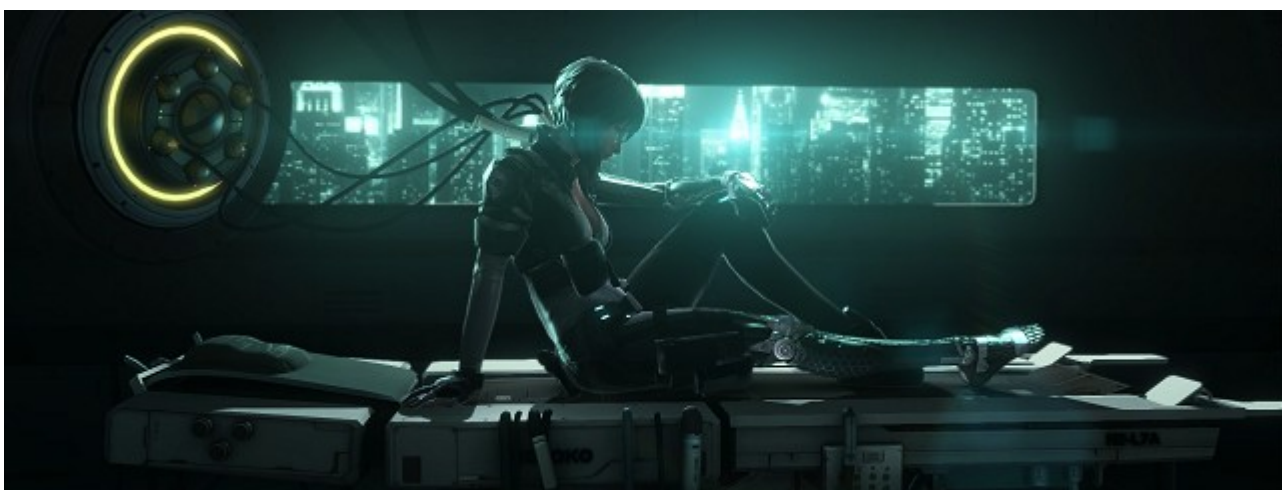
BioTechnology

by Wikia, Thomas Dowd, Paul Hume, Robert Charrette, Jordan Weisman & Mike McConnell

> *"Why the fuck did you make her in the first place? Huh? For the betterment of mankind? You never wanted a normal child because you were afraid of losing control."*
>
> *Clive Nicoli – Genetic engineer*

Biological organisms have evolved over billions of years, adapting to impossible surroundings and solving dazzling arrays of problems. Modern biotechnology has developed a great understanding of nature's toolbox and used it to push the human body to its limits—and beyond. Where Biotechnology replaces parts of the human body with artificial designs and gene technology changes the body at a fundamental level, biotechnology has developed a third way.

Gentech can alter or augment organs, tissue, and body parts in a way that is completely compatible with the organism's own workings while making changes that are beyond anything that the body could grow or develop on its own, even if the DNA were altered. A biotechnician must understand the "architecture of life" (i.e., the complex mesh of metabolic networks, feedback loops, and regulators that make up complex organisms) to be able to replace or enhance specific features of a living system. An organism is a complicated and sensitive machine—even small changes can have wide-ranging and catastrophic consequences.

While most people think of biotech as a less invasive technique that requires less wiring than biorobotics and that can rely on the body's own infrastructure (nerves and blood vessels) to supply and maintain the altered or augmented organ, the alterations are often even more serious and less controllable on a molecular level.

Bioware Augmentations

Like the pharmacological industry, biotech companies take the long view. No matter how much illegal experimentation and lobbying of authorities occurs, the introduction of new biotech procedures and implants is a slow process and it often takes years before they hit the market. With the increasing demand for advanced biotech procedures, human enhancements, and biomedical aids, this is a no-holds-barred ultra-competitive and lucrative field where the top dogs are megacorporations with their own biotech divisions and huge R&D budgets.

Bioware is the next step in augmentation. Instead of replacing body parts with electronic machines, bioware augments the body's own functions and is integrated as if it were a natural feature. This application of biotechnology is a tricky business, as the fine balance between the body's numerous organic systems must be maintained. Bionics and bioengineering techniques have improved greatly over the last decade, making bioware the new state of the art technology. While it's more expensive monetarily, it is very low on Essence cost and difficult to distinguish from the original—very useful if you want to keep a low profile.

The same SAN limitations for cyberware applies for bioware.

Bone density:

In a long and painful process, the molecular matrix of the subject's bones are altered for density and strength. The procedure also strengthens ligaments, but as a side effect increases the character's weight by 10%. Bone density confers a +3 AP bonus (cumulative with worn armor) to both Ballistic and Impact. Characters with bone lacing also inflict Physical damage with their unarmed blows.

- ■ Cost: E$60,000
- ■ Sanity: 2

Cat's Eyes:

This gen modifies the eyes structure that amplifies light and enhances the user's night vision, providing him with natural low-light vision. Cat's eyes are slit and reflective.

- ■ Cost: E$7500
- ■ Sanity: 1

Chameleon's Skin

The character has a skin that acts like visual and Thermal /IR camouflage paint, altering his pigmentation when he crawls or moves half his pace. The skin changes to match the background and gives +40% to Stealth and IR detection.

- Cost: E$32,000
- Sanity: 3

Digestive Expansion:

With a series of alterations to the recipient's exocrine glands, liver, and pancreas—and the addition of tailored bacteria to the intestines—this bioware more efficiently digests food and drink. This treatment expands the range of substances a human can safely digest—including roots, grass, peat, and a number of plants that are normally considered inedible. Includes a modification of the taste buds and olfactory senses to make it easier to "stomach" unusual foods. The character receives a +2 bonus to resist ingestion-vector toxins.

- Cost: E$20,000
- Sanity: 5

Eagle's sight:

This bioware is equivalent to macroscopic vision. The maximum range is limited to 4km.

- Cost: E$12,000
- Sanity: 2

Echolocation:

The human body has a natural ability to analyze sound waves reflected from nearby objects to build a composite "image" of their surroundings in a manner similar to, if significantly weaker than, a bat's. In most people, this ability is underdeveloped because they rely primarily on their eyes. This bioware enhances the nerve strands required for echolocation; recipients typically train to use their advanced sense in a two week-long speed-learning course.

The echolocation augmentation provides the user with a simple form of acoustic sensing that, contingent on the volume of the noise the character uses for detection and background noise volume, allows the character to make out general shapes, sizes, and distances to objects—building a "low resolution" image of his surroundings. The range of the spatial perception is also limited; in a quiet warehouse, a tapping cane is loud enough to sound out most of the warehouse, but on a crowded street, the same tapping cane might be good only for a 5-meter perception radius. Echolocation can pick up things otherwise invisible to the naked eye, such as glass walls or opponents cloaked with Sneak suit. Ultrasound is not necessary for the use of this implant—simple clicking noises with the tongue or the sound of hard heels on the floor will suffice. Ultrasound, however, increases the range and quality of perception.

- Cost: E$15,000
- Sanity: 2

Electroshock:

For this augmentation, stacks of electroplaques similar to those found in electric eels are implanted under the skin, allowing the user to deliver powerful jolts of electricity from any part of his exposed skin. Instead of doing regular damage in unarmed combat, the recipient may choose to inflict damage as if wielding a TASER. The damage may also be inflicted on opponents that are grappling with the recipient or on anybody the recipient is touching in non-combat situations. The recipient is immune to damage inflicted in this fashion, but this modification does not provide any protection from other sources of electricity.

- Cost: E$25,000
- Sanity: 3

Endocrine Control:

This augmentation modifies the body's endocrine system, giving a measure of control over hormones. The recipient can influence his appetite and thirst and remain awake for 48 hours without penalty. He also have fine control over his emotional states, and can "gland" happiness, sadness, aggression, arousal, trust, suspicion, and so on.

- Cost: E$12,000
- Sanity: 2

Enhanced Pheromone Receptors:

This biomod combines a boost to the neural pathways between nose and brain with a higher concentration of scent receptors, providing a more intuitive, high contrast sense of smell. This enhances a human's innate ability to discern and react to individuals by scent, as well as detecting basic emotional cues (fear, anger, lust) from smells.

The recipient can learn to identify individual people and animals by smell and can detect basic emotional states. Add the enhanced pheromone receptors' rating to any Perception Tests involving smells and people or animals. Also add half the rating (round up) to any test involving social interaction; this bonus only applies if the recipient can smell the person or people he is interacting with. Strong odors (such as perfume) may diminish this ability, or even confuse it if a glitch is rolled. Additionally, recipients may experience extreme discomfort in crowds due to the overwhelming amount of odors. They suffer a dice pool penalty equal to half the receptors' rating (round up) to all tests due to the strong distraction. A respirator reduces these penalties by its rating.

- Cost: E$5000
- Sanity: 2

Extended Volume:

An average adult's lungs contain approximately 2.5 liters of air. The actual tidal volume, however—the amount of air that enters and leaves the lungs with each breath—is only 0.5 liters. By augmenting the amount of flex in the diaphragm, it is possible to increase the tidal volume, thus increasing the efficiency of gas exchange and allowing an average adult can hold his breath for approximately 250 seconds (25 combat turns).

- Cost: E$4000
- Sanity: 1

Fashion Eyes:

Genmods subtly alter the cell density and melanin content within the iris stroma, allowing changes of eye colour. The effect can take several minutes to take effect.

- Cost: E$5000
- Sanity: 1

Fashion Hair:

Changes in levels of two types of melanin, eumelanin and pheomelanin allow rapid changes to the pigmentation of hair follicles. Generally, if more melanin is present, the colour of the hair grows darker; if less melanin is present, the hair grows lighter. The gens can also change growth patterns. Straight hair this week, curly hair next week.

- Cost: E$1500
- Sanity: 1

Fashion Skin:

Alterations in the concentration of melanin in skin can alter skin tone rapidly. This usually takes 4-6 hours to take effect.

- Cost: E$1500
- Sanity: 1

Gecko Hands:

For this modification, millions of tiny hairs are grafted into the recipient's palms. These hairs allow the character to adhere to any surface he touches. The individual bond between hair and surface is insignificant, so that the character can remove his hand from whatever he is touching by peeling it off the surface. The hairs allow the character to attach firmly to anything: glass, plastic, concrete, steel, walls, ceilings, weapons. Liquid covering the surface does not reduce

the interaction strength; the character can climb a wet glass wall as easily as a dry one. Loose debris on the surface or thick slippery coatings, like sand or grease, however, nullify the effect of the gecko hands.

A character with gecko hands can climb across any surface as if it was broken and he was climbing with assistance, though he never counts as rappelling. Even a fumble will not cause him to fall. The character cannot be disarmed or forced to drop anything he is holding short of prying his hands open and peeling off the item.

- ■ Cost: E$12,000
- ■ Sanity: 4

Kiss of Death:

The patient's lips are installed with tiny glands which, when required secrete a minute quantity of tetrodotoxin (fugu fish toxin). Anyone who kisses the patient when the toxin is on the lips has a 90% chance to take it into their system. The toxin has a Potency equal to the patient's CON.

To prevent the patient from suffering the effects of the toxin they have a number of small anti-toxin factory cells installed into their liver which are tailored to neutralise any tetrodotoxin in their body. The system contains a custom bio-engineered gland which creates its own tetrodotoxin, thus it never need be replenished but cannot be used more than twice per day. You cannot scrape the toxin off your lips and bottle it for other uses; the quantities are too small.

This toxin causes the diaphragm to be paralysed and the victim dies through respiratory failure. Because the toxin starves the victim of oxygen, death is relatively slow. It is not the most reliable way to kill people, especially at range and when toxin purges are to hand.

- ■ Cost: E$15,000
- ■ Sanity: 1

Metabolic Arrester:

The metabolic arrester is a regulating gland grown on top of the thyroid gland. Under conditions where the body seems to be suffering from massive trauma, as measured by a severe drop in blood pressure and the presence of high levels of endorphins, the metabolic arrester supersedes the thyroid's metabolic functions, drastically decreasing the body's metabolic rate. As the heart and breathing rates slow to minimal levels and the body's temperature drops, the character takes on a death-like pallor. The lowered body functions help stave off the effects of trauma and reduce bleeding.

When a character has only 1 or 2 total HP remaining, the metabolic arrester kicks in and places the body in near-metabolic stasis. The body's metabolic processes are slowed by a factor of five, similar to hibernation. When the metabolic arrester is active, it takes a First Aid or Medicine Test to determine that the character is still alive.

- ■ Cost: E$10,000
- ■ Sanity: 1

Muscle Augmentation:

Muscle augmentation increase the muscle resistance and density, enhancing the muscle's mass and performance. Muscle augmentation adds a +3 bonus to the character's Strength. It is not compatible with muscle replacement, but can be combined with muscle toner.

- ■ Cost: E$7000
- ■ Sanity: 2

Muscle Toner:

This gen improves elastic muscle fibers, increasing muscle tension and flexibility. Muscle toner adds a +3 bonus to the character's Dexterity. It is not compatible with muscle replacement, but can be combined with muscle augmentation.

- ■ Cost: E$8000
- ■ Sanity: 2

Nictitating Membranes:

This gen stimulates the growth of a clear protective membrane covering the eyes, similar to that possessed by many animals. This "inner eyelid" protects the eyes, keeping out sand, grit, smoke, and other irritants. This eye protection

eases underwater activities. The membranes are light sensitive and become tinted under bright light. Further, they are polarized to reduce glare.

Nictitating membranes reduce the effects of smoke and other eye irritants, such as tear gas. They also act as a flare compensation enhancement for defending against flashes and glare.

- Cost: E$2000
- Sanity: 1

Organs Improvement:

Heart: This genmod rewrite the musculature of the heart and improve the oxygen-carrying capacity of hemoglobin, while the introduction of single-chamber hearts into the arm and leg veins prevents blood pooling in extremities. This augmentation boosts endurance and stamina and improves ability to operate in microgravity environments for prolonged periods.

Intestine: This augmentation cuts the characters' gastro-intestinal tract with a specially conceived polymer lining which provides greater protection against ingested poisons, toxins, and drugs.

Kidneys: Bioware augmentation of kidneys allow for full water recycling and partial rehydration of the body.

Liver: Self-replicating cells in the liver provide active blood filtration, vastly increasing resistance to toxins, poisons or disease and preventing the receiver to get drunk.

Lungs: This genmod augments the pulmonary alveoli of the lungs to improve gas exchange, increasing O_2 capacity and provide active filtration of airborne toxins.

- Cost: variable, see Bioware Augmentations Table
- Sanity: 0

Pathogenic Defense:

An enhancement of the spleen, this treatment spearheads the production of more effective and aggressive leukocytes (white blood cells). Pathogenic defense adds a CON+4 bonus to toxin resistance tests against biological (not chemical) toxins and diseases (see biological weapons section).

- Cost: E$10,000
- Sanity: 1

Platelet Factories:

Platelet factories increase the body's ability to handle damage by accelerating the production of platelets within bone marrow, thus lessening the trauma from large wounds and quickly stopping bleeding. Any time the user suffers 2 or more points of damage, the damage is instantly reduced by one point.

- Cost: E$25,000
- Sanity: 1

Pain Editor:

The editor is a cluster of specialized nervous tissue designed to filter sensory stimuli. As long as the pain editor is active, the user can ignore the injury and will not fall unconscious. The subject feels no pain and is unaware of the extent of damage taken without examining himself or being informed by a PMS. While active, the pain editor provides a bonus of +1 to the user's Bravery attribute.

- Cost: E$40,000
- Sanity: 3

Sleep Regulator:

The sleep regulator modifies the hypothalamus region of the brain, allowing for longer periods of wakefulness. The recipient requires less sleep per day and the sleep he gets tends to be deeper and more restful. The sleep regulator allows a character to get by with three hours of sleep each night and stay awake for 48 hours before modifiers start to take effect. Resting hours for healing purposes are not affected.

- Cost: E$10,000
- Sanity: 3

Smart Insulation:

Making use of the body's own heat regulation mechanism that causes sweating, this enhancement uses the same feedback proteins to alter the size and density of air pockets in the deepest layer of the skin to enhance or reduce the thermal insulation that the skin provides. The recipient is comfortable throughout a wide range of temperatures from -40°C to +90°C. He also counts as having climate control for the purpose of Survival Tests and reduces the penalty for weather conditions and inappropriate clothing.

- Cost: E$12,000
- Sanity: 2

Snake's Eyes:

Like the cat's eyes augmentation, these enhancements extend the spectrum of wavelengths the user's eyes can perceive. A portion of the color-sensitive rods are altered so that they are sensitive to infrared light, even in total darkness. This bioware provides natural thermographic vision. Due to the difficulty of the treatment, it is not possible to get "combo" eyes that combine several of the bio-vision enhancements.

- Cost: E$8000
- Sanity: 2

Subdermal Armor:

This armor is made up of thin layers of ballistic polymer composite placed directly under the skin. A Subdermal Armor confers a +4 AP bonus (cumulative with worn armor) and can protect against burn, bleed and collision, including falling from a certain altitude, such as from a bridge to the ground.

- Cost: E$49,000
- Sanity: 3

Symbiotes:

These tailored microorganisms introduced into the user's bloodstream greatly enhance its regenerative functions. To fuel the symbiote activity, the character must increase his consumption of food and drink. Healing rate is doubled and poisons, radiations or diseases potency is decreased by 5 points.

- Cost: E$10,000
- Sanity: 1

Synaptic Booster:

With this bioware, the nerve cells making up the spinal cord are encouraged to replicate and lengthen, providing a wider "datapath" for the transmission of impulses and decreasing the amount of time required for the signal to traverse the distance. The booster confers a bonus of +6 DEX rank to initiative. The synaptic booster cannot be combined with any other form of Initiative enhancement.

- Cost: E$80,000
- Sanity: 1

Trauma Damper:

A trauma damper is a clump of specialized receptors, implanted at the base of the thalamus, near the midbrain. Upon receiving sensory information indicating fatigue, pain, physical trauma or emotional shock, the damper triggers the release of concentrated endorphins and enkephalins—naturally produced opiates and painkillers. These substances do not aid in repairing the trauma, but they may keep the user alive and conscious long enough for him to receive medical help.

Whenever an emotional shock is inflicted upon a character with a trauma damper, the damper helps reduce the sanity loss by 2 (rounded down).

Given the feedback-driven nature of the trauma damper, it cannot function properly when used in conjunction with an activated pain editor. In characters implanted with damage compensators, the trauma damper will only operate properly after the compensators' ability to handle Physical and/or Stun damage has been exceeded. When combined with a platelet factory, the trauma damper is applied first, then the platelet factory effect is applied.

- Cost: E$40,000
- Sanity: 1

Vacuum Sealing:

Your body is modified to survive the effects of vacuum. You can seal your mouth, nose, and other orifices to prevent the freezing of bodily fluids from evaporative cooling. A special membrane protects your eyes, enabling you to see in vacuum with distortion or damage. Your system is also protected from the effects of decompression sickness and hypoxia. You are still vulnerable to asphyxiation, radiation, and possibly heat (in sunlight) or heat loss (in shade), and so this mod is often coupled with Extended volume or Low Oxygen Adaptation nanoware, and/or Smart Insulation.

- Cost: E$75,000
- Sanity: 3

Bioware Augmentations Table

Bioware	Augmentation	cost	SAN
Bone density	+3AP; +10% body weight	60,000	2
Cat's Eyes	Light amplification	7500	1
Chameleon's Skin	+40% to Stealth	32,000	3
Digestive Expansion	Digestion of inedible food	20,000	5
Echolocation	Location of invisible objects	15,000	2
Eagle's sight	Magnification up to x20; max range 4km	12,000	2
Electroshock	Damage in unarmed combat	25,000	3
Enhanced Pheromone Receptors	Detection of basic emotional cues	5000	2
Endocrine Control	Control over hormones and emotions	10,000	2
Extended Volume	Breath holding	4000	1
Fashion Eyes	Change eyes colour	5000	1
Fashion Hair	Change hair colour	1500	1
Fashion Skin	Change skin colour	1500	1
Gecko Hands	Adhesion to any surface	12,000	4
Gentech			
eye	-	4000	0
organ*	-	6000	0
hand/foot	-	8000	0
full limb	-	21,000	0
skin/hair	-	300	0
Kiss of Death	Tetrodotoxin secretion	15,000	1
Metabolic Arrester	Hibernation capacity	10,000	1
Muscle Augmentation	STR+3	7000	2
Muscle Toner	DEX+3	8000	2
Nictitating Membranes	Flashes and glare reduction	2000	1
Pathogenic Defense	CON+4 vs. POT disease	10,000	1
Platelet Factories	Reduced damage by 1 HP	25,000	1
Pain Editor	Ignore pain; BRA+1	40,000	3
Sleep Regulator	3 hours of sleep for 48 hours awakening	10,000	3
Smart Insulation	Thermal regulation from -40°C to +90°C	12,000	2
Snake's Eyes	Thermographic vision in total darkness	8000	2
Subdermal Armor	+4AP	49,000	3
Symbiotes	POT-5 to poisons, radiations & diseases	10,000	1
Synaptic Booster	+6 DEX rank	80,000	1
Trauma Damper	SAN loss /2	40,000	1
Vacuum Sealing	Vacuum exposure survival	75,000	3

*price for a specific organ (see organs improvement).

NanoTechnology

by Thomas Dowd, Paul Hume, Robert Charrette, Jordan Weisman & Mike McConnell

"In the early days of the Nanite Project, our goal was simple. Construct microscopic machines to cure diseases, grow new cells, regenerate bones. They was a control issue. Some thought a human-machine link was the answer. Others proposed that the machines control themselves. I was in latter cam. I developed the Alpha to control other nanites. To maximize its effectiveness, I had to program Alpha to think for itself."

Caesar Salazar – surviving scientist of the Nanite Project

The basic elements of nanotechnology are the nanites (technically incorrect but universal slang) or nanobots themselves: microscopic machines that work together to affect equally-small physical structures. The smallest nanites are the size of viruses; the largest are barely visible to the naked eye. Implanted nanites are usually about the size of human cells and take advantage of the body's own circulatory and digestive systems to move about. Most are so small they are powered by the body's own organic chemical processes and bioelectricity.

Current nanites are Simple/Repeat Task machines with specialized functions, minimal sensing ability, and no "intelligence" to speak of. Ignoring for the moment the dedicated processors that allow nanoforges and nanohives to retask and reprogram hard nanites, normal nanites are typically designed with a specific task or function in mind. Though each nanite is limited in size and function, nanotechnology is effective because thousands of nanites working in concert —collectively known as colonies—can accomplish things that a single large machine would be hard-pressed to match. For example, a nanotech colony can help doctors perform neurosurgery that would be dangerously invasive using a laser scalpel and fiberoptic probe, and a nanoforge's reprogrammable colony can turn a hunk of plastic into a trendy dress, commlink case, or pistol grip.

Nanoware Augmentations

Hard nanites are made of inorganic materials—diamondoid carbon and aluminum structures being the most commonly used—and resemble scaled-down drones built to take advantage of a frictionless environment and to affect their surroundings on the microscopic scale. Colonies working in concert are capable of incredible feats.

Soft nanites are composed of engineered proteins and resemble living cells and virii. This is partially because these structures are incredibly efficient, partially because soft nanites are "bred" from genetically modified strains of bacteria, virii, phages, and specialized cells—all neutered to avoid undesirable replication and mutation. Evolution's done an excellent job of providing working examples for research to follow. Soft nanites tend toward the smaller scale of nanomachines. Even though they tend to be less hardy and can't reproduce, they can replicate organic chemical interactions and biological functions with incredible precision.

Anti-rad:

Popular among spacejacks and workers in high-ambient radiation environments, anti-rad nanoware is a new development and quite inexpensive. This free floating system scours the body via the lymphatic system for tell-tale isotope traces, free radicals, and radiation damaged cells. Anti-rad nanites bind the contaminants in a solvent cage. In the case of cells, anti-rad nanites inject damaged or mutated cells with a compound that induces cytology-death, reigning in further division and mutation. The antirad nanites then attach to the waste and transport it to the nearest lymph node to be processed and evacuated normally. Anti-rad nanoware reduces the radiation level by 3. Anti-rad is intended as a prophylactic measure, and is unable to eliminate metastasized cancers or pre-existing cell mutations.

Daredrenaline:

Characters that possess daredrenaline use a modified version of the "fight or flight" hormone adrenaline and its natural receptor. This causes a greater mental alertness than the normal hormone, granting a +6 modifier on DEX SR. Characters with this gene mod become adrenaline junkies and must succeed in a POW vs. 10 to actively resist taking unnecessary risks or remaining in dangerous situations.

Dynomitan:

The dynamin nanobot is closely tied to the speed of neuronal transmission due to the cell's ability to absorb neurotransmitters. Dynomitan is an enhanced version of this protein, expressed exclusively in the sensory regions of the brain. Characters with this modification receive a +3 POW modifier to Intuition-linked skills or luck roll.

EMD:

An array of nanomachine receivers below the skin allows the character to detect a chosen type of electromagnetic radiation within a 30m radius. The character will detect the direction to the nearest significant source of the field, and the strength of the field.

Examples of electromagnetic radiation types:

- Radio
- Microwave through far infrared
- Ultraviolet
- X-rays
- Gamma rays

Extended Lifespan:

Longevity treatments extend the character's lifespan well beyond the norm. This involves a colony of nanites antioxidants which adds 10 years to character's potential lifespan. Nanomachines permeate the patient's body, instructing and assisting every viable cell in what repairs to make. Nonviable cells are programmed to apoptose (self-destruct), or are removed and replaced with clones of healthy cells.

Guardians:

In a world where hostile nano can be used as insidious weapons, people will want to protect themselves. Guardians are adaptive bio-nanomachines that will recognize any other bio-nanomachines already present in the body when they are first introduced. They give a +15 CON bonus against intrusive nanomachines.

Immunization:

This therapy infers near-immunity to a specific disease pathogen, toxin, or other compound. Specialized nanobots are created within the body that produce monoclonal antibodies, targeting a specific substance. These antibodies provide a swift response to a foreign contaminant, bestowing significantly improved resistance on the patient.

Patients can be immunized in this fashion against any common bacterial infection and certain bacterial endotoxins, chemical toxins, and other harmful chemical or biological agents. At the gamemaster's discretion, any given immunity may partially extend to related or similar pathogens or toxins, by halving (round down) their Resistance.

Pheromones:

This augmentation allows a character to produce a chemical factor on command, which can then trigger a targeted social response in members of the same species. An opposed POW vs. Constitution of the character must be made by anyone within range.

Typical types include:

- **Anger**: target becomes enraged. They will be unable to think rationally or take sensible defensive measures. BRA + 6 on fortitude rolls.
- **Calming**: target becomes pacified. Confers +25% on any subsequent perception skills.
- **Desire**: target develops an uncontrollable attraction to the character. Confers +25% on any communication skills.
- **Fear**: target becomes irrationally afraid. Unable to attack. Will flee if possible. BRA – 6 on fortitude rolls.
- **Nausea**: target is overcome with acute nausea. -25% on all skills until effect ends or until they move out of the influence of the pheromone.

Low Oxygen Adaptation:

Adaptations for environments low in oxygen replace a few metabolic pathways with anaerobic equivalents originating from bacteria. Additionally, an adapted subject is usually outfitted with enhanced versions of hemo and myoglobin in his bloodstream. These allow the subject to survive in a low-oxygen environment for an extended period of CON x 10 minutes before feeling an urge to breathe again.

Magnesense:

These nanobots produce a biological iron cluster, called magnetite. In migratory animals, clustering of magnetite is associated with their ability to know when and how to migrate. Selective expression of this protein in the inner ear allows the subject to sense the presence, direction, and intensity of magnetic fields, such as those generated by electronics, power supplies, or magnetic anomaly detectors, as a low thrumming sound. This modification also grants an unerring ability to identify magnetic north.

Microgravity Adaptation:

The side effects of space habitation and return to Earth-normal gravity are reduced by alteration of bone and muscle density, fluid density, pressure receptors, and the otolith organs in the middle ear. Characters with this adaptation are not subjected to any form of space sickness during launch or landing. Any negative dice pool modifiers imposed for operating under micro-gravity conditions are negated. The character does not require any medical treatment when returning to Earth.

Pollution Tolerance:

Engineering pollution tolerance relies on nano machines capable of isolating and disposing of heavy metals or rendering organic contaminants toxins inert. Further, modifications include the enhancement of the body's natural metabolic enzymes to deal with toxins more efficiently and to alter cellular receptors and metabolic intermediaries to be resistant to pollutants. Characters with this adaptation receive a +9 CON modifier for the purpose of resisting chemical attacks from pollutants, heavy metals, and other related toxins.

PuSHeD:

The PostSynaptic HyperDensity nonabots increase the size of neuronal bundles throughout the central nervous system. This has statistically been shown to grant an increase in subjects' IQ. Characters receive a +25% on any mental skills.

Respirocytes:

These function like oxygen-carrying red blood cells, but with many times the transport capability. They store extra oxygen, transport it around the body, and release it in intelligent fashion in response to need. They also extract carbon dioxide and absorbed nitrogen from muscle tissue and carry it rapidly to the lungs for excretion.

Nanoware Augmentations Table

Bioware	Augmentation	Cost (E$)
Anti-rad	Rad POT / 3	10 000
Daredrenaline	+6 DEX SR	25 000
Dynomitan	+3 POW Intuition or luck roll	25 000
EMD	ElectroMagnetic radiation detection	45 000
Extended Lifespan	+10 years to lifespan	250 000
Guardians	+15 CON bonus vs nanomachines.	40 000
Immunization	Immunization to specific chemical or biological agent	30 000
Pheromones	Variable	25 000
Low Oxygen Adaptation	Survival in a low-oxygen environment for CON x 60 minutes	35 000
Magnesense	Identification of magnetic north	20 000
Microgravity Adaptation	Immunity to space sickness	30 000
Pollution Tolerance	+9 CON to chemical toxins	35 000
PuSHeD	+25% on any mental skills	15 000
Respirocytes	CO2 extraction	20 000

Proteus Nanovirus

These nanomachines enter the body and rewrite the genetic code. Taking control of the cell's metabolism, they can alter the genetic information contained within the DNA, or insert entirely new genes. They can he delivered via injection, aerosol, etc. An almost infinite variety of proteus viruses exists. A proteus virus can perform relatively "soft" changes, whose effects will be seen in altered skin cells or blood cells, modified neurochemistry and so on. An extremely sophisticated kind of proteus virus, called a metamorphosis virus, can produce actual changes in the body's anatomy.

Each proteus virus has a cost and a time required. This time is the number of days it takes the virus to replicate throughout the body and finish its work; there is no "operation" – one merely takes a pill or receives an injection. Unless using a metamorphosis virus, no rest is required – the nanovirus performs the work quietly and without fuss.

Birth control

After onset of first pregnancy, it fools the mother's immune system into attacking developing blastocysts resulting in undetectable early abortions of second or later children. Subject becomes Sterile (After one child. -75%).

- ■ Potency: 15
- ■ Resistance: 12 – every 24h

Destruct Nano

These bio-nanomachines wait in a dormant state until triggered. The trigger depends on the exact brand of destruct nano, but various possibilities include: eating a specific food; sexual arousal; the touch of a particular person (whose genome was programmed into the poison); a particular chemical scent, or even the use of another type of drug or nano (either a specific type or any type). Once the destruct sequence is triggered, they immediately begin the job of sabotaging and dismantling cells. The victim gets a Stamina roll to resist every minute; failure results in 1d3 damage. This continues until the victim is dead, or the poison is stopped by a nanotech counter-agent such as Guardians.

- ■ Potency: 20
- ■ Resistance: 30 – every minute

Melder

This virus slowly breaks down the target's body, converting the biological materials into some sort of biofilament that then meshes with implants, electronics, and physical objects and structures. In effect, the biological and synthetic are melded together, continuing to expand and grow, consuming anything around them into their growth. Victims suffer 1d6 HP every hour, implants become inoperable after 2 failures of a stamina roll, and the target becomes fully transformed and absorbed into the new melding substance after 12 hours.

- ■ Potency: 16
- ■ Resistance: 12 – every hour

Metastasizer

This sophisticated smart protein massively reprograms the target's cells to go rapidly, autocannibalistically cancerous. After CON failures of a stamina roll, the target suffers death by dozens of supercancers.

- ■ Potency: 18
- ■ Resistance: 24 – every hour

Transhumanism

by Halopedia, Jon F. Zeigler, Chris Carter, David Pulver, Edward Simbalist & Rob Boyle

"Homo sapiens, the first truly free species, is about to decommission natural selection, the force that made us… Soon we must look deep within ourselves and decide what we wish to become."

Edward Osborne Wilson – biologist & theorist

Transhumanism is a term used synonymously to mean "human enhancement." It is an international cultural and intellectual movement that endorses the use of science and technology to enhance the human condition, both mentally and physically. In support of this, transhumanism also embraces using emerging technologies to eliminate the undesirable elements of the human condition such as aging, disabilities, diseases, and involuntary death. Many transhumanists believe these technologies will be arriving in our near future at an exponentially accelerated pace and work to promote universal access to and democratic control. In the long scheme of things, transhumanism can also be considered the transitional period between the current human condition and an entity so far advanced in capabilities (both physical and mental faculties) as to merit the label "posthuman."

The Transhumanist movement had roots stretching back into the 20th century. In fact, some of the movement's earliest leaders were still active in the 2050s, having taken an interest in life-extension technology from the beginning. The movement was driven by people of all ages and from all walks of life, including a number of wealthy entrepreneurs and influential artists.

Most of the older Transhumanists were committed to promoting their ideals through established social institutions. On the other hand, in the 2250s the movement attained a great deal of popularity among young adults in the developed nations. In some ways, these young mid-century Transhumanists resembled American and European radicals of the 1960s. They laid the same emphasis on moral value, made the same demands for freedom and justice, and mounted the same aggressive challenge to established institutions. Their foremost complaint was that the original Transhumanist ideals had been hijacked by a corporate and political "establishment," which was interested in life extension but tended to oppose the rest of the Transhumanist program. These young radicals insisted that the benefits of new technology should be made available to everyone, not used to tighten the grip of a reactionary elite on social power.

Led by their elder heroes, the young Transhumanists had a profound effect on the politics and social life in the region of space known as the 'Herculis Cluster'. In this they again resembled the radicals of the 20th century, who lost many specific battles but still managed to permanently change the social landscape. Unfortunately the revolutionary young Transhumanists also emulated some of the darker features of 20th century radicalism. Some of them destroyed themselves by undergoing untested genetic therapies, using dangerous drugs, or accepting illegal cybernetic implants. Others pursued violent protest against established corporate, governmental institutions and the UEF. Still others turned away from a world they saw as corrupt, forming that would become the Free Worlds Alliance (FWA) and the Eurasian Rimworlds Combine (ERC).

On Earth, the Genetic Regulatory Agency was often portrayed as a conservative reaction to Transhumanism. The agency's mission has recently been extended to deal with bioroid trafficking and the threat of genetic terrorism. The GRA has authority only within the territory of the UEF. Some allege that the GRA is biased toward a strongly Preservationist ideology, acting against transhumanism even when no danger to society has been demonstrated. Rumor also has it that the GRA operates a covert-activities branch, sabotaging genetic and IA research facilities of which the UEF doesn't approve but which are outside the agency's direct sphere of authority.

Parahumans aka Hybrids

> *"I'm not human, but my ancestors were, and what they dreamed, we are."*
>
> *Gwendolyn Ingolfsson*

The creation of "parahumans" was almost an inevitable consequence of advances in practical genetics. Having moved on from simply eliminating problems to ensuring the presence of desirable traits, researchers dreamed of designing completely new genetic sequences which made the resulting offspring much "better" (that is, closer to someone's arbitrary objectives). The exact meaning of "parahuman" is occasionally disputed, but the usual working definition is a new human derived being not naturally inter-fertile with normal unmodified humans. This usually implies the presence of completely new genetic sequences, or configurations which result in an automatic mismatch when such a couple tries to have children. This makes parahumans members of a different species from Homo sapiens, by most biologists' definitions.

Throw in the older, simpler aversion to "meddling with human nature," and worries about parents imposing their prejudices on their unborn offspring, and it was inevitable that parahuman development work would often be prohibited or severely restricted. However, it proved impossible to stop. People – some of them very rich – wanted "the best" for their children, or wanted children as beautiful status symbols, and the black and gray labs were by now experts at evading legal restraints.

Some of the earliest development took place off Earth, or at least was aimed at the space market, as "normal" humans were obviously unfit for various environments which human factions wanted to settle. Scientists of the FWA spent decades trying to create human hybrids, experimenting on a number of different individuals using slightly different methods. Some of these experiments were carried out using the knowledge obtained from Eurasian Rimworlds Combine scientists who came to the FWA after The Colonial Wars.

To ensure economic and strategic independence, the FWA designed several variant humans able to live comfortably in hostile environments for which mundane technology is not available or at an expensive price. Adaptation to a specific ecological niche is only one goal met by genetic engineering. The most frequent approach is to give the variant type greater general capability, making it "human, only more so."

Drylander Parahuman

Attribute Modifiers	STR-1; CON+2; DEX+1; BRA+1
Advantages	Decreased Life Support; Filter Lungs; Nictating Membrane; Night Vision; Resistant to Poison; Temperature Tolerance (Comfort zone between 2°C and 60°C).
Disadvantages	Skinny; Unnatural Feature.
Features	Taboo Traits (Genetic Defects, Mental Instability). Transgenic features (Catlike eyes which reflect light at night, light coat of scales).
Cost	E$85,000

Drylanders were designed to live comfortably in some of the world's most arid regions, tending wilderness preserves or assisting in desert reclamation projects. They appear nearly human from a distance, but have a number of transgenic features that become apparent up close. The type's metabolism has been carefully altered to conserve water and deal with wind-blown dust. The large eyes have been radically modified, giving them keen night vision and protecting them with a nictating membrane. As a result, Drylanders can function quite well in the cool desert night, and many of them prefer a nocturnal existence.

Herakles Parahuman

Attribute Modifiers	STR+2; CON+4; DEX+3; INT+2; BRA+3; APP+2
Advantages	Extended Lifespan; Early Maturation; Immunity to Disease; Immunity to Poison; Rapid Healing; Reduced Sleep; Reproductive Control; Sanitized Metabolism.
Disadvantages	Increased Life Support (Double food intake); Overconfidence; Unusual Biochemistry.
Features	Taboo Traits (Genetic Defects, Mental Instability).
Cost	E$231,000

Pushing the limits of genetic technology, the Herakles series represents one of the most elaborate Homo superior designs available in 2270. The first cohorts are only now approaching adulthood. The expense of the genotype (and its apparent problems) have limited the type's appeal. There are only about 2,000 Herakles parahumans alive, most of them in the 18 Scorpii star system.

The muscles, skeleton, and nervous system have all been engineered for maximum performance. The immune system and overall biochemistry have been broadly modified to allow virtual immunity to toxins, infectious disease and cancers. Several changes to cell structure allow dramatic extension of lifespan. Finally, modifications to the brain allow a Herakles to get by with very little sleep.

The sum of these modifications appears to have stretched the state of the art in human gengineering to its limit. Next-generation designs will probably supplement genetic alteration with symbiotic viruses or other techniques. For now, the Herakles is plagued with minor metabolic and psychological problems.

Misha Parahuman

Attribute Modifiers	STR+1; CON+1; SIZ+1
Advantages	Disease-Resistant; Metabolism Control (Limitation: For hibernation only, -50%); Resistant to Poison; Temperature Tolerance (Comfort zone between -60°C and 20°C).
Disadvantages	Bad Temper; Overweight; Sleepy (50% of the time); Staid.
Features	Taboo Trait (Genetic Defects).
Cost	E$69,000

This parahuman type was one of the first human subspecies to be created. The type borrows a great deal from ursid genetics, giving it thick body hair (effectively fur), strong resistance to cold, and a moderate ability to hibernate. Side effects of the modifications include a bearlike temperament and an increased need for sleep year-round. Mishas can function without special clothing or equipment in temperatures as low as -60°C. When the temperature gets below -50°C, however, they feel a strong urge to find shelter and hibernate. This occasionally helps them to survive extreme conditions, but it can be inconvenient when there is work to be done. Drugs and other treatments can mitigate the hibernation urge, but have undesirable side effects.

Nemo Parahuman

Attribute Modifiers	STR+2; CON+2; DEX+1; POW+1
Advantages	Disease-Resistant; Enhanced Move (Swimming); Immunity to Poison (Only gas narcosis); Nictating Membrane; Oxygen Storage; Pressure Support (unaffected by SAD); Resistant to Poison; Temperature Tolerance (Comfort zone between 0°C and 35°C).
Disadvantages	Overweight.
Features	Transgenic features (Smooth mottled gray or black skin; webbed fingers and toes).
Cost	E$135,000

The Nemo parahuman is an advanced form of Human able to can live underwater. Perflubron fluid is used instead of blood and radical nerve tissue re-engineering has altered cerebral myelin, granting resistance to the bends and nitrogen narcosis. Nemos can hold their breaths for periods similar to a dolphin, or use nitrox breathing gear for operations as deep as 200 meters with no ill effects or need for decompression.

Ranger Parahuman

Attribute Modifiers	STR+1; CON+1; DEX+1; BRA+3
Advantage	Absolute Direction; Acute Hearing; Acute Taste and Smell; Cast Iron Stomach; Discriminatory Smell; Disease-Resistant; Resistant to Poison.
Disadvantages	Bad Temper; Light Sleeper; Overconfidence.
Features	Taboo Traits (Genetic Defects, Mental Instability).
Cost	E$110,000

This parahuman type is fairly recent, depending as it does on several radical modifications of the basic human sensorium. The goal was to produce a genotype which would be able to survive in almost any wilderness environment, alone and with a minimum of technical support. A magnetic-field sense was borrowed from migratory birds, and several sequences for acute hearing and smell were also added. The digestive system and metabolism were upgraded to allow the consumption of almost anything organic. The genotype's unusual senses are not perfectly integrated into the brain, leading to irritability and chronic insomnia. Meanwhile, subtle tinkering aiming for a self-reliant attitude may have been too successful.

Clones aka In Vitroes

"If you believe God created man in His own image, you believe He gave man power to understand evolution, to exploit science, to manipulate the genetic code. To do exactly what I'm doing. I'm just taking over where God left off."

Michael Drucker – CEO of Replacement Technologies

Clones are duplicates of existing humans, used for various purposes by the Eurasian Rimworlds Combine. A clone normally has a slightly different appearance, since many features develop after conception (such as fingerprints). The GM should decide which advantages and disadvantages reflect heredity and which represent acquired characteristics.

A human or animal clone can he created by taking a live tissue sample of a person, removing cells, and carefully starving them until they become still living but quiescent. The donor cells are then fused with an egg cell taken from a female of the same species: the egg cell's oven nucleus (with its DNA) is removed. This procedure takes about 3 days and costs E$500. Now awakened, the egg cell, with donor nucleus, forms embryonic cells that can be implanted alter a week or so in the donor (if female), or a surrogate mother or exowomb. It then develops, like any other embryo, becoming a fetus and then a baby.

Clones can be created at any biological age, from infant to elderly. They have no memories or knowledge that belonged to the parent organism, but computers can be programmed to empathically store the thoughts and memories of an individual, making it possible for these to be imprinted upon a clone. It is therefore possible for individuals to make a younger version of themselves and then to have their consciousness replaced into the new body. This gives the ability to offer select humans effective immortality.

While not having the knowledge of the original person, clones are physically indistinguishable from them. These duplicates will pass any security test that does not require informational questioning. Rumors of these technologies have begun to filter through to the very highest levels of governments, creating something of a clone-panic amongst the highest-placed officials.

Human clones have full civil rights but it is illegal to clone humans in the UEF; there are some difficulties with producing viable organisms from cloning. Even though all the genes are transferred, some do not appear to "switch on and off" as they should, resulting in an increased number of abnormalities in many cloned animals. Any clone, human or animal, is likely to have hereditary disadvantages. Problems noted in animal clones have included a level of Short Lifespan, a tendency toward obesity (e.g., Overweight, Fat, etc)., and problems with the immune system manifesting as Susceptible to Disease.

The Spartan Project

> *"They stand alone — undaunted — before the mightiest enemy in the universe. But these are no ordinary men. They are SPARTANS..."*
>
> *Book detailing the SPARTANs' status*

Spartans are members of a series of UEAF projects designed to create physically, genetically, technologically, and mentally superior super soldiers as special fighting units, known simply as "Spartans".

The basic concept for the SPARTAN programs has been around since the late 22nd century when the first bioengineering protocols were developed. Since the establishment of these protocols humans have been using performance-enhancing equipment and augmentations to make them stronger and faster than previously possible.

The first major effort to create augmented super soldiers was the ORION Project, later retroactively dubbed "SPARTAN-I", which used operatives drafted from the UEAF. The subsequent programs, SPARTAN-II and SPARTAN-III, were highly successful, but also controversial because of their dubious ethics concerning the use children as candidates.

The physical augmentation they undergo to turn them into super soldiers is lengthy, expensive, and strenuous, with not all of them surviving the process. Both male and female SPARTANS average 2.1 m tall. After being recruited into the UEAF, the Spartans' last name are disposed of; their call sign is simply their first name, and a corresponding 3-digit figure (for example, John-117).

Human biochemical experiments and enhancement procedures have been a part of society dating back to the 20th century. Their gains have attracted widespread attention in the hopes of improving human strength and endurance. Military experimentation of such enhancements has always been limited for the sake of moral and ethical concerns. However, as technology improved and as scientists continued to understand the human body, advancements paved the way for the eventual use of body enhancement chemicals.

	Spartan-II		Spartan-III		Spartan-IV	
	Characteristics	Avg	Characteristics	Avg	Characteristics	Avg
STR	2D6+7	14	2D6+8	15	2D6+8	15
CON	2D6+6	13	2D6+7	14	1D6+12	15
SIZ	1D6+17	20	1D6+17	20	1D6+17	20
INT	3D6	11	3D6	11	3D6	11
POW	3D6	11	3D6	11	3D6	11
DEX	1D6+12	15	1D6+12	15	1D6+12	15
APP	3D6	11	3D6	11	3D6	11
BRA	2D6+6	13	1D6+12	15	2D6+6	13
Move	10		10		10	
Hit Points	33		34		35	
Damage Bonus	+1D6		+1D6		+1D6	

SPARTAN-II Program

> *"First we taught them how to be silent. Then we taught them how to be Spartans."*
>
> *Dr Catherine Halsey*

The first bio-engineering protocol was established to help humans adjust to long duration spaceflight and different planetary environmental conditions, and subsequently for interplanetary war. The fruition of such procedures to help

create a superior soldier did not solidify until the limited success of the ORION Project, which would pave the way for the success of the SPARTAN-II Program.

Although the subject was in a state of unconsciousness, where the subject should not have felt any pain, the effects of the augmentation procedures produced excruciating pain. Physiological stress of the augmentations could have lead to cardiac arrest, in addition to cross-chemical complications that could result in augmentation failure.

Each procedure was marked with its own unbearable pain. The carbide ceramic ossification was said to feel like the subject's bones were breaking, as if their marrow was made of glass and was being shattered. The catalytic thyroid implant and muscular enhancement injections produce extraordinary pain as if the subject's veins had been injected with napalm, as well as pulsating, and the feeling of them being torn out of the subjects skin. The effect of the muscles increasing in density is said to feel like the entire body was on fire mixed with the feeling of plate glass shattering and being worked into the subject's body. The superconducting fabrication of neural dendrites was said to feel like fire was burning along the subject's nerves on their spines.

The side effects of completing the augmentations varied, as the subject's brain re-learned how to move their body with faster reflexes and stronger muscles. The subject may have experienced neurological confusion that included falling over, exaggerated reflexes, and difficulty grabbing and holding objects. The subject could have experienced bleeding eyes, intense pain, constant headaches, and aches in the bones.

As time went on, the side effects for successful subjects diminished either completely or to the point where it was considered mild. One observed physical effect; the result of being fed growth hormone supplements, many SPARTANs were exceptionally tall and heavy. Heights exceeding two meters were practically ubiquitous among them and weights in excess of 90 kg were common.

SPARTAN-II augmentation procedures Table

Procedure	Description	Risk(s)	SAN
Carbide Ceramic Ossification	Advanced material grafting onto skeletal structures to make bones virtually unbreakable. Recommended coverage not to exceed 3% total bone mass because of significant white blood cell necrosis.	Specific risk for pre-and near-postpubescent adolescents: skeletal growth spurts may cause irreparable bone pulverization.	3
Muscular Enhancement Injections	Protein complex is injected intramuscularly to increase tissue density and decrease lactase recovery time.	Five percent (5%) of test subjects experience a fatal cardiac volume increase.	2
Catalytic Thyroid Implant	Platinum pellet containing human growth hormone catalyst is implanted in the thyroid to boost growth of skeletal and muscle tissues.	Rare instances of Elephantiasis. Suppressed sexual drive.	1
Occipital Capillary Reversal	Submergence and boosted blood vessel flow beneath the rods and cones of the subject's retina. Produces a marked visual perception increase.	Retinal rejection and detachment. Permanent blindness.	1
Superconducting Fibrification of Neural Dendrites	Alteration of bioeletrical nerve transduction to shielded electronic transduction. 300% increase in subject reflexes. Anecdotal evidence of marked increase in intelligence, memory, and creativity.	Significant instances of Parkinson's Disease and Fletcher's Syndrome.	5

Only a few months after augmentation procedures, the SPARTAN-IIs were noted of being capable of running at speeds exceeding 55 km/h.

The SPARTAN-IIs are capable of lifting three times their body weight, which is double the normal weight of an average human due to the ceramic bone augmentations, in addition to their increased muscle density.

A SPARTAN-II's reaction time, while impossible to chart accurately, is estimated to be twenty milliseconds. Their reaction times are significantly faster in combat situations or with A.I. assistance. The reaction times of the SPARTAN-IIs are so fast that they are able to think, react and see things happen in slow motion. This phenomenon is nicknamed "SPARTAN Time". SPARTAN-IIs are also known for their sharp eyesight being able to virtually see in the dark.

SPARTAN-III Program

"Make the units better with new technology. Make more of them. And make them cheaper."

Colonel James Ackerson

The SPARTAN-III program was both the successor and supplement to the SPARTAN-II program. Created and engineered by Colonel James Ackerson of the Office of Naval Intelligence, the SPARTAN-III soldiers were to be the next generation of super soldiers. They would be cheaper to arm, train, and produce; being chosen from a wider pool of candidates, they would also be more numerous than their SPARTAN-II predecessors. They would rely on superior battle tactics, and teamwork rather than advanced technology and equipment to achieve their combat effectiveness.

The SPARTAN-IIIs were designed to be cheaper and expendable. They would be trained in companies of 300 to 330 at a time, with a training regime tougher than that of the previous Spartan Program. They were sent on suicide missions that the UEAF could not accomplish with a conventional invasion force, elite Orbital Drop Shock Troopers, or even SPARTAN-IIs. Though the casualty rates of the SPARTAN-IIIs stood at 100 percent on some missions, all the operations were strategic successes.

Only SPARTAN-IIIs who have survived two or more specially assigned training missions can join the "Headhunters." These two-man teams of SPARTAN-IIIs go on missions far behind enemy lines and are typically expected to die in combat. The Headhunters' existence is secret even to their peers. Once selected, candidates for the program are separated from their fellow SPARTANs and are sent to Onyx, a specialist training camps of Pluto. The Headhunters are comprehensively evaluated in order to ensure an effective bond between the members of each team. A contingent of six two-man teams, as well as five additional Headhunters, is maintained at all times to ensure the program's numbers remain constant should one or both members of a team be lost. The Headhunters' SAS Predator armor is more advanced than the suits issued to most SPARTAN-IIIs, as it includes energy shielding, motion sensors, and VISR technology, and can also support a prototype active camouflage module.

SPARTAN-III augmentation procedures Table

Drug	Description	Effect	SAN
8942-LQ99	"carbide ceramic ossification catalyst" drug.	Skeletons become virtually unbreakable, allowing survival in harder impacts.	3
88005-MX77	"fibroid muscular protein complex" drug.	Increased density of individual's muscles, allowing heavier lifting.	2
88947-OP24	"retina-inversion stabilizer" drug.	Color sharpness is significantly improved upon, and night vision is adapted.	1
87556-UD61	improve the colloidal neural disunification solution.	Greatly improves the individual's reaction time, decreasing the time taken to react by 300%. "Spartan time."	5
009127-PX (cyclodexione-4)	bipolar integration drug	Counters the effects of 009762-OO.	-

009762-OO	Neural-altering non-carcinogenic mutagen.	Alters key regions in the individual's frontal lobe. Enhances aggressive response to dangerous levels. Requires regular doses of 009127-PX and 009927-DG to be taken to avoid uncontrollable aggression.	2
009927-DG	miso-olanzapine	Counters the psychological effects of 009762-OO.	-

Project CHRYSANTHEMUM is a set of Spartan-III bio-augmentation procedures, similar to those of the Spartan-IIs. With advances in technology, however, the casualty rate for SPARTAN-III Program candidates was 0%, as opposed to the 56% casualty rate of the Spartan-IIs.

The Spartan-III augmentation procedures were less invasive due to them mostly being chemically induced as opposed to the surgical augmentations the Spartan-II's received. However, the augmentations that the Spartan-III's received still had to be administered at the onset of puberty or the subjects body would reject them. Due to the accelerated schedule of the SPARTAN-III Program, the candidates were administered growth hormone, cartilage, muscle, and bone supplements 9 months before augmentations to artificially induce puberty at the average age of 12 years old. In light of this, the candidates possessed the physiques of adult Olympic athletes despite being on average, only 12 years old.

SPARTAN-IV Program

> *"There won't be any program — not like the Spartan-Twos, anyway. Or the Spartan-Threes, if I can help it. We're back to using consenting adults now, like we did in Project Orion."*
>
> *Margaret Parangosky*

The SPARTAN-IV Program is the fourth generation of the SPARTAN Program consisting of members recruited from the UEAF's military who were augmented to be capable of wearing a new variant of the Mjolnir PAPA armor. This phase was initiated by Admiral Margaret Parangosky after the Colonial Wars.

Sometime prior to the public iteration of the SPARTAN-IV program, BRINT Section III authorized a top secret, experimental phase of the program, without direct permission from High Command. This variation of the program would attempt to produce super-soldiers whose physical prowess rendered Mjolnir obsolete. Only one of the ten candidates survived the augmentation process. He was considered mentally unstable due to the augmentations and was forced deep within the layers of BRINT.

Similar to the original ORION Project, the SPARTAN-IV Program would only consist of adult volunteers as opposed to young children. When the program was started, surviving members of previous Spartan generations were offered an opportunity to be integrated into it. SPARTAN-IV recruits are drawn from active combat veterans of any branch as well as young soldiers who show potential to be Humanity's next guardians. The physical augmentations of the SPARTAN-IVs, while more advanced than their predecessors, still cannot produce similar results without risk of a high failure rate, due to the lack of genetic requirements. This drawback is reconciled by modifying the individual to the closest margin possible of the two previous Spartan programs physical results and then relying on Assault PAPA armor to enhance the Spartan's abilities.

SPARTAN-IV augmentation procedures Table

Procedure	Effect	SAN
Carbide Ceramic Ossification	Advanced material grafting onto skeletal structures to make bones virtually unbreakable.	3
Muscular Enhancement Lining	Compound applied to the exterior surface of all muscles, allowing them work harder without tearing the Spartan's skeleton apart.	2
Pulmonary Polymer Lining	Greatly increases oxygen intake and retention, helps process toxins from the air and allows SPARTANs to breathe certain non-oxygen atmospheres for up to an hour.	1
Corneal Implants	Boosted perception and massively increased night vision.	1
Cardiac Implants	Strengthens cardio-vascular tissue and increases maximum heart rate to safely allow massive adrenaline flow without the risk of stroke or heart attack. These implants supposedly are able to allow an unarmored SPARTAN-IV to run at a maximum speed of almost 64 km per hour.	1
Artificial Pancreas Implant	Allows the SPARTAN's body to extract the maximum amount of nutrients and carbohydrates from food with minimal waste.	1
Artificial Platelet Injections	Enhances the body's ability to slow bleeding and clot wounds.	1

Other Enhancements	known	Nerve cells were super-myelinated to speed up reflexes, bones were lengthened and joints were reinforced. Many organs were modified or otherwise replaced.	6

Becoming A Spartan IV

All Human Characters and ORION Soldiers can opt into the Spartan IV Program if they meet various requirements. Characters who have committed war crimes, has been Dishonorably Discharged, or have had multiple instances of being on Trial are prohibited from the Spartan IV Program.

Only with GM approval can a Character continue this path. When a Character does get accepted to do the operation, they undergo extreme biological augmentations that convert their current Soldier Type to the Spartan IV Soldier Type.

For a Character to be accepted, the GM makes the decision whether the UEAF would see them fit to join the Spartan Ranks. This can be through Skill, showing exemplary ability or prowess on the battlefield, or through special BRINT fastback programs. The following section reveals the possible prerequisites that would allow the Character to advance through the program.

- **The Fast Track Process**

    New Characters are not allowed to become Spartan IVs unless they have entered a BRINT Fastback Program. These are special occurrences which happen to less than 0.1% of all applicants.

    To enter through the Fastback Program, you must be able to offer 5 Skills at expertise level 4+ not related to combat that can be used to assist other Spartans. This can be seen as a Support Role.

- **The Veteran Process**

    Characters that have a large amount of time in missions are eligible for the Spartan IV Program. This involves those who have had multiple types of missions spanning over 5 months' worth of active missions. The Character must also have a minimum of 5 Skills at expertise level 4+.

    Veterans of war have the highest chance of being put into the Spartan IV Program, and are generally pushed ahead of others due to their worth on the battlefield.

- **The Utility Process**

    Characters who offer the UEAF impressive Abilities, Skills, and Education are eligible for the Spartan IV Program. These Characters must have a minimum of 4 Skills at expertise level 4+ and requirements STR/14+, CON/14+, SIZ/15+, DEX/14+, INT/10+, POW/13+, BRA/15+. Those who meet this requirement are wanted for their expertise in various fields that can prove useful to the UEAF.

Once eligible for the Spartan IV Program, Characters enter a waiting period. Veterans are given a 2-week waiting period, those within the Utility Process are given a 4-week waiting period, and those in the Fast Track Process are given a 6-week waiting period.

Once the Character is through their waiting period, they go in for the augmentation operation. These operations take only 5 hours to complete, but the Character needs time to heal and recover from the stress put on their body.

After the time spend healing, the Character undergoes a week of physical therapy and a month of training their new enhanced attributes. Once a Character is done with the many procedures, therapies, and training, they're ready to be placed on the battlefield.

Game System

by Steve Perrin, Rob Boyle, Bruce Graw, Thorin Tabor, Paul Fricker & Mike Mason

> *"We thought we were alone. We believed the universe was ours."*
>
> *Lieutenant Colonel T.C. McQueen – 58th UEAF Marine Corps*

Evaluating Success or Failure

Sometimes your character's efforts in performing an action can have very different results: a good toss at darts will hit the board, while a lucky or exceptional throw hits the bull's-eye. There are five degrees of success for any type of action roll. Ranked from worst to best, they are as follows:

Fumble	00 or < 5% chance of failure	Bad luck, incompetence, or Murphy's Law sometimes conspires to produce the worst possible result. Spectacular failures are called fumbles. The chance of fumbling an action roll equals 5% (1/20th) of the chance of failure.
		Fumbled actions never yield any beneficial results, and always end up impeding or harming your character (or his friends) through disastrous or unintended results.
Failure	> chance of success	Die rolls that are higher than the base chance fail.
		Some failures cost your character nothing more than perhaps a little dignity, while others can be costly in terms of time, money, or physical damage.
Success		Any roll with a result in the upper 4/5 of the base chance qualifies as a success. Successes accomplish the action with average results.
Special Success	< 20% chance of success	Some skill attempts are better than average, and yield extra benefits for your character. Actions achieve special success if the die roll is equal or less than 1/5 your character's skill rating. Round fractions using normal rounding.
		In combat, an attack that scores a special success can inflict a knockdown or impale based on the type of weapon.
Critical Success	01 or < 10% chance of success	Sometimes your character will perform an action so well that the results are truly extraordinary. Rolls that are equal to or less than 1/10 of the skill rating are a critical success. Round fractions using normal rounding.
		Critical successes yield the best of all possible results. Weapons that critically hit utterly bypass the target's armor and do maximum damage (plus the normally rolled damage modifier); while skill rolls may yield double the average results or other benefits.

Resistance Rolls

Some actions require more than skill or natural ability: obstacles must be overcome for the character to succeed. In these cases, Game Masters should refer to the resistance table and call for a resistance roll. Resistance rolls rarely involve skills, instead pitting characteristics or other measurable quantities against each other.

To make a resistance roll, compare the active factor to the passive factor on the resistance table. The active factor is the party or force trying to influence the passive factor. The following circumstances are all good examples of resistance rolls:

■ Potency 17 venom (active) poisons your character with a CON 15 (passive). The venom is trying to inflict damage on your character, so the venom is active.

■ Your character has a STR 18 (active) and tries to move a SIZ 25 (passive) boulder. Your character is trying to move the boulder, so his STR is active.

■ Your character with SIZ 16 (passive) tries to crawl through a crack with SIZ 12 (active). In this case, the crack's SIZ is restricting your character's movement, so it is the active force (even though it would seem to be the other way around).

The Resistance Table

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Active Characteristic																					
1	50	55	60	65	70	75	80	85	90	95											
2	45	50	55	60	65	70	75	80	85	90	95										
3	40	45	50	55	60	65	70	75	80	85	90	95									
4	35	40	45	50	55	60	65	70	75	80	85	90	95								
5	30	35	40	45	50	55	60	65	70	75	80	85	90	95							
6	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95						
7	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95					
8	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95				
9	10	15	20	25	30	35	40	45	50	55	70	75	70	75	80	85	90	95			
10	05	10	15	20	25	30	35	40	45	50	65	70	65	70	75	80	85	90	95		
11		05	10	15	20	25	30	35	40	45	60	65	60	65	70	75	80	85	90	95	
12			05	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
13				05	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
14					05	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
15						05	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
16							05	10	15	20	25	30	35	40	45	50	55	60	65	70	75
17								05	10	15	20	25	30	35	40	45	50	55	60	65	70
18									05	10	15	20	25	30	35	40	45	50	55	60	65
19										05	10	15	20	25	30	35	40	45	50	55	60
20											05	10	15	20	25	30	35	40	45	50	55
21												05	10	15	20	25	30	35	40	45	50

The base chance of a resistance roll equals 50% + (active characteristic x 5) – (passive characteristic x 5). If the active and passive factors are equal, the active factor has a 50% chance of success. Every point the active factor exceeds the passive factor by adds 5% to the chance of success, while passive factors higher than active factors reduce the base chance by 5% for every point of difference.

Differences of 10 points or more result in automatic success or failure, though the Game Master may allow a roll of 01 or 00 to succeed or fail, respectively, where results would otherwise be automatic.

Opposed Tests

An opposed test happens when someone takes action to interfere with another action. This might be a player rolling a PC's insight to sense the lies in a suspect's Persuade roll, a PC escaping a pursuer with opposed Athletics tests or a degenerate cultist trying to wrestle a sacrificial victim to the ground in opposed Unarmed Combat tests. Usually, skills oppose skills and stats oppose stats. A stat opposes a skill only when one character must use very specific knowledge or training (and therefore rolls a skill) but the other does not (and therefore rolls a stat). It is up to the GM.

By nature, opposed tests are very unlikely to succeed. Not only must your roll succeed, but you must overcome the opposition's roll as well. If two characters' skills oppose each other but neither needs to roll, the higher rating wins.

Outcome	Opponent Succeeds	Opponent Fails
You succeed	A critical success beats a success. Otherwise, whoever rolled higher succeeds and the other fails.	Your action succeeds and the opposed action fails.
You fail	You fail to stop the opposed action.	Nobody succeeds; or whoever rolled lower succeeds and the other fails (GM's choice).

Opposed Tests – example

Agent Mulder follows a man who may have been involved in Agent Scully's brutal murder. The GM says the streets are not crowded and the suspect is wary, so Mulder must succeed at Stealth to go unnoticed. The Stealth description says it is opposed by the target's Alertness or Search skill; the best roll wins. In this case, the GM says it's Alertness. Mulder's Stealth is 60% and he rolls 67, failing. His target has Alertness 40% and rolls 49, also failing. The suspect's failure was a lower roll than Mulder's failure, so the suspected cultist wins. He realizes he's being followed.

Opposed Tests Table

Task	Skill Required	Possible Opposing Skill
Concoct a legal pretext for an operation	Law	Law
Establish a false identity	Forgery	Administration
Create a false online history	Data Analysis	Insight
Back-date online history	Computer Operation	Data Analysis
Falsify documents	Forgery	Forgery
Secure cooperation or allay suspicions	Persuade	Persuade
Evade surveillance or sentries	Stealth	Alertness
Clean a crime scene	Forensics	Forensics
Plant hidden microphones or cameras	Stealth	Search
Follow a subject without detection	Stealth	Alertness
Follow undetected while driving	Stealth or Driving, whichever is lower	Alertness
Enter an office unnoticed	Stealth	Alertness
Talk your way into an office without arousing suspicion	Persuade	Insight
Plant a malware	Computer Security	Computer Operation
Decrypt digital interceptions	Data Analysis	Computer Security
Run down a suspect or escape on foot	Freerunning	Freerunning
Pursue or escape in a vehicle	Driving or Pilot	Driving or Pilot
Sneak past guards or cameras	Stealth	Alertness
Obscure toolmarks and signs you were here	Forensics	Forensics
Come up with a pretext for arresting a suspect or obtaining a search warrant	Law	Law
Figure out what is likely to motivate a subject to cooperate	Insight	Persuade
Persuade a subject to divulge information	Persuade	Persuade
Give a hospital a convincing pretext for your injuries	Law or Persuade	Law or Insight
Give misleading details to throw off possible investigation	Administration	Administration
Convince a doctor or nurse it's a good idea to help you without calling the authorities	Persuade	Persuade or Insight

Grab evidence before it's collected	Stealth	Alertness
Get into an evidence locker without arousing suspicion	Administration or Law	Administration or Law
Alter evidence without arousing suspicion	Forensics	Forensics
Alter a case file without arousing suspicion	Computer Security	Computer Operation
Carve a corpse up for dispersed burials or scavengers	Forensics	Search
Dissolve a body with quicklime	Forensics	Forensics or Search
Incinerate a body without leaving identifiable traces	Forensics	Forensics
Dump a body far at sea or in deep, still waters	Forensics	Forensics

Improvement

Whenever your character successfully uses a skill and the Game Master agrees that the success is worth an experience roll, you should place a checkmark in the small box next to that skill on your character sheet. An experience check for a particular skill is made only once per adventure, no matter how many times the skill is successfully used.

The experience roll is a normal percentage die roll. Add the Adventurer's INT characteristic to the result of the 1D100 roll.

- If this 1D100 result is greater than the skill's current score, the skill increases by 1D3+2 points.

- If this 1D100 result is equal to or less than the skill's current score, the skill only increases by one point.

There is no limit to the score a skill can reach; a skill can reach 100% and exceed it. However, the more Async an Adventurer becomes at any particular skill, the more difficult it becomes for him to learn something about that skill he did not already know. Thus, as an Adventurer's skill percentage climbs, it will become more difficult and time consuming for him to raise that skill.

Luck

Luck is the knack of being in the right place at the right time, or the uncanny ability to escape a random peril unscathed. Did your character remember to bring that one special bit of rope or equipment? Will a friendly passerby lend your character a hand if he is stranded by the side of the road? Does the hideous creature attack your character, or his horse? Does your character fall through a weak floor, or snag his clothes on a splintered plank and escape plummeting to death?

Luck rolls can be used to answer all of these questions. Successful Luck rolls can create fortunate coincidences under normal circumstances, or save your character from certain doom in an emergency.

The base score of the Luck roll is equal to the current number of luck points.

Luck rolls may be called for by the Game Master when circumstances external to any investigator are in question, and also when determining the fickle hand of fate. If a skill or characteristic is applicable to a situation then it should be used rather than Luck.

- If the Game Master calls for a Group Luck roll, the player whose investigator has the lowest Luck score (among those present in the scene) should make the roll.

- If something bad is deemed to happen to one member of the group, the Game Master can simply ask who has the lowest Luck score at that moment and have that individual suffer the unfortunate event.

Spending Luck

After the player has made a skill roll (using a skill or characteristic), Luck points may be spent to alter the result. The player can use Luck points to alter a roll on a 1 for 1 basis. The points spent are deducted from the adventurer's Luck score, which will reduce the chance of passing a future Luck roll.

Luck points may not be spent on Luck rolls, damage rolls, Fortitude rolls or rolls to determine the amount of Sanity points lost. A player may spend any amount of Luck points (up to their current Luck value) on a roll. A player may only spend Luck to alter one of their own dice rolls.

- Criticals, fumbles and firearm malfunctions always apply, and cannot be bought off with Luck points.

- No skill improvement check is earned if Luck points were used to alter the dice roll.

Recovering Luck points

After each session of play, each player may make an improvement check for their Luck. This is rolled in the same way as for skill improvement. The player rolls 1D100 and if the roll is above their present Luck score they add 4+1D6 points to their Luck score. If the roll is equal to or less than the adventurer's present Luck score, no points are recovered.

Note: An adventurer's Luck score will vary throughout play, but may not exceed 99. The Luck starting value is not used again in the game. There are no resets and the starting value can be exceeded in play.

> Luck – example
>
> The Game Master rolls an Extreme success for a Dark Young to trample Harvey into the dust. Harvey fails to dodge with a roll of 35, far above his Dodge skill of 27. This is life or death, and so Harvey's player spends 30 of Harvey's Luck points to convert the Dodge roll to an Extreme success. Harvey avoids death by a hairsbreadth!
>
> At the start of the following session (Harvey having somehow survived to fight another day), Harvey's player makes a check for Luck recovery. Harvey's Luck is now down to 15 points. The player rolls 37 and so adds 4+1D6 to Harvey's Luck, increasing it to 21. Let's hope Harvey doesn't have to rely on his luck today.

Poison

All poisons have a potency value (POT) that is matched against the CON of a poisoned character. If the poison overcomes your character's CON, then its full POT is done as damage to your character's total hit points. If the poison does not overcome the character's CON, it has a lessened effect—usually this means that half the poison's POT is given as damage to your character's hit points.

Poison damage is always damage to your character's total hit points, or to a characteristic. If your character takes two doses of a poison, he must make a separate resistance roll versus each one: two doses of a POT 10 poison are not the same as one dose of a POT 20 poison.

Poison Antidotes

Almost all poisons have antidotes. All antidotes have a POT rating, just like poisons. If a character takes a poison's antidote no more than six full turns before being poisoned, the antidote's POT is subtracted from the poison's POT before damage is figured. An antidote for one type of poison may give a lessened benefit even when used with the wrong poison type, at the Game Master's discretion.

Sample Poisons Table

Poison	Speed of Effect	POT	Symptoms
Arsenic	1/2 to 24 hours	16	Burning pain, vomiting, violent diarrhea.
Belladonna	2 hrs to 2 days	16	Rapid heartbeat, impaired vision, convulsions.
Black Widow venom	2-8 days	7	Chills, sweating, nausea.
Chloroform	1 combat round	5	Unconsciousness, depressed respiration.
Cobra venom	15-60 minutes	16	Convulsions, respiratory failure.
Curare	1 combat round	25	Muscular paralysis, respiratory failure.
Cyanide	1-15 minutes	20	Dizziness, convulsions, fainting.
Rohypnol	15-20 minutes	22	Unconsciousness for 4-8 hours, possible amnesia.
Scorpion venom	24-48 hours	9	Intense pain, weakness, hemorrhaging.
Sleeping pills	10-30 minutes	6	Normal sleep; each additional dose increases chance of respiratory failure by 5%.
Strychnine	10-20 minutes	20	Violent muscle contractions, asphyxiation

Pharmaceuticals

The world has seen a wide variety of technological improvements over the last few decades, and nowhere is this more evident than in the field of medicine. Physicians can cure nearly any ill, given enough time, and even lost body parts can be replaced using genetic cloning techniques.

This is all well and good for those with direct access to modern medical facilities, but often such opportunities simply aren't available, or are inconvenient to use. A field agent or soldier on duty can't always afford to spend days or more sequestered in some hospital, for example. In such cases, drugs are often used to assist healing or as a preventative measure.

One of the dangers of taking drugs is the potential for addiction. Even taking some drugs once can result in some sort of dependency, be it mental or physical. The need for more doses of some drugs can be overwhelming – the most desperate addicts will do almost anything for one more hit. All drugs are rated for Potency between 10 and 30 (or higher). Each time a Character takes a drug, the Potency is matched against the CON in an opposed test.

- If the Character succeeds, he continues to resist addiction.

- If he fails, addiction takes hold. Note that while the player is now aware that his Character is addicted to the substance, the Character himself probably won't realize this right away.

Every drug has a series of characteristics:

Form: How the drug is usually taken, e.g., inhaled, ingested, inhaled, eyes spray, skin patch, etc.

Duration: How long the effects of the drug last before wearing off. Again, this can be a variable amount of time.

Safety Window: Taking a drug with regular frequency increases the risk of addiction. If a Character takes another dose within the listed Safety Window, increase the current Potency by 1 and double the length of the next Safety Window. Each increase is cumulative, until the newly calculated Safety Window time expires.

Tolerance: How the body or mind grows used to the presence of the drug over time.

Side Effect: Many drugs can have side effects. The drug's Side Effect is similar to its Potency, with an Attribute used in an opposed test to see if side effects occur.

Addiction

If a Character becomes addicted, he is required to take another dose of the drug within six to ten hours of the end of the previous dose, or else suffer from withdrawal. However unpleasant, dealing with withdrawal is the only effective way of breaking most addictions.

When a Character suffers from withdrawal, he becomes fatigued. He remains in this state, not healing damage normally, for a period of time equal to the drug's Safety Window – then he must roll his BRA in an opposed test against the drug's Potency.

- Failure – Withdrawal continues, slowly sapping the character's vitality. Wait another Safety Window period, increase to the drug's current Tolerance by 1 point, and make another Test. During this waiting period, the Character is fatigued and nauseous.

- Success – The Character fights off withdrawal, but the wounds remain. Reduce the drug's current Tolerance by 1 point. If the Character remains addicted (ie, the Tolerance is not reduced to zero), wait another Safety Window period and make another Test. During this waiting period, the Character is fatigued.

Side Effects

When the effects of the drug wear off, the Potency is matched against the Attribute of the Character, listed in the drug's Side Effect. If the Character fails, he suffers one or more side effects from the list provided in the drug's description. Side effects typically last as long as the drug itself. There may be exceptions listed in individual drug descriptions.

Some of the more common side effects are listed below.

Drug Side Effects Table

Side Effects	Description
Minor	Minor effects are unpleasant physical symptoms, such as nervousness, mild paranoia, loss of appetite, intestinal gas, diarrhea, dry eyes or mouth, shallow breathing, hacking coughs, headaches, and so on. The GM is free to decide which effects occur in this case, but he should be consistent as far as each specific Character is concerned. A drug can have different side effects for different people, but a given individual tends to suffer the same ones each time.
Dizziness	Characters under the effect of dizziness take a -10% Penalty to any physical and manipulation skills.
Drowsiness	The Character becomes tired, finding it difficult to concentrate and focus, feeling a strong need for sleep. Apply a -10% Penalty to all Mental skills.
Fatigue	A fatigued Character feels weak and finds strenuous activity difficult. He can take no more than one Action per turn, takes a -20% to any Physical skills. Furthermore, if he attempts to move faster than cautious speeds, he must make a Stamina Roll or fall to the ground, gasping and wheezing for one Turn.
Fear/ Hallucinations	Some mind-affecting drugs induce feelings of fear or dread, often accompanied by terrible hallucinations. If a drug has these kind of side effects, any stressful situation – typically combat, but potentially including any dangerous activity – requires a fortitude Roll minus the drug's Side Effect x 5%.
Headaches/ Migraines	A Character afflicted by headaches finds it difficult to concentrate, and takes a -10% Penalty to any Mental or Perception skills.
Jitters/Shakes	Jittery Characters have the shakes, a condition which makes them shudder and shiver, though not from nervousness. While not harmful in and of itself, the shakiness of the hands makes fine manipulation difficult. Whenever attempting a Test involving careful work in close quarters, such as trying to pick a lock or hot-wire a vehicle, the victim takes a -40% Penalty.
Lethargy	The Character is weakened and feels a sense of "dragging," as though carrying heavy weights that slow him down. While a character is under the effects of lethargy, all Tests that use Physical skills take a -20% Penalty. Lethargic characters may also suffer slowness in Mental skills.
Nausea	Nauseous characters feel queasy and find physical activities, especially those involving motion, very difficult. Such a Character takes a -10% Penalty to any Perception or Physical skills. This Penalty should be increased if in a vehicle which is flying, moving unusually fast, swaying or providing a good view of the ground rushing by.

Radiations

Exposure to radiation or radioactive materials is usually harmful to living beings. The effect of radiation poisoning (properly known as acute radiation syndrome) is the equivalent of a poison and direct burns. Though radiation's intensity is measured in rads, for the purpose of simplicity it is merely classified as low-intensity through fatal-intensity (see chart below) with associated potencies. The Game Master should assign a potency (POT) to each exposure to radiation, for use on the resistance table. If your character is exposed to radiation, he must make a resistance roll using CON versus the radiation's POT. Success means that your character avoids the effects for the period listed. The Radiation Effects Table provides general guidelines for different POT levels of radiation.

Radiation poisoning is clearly quite deadly. There are few means of reducing exposure to radiation in the modern world. First Aid is useless against it, and the Medicine skill can do little to stave off its effects. It is useful primarily as a diagnostic method. Various powers and equipment may protect against the effects of radiation.

Radiation Effects Table

Rad Level	Potency	Effects
1	5	Roll every 30 days. Failure means that your character suffers irritations such as skin rashes, headache, shedding skin, minor hair loss, mild nausea, diarrhea, etc.
2	10	Roll every week. Failure means that your character suffers a bout of incapacitating illness (cannot rise from bed, tremors, shaking, etc.) that lasts 2D10 hours, in addition to the above symptoms. Two failures in a row mean that your character has developed cancer (Game Master's discretion).

3	15	Roll every day. Failure means that your character suffers a bout of incapacitating illness lasting 2D10 days, cumulative with other failed rolls. Your character also suffers 1 point of general burn damage, in addition to suffering from one or more heightened symptoms of low-intensity radiation, described above. Failing this roll twice in a row inflicts 1D10 days of temporary blindness on your character. Failing this roll three times in a row means that your character has developed cancer, at the Game Master's discretion. Other characters coming into close contact with your irradiated character are at risk for low-level radiation (see above).
4	20	Roll every hour. Failure means incapacitating illness as above, cumulative. Your character suffers 1D3 points general burn damage as above, as well as other symptoms. Blindness is automatic if roll fails. If blindness continues for ten consecutive days, it becomes permanent. A character failing a roll of CON x 1 becomes permanently sterile. Two failures of this roll indicate terminal cancer. Other characters coming into close contact with your character are at risk for moderate-level contamination (see above).
5	25	Roll every minute. Failure equals all of the above symptoms, though blindness and sterility are immediate. Burn damage is 1D6 points per turn, and your character will inevitably die in CON/2 hours unless provided with suitable medical assistance. All physical skills are Difficult and require a successful Difficult Stamina roll to attempt. Your character's corpse presents a health risk to others.
6	30+	Roll every combat round. Failure equals all of the above symptoms. Burn damage is 1D4 points per combat round. Movement or action is impossible. Your character is wracked with excruciating pain until his death in 1D3 combat rounds. Your character's corpse is highly irradiated to a value equal to ½ the radiation's potency (rounded up).

Disease

Diseases take many different forms but for game purposes function in a similar way. First, the Potency of the disease must be calculated. All diseases are rated for Potency between 10 and 30 (or higher). The Potency is then matched against the CON in an opposed test.

■ If the resisting skill is a success then it reduces the disease's Resistance by 1 point. If the Resistance is reduced to zero, the disease is eliminated from the organism of the PC.

■ If the resisting skill is a failure then the effects of the disease are felt for the Duration.

Every disease has a series of characteristics that govern how it affects the target. The characteristics are:

Vector: how the disease is administered:

■ Ingested – the disease or poison is ingested through either eating or drinking.

■ Inhaled – the disease or poison is inhaled through breathing or snorting.

■ Contact – the disease or poison is absorbed through skin contact.

■ Injected – the disease or poison must be injected directly into the body (via a needle, sting or some other direct means).

Eclipse Phase: the time prior to the effects taking hold. Diseases possessing multiple Effects may have different Eclipse Phase times for each one.

Resistance Time: when or how frequently the Adventurer needs to make a Resistance roll to counter the disease or poison's effects.

Resistance: how the disease or poison is resisted.

Effects: every disease has one or more effects. These have specific effects and if a victim fails to resist the disease, he suffers all the effects described.

Disease Condition Table

Failures	Degree of Illness
Agony	The victim is incapacitated with pain.
Asphyxiation	Victim suffers asphyxiation – he collapses, unable to breathe, and is incapacitated.
Bleeding	Victim suffers a further 1 HP of damage every hour, from each location currently wounded, or from internal bleeding. Internal bleeding generally applies damage to all Hit Locations simultaneously.
Blindness	Victim becomes blind.
Confusion	Victim cannot use any knowledge, communication or magic skill.
Contagious	Victim can transfer the disease by touch.
Deafness	Victim loses his hearing.
Death	Victim must make a resistance roll. If the resistance roll fails then the victim dies immediately. If the resistance roll is successful then all Hit Locations are reduced to a negative equivalent of their starting value: the victim then has a number of minutes to live equal to his CON characteristic. It requires either the Medical skill or appropriate disease care taking to stabilise the victim.
Dumbness	Victim's vocal chords are paralysed, preventing verbal communication or the casting of spells.
Exhaustion	Victim loses half of his Power Points.
Fever	The victim's body temperature fluctuates wildly – from hot to cold – and muscles ache. All skills are halved and the victim also suffers from nausea.
Hallucination	Victim experiences delusions and cannot differentiate between real and imaginary experiences. His skills and abilities are unaffected but his ability to relate to the real world is seriously impaired and characterised by fear, panic, hatred and, in extreme circumstances, irrational violence.
Maiming	Victim suffers a permanent loss of 1 HP in the location(s) affected, due to necrosis of the injured tissue.
Mania	Victim is driven to follow some compulsion; such as avoid water, paranoia, attack companions, and so forth. The mania induced by the disease will be noted in its description.
Nausea	Victim cannot eat, and must roll against his Resilience every time he performs a stressful physical action to avoid being physically sick. The sickness lasts for 1D3 rounds during which he cannot act and, once it has ended, he suffers a level of Fatigue until rested.
Paralysis	Victim is unable to physically move.
Sapping	Victim loses Magic Points based on its potency.
Unconscious	Victim loses consciousness for a period specified in the disease or poison's description.

Sample Diseases

If your character is exposed to a major disease such as plague might attack any characteristic, but most diseases will attack CON or HP. Immensely powerful diseases (such as Ebola) could even inflict 1 or up to 1D3 hit points per hour, enough to kill an average human in eight hours. Symptoms would vary greatly. Lesser diseases might inflict 1 hit point per day, or per week, coupled with loss of characteristic points.

Following are some generic disease types (each tied to a single characteristic). The Game Master is encouraged to develop a list more suitable to the setting of the campaign (or rename these as appropriate).

ATROPHY

Vector	Injected
Eclipse Phase	1D2 hours
Resistance Time	Daily
Potency	5
Resistance	6
Effects	Agony. This affects your character's muscular system, causing the character to lose STR points. When the character's STR reaches 0, he dies.

THE CHILLS

Vector	Contact
Eclipse Phase	1D4 hours
Resistance Time	Weekly. The first Resistance roll must be made at the end of the Eclipse Phase, then weekly thereafter. Successfully resisting the disease allows the Adventurer to avoid suffering the effects until the next roll must be made. Thus victims of Creeping Chills often appear to recover, only to suffer a later relapse.
Potency	20
Resistance	4
Effects	Fever. Affects CON (and hit points, as CON decreases). When the character's CON reaches 0, he dies.

DELIRIUM

Vector	Ingested
Eclipse Phase	2D6 days
Resistance Time	Daily
Potency	15
Resistance	5
Effects	A state marked by muddled thought and heightened fever. Affects INT. When the character's INT reaches 0, he becomes a vegetable.

DISFIGUREMENT

Vector	Ingested
Eclipse Phase	1D2 weeks
Resistance Time	Monthly
Potency	16
Resistance	10
Effects	Maiming. Any of a series of diseases affecting your character's APP, usually by deteriorating skin condition, or other visible symptoms. When your character's APP reaches 0, he has suffered fatal levels of disfigurement, wracked with infection or other side effects.

EBOLA+

Vector	Direct contact with body fluids
Eclipse Phase	2D10 days
Resistance Time	Daily
Potency	17
Resistance	14
Effects	Ebola+ is a viral hemorrhagic fever. Symptoms begin with fever, weakness, joint pain, headache and sore throat. This is followed by nausea, vomiting, diarrhoea and abdominal pain. The skin develops a flat red area covered with small bumps, 4+1D3 days after symptoms begin. Then, internal and external bleeding occur.

HASTUR INFECTION

Vector	Psychic
Eclipse Phase	1D2 weeks
Resistance Time	Daily
Potency	18
Resistance	9

Effects	Most people who catch this psychic infection have either carefully read or examined a work of art made by another victim, or they have encountered some other connection to Hastur, such as a Summon Great Old One spell designed to contact Hastur. The individual gains an Indefinite Insanity. Also, occasionally someone without any such connection spontaneously begins having dreams of Hastur and must make the same roll to resist the obsession.

NGANO PLAGUE

Vector	Airborne
Eclipse Phase	1D2 + 3 weeks
Resistance Time	Weekly
Potency	22
Resistance	8
Effects	Vivid hallucinations and acute paranoid delusions. Infected victims are dubbed 'Crazies' due to the insane psychopathic state induced during the plague's later stages.

THE SHAKE

Vector	Contact
Eclipse Phase	1D6+2 days
Resistance Time	Weekly
Potency	14
Resistance	5
Effects	Paralysis. A nerve ailment affecting the character's DEX. When the character's DEX reaches 0, he becomes a quivering mass of ganglia and is unable to control any movement or is utterly paralyzed.

Vacuum

Space is an extremely dangerous place for humans. If your character is exposed to vacuum without some form of protection, the first course of action is to exhale all air within his lungs to equalize pressure within and outside. If your character does not do this, he will take 1D6+2 points of damage per combat round from the collapse of his lungs. If rapidly exposed to vacuum, a character who would know this information can remember to do so with a successful Idea roll.

Additionally, a human being will begin to hemorrhage if exposed to vacuum or near-vacuum conditions, causing 1 hit point of damage per round for the first round, then 2 points of damage at the second round, 4 points of damage after three full rounds, 8 points of damage at four full rounds of exposure to vacuum, etc.

Additionally, abrupt exposure to vacuum may cause your character's eardrums to burst (make a Stamina roll to avoid this), and after CON x 2 combat rounds in vacuum, his vision will begin to become affected, making any rolls involving sight Difficult. Depending on how and where your character was exposed to vacuum, he may also suffer from the effects of extreme cold extreme heat, or radiation.

A being vulnerable to the effects of vacuum who has the misfortune of being damaged while in a space suit, will suffer the following effects in vacuum. If the damage does not exceed twice the suit's armour rating, it will seal itself if it has that capacity. If the damage exceeds twice the suits armour rating, the suit will be unable to seal itself and the being will suffer damage, until the character is dead, patched the damage, or gets to shelter.

Hypoxia

The primary danger in space stems from the fact that space lacks sufficient oxygen and pressure for humans. A leak in a pressurized vehicle, structure, or suit will result in a loss of air and pressure. Such situations should be carefully handled by the Game Master based on the conditions of the situation and plot requirements. If the life support systems of a structure, vehicle, or suit fail, those inside will suffocate when the air runs out. The primary dangers to Investigators are

that the oxygen levels are still not high enough to support human life for extended periods. In addition the pressure is low enough that it can cause circulatory problems for humans.

Every 4 hours spent in a rarefied atmosphere without protective clothing requires a Stamina roll. Failure leads to slight headaches. A Fumble results in headaches, nausea (halve all skills). A roll of 00 results in serious condition and rapid incapacitation. Exposure for longer than 12 hours will cause onset of Hypoxia (see below).

A Stamina roll is required for every 15 minutes without oxygen if at rest, or every minute if active. For each failure apply one of the following symptoms in order.

1. Increased respiration and pulse rate (INT -1).

2. Headache (INT -2).

3. Nausea (CON -3).

4. Slight dizziness, reduced reaction time, impaired coordination (DEX -3).

5. Tingling in the arms and legs.

6. Purple or bluish tinge to fingers, toes, ears and lips.

7. Fatigue, sleepiness and intermittent fainting (STR -3, CON -3).

8. Dimming of vision (Perception skills -20%).

9. Confused thinking, impaired judgment and feelings of either giddiness, elation and confidence resembling intoxication, or indifference, listlessness, apathy and depression (INT -3, Perception skills -30%).

10. Unconsciousness.

11. Convulsions and death due to respiratory failure.

Characters suffering from hypoxia need a successful Idea roll to think of something, even basic concepts such as "I should get some oxygen."

Gravity

Beyond the surface of the Earth, the apparent gravity can vary a lot. this includes not only the true gravity of astral bodies, but also in the artificial spin gravity of space stations, and in rare circumstances, the thrust gravity of an accelerating spacecraft as well.

The assumption for most rules assume the characters are operating in normal or near normal gravity—that is, somewhere in the vicinity of 1 g. This may often not be the case, however, and in circumstances with significantly differing gravity, the following rules apply.

Microgravity

Microgravity environments have near-zero gravity. In game terms, this is any environment with below 0.1 g. In microgravity, objects tend to float in whatever trajectory they were last moving. Smoke doesn't rise so much as form a hazy bubble, and liquids form little droplets that float everywhere—blood will get on everything!

For characters used to normal gravity, visiting a microgravity environment can be a sickening experience. The constant sensation of free-fall can lead to a queasiness and nausea akin to motion sickness. GMs wishing to emphasize these unpleasant new experiences can call for characters to make a Stamina Roll. On a failure, the character reduces all his skills scores by 20%.

Healing in Microgravity

Wounds bleed. Blood pressure forces the blood outward, and in normal gravity, the blood then lows downward, enabling the wound to drain properly. This helps cleanse the wound of harmful microorganisms and allows for efficient formation of scabs, which stop further blood loss.

In microgravity, however, wounds do not bleed out this way. Blood pressure still forces the blood outward but without significant gravity tugging on the blood it simply pools up, forming bulbs of blood around the injury. This both prevents much of the cleansing effect bleeding has on harmful microorganisms and slows down the formation of scabs. The mechanical effect of this is that in microgravity, characters heal only half as much as they otherwise would.

Low Gravity

Low gravity environments typically range between 0.5 g and microgravity. They are common throughout the system, including on Luna, Mars and many stations. Low gravity is not that different from normal gravity. In low gravity a character can typically jump twice as far and push of the ground with increased ease, increasing the amount of ground covered in an action 1 ½ times. Additionally, halve the distance of falls before determining damage.

Normal Gravity

Between 0.5 g and 1.2 g, characters are considered to be in normal gravity. Characters in normal gravity take no special modifier to as actions because this is the default assumed gravity.

High Gravity

Higher that usual gravity—anything 1.2 g and over—is unusual, and is mostly likely to be encountered as thrust gravity on a ship taking evasive maneuvers. High gravity is also problematic in that is impedes both movement and blood low to the brain. In high gravity, characters take a -5% penalty to all skills. This penalty increases by -5% for every full g above 1. Androids or other characters with significantly different biological function are immune to some of these penalties.

High gravity becomes dangerous at around 5 g. This starts with a loss of color vision (gray out) if the blood is being pulled away from the front of the eyes, or a reddening of a character's vision (red out) if the blood is being pulled towards the front of the eyes. Eventually the character loses peripheral vision and consciousness.

For every minute spent under these G forces a character must make a Stamina Roll with a -5% penalty for each number of g's the character is experiencing (remember to apply the aforementioned penalty to all actions as well). On a failure, the character loses consciousness and takes 1d3 HP of damage. Even if he is unconscious, he must continue to make this action, as his wounds still accumulate.

Explosion

Explosions do hit point damage, as well as knock targets down: calculate the effect of an explosion in terms of decreasing Hit Points of damage. The circles of effect expand.

Rate explosions in D6s of circular effect. For instance, a 6D6 blast has a central circle of effect of six meters. The next circle of effect occurs across meters 7-12, and the damage done is halved to 3D6. The third circle of effect is across meters 13-18, and the damage is now halved again to 1D6+1D3. Halved again, meters 19-24 would be for 1D4 damage. Continue to extend the circles of effect until no targets remain, or until rolling 1D3.

Roll damage separately for each target in each circle of effect, but roll only once per Armor and shields cut blast damage. Using the Resistance Table, roll STR against rolled damage to keep standing against an explosion.

Acid

Exposure to acid or corrosive substances is an infrequent hazard, but significant enough to merit rules. For all intents and purposes, treat all acids the same: the degree of acid damage is more a function of how diluted the acid is, rather than the specific type of acid. Only significant contact (the immersion of a limb or contact with the eyes) should cause serious damage.

- Weak acids inflict 1D3–1 points of damage per round.
- Strong acids inflict 1D4 points of damage per round.
- Very strong acids inflict 1D6+1 points of damage per round.

Armor does not neutralize acid, but does momentarily retard its effects. If the target is armored, reduce the step for each type of acid. Weak acids will do only 1 point of damage per round, strong acids do 1D3–1 point of damage per round, and very strong acids do 1D4 points of damage per round. Armor protection against acids lasts 1D3 rounds, and after that, the acids will inflict normal damage on the victim.

Exposure to very strong acid eats away at armor bindings and weakens the armor itself: after 1D6 rounds of serious exposure, the armor has been functionally destroyed and is useless. This occurs simultaneously with the 1D3 rounds of armor protection—the armor may have been rendered useless in combat but still be offering temporary acid protection

Falling

Your character may end up falling down, either from cliffs, into pits, thrown from riding animals, or through failing Climb rolls. If falling, your character will takes 1D6 base damage for every 3 meters fallen. This is cumulative with the velocity modifier described above.

Height (m)	damage
3	1d6
6	2d6
9	4d6
12	6d6
For each +3*	+2d6

*up to 153 meters

If the character falls on a stake or other pointed object at the end of a fall, then the falling damage counts as a damage modifier for the stake. Normal stake damage is 1D10+1, with the chance of hitting determined by the Game Master.

Fire and Heat

Your character may take damage if exposed to fire or intense heat. At the end of the combat round, fire or intense heat will damage any character it touched during that round. Armor and/or powers that offer protection will subtract their armor value from this fire damage for one combat round.

■ Tiny flames equivalent to a candle or lantern flame inflict 1 HP of damage per full combat round they are in direct exposure to a character's exposed flesh.

■ A hand-held torch held against a target for a full combat round does 1D6 HP of burn damage. A character who is clothed but not wearing armor may attempt a Luck roll each round to prevent being set aflame. If the character succeeds, he is not set on fire. Failing this roll means that the character's hair and/or clothing begins to burn, doing 1D6 hit points damage per combat round until being extinguished.

■ A large bonfire or equivalent in size to a bonfire inflicts 1D6+2 hit points of damage per combat round. A character's hair and clothing may catch fire as well. A successful POW roll avoids this. Being caught in a fiery boat or house can cause 1D6+2 points of damage per combat round. Each round a character is exposed to these conditions, he must make a successful Luck roll or begin to asphyxiate.

■ Intense fires are those too hot to approach closely: the equivalent of molten metal or lava, a jet or rocket engine, or the heat inside of a furnace. This level of heat does 3D6 HP in damage per combat round of exposure.

Armor protects a character from fire damage for up to 1D6 points of armor protection, no matter what type of armor. The Game Master may choose to adjust this amount up or down based on circumstances, such as fleeting contact with the flame, the character being in leather armor that is soaking wet, etc. This protection lasts 1D6 rounds, and when it ends, the armor does not protect the character any longer. This is the equivalent of metal armor heating up too much, or leather armor being sufficiently burned. The Game Master may allow some improvised methods of fire defense (get under a wet blanket, etc.) to have some effect.

A character who takes more than 1/4 his total hit points in burn damage must make a successful Luck roll. Failure at this costs the character 1D3 APP characteristic.

Cold

PCs can last for CON in minutes exposed to freezing temperatures unprepared, or CON×5 minutes if partially prepared. Fully prepared and well equipped (decked out for an Arctic expedition, for example) Agents can last CON hours.

After this, their bodies start to fail. Players must make a CON×5 test every five minutes. Each failure reduces CON by 1. When an Agent's CON hits 1, the Agent can no longer move and suffers 1D8 HP cold damage every five minutes.

Exposure to warmth and shelter restores 1 point of CON per minute. Hit Points heal normally.

Combat

by Wikia, Steve Perrin, John Ossoway, Andrew Edwards, Graham Raynes & Paul Winstanley

> *"One cannot make command decisions simply by assessing the tactical situation and going ahead with whatever course of action will do the most harm to the enemy with a minimum of death and damage to your own men and materiel. Modern warfare has become very complex, especially during the last century. Wars are won not by a simple series of battles won, but by a complex interrelationship among military victory, economic pressures, logistic maneuvering, access to the enemy's information, political postures—dozens, literally dozens of factors."*
>
> *Joe Haldeman, "The Forever War"*

Combat is often an inevitable part of most adventures. While the basic game system allows for loose determination of times and order of activity, in combat it is often essential to know exactly what happens when, who can act at a particular time, and what actions are capable in the amount of time provided. This section addresses the wide variety of actions that occur during a combat round.

Order of Actions

A combat round is the default measure of the passage of time in a combat or action situation. A combat round is 5 seconds long, and in it, your character can perform actions and react to other actions in an order usually determined by his DEX characteristic; higher DEX characters acting before characters with lower DEX. As with skills, actions in combat are usually determined by rolling D100 to determine the success or failure of attacks, defenses, and other activities.

A combat round consists of four phases. These always occur in the same order, and are repeated with each new combat round until the combat is over. These are described below.

1. Statements
2. Power Use
3. Actions
4. Resolution

Statements

This phase consists of the Game Master and the players involved in a combat round announcing what everyone will do. The order that actions can be attempted is determined by your character's DEX characteristic. You do not need to announce that you are going to attempt defensive actions (parries, dodges, etc.) during this phase, unless you opt for a completely defensive stance.

Statements of intent should be limited to actions that are reasonable and based on knowledge your character should have. For example, you should not be able to declare an attack upon an opponent your character is unaware of, no matter what you know as a player.

Statements of intent should be handled in order of the DEX characteristic of all involved characters— player character and non-player characters alike. This value is called the DEX rank. The player of a character with a high DEX rank makes his statements of intent before a character with a low DEX rank. Usually the Game Master will count down, from the highest DEX rank to the lowest, calling on each player to state his intended actions at the appropriate times.

Both playerand non-player characters can choose to delay actions until later in the DEX rank, with the last chance at action occurring on DEX rank 1. If you delay longer than this, it is assumed that your character takes no actions during that particular combat round.
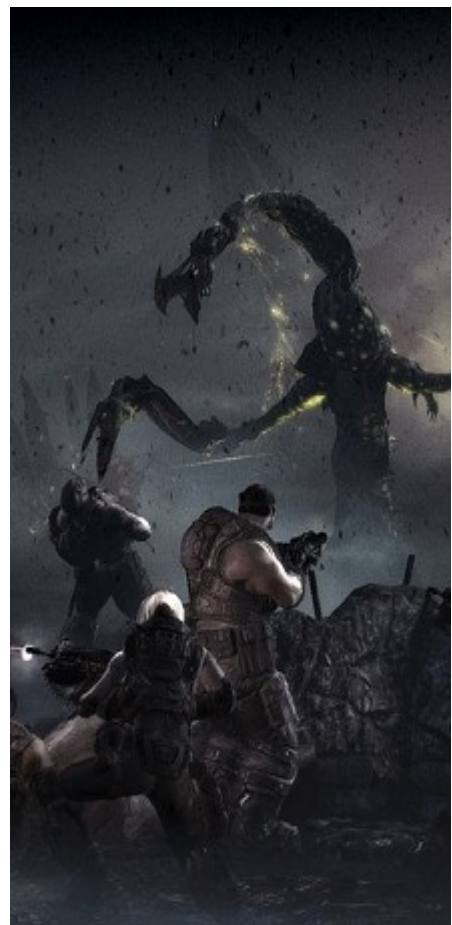
If there is a need to determine who acts first when DEX ranks are tied, use the relevant skill to determine who acts first. The character with the higher skill rating goes first. If these are still tied, the actions occur simultaneously.

Power Use

Normally, power use is handled during the powers phase, before any physical action can be attempted. Power use is assumed to be instant, occurring at the speed of thought, despite any gestures or incantations required. However, this places non-powered characters at a disadvantage, as powered adversaries will be able to launch attacks before they can be countered, regardless of DEX rank. For some settings, this is entirely appropriate, while others it may be less than ideal.

To offset this disadvantage, the Game Master may choose to have any power usage occur during normal DEX ranks, just as with a normal attack. The powers phase of the combat round remains in effect as the period where non-instant powers cast during the previous round go into effect. Alternately, the Game Master may choose to have INT ranks and DEX ranks occur simultaneously. For example, if your character is using a power and has an INT rank 13, he will go after a character with a DEX rank 16, but before a character with a DEX rank of 12. In the case of a tie, use the other characteristic (if INT is tied, the higher DEX goes first) or the higher skill/power level if applicable. If still tied, the powers go off simultaneously.

Actions

A character in combat is assumed to be in one of two states; engaged or unengaged. An engaged character is in close proximity (melee) with his enemies, and is ready to attack or defend when possible. Usually, anyone engaged in the same fight can take actions against any other character in the same fight without penalty or requiring any movement. An unengaged character is subject to the combat round timeframe, but is performing other actions and is not in range of hand-to-hand combat (or he is not aware of the danger).

As with statements, actions occur on your character's DEX ranks. These actions consist of attacks, parries, dodges, or other actions performed by unengaged characters.

Within a particular DEX rank, attacks usually go in order of weapon type. Attackers armed with missile weapons (bows, guns, etc.) are considered to act before those in hand-to-hand (melee) combat. After these go characters armed with long weapons (spears, lances, etc.), then those with medium-length weapons (swords, axes, etc.) and finally those with short weapons (daggers, etc.) or who are unarmed. Parries and attack-related dodges occur in the same DEX rank as the original attack.

If your character can perform more than one action in a round (some weapons allow for multiple attacks, and combat skill expertise levels also allow multiple attacks), each attack should be separated by 2 DEX ranks. The first action is at the full DEX rank; the second is at DEX rank –4; the third at DEX rank –6; etc. Your character cannot act on DEX rank 0 for any actions, so any actions that would occur below DEX rank 1 are lost.

Resolution

To make an attack, parry or dodge, roll percentile dice and compare the result to your character's skill with the weapon or shield being used. Attacks may provoke a dodge or parry, rolled in the same fashion.

As with skill usage, in combat it is often essential to know not only whether an attack or parry succeeded or failed, but also to what degree it succeeded or failed. Following are descriptions of the levels of success and failure.

Combat Action Results Table

Success	Skill rating	Result
Critical	01 or < 10% chance of success	Attack does maximum possible damage, plus any modifier, ignoring armour. If a burst from an automatic weapon, only first hit deals this critical damage. Target suffers automatic Knockback (see later).
Special	< 20% chance of success	Attack does normal damage plus any modifier. Impaling weapons (bullets, thrusting weapons) deal double rolled damage plus any modifier. If a burst from an automatic weapon, only first hit deals this impaling damage. Target suffers automatic Knockback (see later).
Normal		Weapon does normal damage. If damage is greater than target's SIZ, then target suffers Knockback.
Failure	> chance of success	No damage.
Fumble	00 or < 5% chance of failure	No damage. Attacker suffers effects of roll on Fumble table (see later).

Fumbles in combat are unfortunate events or mishaps, attributable to bad luck or inexperience. When a fumble occurs, you must roll D100 on the appropriate fumble table and apply the result. The Game Master rolls for non-player characters. If the result of the die roll seems inappropriate to the situation, the Game Master should supply a similar fumble or allow a re-roll.

> Fumble – example
>
> With a skill of Firearm 60%, your character will fumble on a roll of 98–00. No damage is rolled, though you must roll on the Missile Weapons Fumble Table to determine the result of this botched attack.

A critical success is a roll of 01 or any success where the dice match. So if your Adventurer's skill is 60%, you achieve a critical success with a roll of 01, 02, 03, 04, 05 or 06. A critical success automatically succeeds, and exceeds expectations.

Melee Weapon Attack Fumble Table

D100	Result
01–15	Lose the next combat round and are effectively helpless.
16–25	Lose the next 1D3 combat rounds and are effectively helpless.
26–40	Fall down.
41–50	Drop weapon being used.
51–60	Throw weapon 1D10 meters away.
61–65	Lose 1D10 points of weapon's hit points.
66–75	Vision obscured, lose 30% on all appropriate skills for 1D3 combat rounds.
76–85	Hit nearest ally for normal damage, or use result 41–50 if no ally nearby.
86–90	Hit nearest ally for special damage, or use result 51–60 if no ally nearby.
91–98	Hit nearest ally for critical damage, or use result 61–65 if no ally nearby.
99	Blow it; roll twice more on this table (cumulative if this result is rolled again).
00	Blow it badly; roll three times more on this table (cumulative if this result is rolled again).

Melee Weapon Parry Fumble Table

D100	Result
01–20	Lose the next combat round (or this one if no action has yet been taken), and are effectively helpless.
21–40	Fall down.
41–50	Drop weapon being used.
51–60	Throw weapon 1D10 meters away.
61–75	Vision obscured; lose 30% on all appropriate skills for 1D3 combat rounds.
76–85	Wide open; foe automatically hits with normal hit.
86–90	Wide open; foe automatically hits with special hit.
91–93	Wide open; foe automatically hits with critical hit.
94–98	Blow it; roll twice more on this table (cumulative if this result is rolled again).
99–00	Blow it badly; roll three times more on this table (cumulative if this result is rolled again).

Missile Weapon Attack Fumble Table

D100	Result
01–15	Lose the next attack or other activity.
16–25	Lose the next 1D3 combat rounds or other activity.
26–40	Fall down.
41–55	Vision obscured; lose 30% on all appropriate skills for 1D3 combat rounds.
56–65	Drop weapon; which slides or bounces 1D6–1 meters away.
66–80	Do 1D6 damage to weapon's hit points (or use result 81–85 if the weapon has no hit points).
81–85	Break weapon; regardless of weapon's current hit points.
86–90	Hit nearest ally for normal damage, or use result 56–65 if no ally nearby.
91–95	Hit nearest ally for special damage, or use result 66–80 if no ally nearby.
96–98	Hit nearest ally for critical damage, or use result 81–85 if no ally nearby.
99	Blow it; roll twice more on this table (cumulative if this result is rolled again).
00	Blow it badly; roll three times more on this table (cumulative if this result is rolled again).

Hit Location

Your character's hit point total is divided among his body parts, rather than in a single total. When an attack is successful, you should roll a D20 and use the result to consult the hit location table.

Hit Location Table

Hit	Missile	Result	Description
1-4	1-3	Right Leg	Right leg from hip to bottom of foot
5-8	4-6	Left Leg	Left leg from hip to bottom of foot
9-11	7-10	Abdomen	Hip joint to bottom of rib cage
12	11-15	Chest	Rib cage up to neck and shoulders
13-15	16-17	Right Arm	Entire right arm
16-18	18-19	Left Arm	Entire left arm
19-20	20	Head	Neck and head

Some situations, such as cover or mounted vs. unmounted characters, modify what hit locations are available to be hit in combat.

Armor

Armor is traditionally a form of clothing thick and tough enough to protect from attack. Historically, it was made from leather, bone, wood, and metal appropriate to the period. In the modern world, armor is made from ceramic and ballistic fibers, light metals, and other tough plastic-based substances, and in future eras, armor will likely be made of similar high-tech materials, or even energy-based protection. Armor functions in much the same manner as a shield, interposing itself between an attack and your character's body, but it does not require a skill roll or effort to be utilized.

The most important aspect of armor is the armor value. This number is the amount that is subtracted from the damage inflicted from a successful attack. If an attack is not parried or dodged, armor is all that stands between a character and injury. The higher the value of the armor, the better it protects your character. Some types of armor can be layered over one another for greater effectiveness.

When an attack hits armor, the armor value of the target's armor is subtracted from the amount of damage dealt by the attacker. The targeted character takes the difference in damage. If the result is 0 or a negative number, the targeted character takes no damage. He does not gain additional hit points.

In settings where shields are also used, a successful shield parry may not be enough to stop a blow, and damage from the attack can potentially pass through the armor value of the shield and to the character. In these cases, armor values for both shield and armor are subtracted before the character takes damage.

Armor can inhibit certain skills or functions of your character, particularly the Agility roll, or other Physical actions such as the Climb, Jump, Stealth, and Swim skills. Additionally, wearing a helmet may limit certain Perception skills.

Armor Damage

Each time armour is breached by a damage roll equal to or greater than the armour rating or more, the armour has lost some of it's protective capability in the relevant hit location (-1AP). High Energy Weapons such as plasma weapons reduce protective capability by -2AP each time armour is breached.

If an armored suit is not able to self-seal and the breach occurs in low pressure, hazardous or vacuum conditions, the wearer must seal the breach as soon as possible. Every suit has a standard supply of emergency patches.

Patching armour requires a Low/Zero Gravity Operations skill roll. If the first attempt fails, each further attempt is at a cumulative -5%. Every three seconds means a loss of 10% of the suits air and damage from exposure to low pressure or vacuum conditions.

Armor Type

As with the development of weaponry, armor has evolved through changes in technology, availability of materials, and changing battlefield conditions. It is outside the scope of these rules to list all these different types of armor and their distinctive features, so this section presents a representative sampling. A Game Master wishing to create more specific armor types keyed to a particular setting should be easily able to extrapolate the relevant attributes from the existing examples.

1. Personal Body Armor (PBA):

Favoured by personal security guards and undercover officers, PBA consists of adaptive ballistic cloth and kinetically reactive plastics sheets that flex under normal movement but become rigid to high velocity impacts such as firearm projectiles. A helm is sometimes also worn. Protects for 4AP.

Enc: 2.5kg.

2. Riot Body Armor (RBA):

Worn by local police and security forces, riot armour consists of an armored bodysuit made up of thin layers of ballistic nylon augmented with ceramic or polyethylene plates that provide extra protection to vital areas which protects the wearer for 6AP.

These hard armor plates have proven effective against all handgun bullets and a range of rifles. These upgraded ballistic vests have become standard in military use, as soft body armor vests are ineffective against military rifle rounds. Prison guards and police often wear vests which are designed specifically against bladed weapons and sharp objects. These vests may incorporate coated and laminated para-aramid textiles or metallic components. It has a built-in comm unit and Personal Data Transmitter, combat webbing straps to connect a variety of equipment, and contact points which monitor the wearer's vitals and transmit them to a tactical monitoring station.

Enc: 5.0kg

3. Combat Body Armor (CBA):

A military issue armored bodysuit worn in conjunction with either combat dress utilities (CDUs), or a Compression Suit, combat armour is the standard armour worn by infantry soldiers from all the nations of Earth, as well as the Colonial Marine Corps, Colonial Administration Security Force corporate and private mercenary units.

Combat Body Armor offers the option of 100% oxygen supply for low pressure use (in combination with a Compression Suit) or air at normal pressures. A combination of Kevlar and plasteel plating with an ablative coating for extra protection against energy weapons protects the wearer for 8AP.

The armor consists of a sandwich of materials molded to form a rigid shell. The outer layer is an ultra-light titanium-alumide alloy designed to provide structural strength and ablative protection against lasers. Beneath this is a core consisting of a layer of boron carbide resin bonded to a layer of graphite-composite carbon fibre. Boron carbide is an incredibly hard ceramic designed to shatter a bullet on impact while simultaneously forming a conoid base to absorb its energy. Beneath this, the carbon fibre layer provides ballistic protection at the point of penetration by delaminating across a large area, thereby absorbing more energy. Finally, on the inside of the armour is woven liner made of 1,500 denier Venlar fibres. This woven liner dissipates the remainder of the energy by deforming in the area of impact, and is also able to catch any spalling or fragmentation from the first three layers. Since any bullet or fragment impact on the armour shell tends to compromise its integrity and ability to provide ballistic protection, it is standard practice to discard damaged pieces and replace them with new sections immediately.

In practice, the stopping power of CBA armor is somewhat limited versus direct hits, particularly when dealing with high-velocity ball ammunition and High Explosive Armor Piercing small-arm rounds. However, it can be expected to stop low-powered ball ammunition and provide some protection against impact-fused explosive bullets and grenade or artillery fragments. Some stealth characteristics have also been included, such as curved and rounded surfaces to reduce radar signature, and infrared masking

The armor is also augmented with a lightweight body frame to help the wearer maintain his balance whenever he is hit with tremendous force, like body blows from an onrushing Xenomorph or Yautja.

Standard Accessories: tactical audio and video comlink (150 km range), polarized visor with integral night vision capability, HUD, and lights.

Enc: 10.0kg.

4. Battle Body Armor (BBA):

Essentially a military issue armored space suit, Battle Armor protects the soldier against the cold vacuum of space and against nuclear, biological and chemical contaminants. Like a standard space suit, it consists of an inner thermal regulation garment and two outer layers of tight fitting elastic fabric with an airtight covering to compress the wearer's body against the effects of low pressure.

The latest generation of Battle Armor suits have a self-sealing 'smart-layer' in between the inner suit layers and the armour plates. In the event of the suit's environment being compromised, micro-pores built into this smartlayer secrete a liquid polymer which solidifies in seconds, re-sealing the suit.

Woven by molecular tools into a superdense optical computer memory, the first reactive metal liquid crystal layer is "sandwiched" between the external armor and the internal padding. This revolutionary crystalline layer forms a network, capable of supporting the kinds of Artificial intelligence usually reserved for warships, on a piggyback system. The second layer is still amorphous and amplifies force, doubling lifting capability and increasing reaction time by a factor of five. The synthesis of an Artificial intelligence with the human brain is not possible without an upgrade to the user's standard Neural Interface.

This specialized version of the neural lace translates electrochemical signals to digital code and routes them through an interface connection at the rear of the skull. Through this interface, the user's thoughts control the armor's movement and input from the on board sensors connect directly to the user's mind. In addition, an AI personality and processing matrices can be carried by the armor and delivered to the suit via the specialized neural lace and on board storage in a crystal data chip no larger than a personal credit card.

Battle Armor has special coolant pods which mask heat signature and its molecular bonded titanium-duralloy armour plates combined with plasteel protect for 10AP.

The suit also possesses other features that enhance its wearer's abilities. It has numerous clips, belts, and magnetic holsters for the attachment of additional weapons and ammunition; an advanced Heads-Up-Display(HUD) linked to sensors in the gloves detects the type of weapon and devices held, and to project shield strength, ammunition count, a targeting reticle, waypoints, a radio uplink for communication, health monitoring and other helpful data.

Standard Accessories: air supply for 24 hours, rebreather, waste-relief system, water and concentrated food system with rations for one day (not tasty, but very nutritional), polarized visor with integral night vision capability, HUD with multi-view televiewer, two helmet lights, built-in computer, tactical comlink (300km range), CO_2 gun.

Optional Accessories: thruster pack.

Battle Armor are divides into 3 basic classifications: Tactic, Commando and Shock Battle Armor. BBA Shock is equipped with an exoskeleton to magnify the wearer's strength.

	Tactic	Commando	Shock
Rad Shield	3	3	4
Exoskeleton	STR x1.5	STR x2	STR x2
Polarized Visors	PVC	PVC	PVC
IR Visors	IRV/2	IRV/3	IRV/4
Night Visors	yes	yes	yes
Electro Binocular	ElectroB/1	ElectroB/2	Electro/B3
Communicator	BTC/1	BTC/2	BTC/3
Inertial Map	IML/HUD	IML/HUD	IML/HUD
PowerCell	24hrs.	48hrs.	96hrs.
Armor Protection	9	10	11
Mass*	20kg	25kg	30kg

*Enc: mass x 20% when worn and 'active' otherwise.

5. UEAF Stealth Assault Suit (SAS):

Designed for use by both military and corporate commando teams conducting covert ops, the Stealth Assault Suit is a lightweight armored bodysuit constructed of a flexible material that instantly hardens into armor upon impact. The exact chemical ingredients of the material are a closely kept commercial secret by those companies who manufacture the suits. Following synthesis, the liquid armor is poured into a mould that matches the shape of the body part it will protect, making each suit unique, designed specifically for one wearer. The resulting material exhibits a material property called strain rate sensitivity. Under normal conditions the molecules within the material are weakly bound and can move past each with ease, making the material flexible. But the shock of sudden deformation causes the chemical bonds to strengthen and the moving molecules to lock, turning the material into a solid, protective shield.

The armor incorporates an array of "hydro-thrusters" that allow increased speed during sprinting, as well as high maneuverability when submerged. This functionality also permits the Nanosuit to move in a zero gravity environment by utilizing atmospheric gasses as reaction mass. However, the "hydro-thrusters" will cease to function in an airless environment such as vacuum space, as there are no fluid particles to accelerate through them.

The suit also incorporates data connectivity to a military network, allowing the suit to display critical information on its HUD. This information includes a topographic GPS map of the area, complete with objective pinpoints, descriptions, and radar integration that identifies allied and known enemy units. Computers can interface with the armor in order to access this network. Additionally, information about the suit as well as the wearer's vital signs can be accessed from the network by advisers, mission control, and tactical supporters.

The Stealth Assault Suit has special coolant pods which mask heat signature, and the inner suit layers act as a fully functional compression suit, for use with 100% oxygen supply for low pressure use or air at normal pressures. The basic version of the suit offers protection comparable with Riot Armor (6AP). Stealth Assault Suits are expensive to manufacture and generally considered to be restricted military tech, unavailable to the public.

Standard Accessories: Integral compression suit; tactical audio and video comlink (250km range); polarized visor with integral night vision capability (IR/LI); HUD; External suit lights (1x shoulder mounted torch, 1x arm mounted torch); Integral Locater Device; ID 'Friend of Foe' transponder; Chameleoflage coating; Epoxy sealant spray.

Stealth Suit are divides into 3 basic classifications: Infiltrator, Raptor and Predator Assault Suit. Infiltrator SAS units are typically used as deep infiltration in enemy online for exfiltration. Raptor armor is equipped with an exoskeleton and it has been designed for priority target elimination in enemy territory. The Predator Armor is an evolution of the Raptor and is equipped with an experimental crystalline generation, capable of fully absorbing or bending incoming wave spectrums such as visible light in order to make the suit almost invisible for 2d6 CR. There is, however, a slight distortion which can be noticed by the human eye (Particularly when the suit is in motion).

	Infiltrator	Raptor	Predator
Rad Shield	2	2	3
Exoskeleton	No	STR x1.5	STR x2
Polarized Visors	PVC	PVC	PVC
IR Visors	IRV/2	IRV/3	IRV/4
Night Visors	yes	yes	yes
Electro Binocular	ElectroB/2	Electro/B2	Electro/B3
Communicator	BTC/2	BTC/3	BTC/4
Inertial Map	IML/HUD	IML/HUD	IML/HUD
PowerCell	48hrs.	72hrs.	96hrs.
Armor Protection	6	7	8
Mass*	3kg	7kg	8kg

*Enc: mass x 20% when worn and 'active' otherwise.

Note: The Predator Armor Mark II was a more advanced version of the Predator Mark I, first used by the SPARTANs of Headhunter Company. They had new photo-reactive coating to boost their camouflaging properties. There were also numerous experimental refits to the ballistic gel layers, upgraded software suites, and other functions. Although the new photo-reactive coating could mimic a wide range of electromagnetic radiation, it was still sensitive to overload, so the wearer would still be vulnerable for several seconds after a flashbang or plasma hit while the panels reset.

6. UEAF Power Assisted Personal Armor (PAPA):

The ultimate in personal protection, this is an advanced and powered version of Battle Armor. Robert A Heinlein's Starship Troopers and Joe Haldeman's Forever War provide more recent and detailed examples. Power Armor is a heavily armored exoskeleton employing servomechanisms to magnify the wearer's strength. The result is that the CAP (Combat Armor, Powered) Trooper becomes, in essence, a one-man tank. Since the PAPA unit itself provides the power for normal actions, with the wearer providing control rather than 'muscle,' heavy activity can be performed for a considerable period of time before the wearer becomes fatigued. When the powercell is exhausted, the wearer will be unable to move the suit by himself. The marine is effectively doubled in STR and has unlimited Enc. for encumbrance purposes. The basic PAPA Suit protects for 12AP.

All PAPA units should be considered as armored vacuum suits or armored space suits with mech strength. It is fully self contained, with electrically powered life support systems capable of operation for up to 5 times the period indicated if the suit powercell is replaced or recharged. Life support systems include a heating/cooling unit to maintain livable conditions inside the suit in all environments, waste reclamation of recycle water and dehydrate solid wastes, air purifiers and a 4-hours emergency oxygen tank, self-sealing system to close hole and leaks (some units have 'nipper' joints which can completely close points on the limbs when sections are totally blown away, while cauterizing the end of an amputated arm or leg), and food and water for designed suit duration (5x powercell duration). Food is in the form of concentrated ration pellets, while water is recycled except for a 2 liter emergency tank.

Each human being has a molecular fiber network called the nervous system within their brain. An upgrade to the standard Neural Interface is issued to all high-ranking officers. This network translates electrochemical signals to digital code and routes them through an interface connection at the rear of the skull. Through this interface, the user's thoughts command the armor's movement and weapons; and input from the on-board sensors comes directly to the user's mind. The kinesis between machine and mind is so fast that it is almost impossible to chart reaction time.

Between the external armor and the internal padding is the most devastating weapon the suit carries: a layer of reactive metal liquid crystal. Woven by molecular tools into a superdense optical computer memory, this revolutionary crystalline layer forms a network, capable of supporting the kinds of Artificial intelligence usually reserved for starships, as a type of piggyback system. An A.I.'s personality and processing matrices can be carried by the armor and delivered to the suit via on-board storage in a crystal data chip no larger than a personal credit card. At the same time it is amorphous, yet amplifies force, doubling lifting capability and increasing reaction time by a factor of five.

Standard Accessories: air supply for 48 hours, rebreather, waste-relief system, water and concentrated food system with rations for 2 days (not tasty, but very nutritional), polarized visor with integral night vision capability, HUD with multi-view televiewer, two helmet lights, built-in computer, comlink (3000km range), CO_2 gun, high output power supply for running power tools, weapons and standard suit equipment.

Optional Accessories: Powered Armor can mount either 2x squad support weapons or 1 platoon support weapon.

Power Armor divides into 3 basic classifications: Scout, Marauder, and Assault Power Armor. Scout PAPA units are typically used as 'light' reconnaissance armour by the military. Civilians may be able to obtain Scout armour as well. A degree of protection is sacrificed in the general interest of speed and endurance. Marauder armour is standard Power Armor typically issued to Mobile Infantry. Assault Power Armor is extra-heavy Power Armor developed for very specialized use by the UEAF SpaceForces and the FLEA. Armor protection in such Units may attain heavy tank levels. However, Assault PAPA units are exceedingly costly and therefore will never be encountered as general issue items.

	Scout	Marauder	Assault
Rad Shield	3	4	5
Y-Rack G.L.	No	Yes	Yes
C-G Harness	AAA	AA	AA
Exoskeleton	STR x2	STR x2	STR x2.5
Polarized Visors	PVC	PVC	PVC
IR Visors	IRV/3	IRV/3	IRV/4
Night Visors	yes	yes	yes

Electro Binocular	EBIN/2	EBIN/3	EBIN/3
Battle Radar	PBR	PBR	PBR
Sensor Scanner	Yes	Yes	Yes
Communicator	BTC/4	BTC/5	BTC/6
Inertial Map	IML/HUD	IML/HUD	IML/HUD
Medical Sensor	PMS	PMS	PMS
Life Support	48hrs.	72hrs.	96hrs.
PowerCell	48hrs.	72hrs.	96hrs.
Armor Protection	12	14	16
Mass*	60kg	70kg	80kg

*Enc: mass x 20% when worn and 'active' otherwise.

7. ERC NanoSuit Armor (NSA):

Nanosuits (also known as Nano-muscle suits) are powerful and extremely versatile sets of tactical-combat armor. All nanosuits are symbiotic, meaning that they physically bond with the user and become a form of second skin. The suits and the users eventually merge into one being. The process is accelerated if the wearer suffers serious injury as the suit will breakdown non-critical tissues in order to repair critical organs.

Over time, the suit would also directly interface with the wearer's brain. This allows the wearer to use the suit's processors as like a part of their own brain, essentially making most of their thought processes happen outside of their own brain. Once fully merged, the wearer no longer appears to wear the suit, but has access to all the suit's functions. They become a "Post-Human Warrior".

The Nanosuit can switch between one of three modes: Armor, Strength and Speed.

- Armor mode diverts the energy supply of the Nanosuit into absorbing the kinetic energy of incoming projectiles and other damaging forces, such as hazardous levels of heat, radiation and energy blasts. While the Nanosuit is in a constant regenerative-state, Armor mode enables quicker tissue regeneration than other modes. In Armor mode, the energy supply of the Nanosuit only depletes in the process of resisting against incoming fire or the effects of other hazards to biological life that face the player.

- Strength Mode enhances the user's physical strength to super human levels. When activated, the Nano-Weaves muscles tighten and inject a cocktail of performance-enhancing narcotics that are readily absorbed into the blood stream through the wearers skin. Melee attacks (Punches, grabs, throwing, and tackling) inflict lethal damage, the wearer becomes able to perform a "high-jump" (effectively tripling their jump height), recoil is reduced for all weapons, and weapons have less sway while aiming.

  It should be noted that in Strength mode fall damage upon the user is also reduced, however the damage is directed onto the user's physical integrity not absorbed by the armor itself.

- Speed Mode enhances the user's movement speed, allowing for a faster jogging speed or a super human sprint. When in this mode, the suit injects nano-bots, which enter the wearer's bloodstream and hyper-accelerate the bloodflow throughout the body, and supply more oxygen to the brain and muscle tissue. The power of the suit's "hydro-thrusters" is also increased while in Speed Mode, and thus the user will still move at an increased rate even while underwater or in zero-gravity environments. The increased dexterity of Speed Mode also allows the user to prepare heavy weapons and (Depending on the firearm) reload at an increased speed, in addition to this Nanosuit users in Speed Mode will also aim down their sights faster.

The Nanosuit is capable of recording audiovisual and environmental data, allowing the user to document whatever circumstances they encounter. It will also maintain body temperature if it detects critically suboptimal temperatures in the surrounding environment, and can keep the user alive even at -130°C. The Nanosuit has a special defrosting function.

The Nanosuit incorporates a small internal oxygen supply for underwater activity. The Nanosuit can recycle air for one minute before energy is diverted to maintaining the oxygen sub-system. If energy reaches zero, the user will start to take bodily damage from the prolonged deficiency of oxygen. It automatically recharges when the user re-enters a breathable atmosphere.

	N1	N2
Rad Shield	2	3
Exoskeleton	STR x1.5	STR x2
Polarized Visors	PVC	PVC
IR Visors	IRV/2	IRV/3
Night Visors	yes	yes
Electro Binocular	ElectroB/2	Electro/B3
Communicator	BTC/2	BTC/3
Inertial Map	IML/HUD	IML/HUD
PowerCell	48hrs.	72hrs.
Armor Protection	8	9
Mass*	8kg	10kg

*Enc: mass x 20% when worn and 'active' otherwise.

Note: to prevent Nanosuit technology from entering enemy hands should the user die, the Nanosuit is designed to disintegrate or "vaporize" on the command of a remote control, usually in the possession of commanding officers. The disintegration of the suit also results in the disintegration of the corpse inside, theoretically providing a way to kill the soldier for whatever reason.

8. ERC Powered Armor System (PAS):

The Valkyrie Powered Armor System is a technologically advanced combat exoskeleton system designed to vastly improve the strength, speed, agility, reflexes and durability of ERCsoldiers, equivalent to UEAF PAPA.

The battlesuit is a sealed system, capable of extra-vehicular activity for a limited amount of time or operations in toxic atmosphere. It is hardened against EMP and radiation, and has filters that are completely effective at removing toxins and bacteria from local atmosphere. Between the external armor and the internal padding is the most devastating weapon the suit carries: a layer of polymerized lithium niobocene, a liquid metal crystal that deforms along a preferred axis when exposed to an electric charge. Woven by molecular tools into a capillary system, this layer is amorphous, yet amplifies force, doubling lifting capability and increasing reaction time by a factor of five. Because the Valkyrie system is so reactive, it can only be worn by a physically augmented human; ordinary people are unable to use the suit without injuring themselves.

The suit also possesses other features that enhance its wearer's abilities. It has numerous clips, belts, and magnetic holsters for the attachment of additional weapons and ammunition; an advanced heads-up display (HUD), linked to sensors in the gloves which can detects the type of weapons and devices held, and to project shield strength, ammunition count, a targeting reticle, waypoints, a radio uplink for communication, health monitoring and restoration system, regenerative food materials and other helpful data.

On top of the inner skinsuit is a gel-filled layer, which regulates the temperature of the suit and can change its density to conform to the wearer's shape. The temperature inside the suit is controlled by the moisture-absorbing cloth suit underneath the hydrostatic layer. The hydrostatic gel layer can also be pressurized to various levels to potentially save the wearers life should the wearer be subjected to high G forces or a high velocity impact; however, overpressurizing this layer can cause nitrogen embolisms.

	Hildr	Thrùd
Rad Shield	5	5
Y-Rack G.L.	Yes	Yes
C-G Harness	AA	AA
Exoskeleton	STR x2	STR x3
Polarized Visors	PVC	PVC
IR Visors	IRV/3	IRV/4
Night Visors	yes	yes
Electro Binocular	EBIN/3	EBIN/3
Battle Radar	PBR	PBR
Sensor Scanner	Yes	Yes
Communicator	BTC/5	BTC/6
Inertial Map	IML/HUD	IML/HUD
Medical Sensor	PMS	PMS

Life Support	72hrs.	96hrs.
PowerCell	72hrs.	96hrs.
Armor Protection	13	15
Mass*	80kg	90kg

*Enc: mass x 20% when worn and 'active' otherwise.

9. Space & Vacuum Suits (SVS):

Most space suits are made up of three parts. First, a person wears a body glove, which contains sensors for monitoring his vitals, thermal cells that maintain his body temperature, and micro bladders which pull sweat away and convert it into drinkable water. It also acts as temporary protection from the hard vacuum of space should the outer suit be breached, though it is only effective in this role for less than an hour – generally long enough for someone to return to the safety of a ship or station.

The outer shell of the space suit is made of a highly flexible kevlar-carbon composite weave that acts as a shell against the cold vacuum and deflects the radiation that bombards anyone outside the protection of a spacecraft hull. This outer shell has no hard joints, save for the attachment ring for the helmet, and is nearly as flexible as the inner body glove. Utility belts worn outside this provide places for tools to be attached. Micro thrusters built into the feet, hips, shoulders and palms of the suit provide the wearer a great deal of mobility.

The final part of a space suit is the helmet. Available in a host of models, such helmets are highly sophisticated, containing the computer systems that operate the entire suit. On the inside of the face shield, the user can customize a variety of displays to assist him in his task, provide navigational data, or coordinate communications, depending on what is needed. Many spacers spend a great deal of time customizing their displays.

The basic SVS protects for 4AP.

For prolonged periods working in the vacuum of space, the Vacuum Work Suit is very much like a SVS, except the suit is of heavier construction. A typical VWS offers 6AP of protection.

Advanced Armor Table

Armor type	AP	ENC	Skill Modifier	Fits SIZ	Time	Rad Shield
Personal Body Armor	4	2.5	-5% to Physical skills	±2	2	0
Riot Body Armor	6	5.0	-5% to Physical skills	±1	3	0
Combat Body Armor	8	10.0	-10% to Physical and Manipulation skills	±1	4	0
BBA 'Tactic'	9	20.0	-10% to Physical and Manipulation skills	±1	5	3
BBA 'Commando'	10	25.0	-10% to Physical and Manipulation skills	±1	5	3
BBA 'Shock'	11	30.0	-10% to Physical and Manipulation skills	±1	5	4
SAS 'Infiltrator'	6	8.0	-5% to Physical skills	–	3	2
SAS 'Raptor'	7	12.0	-5% to Physical skills	–	4	2
SAS 'Predator'	8	14.0	-5% to Physical skills	–	4	3
PAPA 'Scout'	12	50.0	-20% to Manipulation skills	±1	5	3
PAPA 'Maraudeur'	14	70.0	-20% to Manipulation skills	±1	5	4
PAPA 'Assault'	16	80.0	-20% to Manipulation skills	±1	5	5
NSA 'N1'	8	10.0	-5% to Physical skills	–	4	2
NSA 'N2'	9	14.0	-5% to Physical skills	–	4	3
APA 'Hildr'	13	80.0	-20% to Manipulation skills	±1	5	5
APA 'Thrùd'	15	90.0	-20% to Manipulation skills	±1	5	5
Space & Vacuum Suit	4	10.0	-10% to Physical and Manipulation skills	±1	3	3
Vacuum Work Suit	6	20.0	-15% to Physical and Manipulation skills	±1	4	5
Heavy Vacuum Work Suit	8	40.0	-20% to Physical and Manipulation skills	±1	5	5

Fits SIZ: The amount of variance the armor SIZ will accommodate from its default SIZ, expressed as a positive or negative number.

Time: How many combat rounds to put the armor on.

Damage Results

Hit points measure the amount of injury your character can take and survive. When your character loses hit points through injury, this is called damage. You start with a number of hit points based on your CON and SIZ characteristics, and these are reduced by the amount of damage you take. Wounds or other injuries, poisons, disease, and other forms of attack may cost your character hit points in damage. You should cross off the amount of hit points lost from the current hit point total shown on your character sheet.

Poison and disease are special sorts of injury; they may attack randomly, and their effects may be delayed. Some destroy hit points, while others destroy characteristic points or (rarely) lower skill ratings of particular skills or types of skills. The First Aid and Medicine skills can lessen or heal minor wounds and injuries.

- A PC falls unconscious if they only have 1 or 2 total HP remaining, unless they make a stamina roll each combat round.

- At zero total HP, a PC will die in a number of combat rounds equal to their CON, unless they receive emergency medical attention.

- If a PC has been reduced to negative total hit points, but it is still less than or equal to their CON, a medics can take heroic measures to save the dying individual. The dying PC will continue to lose 1 HP each combat round, until it either exceeds their CON, at which point they expire, or until they are restored to positive hit points. Player Characters revived in this manner are critically ill, and incapable of performing any actions for 20 – CON days.

Shock Resistance

A person might go into 'shock' at any time he is subjected to a severe physical trauma. Shock may occur whenever a character is seriously wounded or injured by weapon fire or explosion or impact (from a solid object or a melee weapon). Shock might also be possible when a character is seriously burned, falls from a considerable height, breathes in toxic gases, suffers an electric shock of moderate to high intensity, etc.

A Shock Resistance involves a Stamina roll. If shock results, the character is rendered unconscious for a number of minutes equal to 30 minus his Constitution score.

Characters with Bravery score BRA/16+ will check to see if they 'berserk' whenever a Stamina roll is failed. If the character succeeds a Fortitude roll at BRAx3, is not rendered unconscious. Rather, his hysterical energy levels are such that he will make no checks for shock exhaustion until the emergency is clearly over. His combat capabilities are increased +25% in hand-to-hand situations and his morale is unshakeable.

The Shock Resistance is therefore a measure of a character's physical reaction to some dramatic threat to his bodily safety and survival.

Major Wounds

When your character has sustained an injury equal to or more than half the character's total hit points, he has suffered a major wound. Receiving a major wound means that your character risks suffering a permanent injury. When your character gets hit with a major wound, the Game Master should roll on the Major Wound Table or choose an appropriate result if hit locations are used.

Even though your character may still be able to fight or has received some form of immediate medical attention, if he has suffered a major wound he will go into shock. Because of this, your character can fight on only for a number of combat rounds equal to his current remaining hit points. For example, if your character has taken a major wound and has 3 hit points remaining, he will drop unconscious in three rounds.

If your character has suffered a major wound, you should immediately attempt a Luck roll. If successful, the major wound will heal cleanly and does not inflict any permanent loss of characteristic points. If the Luck roll fails, the injury or wound is permanent. Your character suffers the full wound as described below, subtracting the indicated characteristic points.

Major Wound Table

Location	1D10	Result
Head	1-7	Much of the nose has been sliced away; multiple scars deface both hands; an ear has been cut off; a livid scar lends an evil cast to your character's appearance; or make up a new wound effect. Lose 1D3 APP. The visible and unappealing deformity cannot be disguised. Your character is still able to fight.
	8-9	Refer to 1-7 for what happened, though the major wound now includes worse mutilations. Lose 1D6 APP; it creates one or more visible deformities that cannot be disguised. Your character is still able to fight.
	10	Extensive brain damage, fall prone to the floor. All Characteristics reduced to 1 permanently. Left in a Persistent Vegetative State. There is a 10% chance that extensive cyberware and nanosurgery will be able to repair some of the damage.
Arm	1-5	Wrist or hand damage; a slab of arm or shoulder muscle has been cut away; a chunk was hewn from thigh or calf muscles; several fingers or toes are severed; or make up a new wound effect. Lose 1D3 DEX and 1 point STR; this loss may change what weapons can be used. Your character is still able to fight with a weapon, but not a shield.
	6-8	Broken bones and severed ganglia. Lose 1D6 DEX; from now on your character can only use one-handed melee weapons. Your character is still able to fight using his remaining arm.
	9-10	Muscle, tendon and/or bone damage so severe that either the arm is severed completely from body or must be removed later. Lose one extra Hit Point per round from blood loss. Automatically drop any held items. Lose 2 points of DEX and 2 STR permanently*. To calculate which arm is hit roll 1D6 – Odds: left arm. Evens: right arm.
Chest	1-6	A punctured lung leads to a weakened respiratory system; kidneys and liver are damaged; or make up a new wound effect. Lose 1D3 CON; maximum MOV is now reduced by the same 1D3, and hit points may be lowered. Your character is still able to fight.
	7-9	Refer to 1-6 for various wounds to the vitals. Lose 1D6 CON; may affect hit points, damage bonus, and reduces MOV by that number of units equal to the 1D6 result rolled. Your character is unable to fight.
	10	Spine broken character permanently paralyzed below the neck (odd result on dice) or the torso (even result on dice). Half DEX permanently*.
Abdomen	1-6	Back muscles or spinal nerve damage bend the torso to the left or right; Loss of one or both arms or legs. Lose 1D6 DEX and reduce maximum MOV by that same amount. Your character is unable to fight.
	7-9	Refer to 1-6; Nerve damage to both arms. Lose 1D6 DEX; though the legs are fine, neither arms nor hands can wield anything. Your character is unable to fight, unless using his legs or head butts.
	10	Pelvis Shattered – instant loss of mobility. Chance of conception nil. Possibility of going into shock. Roll 1D6 – Odds: no shock, evens: heart stops as per #8. Loses 4 points of DEX and 4 STR permanently*.
Leg	1-7	Severed leg tendons cause limping; fused ankle bones cause limping; a shattered knee cannot bend; or make up a new wound effect. Lose 1D3 DEX. The maximum MOV is now reduced by the same 1D3 result. Your character is still able to fight.
	8-9	Your character was deliberately mutilated after collapsing. Remove 1D4 points each from any of four characteristics (Game Master's discretion as to which) and describe the results. Your character is unable to fight.
	10	Muscle, tendon and/or bone damage so severe that either the leg is severed completely from body or must be removed later. Falls prone and can not move. Lose one extra Hit Point per round from blood loss. Lose 2 points of DEX and 2 STR permanently*. Movement rate reduced by 3. To calculate which leg is hit roll 1D6 – Odds: left leg. Evens: right leg.

*These effects are permanent unless the PC can be stabilised (Medicine or First Aid roll) and reach advanced medical care (i.e. a hospital) within their CON in days. The PC will be hospitalised for several weeks, several months if a limb needs replacement.

Hand-to-hand

Any hand-to-hand weapon can be used. The possibilities are so numerous and often so strange that it is pointless to write them up as skills. Everyone can perform Fist/Punch, Head Butt, Kick, and Grapple.

Most hand-to-hand weapons can perform one attack or one parry per combat round. Personal attacks have limited parries. Knives without crossguards cannot parry.

In attacking, a hand-to-hand weapon never does damage to itself. Add full damage bonuses to these weapons' attacks except when thrown: thrown weapons get halved damage bonuses.

DEX Modifiers

The following modifiers should be applied when calculating when a Player Character (PC) acts during the combat round:

Description	DEX Modifier
Surprised by an enemy	-3
Drawing a weapon	-3
Altering intent	-3

Movement During Combat

Most humans can move 4 metres during a combat round. At this speed, an individual can still dodge some hazards, and have time left over to do some fighting of their own. A PC who wishes to do nothing but run and to avoid obvious obstacles in their direct path can move up to 8 meters during a combat round.

Combat Action Results

A PC can make one action during a combat round with his weapon, unless his skill is greater than 75%. He may choose to attack, parry or dodge. At expertise level/5+, he may enjoy extra actions:

Weapon expertise level	Extra action
1 to 3	0
4 (expert)	+1
5 (master)	+2
6 (grand master)	+3

1. Attack

An attack requires the expenditure of 1 action. The PC can make a number of missile attacks dictated by his weapon of choice.

2. Parry

A weapon parry requires the expenditure of 1 action. The parry skill is deduced from the attacker's chance to hit. A critical success inflicts damage to the weapon of the defender.

3. Dodge

Combat is rarely static, with combatants standing toe to toe and slugging it out. If a character has sufficient room to maneuver (at least 2 meters of open space around him), he may choose to dodge a blow. A dodge requires the expenditure of 1 action.

Each point of ENC carried reduces Dodge skill by 1%. Dodge is effective in evading physical blows, thrown missiles, attacks from ambush and so forth. The dodge skill is deduced from the attacker's chance to hit. If an attack can be seen, a PC can try to dodge it. Against firearms a defender can try to dodge only the first shot or burst fired at him in a combat round.

Knockback

Every 5 points of damage in excess of target SIZ knocks the target back 1 meter. Target will fall unless an agility roll is successful. A Special hit automatically knocks a target back 1 meter regardless of SIZ.

- **Knockback Into Solid Objects**

  Target suffers additional 1d6 damage per meter travelled.

- **Knockback into Small Objects/People**

  Primary and Secondary targets must both make agility rolls or both suffer 1d6 damage per 5 meters travelled by Primary target.

- **Intentional Knockback**

  Also known as tackling/shoulder barging. Match attackers STR+SIZ vs. SIZ+DEX of target on resistance table. If successful, treat attackers STR+SIZ as damage for calculating Knockback. Failure means attacker knocked back as if defenders STR+SIZ is weapon damage.

- **Unarmed Combat/Martial Arts**

  If melee attack is below actual skill and Unarmed Combat skill, they roll double damage dice. E.g. Fist attacks do 2d3 instead of normal 1d3.

Subdual

In the movies, the usual technique for knocking an opponent out with a single blow is via a swift strike to the head using a blunt object like a club or pistol butt.

An attacker wishing to subdue an opponent must state the intention at the beginning of the combat round, and must be in a position to strike the victim in the head, either through surprise (a Game Master should determine if the attacker has element of surprise), or by virtue of the victim being immobile in some fashion.

The attacker rolls his attack and damage as usual, then matches the result against the opponents' current total hit points on the resistance table. Success means the victim has been knocked unconscious for a period determined on the table below:

Unconsciousness Period Table

Damage	Unconsciousness
1	1 minute (6MR)
2	2 minutes (12MR)
3	4 minutes (24MR)
4	5 minutes (30MR)
5	5 minutes (90MR)
6+	30 minutes (180MR)

After the given time, the victim revives with a splitting headache but will only have taken 1 HP damage to their head and total hit points.

Firefight

The six firearm skills are Handgun, Machine Gun, Rifle, Shotgun, Sub Machine Gun and Energy weapons. An adventurer can parry hand-to-hand attacks with any rifle, shotgun, or large submachine gun. But these weapons are not designed to take a hammering: if the gun's hit points are exceeded by a single blow, the weapon no longer can fire.

Attack Modifiers

All effects are cumulative, but no matter how many negative modifiers apply, never reduce the attack chance below 05%.

Situation	Modifier
Target helpless	+25%
Target surprised during non-combat or knocked down.	+20%
Target surprised during combat.	+10%
Attacking from behind target.	+10%
Prepared attack (1-3 combat round delay to aim just right)	+10-30%
Attacking from above target.	+10%
Per 10 SIZ points that the target is over 20.	+05%
Target cannot be seen, or sensed in any way.	-75%
Attacker has been knocked down.	-20%
Target moving (only applies to missile weapon attacks).	-10%
Per SIZ point which target is below SIZ 4	-10%
Attacker is riding in/on a moving vehicle.	-10%

Range Modifiers

Once all of the targets modifiers have been calculated, this is then multiplied by according to the targets range on the following table. Long Range extends out to the weapons listed Maximum Range. If the weapons Maximum Range is less than that listed on the table below use the Maximum Range given with the weapon description/statistics.

Range	PB	SR	MR	LR	ER
character's skill	x2	x1	x1/2	x1/4	x1/10
Hand Gun	5m	10m	20m	30m	50m
Shotgun	5m	15m	30m	50m	60m
SMG	10m	20m	40m	100m	200m
Rifle*	10m	50m	100m	300m	900m
Machine Gun	15m	100m	500m	750m	1200m
Energy Weapons	10m	30m	60m	200m	300m

*For rifles equipped with telescopic sights, double all ranges. If both telescopic sights and aim precision apply, quadruple all ranges. Laser sights quadruple all ranges without requiring the aim precision modifier.

PB: Point Blank, character's skill x2; MR: Medium Range, character's skill /2; LR: Long Range, character's skill /4; ER: Extreme Range, character's skill /10

Combat

Additionally, combat at ranges closer than 10m-15m tends to be very fast, furious and frantic. The Point Blank range modifier only applies if the firer is taking the normal requirements to aim and squeeze off a shot, otherwise the modifier is counted as Snap Firing at x1. A shooter benefiting from the x2 PB bonus gets to fire after everybody else Snap Fires regardless of DEX.

Rate Of Fire (ROF)

Rate Of Fire or 'ROF' is the frequency at which a specific weapon can fire or launch its projectiles. In game terms ROF is the number of times per combat round the weapon can be fired. During a combat round Game Masters should rotate through the combatants in order of highest to lowest DEX until all weapons have expended their ROF.

1. Snap Fire

Unless a PC states he is aiming (see below), all weapons fire during a combat round is counted as Snap Fire unprepared reactive fire during the heat of battle. Snap Fire does not gain the x2 range modifier at Point Blank range.

2. Aimed Shots

An aimed shot allows the PC to hit a specific hit location on his designated target. If declared during combat, the PC waits until the end of the combat round and then fires. Targeting a specific part of a victim's body is considered Hard, with a -40% penalty to the combat skill.

If a PC wishes to make an aimed shot at another time (e.g. sniper fire), the PC aims for a stated number of combat rounds, then fires using the above rules but with a +10% bonus to his skill for every combat round spent aiming, up to a maximum of +30%. If the character is interrupted (attacked, jostled, etc.) while aiming, he must make a successful Difficult Idea roll to maintain the aim. If the roll fails, the benefits accrued for the aiming are lost.

3. Double Tap

Only PCs with a combat skill above 50% can use the Double Tap rule. It allows a PC to fire two shots into a target almost simultaneously. The first shot is fired as normal. The second shot comes a second later, and the chance to hit is the PCs combat skill minus the actual roll made for the first shot. As both shots are fired in quick succession they both hit the same hit location.

> Double Tap – example
>
> Sergeant Draper has a rifle skill of 80%. She is faced with an armed opponent who is about to shoot a hostage. Draper decides to Double Tap him. On her first shot Draper get a 27, so her chance to hit with her second shot is 80 – 27 = 53%.

Double Tap can only be used with weapons that have a Semi Automatic Fire Mode (e.g. Handguns and Rifles).

4. Firing Bursts

Automatic and Fully Automatic weapons can fire in bursts. The firing of multiple rounds increases a character's chance of hitting a target. For each additional shot fired in a burst against a single target, increase the character's Ranged Combat skill by 5%. This modifier cannot raise a skill higher than double the skill.

The attacker should announce how many shots are being fired (bursts are usually 3 shots, while autofire can empty the whole clip), and determine the increased attack chance.

Roll once for all attacks against a single target. If the attack succeeds, roll to see how many shots hit the target. Thus if ten shots are fired, roll 1D10 to determine the number of hits; if 8 shots are fired, roll a D8; if 5 shots are fired, roll a D10 and divide it in half, rounding up, etc.

- A Critical success means that the entire burst hits the target. Only the first shot does Critical damage.
- Firing a burst increases the weapon's malfunction chance by 5%.

Firing a burst from an automatic weapon at a closely packed group of targets allows the PC to roll 1d3+1 to see how many targets the bullets are split between. It is nigh on impossible to hit a specific target in a group without the risk of injuring others around the target.

5. Suppressing Fire

If a PC has a weapon capable of fully automatic fire, he can declare that he intends to put down suppressing fire. In effect, they spend an entire round firing their weapon into a designated zone. Anyone caught in this area is suppressed. If they wish to move from cover, they will be hit by a burst from the weapon.

6. Panic Fire

An armed PC who fails a Fortitude roll during combat automatically performs this action. It can also be declared voluntarily at the Game Master's discretion. Panic fire halves the hit chance, and doubles the malfunction chance, but allows a PC to fire continually until their weapon is empty.

Fire Mode

This refers to the type of fire modes available with a given weapon. In the late 23rd century, virtually all kinetic based weapons are at least semi-automatic. Types of fire mode include:

1. **Pump Action**

    A pump-action rifle or shotgun is one in which the handgrip can be pumped back and forth in order to eject and chamber a round of ammunition. The 30mm grenade launcher on the M29 Tactical Assault Rifle is a good example of a pump action weapon.

2. **Semi Automatic**

    A semi-automatic firearm is a weapon that requires only a trigger pull for each round that is fired. For example, if someone were to shoot ten rounds from a semi-automatic pistol, the trigger would need to be pulled ten times (once for each round fired).

3. **Automatic**

    Firearms with the capability to fire bursts of more than one round per pull of the trigger, such as the M29, are generally considered to be automatic. Such weapons are usually equipped with selective fire mode, enabling the user to switch between various automatic and semi-automatic fire modes.

4. **Fully Automatic**

    A fully automatic firearm will continue to fire as long as the trigger is held or until it runs out of ammunition. Most fully automatic weapons also have a selective fire mode enabling burst fire.

5. **Selective Fire**

    A selective fire firearm can be fired in both semi-automatic and a number of automatic modes by means of a selector. Many selective fire weapons utilise burst fire mechanisms that limit the maximum or total number of shots fired when in this mode.

The Malfunction

If this happens, roll 1d100. A result of 01-50 indicates the weapon jams, overheats, or fails in some way. Roll appropriate weapon skill or mechanical/electronics (depending on tech of weapon) to fix the weapon. This takes 1d6 rounds. If the repair roll is fumbled, the weapon is useless until stripped. If the result of the 1d100 roll is 51 or higher, roll on the missile weapon fumble table at the end of this chapter.

Armour Penetration (AP)

All projectile weapons have an armour Penetration Value (abbreviated to PV). This value is subtracted from a target's armour points before calculating damage. For example a weapon with a Penetration Value of +2 would ignore the first 2AP of whatever it is fired at.

Area effect weapons only apply the Penetration Value to direct hits e.g. if a vehicle is hit by a rocket, the Penetration Value is applied vs. the vehicle's armour. Any troops next to the point of impact caught in the blast would get full benefit from any armour they are wearing.

Area Effect Weapons

Certain weapons deliver explosive or burning damage. Damage delivered for such weapons is calculated as follows:

- Roll the weapon damage and match it against the target's armour.

- If the damage overcomes the armour rating, the full rolled damage is inflicted to the target's total HP, with damage deducted equal to half the armour rating (rounded up).

- If the armour succeeds, the armour protects fully, but damage is still to total HP. A Critical success protects the target from all but 1HP worth of damage.

Zero G Combat

Virtually all weapons involve some form of recoil, and in a zero-G environment this recoil can disorient or render helpless individuals not trained to compensate for it. When fighting in a zero-G environment, any individual has a chance of losing control of their movement/position each combat round. Use of the Zero-G Combat skill is required. Roll this skill to avoid losing control and apply the following modifiers. The character will be out of control, and unable to act, until he can make a successful skill roll using Low/Zero Gravity Operations.

All effects are cumulative unless stated otherwise, but no matter how many negative modifiers apply, never reduce the attack chance below 05%. Some weapons are specifically designed for combat in low/zero gravity and this will be specified in their description.

Zero G Combat Table

Situation	Modifier
Wearing powered armour (increase to +25% if Powered Armor skill check made successfully)	+10%
Per point of DEX over 15.	+05%
Using a handhold.	+25%
Firing a weapon with 'normal' recoil.	-20%
Firing low-recoil (zero-G) weapon. This modifier replaces the one above rather than being cumulative.	-10%
Striking in hand to hand combat	-30%

Hardware

by Steve Perrin, Hans-Christian Vortisch, John Ossoway, Robyn King-Nitschke, Edward Simbalist & Phil McGregor

> *"You made three mistakes. First, you took the job. Second, you came light – a four-man crew for me? Fuckin' insulting. But the worst mistake you made … Empty gun rack.."*
>
> *Riddick*

The following section provides a comprehensive listing of light, man-portable weapons ranging from archaic melee and missile weapons to the most advanced energy weapons.

Caution: If one attempts to employ everything at once, some confusion and plain difficulty in managing the weapon types will occur. Typically, individual players will develop preferences for certain weapons and will tend to ignore others. The same is true of entire cultures, as will be seen later. Thus, in any given adventure, one should not expect to see too many different weapon types being used.

Breakdowns are relatively rare with weapons. However, when the character is in the immediate vicinity of a large explosion, there is a chance that most weapons will malfunction. Also, if desired, a hit in the arm (the character is holding the weapon) may affect the weapon if the Breakdown is rolled. If a Breakdown occurs, the weapon was struck. In some cases, a weapon may be damaged, but the character will come out unscathed.

Archaic Melee Weapons

Archaic melee weapons include those personal arms which would be encountered in cultures of low technological development. They typically employ force of impact and perhaps some kind of cutting edge or piercing point to cause damage to an opponent. Against advanced armour, most of these weapons will have limited effects. There will be a slight chance, however, that even high grade advanced armour will be penetrated by archaic weapons—representing the possibility that an edge or point has found a chink or joint in the armour.

DAGGER: A small, knife-like weapon with a flat, two-edged blade and thrusting point. Tech/1 weapon. Mass = 350—500g. Length = 35—40cm.

KNIFE: A short version of the dagger, often balanced for throwing at opponents at ranges of 15m or less. The knife may be of the folding jack-knife or switchblade type, or it may be a fixed blade. Tech/1 weapon. Mass = 150—250g. Length = 20—30cm.

STABBING SWORD: A 'classical' short sword on the Roman model, with a flat, two-edged blade and thrusting point. Most versions have a guard on the hilt. Tech/1 weapon. Mass = 1.0—1.5kg. Length = 50—60cm.

SWORD: The standard long-bladed weapon, with a flat one or two-edged blade. Most swords have some form of guard, either a cross-piece or a basket hilt. Tech/1 weapon. Mass = 1.5—2.0kg. Length = 90cm.

BROADSWORD: A heavy weapon designed for one or twohanded use. It has a long, fairly thick blade with a double edge, a cross-piece hilt guard, and a point which is almost impossible to use because of the weapon's balance. Its 'charm' lies in its effectiveness against archaically armored opponents. Tech/2 weapon. Mass = 2.5—3.5kg. Length = 0.9—1.0m.

GREATSWORD: A massive, two-handed blade with a double-edge, a wide cross-piece hilt guard, and a point almost never used, except when the weapon is held like a spear in the charge (very rare). The weapon is most effective against mounted enemies and heavily armored opponents. Mass = 4.0—5.0kg. Length = 1.2—1.8m.

FOIL: Any 'rapier' weapon is classed as a foil. The foil is a remarkably light weapon with a long, thin, dull-edged blade and depends upon a thrust for its deadliness. Its only drawback is its tendancy to shatter (1 to 10) when parrying heavier weapons or thrusting through the joints of good armour. Tech/3 weapon. Mass 500 to 700g. Length = 1.0m.

SABRE: A long, single-edged slashing weapon with a slight curve to the blade along its length, terminating in a rarely used point. The hand is protected by a basket hilt or a cross piece. Tech/2-3 weapon. Mass = 1.0—2.0kg. Length = 0.9—1.0m.

KATANA: A (Japanese) slashing sword with a long, single-edged blade that curves slightly along its length. The weapon has no tapered point, while the hilt guard is only a slightly raised band separating the blade from the handle. It can be used with one or two hands. Few slashing weapons are more dangerous, and only a foil is its match in combat. Tech/2-3 weapon. Mass = 1.0—1.5kg. Length = 1.0m.

BATTLE AXE: The Battle Axe has several variant models. The light Norman war axe resembles a wood axe and is used as a throwing weapon as well as a hand-held weapon. The Nordic Broad Axe is slightly heavier and double-bladed. The great War Axe is a very heavy double-bladed weapon used against plate armour with good effect. Mass = 4.0—.45kg. Length = 1.2—1.4m.

MACE: A heavy impact weapon with a massive metal head on a wooden shaft.The iron head is either a knobby ball or a spiked ball (sometimes called a 'Morning Star'), and sometimes a more complex triangular shape (base to shaft) with a number of sharp-edged flanges ('Martel'). The mace is designed to crack armour and smash bones. Tech/1-2 weapon. Mass = 2.5—4.0kg. Length = 0.9—1.1m.

MORNING STAR: A mace-variant with one to three iron balls attached to the wooden shaft by a chain. The shaft is about 80—90cm long, with about 400mm of chain beyond that. Tech/2 weapon. Mass = 3.0—4.0kg. Length = 1.2—1.3m.

FLAIL: A large version of the Morning Star, with one heavy iron ball attached to the shaft by a 50cm chain. It is used two-handed on foot but can be used one-handed on horseback if swung overhead in a steady circular motion. Tech/2 weapon. Mass = 4.0—5.0kg. Length = 1.5—1.8m.

SPEAR: The standard infantry weapon of many early cultures, the spear is a pure thrusting weapon. It is simple enough to be readily fashioned or repaired by anyone. Tech/0 weapon. Mass = 1.5—2.5kg. Length = 2.0—3.0m.

JAVELIN: A 2.0mm throwing version of the spear which can be cast 25—35m with accuracy and some penetrating force. Mass = 1.0—1.5kg. Length = 2.0—2.5m.

QUARTERSTAFF: A weapon that is little more than a shaft of wood, although it can be metal-shod. The weapon is rarely capable of doing serious injury to armored opponents, but it can stun or kill lightly armored enemies. It is also excellent as a defensive weapon. Tech/0 weapon. Mass = 1.0—2.0kg. Length = 2.0—2.5m.

CLUB/CUDGEL: Any improvised weapon from ready-to-hand materials is classified as a 'club.' If the character has Street-Fighting or Unarmed Combat skill, he may apply bonuses when using such improvised weapons. Anything from a bottle to a chair to a long stick will qualify, as will a long gun such as a rifle, carbine, or SMG used to club an opponent.

BAYONET: A stabbing sword-like weapon which can be attached to the muzzle of a long gun to convert it to a polearm. The 'spear' so developed has the length of the weapon plus the bayonet. Alternately, it can be employed as a stabbing sword (that skill is required) in hand-to-hand combat. Tech/3+ weapon. Mass 1.0—1.5kg. Length = 50—60cm.

Archaic Melee Weapons Table

Weapon	Skill	Base	Damage	Hands	HP	STR/DEX	SR
Battle Axe	Axe	15	1D8+2+db	1	15	9/9	2
Great Axe	Axe	15	2D6+2+db	1	15	11/9	1
Dagger	Dagger	25	1D4+db	1	15	4/4	3
Flail	Flail	10	1D6+db	1	7	7/6	2
Hammer	Hammer	25	1D6+db	1	15	9/7	2
Great Hammer	Hammer	25	1D10+3+db	1	15	9/9	1
Katana	Sword	15	1D10+1+db	1 or 2	15	11/11	2
Knife	Dagger	25	1D3+db	1	15	4/4	3
Heavy Mace	Mace	25	1D8+2+db	2	20	14/9	2
Light Mace	Mace	25	1D6+2+db	2	20	7/7	2
QuarterStaff	Staff	25	1D8+db	2		9/9	1
Broad Sword	Sword	25	D8+1+db	1		9/7	2
Great Sword	Sword	05	2D8+db	2	18	14/13	1
Long Sword	Sword	15	1D8+db	1	15	7/9	2
Short Sword	Sword	15	1D6+1+db	1	20	5/5	2
Wakizashi	Sword	15	1D6+1+db	1	13	7/9	2

Advanced Melee Weapons

With advanced technology, hand-to-hand combat weapons became remarkably efficient, so that even high-grade battle-armour was anything except immune to them:

MonoFilament Blades:

Any edged weapon type can be a MonoFilament Blade-typically a knife or sword, although spears might also be so tipped. A monofilament wire stiffened by a forcefield renders the edge capable of sheering through most substances with greater ease than steel. Weapons so fitted are used in the usual way, but have MonoFilament penetration. Powercell = 200 charge minicell at 0.1kg mass. The powercell runs continuously, so it must be replaced every 10 weeks. A hit exhausts 1-3 charges. The MonoFilament is a Tech/7 weapon.

Coagulators:

The Coagulator is a 1.0m long rod massing 0.5kg. It contains a 0.5kg Powercell with 100 charges. The tip of the rod for about 25cm from the end farthest from the hilt has a VMXT forcefield generator which will scramble living tissue whenever the tip touches flesh or the field penetrates armour. The weapon is traditionally used like a Foil. It causes horrible wounds (double healing time). The weapon is totally banned for civilian use, but though there have been attempts to have the weapon outlawed as too horrible for use in war, it remains one of the most effective hand-to-hand weapons. Each hit will exhaust 1d6 charges. Tech/7 weapon.

Paralysis Rod:

The Paralysis Rod is a 1000mm baton massing 1.5kg. It contains a 0.1kg Powercell with 100 charges. The rod will temporarily paralyze the area of the body it touches and is similar in effect to a Stunner. It is general issue to Police as a Riot Control weapon. Each hit exhausts 1d6 charges from the powercell. Tech/7 weapon, used like a Sabre.

Advanced Melee Weapons Table

Weapon	Skill	Base	Damage	Hands	HP	STR/DEX	Fail	SR
Monofilament	Sword	15	2D6+3+db	1	12	9/7	97	2
Coagulator	Club	25	2D6+2+db	1	15	7/9	98	3
Paralysis rod	Club	25	2D6+10 vs. CON*	1	15	7/9	98	3

*Roll damage as normal and use the damage vs. the target's CON in a resistance roll. If target loses, he is paralyzed for 1D3+1 rounds.

Archaic Missiles Weapons

SLINGS: A sling is a Tech/1 weapon consisting of a leather thong with a 'pocket' to hold a small stone or lead bullet which is cast by the force of one's arm. The weapon is deadly against lightly armored targets. Length = 50cm. Mass = 0.1kg.

COMPOUND BOWS: A compound bow is a Tech/2-3 weapon requiring some skill and time to fashion. It is made from several layers of laminated woods carefully warped to provide increased striking power and range. The weapons can be tailored to the Strength of the user, unlike short bows, as the amount of tension is determined by the manner in which the bow is fashioned. Advanced technologies can produce similar weapons with ease, often employing synthetic materials in light hunting and archery bows. Length = 75cm, Mass = 0.75—1.0kg.

LONGBOWS: The longbow is a Tech/2-3 weapon fashioned from very resilient wood capable of imparting high tension. Tech/3 societies will also be able to fashion the much shorter composite bow, which has the dimensions and weight of a compound bow but the firing characteristics of the longbow. These weapons are intricate melding of layers of woods and synthetic materials. Length = 1.5m. Mass = 1.0—1.25kg.

CROSSBOWS: The crossbow is a missile weapon with a stock and resembles a rifle when viewed from the side. It is aimed and fired like a rifle as well. The bow is usually fashioned from tempered steel and will require some form of mechanical cocking or winding to bring the weapon under tension so that it can fire a quarrel. Firing is effected by pulling a trigger similar to that of a firearm. This Tech/ 3-4 weapon can be easily duplicated by advanced technologies, and

weights can be brought into line with conventional medium and heavy firearms. More costly weapons may have ranges up to 400m. Length = 85cm. Mass = 5kg.

THROWN AXES, DAGGERS, STONES, ETC..: Axes and daggers are Tech/1 melee weapons. If balanced for throwing, they can serve as short-range missile weapons. Stones, obviously, are available for the picking up and are Tech/0 weapons requiring no skill, just a good eye and a strong arm.

Archaic Missile Weapons Table

Weapon	Skill	Base	Damage	Hands	HP	STR/ DEX	Fail	SR
Axe, Hand (thrown)	Axe	10	1D6+½db	1	20	9/11	—	1
Javelin	Javelin	15	1D6+½db	1	25	9/9	—	1
Knife (thrown)	Knife	15	1D3+½db	1	10	7/11	—	1
Sling	Sling	05	1D8+½db	1	13	7/11	—	1
Composite Bow	Bow	05	1D8+1+½db	2	12	13/9	—	1
Long Bow	Bow	25	1D8+1+½db	2	10	11/9	—	1
Crossbow	Crossbow	25	2D6+2	2	18	13/7	97	1
Light Crossbow	Crossbow	25	1D6+2	2	10	9/7	96	1
Repeating Crossbow	Crossbow	25	1D6+2	2	12	9/7	91	1*
Knife, Throwing	Knife	15	1d4+½db	1	10	-/13	—	1

*A repeating crossbow has an ammo capacity of 6, 8, 10, or 12 bolts. It takes 1 combat round per bolt to reload a repeating crossbow.

Advanced Missiles Weapons

HAND GUNS

Pistol's are hand held weapons without a shoulder stock designed to be held in the hand when used. This characteristic differentiates handguns as a general class of firearms from their larger cousins. The following are in common use with the United Earth Armed Forces and in the Eurasian Rimworlds Combine (ERC) army.

The base skill with all handguns is 20%.

IMI-V Automatic Pistol:

The IMI-V Desert Eagle is a heavy-framed automatic pistol possessing superior stopping power. The IMI-V is fed with a detachable magazine of 10 rounds in .44 Magnum.

This cartridge is regarded by many as an excellent hunting, metallic silhouette and self-defense round. With proper loadings it can also be effective against large or dangerous game, such as bear.

ROF:	3
Fire Mode:	SA
Damage:	1d10+1d6
Penetration Value:	+0
Maximum Range:	50m
Weight Unloaded:	1.8kg
Ammo:	10 round magazine (0.50kg)
Fail:	99

VP78 Automatic Pistol:

A successor to the VP70 machine pistol, the VP78 was employed by the Colonial Marine Corps as their standard-issue sidearm in the 23rd century, replacing the VP70 and the M4 Pistol. The VP78 Pistol is chambered for 9mm squash-head rounds for increased stopping power. It can fire in both semi-automatic and three-round burst modes.

It is fitted with a laser sight/flashlight unit underneath the barrel as standard,

ROF:	3
Fire Mode:	SA/A3
Damage:	1d8+1
Penetration Value:	+0
Maximum Range:	50m
Weight Unloaded:	1.1kg
Ammo:	18 round magazine (0.45kg)
Fail:	98

M11P Automatic Pistol:

The M11P is the standard sidearm of officers serving in the UEAF of 2271. It is a compact pulse-action firearm firing the standard 10mm light armour piercing pistol round (10mm Pistol). A magazine containing 20 rounds is inserted into the pistol grip.

This compact pistol is available with a standard aluminum, or stainless steel frame. Version with aluminum frame is slightly lighter.

This pistol has a built-in firing pin safety. There is a decocking lever at the left side of the frame.

ROF:	3
Fire Mode:	SA
Damage:	1d10+2
Penetration Value:	+0
Maximum Range:	50m
Weight Unloaded:	0.75kg
Ammo:	20 round magazine (0.25kg)
Fail:	99

ERC StA-18 Pistol:

A successor to the IvP-18 Tropov Machine Pistol, the StA-18 Pistol is the standard-issue ERC pistol manufactured by Stahl Arms. It fires the 9.2x20mm cartridges, as written on the magazine, but holds only 15 rounds in a helical magazine on the front of the weapon.

The Pistol is equipped with a burst-fire feature, similar to the Beretta 93R; however, this feature was removed from the new weapon, most likely in favour of mass production. The weapon is still an effective sidearm in the campaign, however, as it packs as much punch as an M4 Revolver, and comes with more ammo as well.

ROF:	3
Fire Mode:	SA/A3
Damage:	2d6
Penetration Value:	+0
Maximum Range:	40m
Weight Unloaded:	0.50kg
Ammo:	15 round magazine (0.2kg)
Fail:	98

M13A1 Body Pistol:

The M13A1 Body Pistol is a small non-metallic semi-automatic pistol designed to evade detection by most weapon detectors. It is illegal under UEF law for civilians to own this type of weapon. The M13A1 fires .40-calibre caseless ammunition constructed from hardened plastics at velocities of 500-600 metres per second.

ROF:	3
Fire Mode:	SA
Damage:	1d6+1
Penetration Value:	+0
Maximum Range:	30m
Weight Unloaded:	0.25kg
Ammo:	10 round magazine (0.1kg)
Fail:	99

M44 TASER Pistol:

The M44 is a non-lethal weapon used by the UEAF when they need to capture a foe without causing permanent injury. Compressed nitrogen projects a charged dart up to 15m at a speed of 70+ metres per second. An electrical signal transmits throughout the region where the probes make contact with the body or clothing. The result is an instant loss of the attacker's neuromuscular control and any ability to perform coordinated action. Along with the Combat Shotgun, Shock Rifle and Riot Gun this has become the standard sidearm of soldiers involved in covert operations, prisoner supervision, local security, riot control etc. A magazine containing 5 darts is inserted into the pistol grip. A power cell in the pistol charges the darts prior to firing.

Electroshock weapon technology uses a temporary high-voltage, low-current electrical discharge to override the body's muscle-triggering mechanisms. Commonly referred to as a stun gun, electroshock weapons are a relative of cattle prods.

ROF:	2
Fire Mode:	SA
Damage:	Match 2d6+10 electrical damage vs. target CON. Success: target incapacitated for 1d6+2 MR. Armor reduces damage by half AP.
Penetration Value:	+0
Maximum Range:	15m
Weight Unloaded:	0.9kg
Ammo:	5 dart magazine (0.5kg)
Fail:	99

Hand Guns Table

Weapon	Mode	SR	ROF	Damage	PV	Range	Ammo	Fail
IMI-V Pistol	SA	DEX	3	1d10+1d6	+0	50m	20	99
VP78 Pistol	SA/A3	DEX	3	1d8+1	+0	50m	20	98
ERC StA-18 Pistol	SA/A3	DEX	3	2d6	+0	40m	15	98
M11P Pistol	SA	DEX	3	1d10+2	+0	50m	20	99
M13A1 Body Pistol	SA	DEX	3	1d6+1	+0	30m	10	99
M44 TASER Pistol	SA	DEX	2	2d6+10 vs. CON	+0	15m	05	99

SHOTGUNS

A shotgun is a smooth bore or rifled firearm typically used to fire a number of small spherical pellets called shot, or single solid projectiles called slugs. Shotguns are seen as useful by the UEAF as a close-combat weapon or defensive weapon, where the short range ensures that will hit the target. The following are in common use with the United Earth Armed Forces as well in the Eurasian Rimworlds Combine (ERC) army.

The base skill with all shotguns is 30%.

Combat Shotgun:

Repeating 20x30mm shotgun with a 30-round drum magazine. Combat shotguns are favoured by soldiers fighting in close combat conditions partly because of the weapon's ability to disable a person rapidly by either killing or severely wounding the target. It is also favoured for use by marines during orbital or deep space boarding actions because of its low penetration and high stopping power. Ammunition available for shotguns includes baton, shot and solid slug.

ROF:	3
Fire Mode:	SA
Damage:	Shot: 4d6+2 at 10m or less, 2d6+1 at 11m+, 1d8 at 21m+
	Solid Slug: 3d6+3 at 10m or less, 2d6+2 at 11m+, 1d6+1 at 21m+
	Baton: 1d6 + 3d6 stun damage
Penetration Value:	+0
Maximum Range:	10/20/50m
Weight Unloaded:	3kg
Ammo:	30 shell magazine (0.5kg)
Fail:	00

MK221 Tactical Shotgun

The Weyland-Yutani MK221 Tactical Shotgun is a self-loading semi-automatic shotgun constructed of heat resistant alloys, allowing the weapon to maintain structural integrity after firing multiple shots in quick succession. The centerpiece of the weapon other than the automatic firing rate is the underbarrel arc launcher, firing arc rounds designed to deliver an electrically charged shotgun slug that paralyzes human enemies.

Various customization options were available for the MK221, including ID16 Incendiary Shells, H34 Fragmentation Rounds, the R2 Recoil Dampening Stock, C47 Box Magazine System, S91 Dot Reflex Sight, L14 Laser Targeting System and Motorized Cycling System.

ROF:	3
Fire Mode:	SA
Damage:	Solid Slug: 3d6+3 vs. CON at 20m or less, 2d6 vs. CON at 21m+
	ID16 Incendiary Shells: 2d6
	H34 Fragmentation Rounds: 2d6+2
Penetration Value:	+0
Maximum Range:	20/40m
Weight Unloaded:	2.7kg
Ammo:	8-round underbarrel internal tube magazine (0.3kg)
Fail:	00

M36 Riot Gun:

A 20x40mm semi-automatic multi-purpose weapon designed for crowd control, prisoner supervision, local security, boarding spaceships and space habitats or any other situation that might require the use of weapons of limited range and penetration but maximum stopping power. Favoured by military police and law enforcement officers, the M36 Riot Gun is a very effective close range weapon against unarmoured or animal opponents.

Ammunition choice includes expanding baton rounds, gas or the infamous shockrounds. Shockrounds are rubber bullets with copper electrodes on the surface, connected to a filling of ceramic piezoelectric material. When the bullet hits the target, the piezo filling is violently compressed and releases a shock pulse of at least 25,000 volts through the

electrodes. This penetrates clothing and instantly stuns the target. The effect is enhanced by the bullet core being surrounded by conductive gel that splatters and spreads on impact.

ROF:	3
Fire Mode:	SA
Damage:	Gas: 2d6 / POT of gas vs. CON X-Baton: 3d6+6 stun / 1d6+1 lethal damage Shock: 4d6+6 stun / 1d6 lethal at 20m or less, 2d6+3 stun at 21m+
Penetration Value:	+0
Maximum Range:	30/50m
Weight Unloaded:	4kg
Ammo:	10 round magazine
Fail:	98

Tanglegun:

The Tanglegun is a police weapon about the size and general configuration of a SMG. It fires a burst of synthesilk fibre which wraps around a target and effectively ties him up. Synthesilk fibre cannot be snapped except by power armour (one turn doing so) because of its strength, but will readily 'relax' when a droplet of KMC is touched to a strand. A Tanglegun ammo capsule can be fitted in one combat turn. Tanglestrands will continue to constrict a victim as long as he struggles, hugging tighter and tighter until no movement other than breathing is possible. Normally, such restraint is non-lethal, but a tangleround fired into a person's mouth (a nasty trick practised by some planetary police forces in autocratic cultures) will effectively strangle a victim because the tanglestrand will react to the swallowing and gagging reaction, forming a ball in the process which blocks the breathing passage.

Tanglerounds must be aimed at the upper or lower body, so a victim will either have his hands or his feet (or equivalent) restrained. Large creatures will probably require several rounds to restrain them. Amoeboid life forms can 'flow' through the strands and are thus unaffected by them.

Synthesilk is heat-sensitive, and thus a low-setting on a laser, Blaster, fusion gun, flamer, etc will readily melt the tanglestrands and release a victim. However, the technique should be restricted to personnel in Powered armour suit.

ROF:	3
Fire Mode:	SA
Damage:	non-lethal; restrain only Synthesilk STR 30 vs. STR first round Synthesilk STR 31 vs. STR second round; etc...
Penetration Value:	+0
Maximum Range:	50m
Weight Unloaded:	2.7kg
Ammo:	20 round magazine (0.4 kg)
Fail:	98

Shotguns Table

Weapon	Mode	SR	ROF	Damage	PV	Range	Ammo	Fail
Combat Shotgun	SA	DEX	3	Shot: 4d6+2 at 10m-, 2d6+1 at 11m+, 1d8 at 21m+ Solid Slug: 3d6+3 at 10m-, 2d6+2 at 11m+, 1d6+1 at 21m+ Baton: 1d6 + 3d6 stun damage	+0	10/20/50m	30 shell	00
MK221 Tactical Shotgun	SA	DEX	3	Solid Slug: 3d6+3 vs. CON ID16 Incendiary Shells: 2d6 H34 Fragmentation Rounds: 2d6+2	+0/ +0/ +2	20/40m	8 round	00
M36 Riot Gun	SA	DEX	3	Gas: 2d6 / POT of gas vs. CON X-Baton: 3d6+6 stun / 1d6+1 lethal Shock: 4d6+6 stun / 1d6 lethal	+0	30/50m	10 round	98
Tanglegun	SA	DEX	3	non-lethal; restrain only Synthesilk STR 30 vs. STR first round Synthesilk STR 31 vs. STR second round etc...	+0	50m	10 round	98

RIFLES

A rifle is a semi-automatic or automatic firearm that is shoulder fired i.e. involving a stock braced against the shoulder. This includes SMGs and pistols with an attached (and used) stock. Rifles used to have a helical groove or pattern of grooves ("rifling") cut into the barrel walls to impart spin around an axis corresponding to the orientation of the weapon. Modern weapons in this class are smooth bore, using fin or magnetically stabilised projectiles to improve accuracy and range. In the late 23rd Century, the rifle is still the primary weapon of the infantryman and woman. The following are in common use with the United Earth Armed Forces.

The base skill with all rifles is 10%.

Automatic Combat Rifle (ACR):

Automatic rifles (ACR) can fire in bursts of up to 10 rounds in a combat turn. Assault rifles are shortened versions of the ACR, combining the lightness of the SMG with some of the accuracy of the carbine. The weapons these types are modelled after are the FN SCAR, AK-47, M-16 and the Heckler & Koch HK416 assault rifles.

The rifle is the standard infantry arm in Tech/6 cultures. It is fitted with a shoulder sling, accepts a bayonet, and can be fitted with Scopesights, infra-red visors, night visors, and other specialised sighting equipment. It has a 30-round clip (30c) which can be inserted beneath the weapon to the front of the pistol grip/trigger guard. Reloading can be accomplished in 1 combat turn.

ROF:	3
Fire Mode:	SA/A (burst: 3/5/10)
Damage:	2d8+2
Penetration Value:	+0
Maximum Range:	1000m
Weight Unloaded:	3.6kg
Ammo:	30 round magazine (0.45kg)
Fail:	00

M82A3 Sniper Rifle (SASR):

The Semi-Automatic Sniper Rifle is a high-precision rifle designed for sniper missions. It serves to fulfill the tactical need for long range surveillance, effective anti-personnel and anti-materiel operations with high hit efficiency, and can be used by both military and law enforcement. The sniper rifle is a portable shoulder-fired weapon system with a choice between bolt-action or semi-automatic action, fitted with a telescopic sight for extreme accuracy and chambered for a high-performance military center fire cartridge.

An adjustable sling is often fitted on the rifle, used by the sniper to achieve better stability when standing, kneeling, or sitting. The sniper uses the sling to "lock-in" by wrapping his non-firing arm into the sling forcing his arm to be still. Non-static weapon mounts, such as bipods, monopods and shooting sticks, are also regularly used to aid and improve stability and reduce operator fatigue.

Law enforcement-specific rifles are usually used in non-combat (often urban) environments, so they do not have the requirement to be as hardy or portable as military versions; therefore, they may be smaller, because they do not need very long range but require the greatest possible accuracy.

ROF:	3
Fire Mode:	SA/A5
Damage:	2d10+1d6+4
Penetration Value:	+6
Maximum Range:	2500m
Weight Unloaded:	5.6kg
Ammo:	20 round magazine (0.5kg)
Fail:	00

ERC StA-14 Sniper Rifle:

The StA-14 Rifle fires 7.62 x 51 mm high-speed, armor-piercing rounds and is very accurate, useful for picking off distant enemies. Exceptions are the fact that there is no internal magazine and en bloc clip, it has a cylindrical magazine, just like virtually all ERC weaponry.

Stahl Arms has modified the StA14 with a mid-range scope, making it more suitable for sniping and long-ranged shots. It also has a vertical foregrip attached to the underside of the barrel, a new feature that is standard on all ERC weaponry. StA-14 Rifles are designed for very high durability, range, reliability, sturdiness, serviceability and repairability under adverse environmental and combat conditions, at the sacrifice of a small degree of accuracy.

ROF:	3
Fire Mode:	SA/A5
Damage:	2d10+1d6+4
Penetration Value:	+6
Maximum Range:	2200m
Weight Unloaded:	5.6kg
Ammo:	20 round magazine (0.5kg)
Fail:	99

M41 Sub Machine Gun (SMG):

A pulse-action sub-machine gun firing the standard 10mm Pistol round, the M41 is employed as a close quarters backup weapon for UEAF specialists like flight techs and pilot techs. The M41 combines the muzzle velocity of a standard assault rifle, the automatic capability of a machine gun and the portability of a pistol. It lacks accuracy, and stopping power at long range, but its high rate of fire makes it an effective close combat weapon.

ROF:	3
Fire Mode:	SA/A (burst: 3/5/10)
Damage:	2d6+4
Penetration Value:	+0
Maximum Range:	100m
Weight Unloaded:	2kg
Ammo:	50 round magazine (0.5kg)
Fail:	00

M74A1 Shock Rifle:

This electroshock weapon is an incapacitating weapon. It delivers an electric shock aimed at temporarily disrupting muscle functions and/or inflicting pain without usually causing significant injury.

Higher powered cousin to the TASER pistol, the M74A1 is a recoilless electric 'pulse' weapon used to take down larger foes without causing too much permanent damage.
To use, the operator depresses the trigger, painting a proton 'patch' on the target. Milliseconds later the rifle emits a high voltage arc of electricity, which seeks out the charge differential (i.e. the target).

ROF:	2 (DEX SR+1, then +5)
Fire Mode:	SA
Damage:	Stun damage is calculated as for Taser Pistol, except that the Shock Rifle has a variable charge setting from 2d6+10 to 4d6+10
Penetration Value:	+0
Maximum Range:	25m
Weight Unloaded:	3kg
Ammo:	One power cell (0.5kg) gives 128 x 2d6+10 shots
Fail:	99

M25A1 Combat Rifle:

The combined effort of multiple corporate arms manufacturers working for a lucrative government contract in the 2240s, the M25 is a light assault rifle that was the standard UEAF infantry weapon until it was superseded by the M29 Tactical Assault Rifle during the Colonial Wars. The M25A1 variant has since become standard issue for corporate security forces and law enforcement tactical teams due to its robust firepower and ability to perform in a wide range of planetary environments. Electronically-fired, each 8mm tungsten-core caseless round boasts an impact velocity of over 800 m/s, capable of penetrating even the latest body armour technologies. In addition the M25A1 features a 30mm grenade launcher with a two-round magazine directly above the rifle barrel. It must be hand-loaded, and it is armed with a pump action. Once primed, it can be fired from a trigger in front of the magazine.

ROF:	3 (Grenade Launcher: 1)
Fire Mode:	SA/A (burst: 5)
Damage:	2d8
Penetration Value:	+0
Maximum Range:	850m
Weight Unloaded:	3.5kg
Ammo:	70 round magazine (0.5kg)
Fail:	98

M29 Tactical Assault Rifle (TAR):

The M29 Tactical Assault Rifle (TAR) has become the standard issue infantry rifle of the UEAF and represents the cutting edge of current assault rifle design. Toughened for use in a wide range of planetary environments as well as in hard vacuum, the M29 fires a range of 10mm caseless rifle ammunition electronically using binary propellant at a velocity of approximately 840 meters per second. The rifle has three fire settings: single shot, five-round burst and ten round burst. An LED display shows the amount of ammunition left in the clip. This display can be dimmed for night operations. An underslung 30mm grenade launcher with a four-round magazine is directly beneath the barrel of the rifle. It must be hand-loaded, and it is armed with a pump action. Once primed, it can be fired from a trigger in front of the magazine. Integral electronic sights feature passive LI/IR and 5x optical magnification with bullet drop compensation.

Sighting is made down a groove in the top of the carrying handle, with an adjustable tangent leaf backsight in the rear aperture. The rifle can also be fitted with a 3x power AN/RVS-52 CCD television sight to allow for accuracy at range and under low light conditions. The carrying handle also contains the gun's Lithium battery; providing power for motor mechanism it is good for 10,000 rounds before requiring recharge from a rifle rack or portable power pack.

The M29A2 variant was introduced in 2264, and replaced the 95 round capacity magazine with a magazine capable of holding two 45 round cassettes. These cassettes can be loaded with different types of ammunition. The weapon has a fire selector allowing the firer to choose ammunition from either of the twin cassettes. The cassettes are hermetically sealed at the factory and are only breeched once the magazine is inserted into the weapon. This keeps any contaminants out greatly reducing the chance of weapon failure.

ROF:	3 (Grenade Launcher: 1)
Fire Mode:	A (burst: 5/10)
Damage:	See table below for damage
Penetration Value:	+0/+2/+3/+6 dependent on ammunition
Maximum Range:	1000m
Weight Unloaded:	4kg
Ammo:	M29A1: 95 round magazine.
	M29A2: 90 round magazine split into two 45 round cassettes.
	Weight 1.5kg.
Fail:	99

M29 Ammunition Table

Ammunition Type	Damage	PV	Description
10 mm FMJ (Full Metal Jacket)	2D8	+0	10mm lead bullet covered by a steel or copper jacket.
10mm SLAP (Standard Light Armor Piercing)	2D8	+3	This ammunition fires projectiles with a hard core of steel or tungsten alloy to penetrate armour. AP rounds are illegal for civilians.
10mm APE (Armor Piercing Explosive)	2D8+2	+2	10mm sabot, 5mm Teflon coated ceramic fragmenting explosive core round. Upon penetration, a pyrotechnical delay fuze in the tip detonates an explosive filler about 30 cm behind the impact point, spraying fragments and incendiary particles inside the target. If the target has at least Armour Value 10, it will always detonate, adding 1D6 Explosion and 1D3 Burn to damage. Primarily intended to combat vehicles, it is also deadly against personnel, although the impact in flesh will often not detonate it (requires a Luck roll).
10mm HVAP (Hyper Velocity Armor Piercing)	1D8+2	+6	10mm Discarding Sabot, 3mm hyper dense gravidium penetrator. Such rounds were introduced to better penetrate vehicles – while cars are far from bullet-proof, they will often deflect conventional handgun projectiles, especially if shot at an angle.
10mm SAFE (Space Artificial Facility Explosive)	2D8	+0	Maximum armour penetration 4, still damages armour as normal. Fires a lightly sleeved low velocity explosive round, impact fused. SAFE rounds are used to avoid damage to objects in the background and to prevent endangering friendly personnel with ricochets. Special Forces use SAFE rounds to prevent damaging artificial space habitats, etc.
10mm BIOLOAD	2D6	+0	Low-velocity rounds designed to stay lodged in the target to allow the bio-load time to enter the victim's system. The most common bioload is a bio-engineered nerve agent. See chapter 'Biological Weapons'.
SMART	2D8	+1	Changing trajectory: smart bullet is capable of changing its course during flight. This would be to enable soldiers to stay behind protective cover and shoot around corners. Transmitting data: smart bullet can transmit data about the location into which it has been fired and can send wireless data up to 70 meters. Limiting range: self-destructs within a limited range to minimize collateral damage (ie: change in course into the ground, or near vaporization).
10 mm SC (Supercavitating)	1D10+2	+0	Supercavitation describes the effect of objects in a gas bubble having less drag in water. Applied to firearm projectiles, this improves underwater firing range considerably – from mere touching range to 15-60 m.
10 mm Tracer	2D8	+0	Tracer rounds have a small amount of burning material such as phosphorous or magnesium in the projectile's base. Upon firing, this ignites, marking the path of the projectile as a fiery streak. The main purpose is to aid aiming, but tracers can also set fire to a target. Infrared dim tracers exist that can only be seen with "Night Vision Goggles". Tracer ammo gives +5 percentiles to the modified Attack chance and does 1D3 points of Burn damage in addition to the normal damage. Due to the fire hazard, tracer rounds are outlawed for civilian possession.
10 mm HP (Hollow Point)	2D8+4	+0	Maximum armour penetration 4, still damages armour as normal. This projectile expands massively upon entering a living being, causing larger wound channels, at the cost of penetration depth. This ammunition is banned for use in warfare, but most countries also consider HP rounds legal in counter-terrorist operations, even if the shooters belong to the military.

NSG 23 Assault Rifle:

The NSG 23 (NeuSturmgewehr 23, literally "new storm rifle 23") is an assault rifle used primarily by the Colonial Marine Corps and Weyland-Yutani Private Military Contractors. This weapon was developed by a subsidiary of Weyland-Yutani and is known for its customization options and multiple underslung weaponry.

The NSG 23 is chambered in 7.62mm round of an unmentioned cartridge and designation, with seemingly higher stopping power than a M309 round utilized for the M41A pulse rifle series, but it lacks in explosive power, reducing its armor piercing capabilities.

The rifle may be customized as follow:

- ID23 Incineration Unit: The pressurized tank contains a fuel/magnesium liquid combination.

- H34 Fragmentation Rounds: High-explosive rounds consisting of a 15mm miniature warhead and gas propellent; rounds explode on surface impact with an effective explosive radius of two meters.

- AF13 Shotgun: Underslung twelve gauge shotgun; rounds are comprised of high density buckshot, offering a valid close-range tactical option.

- RE93 Absorbing Stock: Spring-loaded rifle stock; adjustable tension springs absorb a significant portion of a weapon kick, resulting in more controllable recoil.

- BL11 Silencer: Threaded steel barrel attachment; slows the escape of propellent gasses, resulting in muffled weapon fire. Allowing more concealment, slightly better accuracy and clearer sight picture during firing due to the lack of muzzle flash. However, it slightly decreases the weapon's stopping power.

- S91 Dot Reflex Sight: Non-magnifying reflector sight outfitted with a red LED dot; LED dot remains consistently positioned, allowing for faster target acquisition. This allows for a clearer sight picture without any obstructions made by the default sight, increasing accuracy.

- 2x Telescopic Zoom Sight: Optical refracting telescope sight with wedge reticule; offers increased tactical options by dramatically extending effective combat range. However, it limits close range effectiveness while aiming down.

ROF:	3 (flamer: 1)
Fire Mode:	SA/A (burst: 5/10)
Damage:	7.62mm Caseless cartridge: 2d8+2
	Underslung Weaponry can be attached to under the barrel of the rifle as an alternate firing ability. Switching underslung weapons requires an Action:
	■ ID23 Incineration Unit: 3d6
	■ H34 Fragmentation Rounds: 2d8+2, 2 radius meter
	■ AF13 Shotgun: 2d8+2
Penetration Value:	+0/+0/+2/+0 dependent on ammunition
Maximum Range:	7.62mm Caseless cartridge: 900m
	ID23 Incineration Unit: 10m
	H34 Fragmentation Rounds: 100m
	AF13 Shotgun: 50m
Weight Unloaded:	4,2kg
Ammo:	7.62mm Caseless: 30 round magazine (0.9kg)
	ID23 Incineration Unit: 5 bursts (0.2kg)
	H34 Fragmentation Rounds: 8 (0.4kg)
	AF13 Shotgun: 12 (0.3kg)
Fail:	99

ERC StA-52 Assault Rifle:

The StA Assault Rifle is the standard ERC automatic assault weapon, well-suited for short and mid-range engagements. It has a high fire rate but quickly loses accuracy with sustained fire. It has an Iron Sight for greater accuracy, though it lacks the level of accuracy that UEAF's M29 delivers.

The Stahl Corporation has modified all examples of the StA-52, making it a more "modern" rifle. Most notably, it's modular rail/iron sight has been replaced with a red holographic sight. The weapon's recoil and accuracy have also been drastically improved. It can be used for infiltration missions as a silent mid-range assault rifle because none of the soldiers are able to hear the gunfire unless it is seen. It can also be used in close to mid-range combat instead of stealth and can take out most targets easily with a couple of rounds or a headshot.

The StA-52SE Assault Rifle is the silenced variant of the StA-52 Assault Rifle, that fires in bursts to minimize recoil. Although it reduces the fire rate, the silencer keeps the soldier from showing up on enemy radar when firing. This, combined with the weapon's high rate of fire, make it ideal for run-and-gun styles as well as stealth, and can be used to silently clear an area as none of the enemies can hear the gun when it is shooting.

ROF:	3 (Grenade Launcher: 1)
Fire Mode:	SA/A (burst: 5/10)
Damage:	2D8+1
Penetration Value:	+4
Maximum Range:	StA-52: 900m
	StA-52SE: 500m
Weight Unloaded:	3.8kg
Ammo:	StA-52 V1: 50 round magazine. Weight 0,8kg.
	StA-52 V2: 60 round magazine. Weight 1.0kg.
Fail:	99

M383 Particle Phalanx Cannon:

The Particle Phalanx Cannon uses magnetic induction to propel a projectile at incredible and devastating speed. Each shot can be "charged" for maximum damage by keeping the trigger held in for a moment before releasing.

Used mainly as a platoon support weapon, the Particle Cannon fires a magnesium particle, which explodes on impact. This rifle is able to deliver very high damage after being fired when fully charged. It can be modded with more capacitors, a shielded barrel, and a compensator or suppressor.

ROF:	1
Fire Mode:	SA
Damage:	2d10+2
Penetration Value:	+4
Maximum Range:	2500m
Weight Unloaded:	6kg
Ammo:	20 round magazine (1.5kg)
Fail:	97

M42 Gauss Rifle:

The ultimate development of the assault rifle, the M42 Gauss rifle is a semi-automatic magnetic linear accelerator (MLA) rifle employed primarily as a sniper rifle by the UEAF. The M42 is laid out in a bullpup configuration, the barrel free-floating and gyroscopically stabilized. Barrel options include a flash suppressor or a muzzle brake. A 6mm HEAP round is magnetically accelerated along the barrel to a velocity of 1100 meters per second. Ammunition feed is from a 30-round magazine located

behind the pistol grip. The match-standard batched M252 HEAP (High Explosive Armor Piercing) round has a Maximum Range of 1260 meters.

The M42 Integrated Sighting System (ISS) represents the cutting edge of optical gunsight technology, with every feature of its design chosen for a single purpose: to provide increased hit potential in all environmental conditions. Because of its durability and popularity among special forces personnel, the ISS has been widely purchased by corporate military units. Its ease of use has led to a resurgence of the designated marksman role in the infantry squad.

Interfacing directly with the soldiers HUD, the ISS is a composite multi-aperture/wavelength sighting system, utilising millimetre wave radar which when combined with passive IR, Normal and UV wavelengths is capable of producing high resolution real/artificial colour computer enhanced targeting images that greatly extend vision through the fog of war common on most modern battlefields.

Other features include:

- Doppler readings automatically measure target movement and compensate aim point accordingly;

- Automatic recalibration for gravity and air density;

- Full integration with the gyro stabilisation systems in the rifle to produce the most effective shooting platform possible;

- Integrates with the Infantry Communications Network (ICN) at company level allowing the soldier access to targeting information from a number of sources up to but not limited to satellite imagery;

- The ISS is designed to allow snipers to work closely with a spotter to help identify and switch to new targets. The spotter can view his team mates' HUD, allowing him to highlight targets and provide information to track to subsequent targets. In essence the spotter feeds information to the ISS, so the sniper never actually has to remove his/her eye from the optics.

In game terms the features of the ISS offer:

- +25% to attack roll (like M56 Smart Gun);

- +25% to all Perception based skills used in conjunction with the ISS (e.g. Forward Observer, Spot).

All features can be manually over ridden or adjusted via the HUD.

ROF:	3
Fire Mode:	SA
Damage:	3d10+6
Penetration Value:	+7
Maximum Range:	1260m
Weight Unloaded:	4kg
Ammo:	30 round magazine (1kg)
Fail:	99

M240 Flamethrower:

The M240 flamethrower is a lightweight, carbine format flamethrower which uses pressurised, ultra-thickened napthal fuel as a base and ignited by a nozzle burner. It can engage targets at ranges up to 30m and the fuel reservoir in a standard tank is sufficient for 20 seconds of continuous use. The M240 is unpopular with soldiers as the fuel tank is vulnerable to smallarms fire, being known to explode violently when hit by small arms fire or shrapnel.

ROF:	3
Fire Mode:	A/FA
Damage:	3d6
Penetration Value:	+0
Maximum Range:	30m
Weight Unloaded:	3.5kg
Ammo:	fuel tank with enough pressurized, ultra-thickened naphthal fuel for 20 bursts;
Fail:	96

Note: Though not actually classified as a rifle, submachine guns and flamethrowers use the Rifle skill.

Rifles Table

Weapon	Mode	SR	ROF	Damage	PV	Range	Ammo	Fail
Automatic Combat Rifle (ACR)	SA A5/10	DEX	3	2d8+2	+0	1000m	30	00
M82A3 Sniper Rifle (SASR)	SA/A5	DEX	3	2d10+1d6+4	+6	2500m	20	00
ERC StA-14 Sniper Rifle	SA/A5	DEX	3	2d10+1d6+4	+6	2200m	20	99
M41 Sub machine gun (SMG)	SA A5/10	DEX	3	2d6+4	+0	100m	50	00
M74A1 Shock Rifle	SA	DEX+1	3	Stun damage is calculated as for Taser Pistol, except that the Shock Rifle has a variable charge setting from 2d6+10 4d6+10	+0	25m	One power cell gives 128x 2d6+10 shots	99
M25A1 Combat Rifle	SA A5	DEX	3	2d8	+2	850m	70	98
M29 Tactical Assault Rifle (TAR)	SA A5/10	DEX	3	*	*	1000m	90/95	99
NSG 23 Assault Rifle	SA A5/10	DEX	3	7.62mm: 2d8+2	+0/	990m	30	99
				ID23: 3d6	+0/	10m	5 bursts	
				H34: 2d8+2	+2/	100m	8	
				AF13: 2d8+2	+0	50m	12	
ERC StA-52 Assault Rifle	SA A5/10	DEX	3	2d8+1	+4	900m 500m (SE)	50 (V1) 60 (V2)	99
M383 Particle Phalanx Cannon	SA	DEX	1	2d10+2	+6	1260m	30	99
M42 Gauss Rifle	SA	DEX	3	3d10+6	+7	1260m	30	99
M240 Flamethrower	A/FA	DEX	3	3d6	+0	30m	fuel tank with fuel for 20 bursts	96

*see M29 ammunition table

MACHINE GUNS

Machine guns are distinctly military weapons. Their purpose is to dominate the battlefield, suppressing large numbers of enemies. Machine guns have few applications outside of war, and they are expensive. Civilian adventurers probably will never see, let alone use one. Many paramilitary law enforcement agencies use them, especially when operating abroad in hostile areas.

A machine gun is a fully-automatic mounted or portable firearm, usually designed to fire rifle ammunition in quick succession from an ammunition belt or large-capacity magazine, typically at a rate of several hundred bullets per minute. Automatic weapons with a calibre of 20mm or greater are generally referred to as autocannons rather than machine guns. The following are in common use with the United Earth Armed Forces.

The base skill with all machine guns is 10%.

ERC StA-31 SMG:

An effective assassination and CQB (Close Quarters Battle) weapon, the StA-31 Small Machine Gun is fitted with a sound suppressor as standard. The high temperature alloy of the suppressor can make single shots almost totally silent, although it is incapable of muffling full-auto fire.

The StA-31 fires special subsonic 7.62 x 33 mm carbine ammunition. The SMG has 3 scopes and 2 underbarrels. The gun is sometimes equiped with a laser dot scope, a holo scope and a AGOG scope and for under barrels are a shotgun underbarrel and a laser underbarrel which increases its accurcy.

The StA-31 has a high rate of fire and a unique, built-in burst fire feature. You can tap the fire button to fire a burst of three bullets, or hold the trigger down for fully automatic firing.

ROF:	FA/A3
Fire Mode:	FA (20 per SR)
Damage:	3d6+4
Penetration Value:	+7
Maximum Range:	500m
Weight Unloaded:	3.5kg
Ammo:	33mm: 20 round magazine (2.0kg);
Fail:	98

M50 Light Assault Gun:

Nicknamed the Smart Gun, The M50 Light Assault Gun (LAG) is a lightweight squad support weapon capable of firing the standard range of UEAF 10mm ammunition and a 'smart' 20mm airbursting fragmentation munition. It allows soldiers to effectively attack targets at greater ranges than the M29, and to attack targets in defilade.

The weapon's fire control system, as well as acting as a telescopic day and night sight has an integral laser range finder, which can pinpoint precise target range and movement rate. When it has locked in the range the computer relays the data to the fusing control system for the 20mm high explosive (HE) ammunition. This means that the HE shells can be timed to explode in an airburst after they have travelled the required distance. Moving targets present no problems either; the range finder adjusts and anticipates accordingly, greatly improving accuracy (+25%). The 20mm ammunition can also be programmed to detonate on impact.

ROF:	3
Fire Mode:	10mm: SA/A (burst 5/10)
	20mm: SA
Damage:	10mm: See M29 ammunition table
	20mm: 3d6+2
Penetration Value:	10mm: +0/+2/+3/+6 dependent on ammunition
	20mm: +8
Maximum Range:	Maximum Range: 1100m
Weight Unloaded:	5.5kg
Ammo:	10mm: 90 round M29 magazine (1.5kg);
	20mm: 10 round magazine (1.0kg);
Fail:	97

M71 Squad Support Weapon:

The M71 Squad Support Weapon (SSW), is an individually portable, pulse action, magazine or disintegrating metallic link-belt fed, light machine gun with fixed headspace and quick change barrel feature. It has a cyclic rate of about 1000rpm. The M71 engages point targets out to 1200 metres, firing the standard range of UEAF 10mm rifle ammunition.

The M71 forms the basis of firepower for the fire team. The gunner has the option of using M29 magazines or linked ammunition from pre-loaded 200-round plastic drum magazines. The M71 comes equipped with a bipod for fixed position fire and shorter barrel option if being fired from shoulder, hip, or underarm position.

ROF:	FA
Fire Mode:	A/FA (burst: 10) or full automatic
Damage:	2d6+2
Penetration Value:	+0/+2/+3/+6 dependent on ammunition (see M29 ammunition table)
Maximum Range:	1200m
Weight Unloaded:	5kg
Ammo:	200 round drum (2.0kg) or 90 round M29 magazine (1.5kg);
Fail:	97

M76 Remote Sentry Weapons System (RSWS):

A remote perimeter defence weapon in use by many military organisations. It consists mainly of a tripod stand, battery pack, breech and barrel assembly, sensor array, and 500-round ammo drum. The RSWS has 360-degree fire action, and mounts a pulse-action machine gun with a cyclic rate of 1100 rpm. The RWSW sensor array is mounted above the barrel, covering a 60degree cone in front of the weapon.

The M76 RSWS has an onboard Delta Level AI capable of a limited amount of autonomous decision making based on a set of preprogrammed parameters. Different software packages are available for a wide range of theatres. Each gun platform can be set to query the operator if certain situation patterns occur.

The sensing suite consists of an infrared detector, LIDAR, light optics, and an ultrasonic motion tracker. If set to "auto-remote", the RSWS system will scan all targets, then classify them using an Identification Friend Foe (IFF) transponder, and take appropriate action.

The base attack chance for the M76 RSWS to hit a target is 30%. A successful Computer Operation check by the operator during set up of software increases this to 45%.

ROF:	FA
Fire Mode:	A/FA (burst: 20)
Damage:	2d6+2
Penetration Value:	+4
Maximum Range:	1500m
Weight Unloaded:	7.5kg
Ammo:	500 round drum (2.5kg);
Fail:	99

M88 Mini Gun:

The M88 mini gun is a 10mm full automatic platoon support weapon. It has a cyclic rate of about 7000rpm. The M88 has two fire setting: safe or full automatic. Ammunition is stored on a roll of continuous plastic non-disintegrating link belt in the ammunition drum.

ROF:	FA
Fire Mode:	FA (20 per SR)
Damage:	2d8
Penetration Value:	+6
Maximum Range:	1200m
Weight Unloaded:	10.5kg
Ammo:	500 round drum (4.5kg);
Fail:	97

M56 Smartgun:

The M56 Smartgun is a man-portable heavy machine gun with automatic targeting capabilities chambered for 10×28mm High Explosive Armor Piercing (HEAP) Caseless ammunition, a 230 grain, explosive-tipped projectile encased in a rectangular block of Nitramine 50. The M56 is 122 cm long, incorporating a 54.5 cm barrel, while the entire gun assembly, including the harness and a full load of ammunition, masses 17.82 kg. Smartgun ammunition is stored on a roll of continuous plastic non-disintegrating link belt and can be quickly reloaded in the field.

The M56 Smartgun system consists of four major components — the M56 combat harness, the Head Mounted Sight (HMS), the stabilized articulation arm and the gun itself.

The M56 is carried into combat on a self-aiming stabilized mount that is linked to an infrared target tracking system for accurate, autonomous aiming. The mount also negates the traditional need to position or set up the machine gun

prior to opening fire. The gun itself is constructed largely from molded carbon fibre and light alloy stampings, though some interior parts are made of high-strength plastics.

The M56 is mounted on the M56 combat harness and is slaved to an advanced infrared tracking system. The chest piece contains the gun's tracking and targeting processor. The processor is accessed from behind the chest plate, and can be easily replaced in the field should the unit fail.

The M56 is securely attached to the operator by a stabilized articulation arm, attached to the left hip of the harness and connected via a coaxial cable the to processors and power outlets on the chest plate. The system's Head Mounted Sight is also connected to the tracking and communications systems in the chest plate. Power for the entire system is supplied by a standard DV9 lithium battery, plugged into the power leads that run from the articulation arm to the gun; removing this unit completely deactivates the weapon, rendering it useless. Common practice in the field is to let the battery hang free beneath the gun where it can be easily accessed in an emergency.

ROF:	FA/A5
Fire Mode:	FA (20 per SR)
Damage:	2d6+4
Penetration Value:	+2
Maximum Range:	1500m
Weight Unloaded:	17.82kg including the harness
Ammo:	500 round drum (4.5kg);
Fail:	97

Machine Guns Table

Weapon	Mode	SR	ROF	Damage	PV	Range	Ammo	Fail
ERC StA-31 SMG	A3/FA	DEX	FA	3d6+4	+7	500m	20 round	98
M50 Light Assault Gun (LAG)	10mm: SA/A10 20mm: SA	DEX	3	10mm: * 20mm: 3d6+2	* +8	1100m	10mm: 90 round 20mm: 10 round	97
M71 Squad Support Weapon	A10/FA	DEX	FA	*	*	1200m	200 round drum or M29 mag.	97
M76 Remote Sentry Weapons System	A20/FA	DEX	FA	2d6+2	+4	1500m	500 round drum	99
M88 Mini Gun	FA (20/SR)	DEX	FA	2d8	+6	1200m	500 round drum	97
M56 Smartgun	A5/FA	DEX	FA	2d6+4	+2	1500m	500 round drum	97

*See M29 ammunition table.

HEAVY WEAPONS

The heavy weapons category includes portable grenade launchers, large calibre MLA weapons such as railguns and coilguns, autocannons, rockets and missiles. The following are in common use with the United Earth Armed Forces.

The base skill with all heavy weapons is 10%.

M90 Grenade Launcher:

The M90 was designed as a close support weapon for infantry units, and was intended to bridge the gap between the maximum throwing distance of a hand grenade, and the lowest range of supporting mortar fire. An area of between 50 and 300 meters.

The M90 is an automatic, drum-fed weapon which fires the UEAF standard 30mm grenade at a muzzle velocity of 75 meters per second, Stabilised in flight by the spin imparted on it by the rifled barrel, grenade rotate at 3,700rpm, this in turn after 5m of flight arms the grenade.

ROF:	3
Fire Mode:	SA
Damage:	See Grenades.
Penetration Value:	+0
Maximum Range:	100m
Weight Unloaded:	6kg
Ammo:	10 round drum of 30mm
Fail:	97

Grenades:

Cylindrical, resembling a battery in appearance, grenades are designed to be used in a grenade launcher, or as a standard hand grenade. To activate, the red plastic cap is flipped off and the nose is twisted clockwise. Standard grenades are 30mm in diameter, and typically have either a proximity, impact or 5 second delay fuse.

1. Baton: These are moulded plastic designed to be used during riot control. Baton rounds deal 1d6 physical damage plus 3d6 stun damage and cannot impale.

2. Frag: Anti-personnel grenade. When it explodes it showering approximately 300 fragments in a 5 metre blast radius. Damage to those within 1 metre of the detonation is 3d6 to three random hit locations. The number of hit locations affected is reduced by 1 for every 2 additional metres away from blast.

3. Gas Grenade: when a gas grenade explodes, it releases a fine mist of the nerve toxin N-22 that fills a 3m radius globe. Roll CON vs. CON 12 or incapacitated and lose 1 CON/hr until treated.

4. HE: This is the most common 30mm round used in the grenade launcher. When it explodes it produces an intense ground burst that causes casualties within a 3-metre radius. Damage within 1 metre of the blast is 2d6+6 to a random hit location. At 2m it is 1d6+6, and 3m from the blast 2d6.

5. Incendiary Grenade: When this grenade explodes, it engulfs a 3m radius globe in white-phosphorous pellets. Anyone caught in the area of effect takes damage to a maximum of 3 hit locations, this number reducing by 1 for each metre away from burst point. Damage to each hit location is 3d6, and is cumulative, reducing at a rate of 1d6 per round.

6. Proximity Mines: Fired from the grenade launcher, these motion sensitive mines explode if anything above a mass of 25kg moves within 1m of it. Come complete with ability to adhere to surfaces. Stats as for standard HE grenade.

7. Smoke Grenade: a smoke grenade deals no damage, but engulfs a 5m radius area in thick coloured smoke.

8. Starshell: This is a flare fired 200 metres into the air. It then ignites and drifts down on a parachute for 45 seconds.

9. Stun Grenade: A concussion charge. Roll CON vs. intensity 12 or stunned for 1d6 rounds.

SADAR-18:

The SADAR-18 (Shoulder-launched Activehoming Disposable Anti-tank Rocket model 18) is a lightweight anti-armour rocket launcher. The weapon fires a 60mm fin stabilised projectile that comes in a one-shot, disposable launch tube which can be loaded into the weapon and prepared to fire in around 10 seconds. The HEAP munition can penetrate 400mm of armour.

ROF:	1
Fire Mode:	One shot. Takes 1 combat round to prepare.
Damage:	HEAP munition deals 6d6 to all in a 3m radius of explosion.
Penetration Value:	+10
Maximum Range:	1200m
Weight Unloaded:	Launcher weighs 3kg
Ammo:	1x HEAP missile (2.5kg);
Fail:	99

M202 Smart Missile Launcher:

The M202 is a fire-and-forget missile with lock-on before launch and automatic self-guidance. The system takes a top-attack flight profile against armored vehicles (attacking the top armour which is generally thinner) but can also take a direct-attack mode for use against buildings or fortifications. This missile also has the ability to engage low flying aerospace craft in the direct attack mode. The missile reaches a peak altitude of 150m in top attack mode and 50m in direct fire mode. The missile is equipped with an imaging infrared seeker and onboard targeting computer allowing it to make basic attack decisions, greatly improving accuracy (+25%). The tandem warhead is fitted with two shaped charges, a precursor warhead to detonate any explosive reactive armour and a primary warhead to penetrate base armour.

The missile is ejected from the launcher so that it reaches a safe distance from the operator before the main rocket motors ignite. This makes it harder to identify the launcher and allows it to be fired from within buildings, however back-blast from the launch tube still poses a hazard to nearby personnel. Thanks to this "fire and forget" system, the firing team may displace as soon as the missile has been launched.

The missile system is carried most often by a two man team. The team consists of a gunner and an ammunition bearer. During the firing of the missile the gunner aims the system while the ammo bearer pulls security, watching for threats. The ammo bearer helps to spot enemy vehicles, troops, and positions to target while the gunner is scanning another area.

With a range of up to 3000m, the M202 allows users to accurately destroy targets from extremely long ranges.

ROF:	1 (DEX+2)
Fire Mode:	One shot. Takes 2 combat rounds to prepare.
Damage:	HEAP munition deals 4d6+6 to all in a 3m radius of explosion.
Penetration Value:	+15
Maximum Range:	3000m
Weight Unloaded:	Launcher weighs 6.5kg
Ammo:	1x HEAP missile (3.5kg);
Fail:	99

M112 Headhunter:

The M112 Headhunter is a man-portable battlefield weapon in use by the UEAF. With a range of over 10km, the Headhunter allows users to accurately destroy targets from extremely long ranges. The Headhunter launcher is an 11.3kg reusable device, while the missile itself is a small, two-stage missile with a multi-sensor seeker in the nose. The first stage clears the missile from the launcher, and the second stage fires after 1.5 seconds, accelerating the missile to speeds upwards of Mach 4.5. There are three warhead options, either a tungsten kinetic penetrating rod surrounded by LX-28 explosive, a Thermobaric Fuel Air Explosive munition, or a 'Pee-Wee' battlefield tac-nuke.

ROF:	1 (DEX+2)
Fire Mode:	One shot. Takes 4 combat rounds to prepare.
Damage:	HE: 8d6 to all in 3m radius of strike.
	FAE: 4d6 (See rules on FAE).
	Tac-Nuke: Everything within a 100m radius of ground zero is vaporised. Everything 100m beyond that takes 12d6 damage. Everything 100m beyond that takes 6d6 damage.
Penetration Value:	+15
Maximum Range:	10km
Weight Unloaded:	11.3kg
Ammo:	1
Fail:	99

M118 thunderbolt missile:

The M118 Thunderbolt is a long range hypervelocity missile capable of engaging aerospace craft to the limits of the stratosphere. This active homing weapon uses active and passive seekers, including radar, IR, optical, UV and jam-homing, backed by mid-course update from the ground station, to ensure the intercept, regardless of countermeasures. It's multi-data kinetic penetrating warhead can be adjusted by the fusing mechanism into an optimum "swarm' pattern prior to impact. This weapon is guided.

ROF:	1 (DEX+2)
Fire Mode:	One shot. Takes 2 combat rounds to prepare.
Damage:	6d6 to all in 3m radius of strike;
Penetration Value:	+12
Maximum Range:	10km
Weight Unloaded:	9.3kg
Ammo:	1
Fail:	99

M262 Intruder:

With a range of over 30km, the M262 allows UEAF to totally destroy large enemy targets from extremely long ranges. The M262 has an 18.5kg launcher, which comes with its own bipod stand and baseplate. The bipod can be set to launch the missile at any angle between horizontal and vertical. The missile itself is a small, two-stage missile based on the Headhunter design, with a multi-sensor seeker in the nose. The first stage clears the missile from the launcher, and the second stage fires after 1.5 seconds, accelerating the missile to speeds upwards of Mach 3. The warhead is just behind the missile seeker assembly, and consists of a small 'Shiva' tactical nuclear device capable of destroying a target area with a radius of 1km around ground zero.

ROF:	1 (DEX+3)
Fire Mode:	One shot. Takes 4 combat rounds to prepare.
Damage:	Any personnel caught in explosion are killed
Penetration Value:	N/A
Maximum Range:	30km
Weight Unloaded:	18.5kg
Ammo:	1 (12kg)
Fail:	99

M78 Lancer:

The M78 Lancer is a high speed ground launched space weapon designed to destroy spacecraft and satellites in near orbit. Usually 13 launched in clusters in order to overwhelm any spaceship point defence, the Lancer comprises a two-stage booster designed to insert an ASAT missile with a kinetic warhead into orbit. Against low orbiting targets, the Lancer ASAT payload can be inserted directly into its path; however a typical injection profile versus a geostationary target involves lofting the payload into a hohmann transfer orbit before completing a circularisation burn into geostationary orbit (GSO). For an Earth-like world, the time from ignition to transfer to GSO is some 3800 seconds. A special feature of the M78 is its low launch signature that improves the chance of first-strike surprise on an armed or manoeuvring target. The M78 is typically vehicle mounted, and requires a crew of 2.

ROF:	1 (DEX+2)
Fire Mode:	One shot. Takes 2 combat rounds to prepare.
Damage:	12d6 to all in 5m radius of strike
Penetration Value:	+12
Maximum Range:	100km
Weight Unloaded:	14.6kg
Ammo:	1 (8 kg)
Fail:	99

M662 Rail Gun:

The Railgun utilizes a Lorentz field to electro-magnetically accelerate a depleted uranium slug to super high velocity down the weapon barrel, converting electrical energy into projectile kinetic energy, rather than the more conventional chemical energy from an explosive propellant. As the 15mm slug leaves the barrel it is travelling at 3500m/s. At this speed, kinetic energy is equal or superior to that of an explosive-filled shell of greater mass.

ROF:	1 (DEX+1)
Fire Mode:	SA
Damage:	3d6+4
Penetration Value:	+10
Maximum Range:	1500m
Weight Unloaded:	4kg
Ammo:	Magazine of 5 slugs (2.0kg) each magazine comes complete with disposable energy pack in base
Fail:	98

Heavy Weapons Table

Weapon	Mode	SR	ROF	Damage	PV	Range	Ammo	Fail
M90 Grenade Launcher	SA	DEX	3	See grenade table	–	100m	10x grenade drum	97
SADAR-18	One shot	DEX	1	1 HEAP munition deals 6d6 to all in a 3m radius of explosion	+10	1200m	1x HEAP missile	99
M202 Smart Missile Launcher	One shot	DEX+2	1 / 2	HEAP munition deals 4d6+6 to all in a 3m radius of explosion	+15	3000m	1x HEAP missile	99
M112 Headhunter	One shot	DEX+2	1 / 4	HE: 8d6 to all in 3m radius of strike. FAE: 4d6 to all in 50m radius of strike. Tac-Nuke: All within 100m radius of GZ vaporised. 100m beyond that takes 12d6 damage. 100m beyond that takes 6d6 damage.	+15	10km	1 missile	99
M118 Thunderbolt	One shot	DEX+2	1 / 2	6d6 to all in 3m radius of strike	+12	10km	1 missile	99
M262 Intruder	One shot	DEX+3	1 / 4	Any personnel caught in explosion are killed.	–	30km	1 missile	99
M78 Lancer	One shot	DEX+2	1 / 2	12d6 to all in 5m radius of strike	+12	100km	1 missile	99
M662 Railgun	1	DEX+1	1	3d6+4	+10	1500m	5 slug mag.	98

HIGH ENERGY WEAPONS

Plasma-based weaponry is a group of weapons designed to use high-energy ionized gas or plasma, typically created by super heating lasers or super frequency devices. Though ship and vehicle mounted plasma weapons first appeared in the late 22nd century, the technology to make man portable plasma based weaponry would remain expensive enough to make their use prohibitive until the mid-23rd century. The following are in common use with the United Earth Armed Forces.

The base skill with all high energy weapons is 10%.

M95A1 Phased Plasma Pulse Rifle:

The Phased Plasma Pulse Rifle (P3 Rifle) fires bolts of charged helium plasma. A magazine holds a power cell and a small amount of refined helium. When the trigger is pulled, both helium and energy are siphoned off from the magazine. Helium is ionised by a 40 kilowatt mean range laser burst then a strong electrical discharge forces the plasma out of the weapon at high speeds. The plasma bolt has a muzzle velocity in excess of 8500 meters per second and organic targets struck by the bolt suffer severe kinetic impact damage from the hyper velocity impact of the bolt as well as massive collateral and thermal damage.

ROF:	3
Fire Mode:	SA
Damage:	3d6+4
Penetration Value:	+6
Maximum Range:	300m
Weight Unloaded:	4kg
Ammo:	Magazine (0.5kg) contains enough helium and power for 64 shots.
Fail:	98

M98A1 Phased Plasma Repeater:

The ultimate development of phased plasma weapons technology is the Phased Plasma Repeater (PPR). The PPR is effectively a rapid fire plasma 'chain gun' with no spin up delay. Its high rate of fire makes the weapons incredibly effective as a squad support weapon. The technology is fundamentally the same as the M95A1, except that a rapid recycler injects the ionized helium into one of six spinning barrels then a strong electrical discharge forces the plasma out of the weapon at high velocity.

ROF:	3
Fire Mode:	SA/A (burst: 5/10)
Damage:	2d8+2
Penetration Value:	+6
Maximum Range:	300m
Weight Unloaded:	5kg
Ammo:	Magazine (1kg) contains enough helium and power for 256 shots.
Fail:	97

M101 Phased Plasma Gun:

The Phased Plasma Gun (PPG) fires in the high megawatt (MW) to low kilowatt (kW) range, depending on the weapon's setting. The higher the setting, the fewer total rounds these weapons are capable of firing before the magazine must be replaced. Like the plasma rifle, the PPG uses a magazine containing condensed helium along with a battery to supply power. The weapon can easily burn through organic tissue, bone and metal at higher energy levels.

ROF:	3
Fire Mode:	SA/A (burst: 5/10)
Damage:	Low kW setting: 2d8+2
	High MW setting: 3d8+3
Penetration Value:	+6 (Low)
	+8 (High)
Maximum Range:	300m
Weight Unloaded:	3.5kg
Ammo:	Magazine (0.5kg) contains enough helium and power for 64 shots at the high kilowatt setting, or 32 shots at the low megawatt setting.
Fail:	97

M201 Fusion Gun:

Progressive development of the Phased Plasma Gun, the Fusion Gun holds the superheated plasma in a magnetic containment field before firing, until a fusion reaction takes place. The weapon's only drawback is the firing delay.

It should also be noted that the Fusion weapons produce hard radiation (Rad Level) at the surface of the target hit by the main bolt, but not the splatter. If a penetration occurs, this radiation will affect the personnel inside the target, whether in personal armour or in a vehicle. Armoured personnel in a vehicle may apply the armour protection against radiation to defend against this hard radiation.

ROF:	3
Fire Mode:	SA
Damage:	4d8+4; radiation level/3 (POT 15)
Penetration Value:	+7
Maximum Range:	250m
Weight Unloaded:	6kg
Ammo:	Magazine (0.5kg) contains enough helium and power for 32 shots.
Fail:	96

High Energy Weapons Table

Weapon	Mode	SR	ROF	Damage	PV	Range	Ammo	Fail
M95A1 Phased Plasma Pulse Rifle	SA	DEX	3	3d6+4	+6	300m	64	98
M98A1 Phased Plasma Repeater	SA A5/10	DEX	3	2d8+2	+6	300m	256	97
M101 Phased Plasma Gun	SA A5/10	DEX	3	Low kW: 2d8+2 High MW: 3d8+3	+6 +8	300m	64 32	97
M201 Fusion Gun	SA	DEX	3	4d8+4 + Rad level/3	+7	250m	32	96

APROBDIF PROJECTORS

APROBDIF projectors are Anti-Robot Positronic Brain Disrupter Field weapons used to disable the Positronic systems of robotic and other forms of computer equipment. Thus the weapons can be used to reduce the capacities of combat computers by knocking out special HUD targeting bonuses and reducing the computers to more-or-less standard functions. Combat use of mini-computers and multi-computers is thus necessarily limited in that personnel do not place full reliance on them and will resort to the least vulnerable of all fire-control and general decision-making systems, namely the well-trained Armsman.

APRO weapons come in pistols, rifle, support weapon (MG), heavy vehicle projector, and area defence generator versions. All portable weapons and the heavy projector fire a beam of positrons which disrupt the higher level 'discretionary' functions of a Positronic brain,' reducing it to a standard computer which must be directed to perform actions which it previously could decide for itself. In other words, a Robot affected by an APRO hit will still function if direct control is taken by its controller ('Move 50m forward. Fire weapon at Target 'X'. Assume prone position. Five rounds grenade fire at bunker 'V'. Assume standing position. Withdraw at 'A' speed.') In effect, a controller will be able to operate only 1 unit per level of expertise he possesses in Military Programming, and all bonuses for targeting, as well as all combat 'expertise' possessed by the robotic equipment will be lost.

If an APRO penetration occurs, the functions of the Positronic brain will be affected in one of the following ways. Roll 1d6: Non-combat Robots simply shut down when hit by an APRO bolt (Result 1 automatically applies).

1d6	Disruption Effect of APROBDIF on Positronic 'Brain'
1, 2, 3	Robot will stand in place and do nothing. Direct personal command is required to make the unit function at all (50% chance that personal command will succeed on the first attempt; failure means the unit is 'knocked out' and requires extensive repair.)
4	Robot ceases to fire weapons and moves about in a random direction until personal command is assumed or the unit is turned off. Personal command succeeds 80% of the time on the first attempt.
5	Robot ceases movement but continues to fire weapons in random directions at any target in sight until it runs out of ammunition, or until it is turned off or personal command is assumed. Personal command succeeds at 50% on the first attempt.
6	Robot moves and fires at random at any target in sight until it runs out of ammunition or is turned off, etc. Personal command succeeds at 40% on the first attempt.

The Eurasian Rimworlds Combine have developed special anti-APRO screens or Positronic 'Brain Screens' to protect their cybernetic equipment. Before a normal penetration of armour can occur, this anti-APRO screen must first be penetrated. 'Brain Screens' will have +1, +2, or +3 Armor Protection. Eurasian Rimworlds Combine major installations will have powerful anti-APRO field generators which produce a +8 Armor Protection throughout the volume.

	Pistol	Rifle
ROF:	3	3
Fire Mode:	SA	SA
Damage:	3D6 vs. tech*	3D10 vs. tech*
Penetration Value:	+0	+0
Maximum Range:	30m	150m
Weight Unloaded:	0.5kg	2kg
Ammo:	10 charges in powercell (0.2kg)	20 charges in powercell (0.3kg)
Fail:	98	98
HP:	12	18
STR/DEX:	7/5	7/5

*If the target is an Android, roll damage and make a resistance roll vs. the target's CON. If the roll is successful, the device is stunned for 1D3+1 rounds. If the rolled damage is higher than the target's HP, it is overcome and knocked "unconscious". Damage from EMP weapons is temporary, and lost HPs will be restored with a Repair roll and an adequate power source.

LASERS

The Laser can be found in the armaments of many planetary defence force militia units, especially on colony planets, and it remains a very common civilian small arm.

Lasers suffered from a number of disadvantages. Smoke and light-dispersing gases can attenuate laserfire. The amount a laser beam is weakened depends on the type of smokes gas, fog, or anti-laser aerosol the beam travels through to reach the target.

The advantages of laser weapons almost outweigh the disadvantages.

- Lasers are silent. The beams cannot be readily detected unless it is dim or dark, or if there is dust or smoke in the air to reflect a portion of the beam and so render them visible to observers.

- Certain laser wavelengths are effective under water (all range increments at 50%), which makes them an effective submarine weapon.

- Their lack of recoil also makes them a preferred weapon for combat in low pressure atmospheres and airless conditions in low/null gravity fields. Because it is inadvisable to fill spacecraft with smoke from anti-laser aerosol grenades, lasers remain a standard boarding weapon.

- The intense cold of space leads to a higher rate of breakage and malfunction, but it has no effect on lasers.

	Pistol 3mm	Rifle 5mm
ROF:	3	3
Fire Mode:	SA/A (burst: 5/10)	SA/A (burst: 5/10)
Damage:	1d10+2 burn damage	3d6+2 burn damage
Penetration Value:	+0	+0
Maximum Range:	400m	2000m
Weight Unloaded:	0.8kg	7.5kg
Ammo:	20 charges in powercell (0.2kg)	30 charges in powercell (0.3kg)
Fail:	98	98
HP:	14	20
STR/DEX:	5/5	7/7

The powercells may be recharged at any power main in a time period (in seconds) equal to the calibre x no. charges. A 3mm/20c powercell for a pistol, for instance, recharges in 60 sec.

'RECOILESS' SERIES: ROCKET GUNS

The 'Recoiless' rocket-firing weapons are descendants of such experimental guns as the Gyrojet rifles and pistols developed on Terra during the middle of the 20th century. The ammo consists of small, spin-stabilised rocket rounds which gather speed as they accelerate away from the muzzle of the weapon.

Recoiless weapons have the advantages of 'no kick' or recoil, while the slugs themselves will attain very high velocities and deliver excellent hitting power against the target once the shells have reached full velocity. A Recoiless weapon can be fired under water (50% range divisions). Recoiless small arms have enjoyed popularity as rocket shells are unaffected by smoke and aerosols, which attenuate Laserfire. They do not drop off in velocity, unlike slugs fired by cartridge weapons, because the rockets fire throughout their flight. Long guns are sometimes referred to as 'Cone Rifles' because of the generally conical shape of the racket rounds.

Cone Rocket Guns (CRG):

	Pistol 5mm	Rifle 7mm
ROF:	3	3
Fire Mode:	SA/A (burst: 5/10)	SA/A (burst: 5/10)
Damage:	2d6+1	2d8+2
Penetration Value:	+2	+3
Maximum Range:	250m	950m
Weight Unloaded:	0.9kg	5kg
Ammo:	10 round magazine (0.4kg)	30 round magazine (1.2kg)
Fail:	98	98

All recoiless weapons will have a reduced penetration capability at point-blank and short range because the rocket rounds have not attained maximum velocity and are still accelerating.

Stat rifle 'Penetrator':

The Stat rifle is a logical development of the Recoiless rocket guns. The Stat 'Penetrator' is designed for maximum projectile penetration of armour using a low velocity rocket shell with a shaped Viradex V explosive charge. The +2500°C gasses produced by the Viradex V detonation can effect a 'burn through' of the armour. The Stat Rifle is, in effect, a re-chambered heavy Cone Rifle using 15mm rocket rounds.

ROF:	3
Fire Mode:	SA/A (burst: 5/10)
Damage:	2d8+4
Penetration Value:	+5
Maximum Range:	1300m
Weight Unloaded:	3.7kg
Ammo:	20 round magazine (0.75kg)
Fail:	98

Gyro10 InfR:

The Gyro 10mm lnfR rocket shells contain explosive charges, as these weapons are actually automatic cannons which were expressly designed for anti-tank and anti-aircraft fire. Infinite Repeaters actually put out a high volume of fire and only 'area' autofire is possible against infantry, while autofire is used to score hits on any vehicle Because of their good underwater performance, they are often mounted in submarines and submersibles as close range offensive armament.

ROF:	3
Fire Mode:	FA
Damage:	2d10+1d6+4
Penetration Value:	+7
Maximum Range:	2300m
Weight Unloaded:	10kg
Ammo:	200 rounds (15kg)
Fail:	98

Recoiless Rocket Weapons Table

Weapon	Mode	SR	ROF	Damage	PV	Range	Ammo	Fail
CRG Pistol	SA A5/10	DEX	3	2d6+1	+2	250m	10	98
CRG Rifle	SA A5/10	DEX	3	2d8+2	+3	950m	30	98
Stat Rifle	SA A5/10	DEX	3	2d8+4	+5	1300m	20	98
Gyro10 InfR	FA	DEX	3	2d10+1d6+4	+7	2300m	200	98

Availability & Costs

Restricted or illegal weapons can sometimes be obtained via the Black Market. Items obtained in this manner will often have a hefty price mark-up on their actual market value. Before restricted or illegal weapons can be obtained, the Game Master must check (or assign) the availability rating of the weapon, which affects the overall difficulty of acquiring the goods.

MÊLÉE / HAND TO HAND WEAPONS:

Weapon	Cost (E$)	Price	Time	Streetwise	Avail.
Combat Knife	25	x1	No waiting time	+15%	A
Blade	60	x1	No waiting time	+15%	A
Sword	100	x1	No waiting time	+15%	A
Chainsaw	300	x1	No waiting time	+15%	A
Vibro Blade	450	x1	No waiting time	+15%	A
Baton/Club	50	x1	No waiting time	+15%	A
Stun Baton	500	x1	No waiting time	+15%	A
Hatchet	40	x1	No waiting time	+15%	A

HAND GUNS:

Weapon	Cost (E$)	Price	Time	Streetwise	Avail.
Body Pistol	300	x1.5 – x5	24 hours (EST)	0	B
Automatic Pistol 8mm	500	x1.5 – x5	24 hours (EST)	0	B
Automatic Pistol 10mm	750	x1.5 – x5	24 hours (EST)	0	B
Heavy Pistol 12mm	900	x1.5 – x5	24 hours (EST)	0	B
Revolver 8mm	400	x1.5 – x5	24 hours (EST)	0	B
Revolver 10mm	500	x1.5 – x5	24 hours (EST)	0	B
Revolver 12mm	600	x1.5 – x5	24 hours (EST)	0	B
Taser Pistol	1000	x1.5 – x5	24 hours (EST)	0	B

SHOTGUNS:

Weapon	Cost (E$)	Price	Time	Streetwise	Avail.
Pistol Shotgun	250	x1	No waiting time	+15%	A
Single Barrel Shotgun	300	x1	No waiting time	+15%	A
Double Barrel Shotgun	400	x1	No waiting time	+15%	A
Pump Action Shotgun	500	x1	No waiting time	+15%	A
Combat Shotgun	1000	x1.5 – x5	24 hours (EST)	0	B

RIFLES:

Weapon	Cost (E$)	Price	Time	Streetwise	Avail.
Military carbine 5mm	900	x3 – x10	1 week (EST)	-15%	C
Air rifle 5mm	700	x1	No waiting time	+15%	A
Hunting Rifle 7mm	1200	x1.5 – x5	24 hours (EST)	0	B
Assault Rifle 5mm	2500	x1.5 – x5	24 hours (EST)	0	B
Shock Rifle	1500	x1.5 – x5	24 hours (EST)	0	B
Combat Rifle 8mm	1750	x1.5 – x5	24 hours (EST)	0	B
Tactical Assault Rifle (TAR) 10mm	3500	x3 – x10	1 week (EST)	-15%	C
Gauss Rifle 6mm	5000	x3 – x10	1 week (EST)	-15%	C
Zero-G Rifle 7mm	xx	x3 – x10	1 week (EST)	-15%	C
Submachine Gun 8mm	1000	x3 – x10	1 week (EST)	-15%	C
Submachine Gun 10mm	1500	x3 – x10	1 week (EST)	-15%	C
Squad Support Weapon 5mm	2000	x3 – x10	1 week (EST)	-15%	C
Squad Support Weapon 10mm	3500	x3 – x10	1 week (EST)	-15%	C

MACHINE GUNS:

Weapon	Cost (E$)	Price	Time	Streetwise	Avail.
Light Assault Gun (LAG)	6500	x3 – x10	1 week (EST)	-15%	C
Squad Support Weapon 5mm	2000	x3 – x10	1 week (EST)	-15%	C
Squad Support Weapon 10mm	3500	x3 – x10	1 week (EST)	-15%	C
Mini Gun 5mm	6000	x3 – x10	1 week (EST)	-15%	C

HIGH ENERGY WEAPONS:

Weapon	Cost (E$)	Price	Time	Streetwise	Avail.
Phased Plasma Gun	10000	x3 – x10	1 week (EST)	-15%	C
Phased Plasma Repeater	15000	x3 – x10	1 week (EST)	-15%	C

HEAVY WEAPONS:

Weapon	Cost (E$)	Price	Time	Streetwise	Avail.
Rail Gun	20000	x3 – x10	1 week (EST)	-15%	C
Grenade Launcher	2000	x3 – x10	1 week (EST)	-15%	C
Disposable AT Missile	3000	x3 – x10	1 week (EST)	-15%	C
Disposable Smart Missile Launcher	5000	x3 – x10	1 week (EST)	-15%	C
Disposable Heavy Missile	20000	x10+	1 month (EST)	-30%	X
Disposable Surface to Air Missile	8000	x3 – x10	1 week (EST)	-15%	C
Disposable Long Range Surface to Ground Missile	15000	x10+	1 month (EST)	-30%	X
Disposable Surface to Orbit Missile	20000	x3 – x10	1 week (EST)	-15%	C

Availability Rating

A: Freely available unrestricted item available at listed price and generally easy to find on high street of any city.

B: Limited availability as a permit / licence and background check are required.

C: Restricted availability (e.g. military hardware), limited permits and licensing required, hard to source, requiring persistent effort and expense.

X: Totally illegal items, some of which even governments would think twice about owning them. Nuclear weapons included.

Price

Once the availability of the item is assigned, the price mark-up above the actual market value can be seen. For example, an adventurer wanting to buy a pistol (small arm) would pay x1.5% to x5% of its actual value. At the GM's discretion, the Bargain skill can be used to lower the price.

Time

Goods bought on the Black Market don't just magically appear – there is usually a time period required for the seller to 'obtain' said items for the Adventurer. This usually ranges from 24 hours to a month.

Streetwise

Once the availability rating is assigned, if the Adventurer must make a Streetwise check, applying the relevant modifier. Failure indicates no such items are available at present, and they must wait until the next adventure, or until the Game Master says otherwise, before attempting another check. A Fumble indicates that during the attempt to acquire black market goods, the Adventurer has come to the attention of the local branch of the Federal Law Enforcement Authority, and may have been arrested.

NOTE: All types of lethal weapons are illegal on Earth and the Sol Colonies without a licence. This is not necessarily the case in the Outer Colonies or Far Space. Game Masters should adjust availability rating dependant on the location of the Adventurers.

Explosives

Occasionally, adventurers might need to resort to explosives. These are tightly regulated virtually everywhere, due to the difficulties of their use, their destructive properties and consequently high endangerment of the public, and their potential misuse by criminals and especially terrorists.

Use of explosive requires the Demolitions skill. This allows the safe handling and storing of both explosives and detonators, allows the proper preparation, and indicates the correct amount of explosive to be used for a particular job. It also covers choosing the best placement for the explosive and how to tamp it for maximum effect. A 99-00 means a malfunction like a "misfire" (the explosive does not detonate), a "hangfire" (the explosion is delayed by 2D6 combat rounds), or a premature detonation.

EXPLOSIVE, BLASTING CAP: A small explosive used to set off a larger explosive. Older ones used fuses, while newer ones use electricity or more sophisticated methods to set off the explosive.

EXPLOSIVE, DYNAMITE: Sticks of chemical explosive soaked into a solid like sawdust, wrapped in thick paper and ignited by sparks from a fuse or a smaller explosion from a blasting cap. This is highly dangerous, as it tends to "sweat" nitroglycerine and become unstable when left alone for too long. Popular in Westerns.

EXPLOSIVE, IMPROVISED: Usually a pipe bomb, this describes any number of small homemade chemical explosives.

EXPLOSIVE, PLASTIC: A chemical explosive mixed with a substance like petroleum or wax into a malleable, putty-like plastic form, able to be molded and shaped as required. Used with a timer and often set off with an electrical charge. Also called plastique.

GRENADE, CONCUSSION: A small explosive device triggered and thrown at foes or into enclosed areas, where it can stun those caught in the blast radius. Sometimes called a stun grenade.

GRENADE, EXPLOSIVE: A small explosive device triggered and thrown at foes, items, or structures, emitting an explosion of concussive force mixed with shrapnel.

GRENADE, FLARE: A small device triggered and thrown into darkened areas, to light the area, or to provide light-marking to assist air targeting. Technically, this is simply a flare, but in all other respects it is used like a grenade.

GRENADE, GAS: A small chemical explosive device triggered and thrown at foes or into enclosed areas, emitting a toxic or otherwise harmful gas. These can be filled with a variety of gases (mustard, tear, knockout, etc.).

GRENADE, MOLOTOV COCKTAIL: An improvised explosive made from a bottle and fuse, lit on fire and hurled at an opponent or object, usually to set them or it afire.

GRENADE, PHOSPHOROUS: A small chemical explosive device triggered and thrown at foes, objects, or structures, emitting a highly flammable chemical fire that can melt equipment and set nearby objects aflame, or simply light a darkened area for ground personnel or targeting from airships.

GRENADE, SHRAPNEL: A small explosive device triggered and thrown at enemies, set to emit a maximum amount of deadly shrapnel to pierce flesh.

GRENADE, SMOKE: A gas grenade (see above) that emits harmless but shrouding smoke.

MINE, ANTIPERSONNEL: A mine set to eliminate enemy soldiers, this is primarily designed to wound rather than kill (maximizing difficulty to the enemy).

MINE, ANTITANK: A mine set to damage tank treads or other enemy vehicles.

Explosives Table

Damage is expressed in dice per meters; damage done each meter past the initial radius decreases by 1D6 per meter.

Weapon	Skill	Base	Damage	Range	HP	STR/DEX	Fail
Blasting Cap	Demolition	—	2D6/1 meter	3	3	—	00
Dynamite	Demolition	Throw	5D6/2 meters	Thrown	1	5/5	99
Explosive, Improvised	Demolition	—	3D6/2 meters	8	4	—	91
Explosive, Plastic	Demolition	—	6D6/3 meters	21	15	—	00
Grenade, Concussion	Grenade	Throw	2D6/2 meters (1)	Thrown	8	5/5	00
Grenade, Explosive	Grenade	Throw	4D6/4 meters	Thrown	8	5/5	99
Grenade, Flare	Grenade	Throw	(2) /3 meters	Thrown	6	5/5	00
Grenade, Gas	Grenade	Throw	(3) /3 meters	Thrown	6	5/5	99
Molotov Cocktail	Grenade	Throw	1+Fire (6)	Thrown	1	5/7	95
Grenade, Phosphorous	Grenade	Throw	2D6/24 meters (4)	Thrown	4	5/5	98
Grenade, Shrapnel	Grenade	Throw	4D6/4 meters	Thrown	8	5/5	00
Grenade, Smoke	Grenade	Throw	(5) /3 meters	Thrown	6	5/5	00
Aerojet M18A1 Claymore	Demolition	—	6D6+6/10 meters	10/20/50	6	—	99
Mine, Antipersonnel	Demolition	—	4D6/5 meters	25	9	—	99
Mine, Antitank	Demolition	—	8D6+6/4D6+2/2D6	10/25/50	12	—	99
M112 demolition block	Demolition	—	15d6	1	1	—	99

1. All targets taking damage must succeed in a Stamina roll or be stunned.

2. Illuminates the range instead of doing damage;

3. Fills an area with a type of toxic or non-toxic gas. A sample type of gas grenade might have 2D6+12 POT, an instant effect, and cause choking and 1D6 per round HP loss if target fails a resistance roll vs. CON.

4. Phosphorous grenades are produce smoke as per a gas grenade, and are also incendiary (causing damage each round until extinguished).

5. Fills an area with vision obscuring smoke instead of doing damage; can obscure a room as if darkened.

6. If a target is struck, he should roll Luck. If the roll fails, he is on fire and will take 1D6 points of damage immediately and every other round until the fire is extinguished or otherwise neutralized.

Advanced Explosives

DETONATOR, ANTIMATTER: Perhaps the most powerful personal-scale explosive, this can wipe out everything in a tight radius. These are used with timers, coded remote detonators, and magnetic bases.

DETONATOR, ELECTROMAGNETIC PULSE: Instead of exploding, this device emits an electromagnetic pulse (EMP) designed to disrupt electrical devices and electronic circuitry. Unlike the EMP generated as a secondary effect of a nuclear weapon, this is a non-nuclear electromagnetic pulse, disruptive solely to non-living beings.

DETONATOR, FUSION: An extremely powerful subnuclear bomb, capable of immense destructive force. Comes with a timer, coded remote detonator, and magnetic base.

DETONATOR, PLASMA: An explosive capable of generating and spraying a charge of plasma, the superheated intermediate state between gas and liquid. These come with timers, coded remote detonators, and magnetic bases.

DETONATOR, SONIC: A device that emits a destructive and concussive sonic pulse that can shatter glass and other brittle matter, as well as stunning any living targets caught in its range of effect.

GRENADE, ANTIMATTER: A small but extraordinarily powerful explosive device triggered and thrown at foes, items, or structures. Though containing infinitely tiny amounts of antimatter, these grenades are usually fired from launchers, as they are so destructive that it is difficult to throw one outside of the blast radius.

GRENADE, DISINTEGRATOR: A grenade capable of disintegrating all of the matter (or shattering molecular bonds) in the target range. Highly dangerous, disintegrator grenades are generally used only as weapons of last resort.

GRENADE, ELECTROMAGNETIC PULSE: A grenade using electromagnetic pulse capability. When thrown at a metallic target, the magnetic surface can add +20% to your chance of hitting successfully.

GRENADE, FUSION: An extremely powerful subnuclear device, capable of immense destructive force. Fusion grenades are only fired from launchers or thrown in situations where the user has adequate time to get out of the blast range.

GRENADE, PLASMA: A grenade using plasma technology.

GRENADE, SHOCK: A grenade that releases an immense electrical charge into the targeted area, equipped with magnetic surfaces to allow it to stick to any metallic surface it is thrown onto. When thrown at a metallic target, the magnetic surface can add +20% to your chance of hitting successfully.

GRENADE, SONIC: A grenade using sonic pulse technology that emits a high-frequency sonic burst to disable or distract targets.

GRENADE, STUN: A grenade emitting a mildly concussive blast designed specifically to stun or temporarily disable targets.

Advanced Explosives Table

Damage is expressed in dice per meters; damage done each meter past the initial radius decreases by 1D6 per meter.

Weapon	Skill	Base	Damage	Range	HP	STR/DEX	Fail
Detonator, Antimatter	Demolition	—	10D10/10 meters	110	12	—	96
Detonator, Fusion	Demolition	—	10D8/10 meters	110	16	—	98
Detonator, Electro magnetic Pulse	Demolition	—	6D10/5 meters (1)	35	12	—	97
Detonator, Plasma	Demolition	—	6D10/5 meters (2)	35	10	—	99
Detonator, Sonic	Demolition	—	4D6/2 meters (3)	10	8	—	97
Grenade, Disintegrator	Grenade	Throw	4D10/2 meters	Throw	12	5/5	96
Grenade Electro magnetic Pulse	Grenade	Throw	5D8/1 meter (1)	Throw	8	5/5	98
Grenade, Fusion	Grenade	Throw	6D6/1 meter	Throw	10	5/5	97
Grenade, Plasma	Grenade	Throw	3D10/2 meters (2)	Throw	10	5/5	98
Grenade, Shock	Grenade	Throw	4D6/1 meter	Throw	8	5/5	98
Grenade, Stun	Grenade	Throw	3D8/2 meters (4)	Throw	12	5/5	98

1. Damage is rolled and compared to an electronic/electrical-based target's CON or current HP on the resistance table. If the target loses, it takes the rolled amount in damage. If the resistance roll is successful, target takes the detonator's minimum damage (based on range) to current HP.

2. If a target is struck, he should make a Difficult Luck roll. If the roll fails, he is on fire and will take 1D6 points of damage immediately and every other round until the fire is extinguished or otherwise neutralized.

3. Against a non living target, a sonic grenade's damage is rolled on the resistance table against the target's base CON, AP, or HP. If the target fails this roll, it shatters or is considered damaged beyond the point of functionality.

4. Roll damage as normal and use the damage vs. the target's CON in a resistance roll. If the target succeeds, he takes minimum damage (2) instead of the rolled damage. If target loses, he is stunned for 1D3+1 rounds.

Nuclear Weapons

The thermonuclear device is a warhead employing a fission reaction (A-Bomb), fission fusion (H-Bomb), or matter-conversion (AM Anti-Matter Bomb).

Conventional nuclear weapons have three ways of affecting anything within range, these are blast, heat, and radiation. To avoid complexity, blast and heat are combined to represent immediate destructive effects of nuclear detonations on

structures, vehicles, and living tissue. Radiation covers delayed effects of over exposure to X-rays, gamma rays, etc., emitted by the detonation or lingering in the form of fallout.

- ■ BLAST: The effects of a nuclear orientation are covered by the Penetration capability of the weapons. Depending upon range, the effects vary.

- ■ DH Direct Hit: The target is at the center of the nuclear detonation. The penetration capability of the Nuke is compared to the energy armor protection. If the target is penetrated, it will be exploded or vaporized.

- ■ GZ Ground Zero: The target is in or on the edge of the nuclear fireball. Blast penetration is again assessed against energy armor protection. Survival chances are slim to non existent for exposed personnel and thin-skinned vehicles.

- ■ KZ Kill Zone: The effects of the blast are severe in the Kill Zone, but they are assessed against the missile/projectile armor protection of the target of infantry personnel. Exposed personnel have a very slim chance of survival, but well armored vehicles will have a good chance of coming out unscathed.

- ■ CZ Casualty Zone: The blast effects are still considerable, but well armored personnel and AFVS will 'take it on the armor' successfully. As with KZ effects, CZ blast effects are assessed against the missile/projectile armor protection of the personnel or vehicle target.

Subsequent to a nuclear blast, fallout occurs. The zone of total destruction (corresponding to the KZ Kill Zone diameter will have fallout conditions equal to 1d3 Rad levels. This rad level wall drop by -1 level every 1d6 hours for the first level, 1d6 days for the second level, and1d6 weeks for subsequent levels until Rad/1 is reached. In the case of multiple warhead bursts in the area, the rad level is increased by a further 1d3 Rad units, to a maximum of Rad/6.

Blast/ Rad	0.1 Kiloton TTC/TND		0.25 Kiloton TTC/TND		0.5 Kiloton TTC/TND		1 Kiloton TTC/TND		5 Kiloton TTC/TND	
	Diameter Meters	Rad Level	Diameter Meters	Rad Level	Diameter Meters	Rad Level	Diameter Meters	Rad Level	Diameter Meters	Rad Level
DH	25	6	50	6	75	6	100	6	250	6
GZ	75	6	125	6	200	6	250	6	1000	6
KZ/1	100	5	150	6	250	6	350	6	2000	6
KZ/2	125	4	200	5	300	5	450	5	2500	5
KZ/3	150	4	250	5	375	5	550	5	3000	5
KZ/4	200	3	300	4	450	4	650	4	3500	4
CZ/5	250	3	350	4	550	4	800	4	4000	4
CZ/6	300	2	400	3	650	3	950	3	4500	3
CZ/7	350	2	450	3	750	3	1100	3	5000	3
CZ/8	400	1	500	2	850	2	1250	2	5500	2
CZ/9	450	1	550	2	950	2	1400	2	6000	2
CZ/10	500	0	650	1	1050	1	1550	1	6500	1
CZ/11	-	-	750	1	1200	1	1768	1	7000	1

Most thermonuclear weapons used in New Horizon will be rated as 'TTC/TND' or Tactical Tamped-Charge Thermonuclear Devices. These will be low yield weapons with 100 to 10 kiloton TNT-equivalent blasts. As will be seen these weapons are quite sufficient for any battlefield. All such weapons may be delivered by a PML Portable Missile Launcher.

Biological Weapons

Whether stockpiled as a last ditch deterrent, employed as a lethal security measure, or a terror weapon, these dangerous pathogens pose unique threats to those that encounter them.

Weaponized biological agents can include prions, microorganisms (viruses, bacteria, and fungi), and some unicellular and multicellular organisms and their associated toxins. Genetically-engineered weaponized variants of natural pathogens are generally harder to combat with normal medicine and are designed to be more effective than their precursors. All have the ability to affect health in a variety of ways, ranging from mild allergic reactions to serious medical conditions, even death.

Such pathogens can often be replicated quickly and easily. The ideal biowarfare agent boasts high infectivity, high potency, targeted delivery or contagion, and an aerosol vector. In most cases, designers possess a vaccine or treatment procedure to cure the disease the agents create as a security measure or to press the opposition into negotiations or capitulation.

Note that biological warfare goes far beyond targeting humans. Agricultural warfare specifically targets plants to destroy crops or defoliate vegetation. Such "scorched earth" tactics are just the next step in a strategy proven throughout history.

Bioagents Attributes

Each substance has several game mechanic ratings.

Vector

Vector is the method in which the agent can be applied:

■ Contact agents (in liquid or gas form) must be applied to the target's skin. If coated on a weapon, they may be applied with a successful melee attack (whether or not they cause damage). A chemical seal offers complete protection unless breached (by an attack causing damage).

■ Ingestion agents must be eaten by the victim. They generally take longer to have an effect. Digestive expansion bioware gives a bonus of +2 to the Toxic Resistance Test against ingested substances.

■ Inhalation agents must be inhaled by the target and are applied as an aerosol spray or gas. A target wearing a gas mask s immune to its effects.

■ Injection agents must be injected into the target's bloodstream. Similar to contact agents, they may be coated on a bladed (not blunt) melee weapon and applied with a successful damage-causing melee attack.

Eclipse Phase

The time between infection and the agent's Effect after exposure.

Resistance Time

When or how frequently the Adventurer needs to make a Resistance roll to counter the agent's Effect.

Resistance

If the victim succeeds his CON roll vs. the bioagent POT, it reduces the agent's Resistance by 1 point. If the Resistance is reduced to zero, the pathogen takes no effect and is eliminated from the organism of the PC. Thereafter he develops some kind of immunity and gains a cumulative -1 POT against this pathogen.

Potency

All bioagents have a potency value that is matched against the CON of the victim. If the agent overcomes the character's CON, then the substance actually infiltrates the victim's biosystem and impacts his health.

Effect

The Effect determines what happens to a character exposed to the agent. Many agents simply cause damage; in this case, the Effect supplies the base Damage Value. Once damage has been inflicted, it is treated just like any other injury; antidotes and similar protections only work as a defense when taken before the agent's effect kicks in.

Bioagents

The use of genetically modified pathogens and bioagents is one of the more dangerous applications of modern genetics. Unfortunately, it is more widespread than most people believe. The following represent a selection of different bioweapons characters might wish to avoid. Besides the possible counters, vaccines and treatments exist for all the following.

Bioagent	bedlam (numerous variants)
Vector	Injection
Eclipse Phase	3 days
Resistance	6
Resistance Time	8 hours
Potency	16
Nature	Toxin
Effect	Agony, Attribute Debilitation (see below)

Not a viral or bacterial agent, bedlams encompass several different artificial biotoxins that use tissue-specific antibodies fused with a radio-nucleotide to cause debilitating damage to targeted regions via radiation. The best known bedlam-variant is Doom, which targets and destroys muscle tissue (Strength) by introducing bismuth-212 into the muscle. Other variants of bedlams exist, targeting neurons (Intelligence or Power), organs (HP), or skin Appearance). In all cases, following each Disease Resistance Test, subtract one point from the relevant attribute if the Power of the disease is not reduced to zero, to a minimum of 1 per attribute. Attribute points lost in this manner can only be restored by augmented healing gene therapy.

Bioagent	croisade (Visceral Ipsvorosis)
Vector	Inhalation
Eclipse Phase	2 days
Resistance	3
Resistance Time	1 hour
Potency	14
Nature	Viral
Effect	Agony, Self-Devouring (see below)

Croisade is a viral pathogen that mimics the patho-physiology of gastroenteritis. It infects the host's immune cells (lymphocytes) and reprograms them to recognize the host's own tissue as foreign, leading to systemic inflammatory autoimmune responses as the body begins to devour itself. This leads to organ failure, internal bleeding, and cardio-vascular shock—and the death of the victim.

If a character becomes infected, subtract 1 HP every time the Disease Resistance Test doesn't reduce the Power to zero. If the Body reaches zero, the character dies due to systemic damage. Croisade is only partially vulnerable to anti-virals (these grant half their normal bonus).

Bioagent	ebola plus (Ebola virus strain 74b-3)
Vector	Contact, Inhalation
Eclipse Phase	1 day
Resistance	8
Resistance Time	3 hours
Potency	18
Nature	Viral
Effect	Physical Damage, Agony, Nausea

Ebola plus or strain 74B-3 is a fast-acting and spreading variant of the ebola hemorrhagic fever virus. Strain 74B-3 causes internal cell necrosis and major internal and external bleeding. Unlike previous strains, it spreads as easily by air as by physical contact—giving it the potential to cause pandemic infections.

If infected, a character continues to take damage until he dies or recovers (if aided by biomedicals). Zeta-inferon is effective against Strain 74B-3, but only at half its rating. The most effective agent against ebola plus—if the disease is diagnosed early enough—is a specially engineered antiviral that immediately halts the disease after administration, preventing further Disease Resistance Tests (such an antiviral must be procured from government or military sources).

Bioagent	gamma-anthrax (bacillus anthracis strain gamma)
Vector	Contact, Inhalation, Ingestion
Eclipse Phase	1 day
Resistance	8
Resistance Time	2 hours
Potency	18
Nature	Viral
Effect	Physical Damage, Nausea

An engineered variant of the naturally-occurring Bacillus anthracis, gamma-anthrax progresses much quicker than its ancestor, making it harder to treat. Respiratory infection causes flu-like symptoms within a day. In contrast to normal anthrax, the victim's condition severely deteriorates within hours after the first symptoms, causing abrupt respiratory failure and death.

If a character becomes infected, the course of the disease aggravates if not treated quickly. Each time the disease has to be resisted, add +1 to the basic Power of the disease, no matter if Power was reduced to zero.

Bioagent	timebomb (Neurospora maligna)
Vector	Inhalation
Eclipse Phase	12 hours
Resistance	3 (10*, see below)
Resistance Time	1 hour
Potency	13 (20*, see below)
Nature	Fungal
Effect	Physical Damage*, Nausea

A fungal infection that spreads like wildfire in the lungs, neurospora maligna starts with bronchitis-like symptoms, then causes respiratory failure due to mycotoxic poisoning. The first Disease Resistance Test is made against the increased Power value noted in parentheses to determine infection. No damage is done at this point. After that, the disease develops with a Power of 3 and thus is easily resisted, causing no Physical damage. After the third resistance test, the pathogen suddenly releases the mycotoxin, leading to an increase of the Power level, which must be then resisted, causing Physical damage. Neurospora maligna is immune to all biomedicals except antibac, which is effective at half its rating.

BioWarfare Agents Table

Bioagent	bedlam	croisade	ebola plus	gamma-anthrax	timebomb
Vector	Injection	Inhalation	Contact, Inhalation	Contact, Inhalation, Ingestion	Inhalation
Eclipse Phase	3 days	2 days	1 day	1 day	12 hours
Resistance	6	3	8	8	3 (10*)
Resistance Time	8 hours	1 hour	3 hours	2 hours	1 hour
Potency	16	14	18	18	13 (20*)
Nature	Toxin	Viral	Viral	Viral	Fungal
Effect	Agony, Attribute Debilitation	Agony, Self-Devouring	Physical Damage, Agony, Nausea	Physical Damage, Nausea	Physical Damage, Nausea
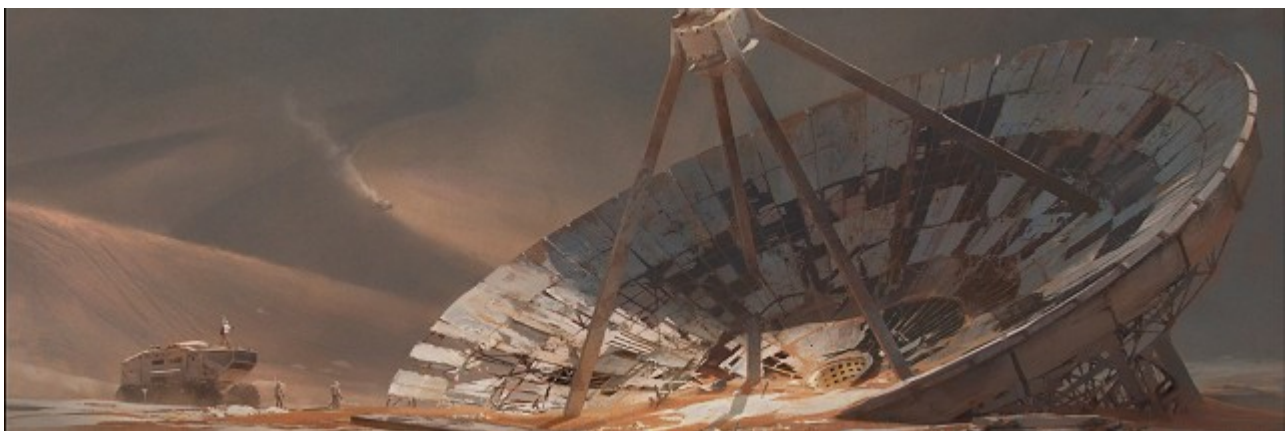
Equipment

by Wikia, Edward Simbalist, Phil McGregor, Chris Dias, Michael C. LaBossiere, Bruce Graw
& John Ossoway

> *"Seventeen days? Hey man, I don't wanna rain on your parade but we're not gonna last seventeen hours!."*
>
> *private William Hudson*

The final step is to write down any important items, weapons or equipment your adventurer possesses. There's no need to write a detailed list of everything your character owns—just list the notable items. In many cases, starting adventurers don't really have anything exceptional or worth writing down in the way of equipment—that's fine as you'll soon be uncovering all manner of strange and remarkable items during the game. Items that fit the profile of your adventurer's living standard do not need to be paid for—you simply own those.

Even if your adventurer takes no weapons, he may still use them. Perhaps your adventurer served in a war, or gained some familiarity with knives or guns while growing up on a colony. Few people in any era are expert with weapons, though often they have passing acquaintance with them. Except for a few occupations like Soldier, additional skill points for Fighting and Firearms normally come out of personal interest skill points.

General Equipment List

The following items represent some of the equipment available for use in New Horizon. Virtually all such equipment is single system design. However, vehicles are multi-system units.

COMMUNICATION

Battle Tactical Communicators – BTC

The BTC is a command communicator issued to senior NCOs and Officers in the military services. It has double the radio and sub-space ranges of comparable PC models of personal communicators, with an additional IC radio and IC sub-space channels to permit 'conference communication between command personnel without being overheard by the troops. Electronic scrambler/ descrambler comes as standard.

BTC Model	BTC/1	BTC/2	BTC/3	BTC/4	BTC/5	BTC/6	BTC/7	BTC/8
Tech Level	6	7	8	8	9	9	10	10
Mass	125g	125g	125g	125g	125g	125g	125g	125g
Radio Channels	10	10	10	20	20	40	20	40
Radio Range*	10km	15km	25km	35km	35km	50km	50km	100km
Sub-Space Channels	-	-	-	-	6	6	10	20
Sub-Space Range**	-	-	-	-	10km	25km	25km	50km

*Ground-to-orbit and space-to-space ranges are x 5 radio range.

**Subspace communication is line-of-sight on the ground; transmission is by tight beam in BTC/6, BTC/7, and BTC/8 models, if desired.

- Belt mounted or sling carried communicator capable of up to 500km range. Enc: 1.5kg.
- Sling carried communicator capable of ranges up to 5000km and contact with ships/comm satellites in low planetary orbit. Includes Global Positioning System. Enc: 2.5kg.

Bug Electronic Surveillance Devices

Com/Bug 'spy' devices are as small and undetectable as advanced technology can make them. Most are voice-triggered. They transmit and/or record when voices are heard within range of the pick-ups. Maximum transmission range is 2 km for Tech/6 models, with +1 km per Tech level over Tech/6. Transmissions may be received by communicators set to the Bug's frequency. The Bug is negligible in size and mass, often no more than several grains and button size or smaller. All Bugs have 24 hours of transmission power. Tech/5 units are telephonic; Tech/6+ can use radio.

Orbital Communications Kit – OCK

This is a dish and communications kit that requires two minutes of set up time to operate fully. It is designed to communicate with orbit craft and even remote command ships from a distance. The OCK has a 50 000 km range and can be setup up with a burst one-way communication of 500 AU. Includes Global Positioning System.

Enc: 5.0kg

Phone/PDA

In the late 23rd century, the functionality of a cellphone and PDA have merged. PDAs come in all shapes and sizes, but essentially do the same job: they provide mobile communications and access to FedNet. FedNet guarantees 98% coverage on Earth and at most Class 1 colonies. Most models now come with Augmented Reality software and SmartSpecs.

Enc: 0.1kg

Surveillance Drone

Used by both spies and the military, this device looks roughly like either an ordinary dragonfly or a large beetle. It is five cm long with a seven cm wingspan. Like a real insect, the flapping wings actually provide both propulsion and steering. Electrically activated glue in the unit's feet allows it to stick to both walls and ceilings.

This drone contains sensors equivalent to a tiny video camera and a directional microphone. It can fly at speeds up to 50 kph and is capable of hovering. In fight or under poor lighting conditions it can easily be mistaken for a real insect. However, in normal light, a stationary drone is obviously mechanical. Also, during operation the unit broadcasts continually, so it can be easily detected by a bug detector.

The drone can controlled by either a specialized controller, similar to a portable video game set, or by a mobile link. The controller also gives the user access to the images and sounds from the unit's camera and microphone. The unit's radio allows it to be operated within three kilometers of the user. When the wings are folded back, it can be safely carried in its padded storage tube, which is seven cm long and two cm in diameter.

Enc: 0.015kg

Tactical ComLink

The Tactical ComLink is usually issued to Recon Marines, and consists of a comm unit, a scrambler and a small transceiver dish. It is a microwave burst communicator able to provide secure, if limited, communication to the Marine team. A complete message is fed into the communicator and transmitted to its target in a single powerful pulse. Return messages are deciphered by the communicator. The unit can be linked to an intelligence unit for transmission of entered and scanned data as well as reception of new data. Because the communicator is limited to line-of-sight transmission, the operator is usually limited to transmitting in certain times at certain places, to ensure a receiver dish is pointed toward him, and he toward it. These times and transmission points are organized with the character before the mission commences and are fed into their intelligence unit. Thus the operator usually communicates to a relay station on the ground or a circling aircraft. However, the communicator is almost impossible to jam, intercept or trace, and although full two-way communication is impossible it allows transmission of vital data to his superiors and the reception of periodic orders.

Enc: 1.0kg

Translator

A hybrid bio-silicon computer worn in the ear, the Translator enables the wearer to hear a simultaneous translation of anything anyone says, no matter which language they are talking in. The Translator comes with more than 100 of the most common languages of the world already loaded, and is reported to be 98% accurate under most conditions.

Enc: Neg.

Visual Intelligence System, Reconnaissance – VISR

The VISR provides tactical data in real time as it is broadcast, and can link into UEAF infrastructure systems at the local, national, and global network levels, administered on a need or rating basis, allowing the user to store and review up to 610MB of content relevant to the current or all mission objectives.

The VISR also provides navigational data, various points of interest in the area, and other important functions. It also includes low-light vision enhancement systems, this raising the brightness of the surrounding area on the user's Heads-Up-Display during night time operations. The VISRs low light vision enhancement also links with the users neural interface to provide Friend or Foe designation by searching for IFF Transponders on friendly or enemy infantry.

Enemy and friendly infantry, weapons and objects are highlighted with different colors. "Friendly" combatants are highlighted in green, "enemy" combatants are highlighted in red, usable weapons, vehicles and health packs are highlighted in blue, other objects, scenery and buildings are highlighted in orange, beacons and data terminals are highlighted in bright yellow.

Options	Description
Navigation	Navigation System (NAV) on the VISR offers Dynamic Mapping Systems. This allows the Character to turn their VISR into a large-scale map (TACMAP), as long as they are connected to a UNSC Data Infrastructure or a Colonial Administration Authority network. TACMAP offers a bird-eye view of all current IFF tracked information overlaid on to it. When using the TACMAP, the Character is considered Blind to anything but the Map.
IFF	Information All available IFF Information is displayed on the VISR overlay.
Communications	Battlenet Communications (COM) is a component that allows the Character and others with IFF-capable devices to share various linked feeds and communicate in open and private channels.
Compass	Displays a compass, which also displays location-based IFF Information.
Overview	An integrated Heads Up Display overview. The Overview displays any manually-entered information about weapon count, grenade count, and magazine and ammo count. It will then automatically track how many are used and how many times the weapon is fired. The Overview also displays the Character's biometrics, any shields the Character may have, and allied information that is sent.
Radar	Displays the Motion Tracker and Radar information.
Highlight	System VISR highlights enemy and allied targets based on their IFF tags, or lack of IFF Tags. Enemies are displayed in red outlines, allies are displayed in green outlines, and neutral targets are displayed in white outlines. The Highlight system also outlines the Character's surroundings in a faint yellow-orange color, allowing for easier identification of objects and locations in the dark. This works up to 50 meters away.
Low-Light Detection	When under Low-Light and Darkness, the VISR acts as a pair of Night Vision Goggles. This lowers Penalties from Darkness by 40%, and lowlight Penalties by 10%. Cannot be used with any other Darkness or lowlight-based visual utilities.
Tethering	VISR can be tethered with other devices, such as Smartlink sights and scopes, Distress Beacons, Ammo Counters, and so on. Devices that are tethered allow VISR to bring show information or take files from the tethered piece of equipment.
Polarizing	VISR can be polarized as a Free Action to activate and deactivate. Polarizing halves all bright light-based Penalties.

ELECTRONICS

Computer, Intelligence – INT-COM

Laptop sized device, which in addition to containing intelligence information pertaining to a unit's current mission, contains data on the ICM, most corporate and colonial armies, including uniforms, weapons, commonly used tactics, vehicles etc.

The unit is armoured against small arms and impact (AP10, HP5) and is fingerprint and voiceprint locked, so only the assigned individual can access the data. It is also equipped with a small thermite bomb which will detonate if the unit is tampered with (a code must be entered before opening the unit up) or when a concealed switch is pressed, destroying the interior of the unit and thus eliminating irretrievably all data within.

Enc: 1.0kg

Computer, Tactical – TAC-COM

PDA sized device, serves as either a wired or wireless terminal for accessing larger LANs, and other such computer systems. Usually issued to ICM com-techs.

Enc: 0.5kg

Crime/Tech Polygraph

The polygraph is the standard 'Lie Detector.' The unit has a 70% + 5% x Psychology expertise level INT of the subject as a chance of detecting whether or not a character is lying. It only tells whether the subject believes what he says, not whether what he is saying is a fact. Telergic Asyncs subtract -10% from the polygraph's chances per expertise level of Telergy attained because of his control over his body reactions.

Enc: 3.0kg

Cybernetic Diagnostic Scanner

Allows the user to scan androids and other cybernetic organisms in order to diagnose any physical or mental issues they may be having. Often distrusted by androids. Can be used as a locating device for synthetic organisms.

Enc: 2.0kg

Data Crystal

Data Crystals are the primary data storage unit in use in the 23rd century. Information is stored by actually altering the physical form of the crystal on a molecular level, using a complex holographic data pattern that bends and distorts light to reproduce images and information in mathematical form. Data Crystals have a data storage capacity of just under a terabyte, with a data transfer rate of 1.5 gigabytes per second.

Enc: 0.1kg

Data Recorder

Handheld device that when connected to a computer's digital disk can burn data onto data-crystal at a rate of 1.2 GB/per second.

Enc: 0.1kg

Digital Camera

Coming in all shapes and sizes, crammed with features, most digital cameras have full DV/still frame functionality.

Enc: 0.1kg

Electronic Tool Set

A highly advanced set of tools meant for hacking basic airlock and electronic door systems. Confers +10% on rolls made to open these doors.

Enc: 0.4kg

Field Recorder

Used to research alien flora and fauna. Can take DNA samples and perform basic genetic and material analysis.

Enc: 1.2kg

Holotab

A high end strategic and analysis platform, a HoloTab—or Holographic Display Table—takes scanned live or recorded information fed to it and generates a three dimensional hologram of the subject. A HoloTab is usually used in conjunction with pre-existing maps or in coordination with PDTs and Spectrograph mapping devices.

Enc: 30.0kg

IFF Transponder

A personal beacon that prevents automated sentry systems from accidentally blowing friendly targets to pieces. Usually surgically implanted before a campaign, the only flaws in the system are when their signal is disrupted and when an enemy gets their hands on a transceiver for infiltration purposes.

Enc: Neg.

Laptops and Compads

By the 23rd century there is very little difference in processing power between the laptop and palmtop computer (now referred to as a compad). The main difference is merely in size, weight, screen resolution, data storage size etc. Average computers confer no benefits.

Expensive computers usually confer a skill bonus of between 5-25% (Game Masters discretion) to users with a Computer Operation skill of 75% or above, and usually cut down the processing time required to perform certain tasks.

Enc: Laptop 1.0kg / Compad 0.3kg

Media Centre

The ultimate development of the multimedia home computer, Media Centres have replaced most other home entertainment devices. A standard Media Centre comes complete with a wall-mounted screen (size varies with model, but usually at least 1m²), glove-controls, and access to most of the basic FedNet online services. More advanced (and consequently more expensive) models have their own AI Avatar and HoloVision projectors, allowing voice activated commands and 3D entertainment.

Enc: Non-portable

Thought Screen

The Thought Screen is an electro-mechanical device which totally blocks all forms of Telepathic eavesdropping and Mental Attacks against the wearer. Available in Tech/7+ cultures. The personal model is a mesh cap which fits the head quite closely. It has a powercell good for 1000 hr. use.

Enc: 0.5kg

ELECTRIC COUNTER MEASURES

Bug Detector – BUGD

A Com/Tech or Crime/Tech can use a Bug Detector to find hidden spy devices. A Bug Detector has a 25% chance of detecting a bugging device if used by a non-Tech. A Com/Tech or Crime/Tech has a 60% chance + 5% x expertise level. Each check will cover an area 5m x 5m, whether floors, ceilings, walls, etc. It must be held within 2m of the bug to register its presence. A check takes 1 minute.

Success percentages assume that an 'active' bugging device is present: if the bug is not operating, detection chances are reduced by -20%. The ECM/BUGD is about the size of a package of cigarettes, with 125 gm mass. It is powered by a power cell and has a duration of 50 checks.

Enc: 0.125kg

Bug Jammer – BUGJ

A Bug Jammer is designed to defeat eavesdropping activities. It can transmit 'white noise' into an electronic 'bug' so that it re-transmits silence. Alternatively, it sends a pre-recorded signal (usually a bogus conversation, sleeping noises, etc.). The Jammer must be placed within 25 cm of the bug to be effective. There is a 20% chance minus 1% x expertise of the Com/Tech or Crime/Tech jammed (checked when Jammer is activated). The Jammer is the size of a small box of matches. It includes a wire recorder and has a mini-cell which powers the unit for 1d6 hours. The unit is available in Tech/6+ cultures.

Enc: Neg.

Battle Radar Detector – BRD

The BRD is a 'passive' radar system which automatically detects any radar transmissions (subject to the same restrictions applying to radar sets), and it is generally undetectable when operating. Available in Tech/5+ cultures.

Enc: 2.0kg

Com Scrambler – COMS

A Com Scrambler is a unit designed to fit all communicators. Each unit has a code setting. Depending upon the model, the code setting may be 1-6, 1-10, or 1-20, representing general scramble code patterns. Only communicators with scramblers set in the same code patterns will translate back into understandable speech. Others receive a signal which mimics natural static. Com/Techs and Crime/Techs will be able to tell the difference 50% of the time plus 5% x expertise level.

Enc: 0.1kg

ECM Model	COMS/1	COMS/2	COMS/3
Mass	10g	10g	10g
Tech Level	6	7-8	9-10
Code Setting	1-6	1-10	1-20

Communications Decoder – COMD

A Com/Tech or Crime/Tech can use a Decoder to unscramble coded communicator signals. A Tech receives one setting for each two Tech expertise levels he has — L/1-2 = 1 setting, L/3-4 = 2 settings, L/5-6 = 3 settings, etc. The Tech's player writes down the setting chosen, then the appropriate dice are rolled (1d6 for 1-6, 1d10 for 1-10, 1d20 for 1-20 codes), and if the result is the same as any of the settings chosen, the Tech has managed to unscramble the code setting. The Tech has a 10% chance x expertise to unscramble the message in 1d10 minutes once the code setting is determined.

Basic decoding requires 1d10 minutes (1 listening watch), after which a decoding roll is made. Message decoding requires a further 1d10 minutes one the basic signal code has been determined. The message can be learned sooner or later. Thus, PCs and NPCs alike probably use code words and phrases to protect their communications from prying eavesdroppers.

Enc: 0.1kg

Sensorscan Defence System

The SensorScan Defence System contains an ECM/SSD2 connected to a minicomp and can not only block a sensor bean but also detects its source Detection range is line-of-sight, and the minicomp can compute very long-range scan distances by analysing beam frequency and strength. The screen has a coverage of 10 meters. Duration is 300 hours on power cell.

Enc: 0.5kg

Larger units are also available which can cover offices, buildings, even large spacecraft and ground installations. These vary in cost and are powered by heavy generators, power piles, etc. Such units are often run continuously.

Sensorscan Detector

The SensorScan Detector detects a sensor beam directed into its vicinity. There are two basic types:

- ECM/SSDI Detectors are the size of a package of cigarettes and may be operated by all personnel. The powercell has a 300 hour duration. The SSDI beeps softly when a sensor beam is picked up, with a flat 60% chance that detection will occur for each minute the scan endures. This device can be obtained in any Tech/7+ culture.

    Enc: 0.125kg

- ECM/SSD2 Detectors are sophisticated units about the size of a portable tape recorder. They must be operated by a Crime/Tech or Com/Tech. The Tech has a 70% chance + 5% x expertise of detecting a sensorscan. If a sensor beam is detected, the Tech has a 40% chance plus 5% x expertise of detecting the direction and approximate range of the sensor unit if it is within 2500 meters (only direction if beyond 2500 meters). The unit has a power cell with a 300 hour duration. The device can be obtained in any Tech/7+ culture.

    Enc: 0.1kg

Sound Suppression System – SSS

The Sound Suppression system is a 'white noise' generator which produces a field around the unit which blanks Out the voices and other sounds produced within the 3m 'bubble' of silence that extends outward in all directions. The unit renders most listening devices ineffective if they are outside the suppression field, It also has a 90% chance of stopping the effects of any sonic disrupter fired at a range greater than 25m. Duration is 100 hours on 2 power cell, at continuous use.

Enc: 0.5kg

BATTLEFIELD EQUIPMENT

Anti-Laser Aerosol – ALA

This aerosol is a pressurized cylinder filled with a prismatic dust specifically designed to disperse incoming laser beams (outgoing laser fire is equally dispersed). Laser beams passing through the cloud are dispersed, their attacks reduced to 25% of normal. Each cylinder holds one application.

The aerosol, either in a hand-thrown form or as the payload of a small missile, normally is used for personal defense. A dialed setting allows the aerosol to emit from 2-10 impulses after launch; a default setting emits aerosol 2 impulses after release. Upon release, the cylinder pours out a cloud of crystalline particles for 10+1D6 impulse; the user's player rolls 1D6 at the end of 10 impulses to determine how much longer it lasts. In that time the cloud has filled an area large enough to protect 90 degrees of arc around the user. After the suspension time expires, the prismatic flakes fall to earth (in a normal gravity) and leave a sparkling coating of dust. (In zero-gee, the cloud disperses in the direction of the arc of protection, and is unusable as a defense after 5+1D3 impulses.)

The crystals disperse light into peculiar prismatic displays; with laser light and sunight glancing from it, users of the aerosol will be unable to see without polarized goggles or other protective eye gear. The prismatic flakes are actually an

organic, biodegradable molecule, which makes the throat dry if breathed, and possibly causes (luck roll) the breather to sneeze.

Enc: 0.15kg

Bioscanner

Allows the Trooper to scan the immediate area for signs of life. Generally can scan for 100m in all directions, without being blocked by most known metals. Can tell the location of signs of life, but not what that life is.

Enc: 1.0kg

Battlefield Radar – BFR

A vehicle-mounted radar unit designed to scan at ground level for moving targets at ranges up to ten thousand meters. Ground-scan radar cannot detect motionless targets, and the scan is blocked by buildings, hills, patches of woods, etc. Search and detection is limited to line-of-sight. Sandstorms will seriously impair their efficiency, however. Some units have 6-hour PowerCells, but vehicle-mounted units typically use vehicle power. Groundscan battlefield radar is available in late Tech/6 cultures and higher. Range = 10 000 meters in line-of-sight.

Enc: 50.0 – 75.0kg

Chameleoflage

The latest in personal stealth technologies designed to foil detection devices and allow the wearer to slip unknown in and out of restricted areas. Between a transparent surface layer and the armour itself there are two layers of pigments, contained in nanocells called chromatophores. These cells can expand or contract, altering the spectral composition of the light reflected by the armour, allowing it to apparently change colour. Chameleoflage usually has a default number of camouflage patterns programmed into the chromatophores, which can be controlled at will by the wearer. Swapping camouflage pattern takes the armour 3 seconds (3SR). In game terms, Chameleoflage gives the wearer +25% to all Stealth based skills.

Enc: 8.0kg

Live Wire

Another legacy of the Colonial Wars, when the development of weapons technology ran unchecked, Live Wire is a mnemonic polyalloy that when deployed expands to fill openings and contracts around any object caught in its grasp. Live Wire is razor sharp.

STR: 14   Move: 2

SIZ: 20   HP: 20

DEX: 18   Dex SR: 1

HF: 0/1 if PCs see Live Wire move.

ATTACKS:	SR	A%	DAM
Crush*	5	50	3d6

*A successful Crush attack means the Live Wire has wrapped itself around a random body part, usually an extremity.

Special Abilities: Live Wire regenerates HP at a rate of 1d3/MR.

Motion Tracker

The ICM Motion Tracker uses sonar bursts with Doppler-shift discrimination to scan and locate movement. Its use is covered by the Electronic Security skill. The device is activated by a trigger mounted in the handgrip; thus, when not in active use the Tracker cannot be left on, conserving battery power and decreasing the possibility that the tracker itself will be detected. The location of detected movement is displayed on a small LCD screen mounted on the side of the device as a set of probability contours ranging from black to white; black indicating no movement and white indicating a high probability of the location of the movement. An auditory cue is also provided in the form of a reverberating tone that changes in pitch and reverb. speed based on the size and proximity, allowing Marines to concentrate on their environments whilst keeping their trackers active. In ideal conditions (ie. Open terrain with no wind) the tracker can scan accurately up to a kilometer, however in buildings (such as the average colony building with metal and synthesized walls

which to a great extent absorb the sonar bursts and returns) the effective range drops to between twenty and thirty meters.

The device does have problems, however. First, because the tracker emits high-frequency sonar bursts it can be easily detected by passive listening stations as a target for enemy fire or by cyberaudio with Increased Hearing Range. Second, the tracker is also designed to filter out slight "natural" movement (such as insects or corn waving in wind), so a very slow target may be able to infiltrate a tracker's scan area. Third, because the tracker uses Doppler shift to discriminate between immobile objects and targets, a target moving across the tracker's scanning cone may be effectively invisible. Finally the unit is vulnerable to ultrasound jamming and "jumping-jack" movement decoys (A small metal sphere or cylinder with rubberized or spring-loaded surfaces). Despite these failings the motion tracker has seen use with the Corps as a man-portable scanning device for many years, and although not as good as vehicle or emplacement-mounted systems, it has come to be a standard component of a Marine team as a supplement to other search and location techniques. At least one member of each rifle or gun team in a Marine section is equipped with a tracker.

Enc: 1.0kg

Scopesight

An optical sighting device usable in daylight illumination which can improve hit probabilities. Available in Tech/5+ cultures.

Enc: 0.4kg

Seismic Vehicle Detector – SVD

A sensing unit which detects wheeled and tracked vehicles and infantry by ground vibrations. It cannot detect stationary targets. However, it can 'see' through-some kinds of obstacles in that it registers vibrations travelling through the ground. Tracked vehicles can be detected up to 10 000 meters, wheeled vehicles can be detected at 5000-6000 meters, and infantry and hover-craft can be detected at 1000 meters, provided the ground is firm. Ranges are reduced on sand. Movement across swampy or soft ground significantly reduces SVD ranges. Precision pinpointing is not possible, but a general bearing can be obtained, with a range +10% for -10%. The SVD also detects movements up to 200 meters underground if the probe is made through solid rock. The SVD is used by driving a 2000 mm metal probe into the ground to take readings. SVDs are available from Tech/7 Onward. Powercell = 24 hr.

Enc: 10.0kg

Sensor Scanner (Battle) – SSB

A high technology detection and scanning system which can be vehicle or aircraft mounted. The SSB penetrates solid Objects up to several meters thick, but BattleScreens, durasteel, plasteel, and collapsium armour are impenetrable, as are lead and irridium. A Sensorscan will reveal the visible features of any target, including those 'under the skin' if the target is unshielded. The system must be employed with a BattleComputer. Tech level = Tech/7+. Range = horizon, in general line-of-sight.

The SSB has the ranging capacities of radar, plus the capacity to give a visual picture and various technical data-- including temperature, mass, general composition, etc.

Enc: 50.0kg

Silencer (Suppressor)

A device which damps the sound of a firearm (cartridge-firing pistol, rifle or SMG). The noise is eliminated, but at a 5% penalty 'to hit' the target. In doing so, it slows each bullet's velocity and halves the weapon's range. Available in Tech/5+ cultures.

Enc: 0.25kg

Sneaksuit

A suit of electronically simulated chameleon camouflage effects which enables the wearer to take on a semblance of the exact colouring and pattern of whatever terrain or surface he is up against. He has a -25% chance of being spotted and a -20% penalty against visually sighted weapons firing on him whenever the camouflage effect is operating. Available in Tech/7+ cultures. Powercell = 12 hr.

Enc: 1.5kg

Spider Mine

A carbon copy of the Stahl Arms Industries M244 Anti Personnel Mine used by the UEAF, the ERC12 Spider Mine was produced and deployed in great numbers during the Colonial Wars, so much so that UEAF bomb disposal teams are still clearing minefields on some colony world thirteen years after hostilities ceased.

Using broad-spectrum scanner suite, a Spider Mine is designed to find cover and lie inert on a battlefield until it detects heat and movement. If no ID Friend Or Foe signal is detected with the correct signature, the Spider Mine leaps into action. It is programmed to attach itself to the source of the heat and movement, and then detonate its high explosive warhead.

A Spider Mine's onboard AI software allows it some ability to dodge attacks, and wait for the opportune moment to attack. Once it attaches itself to a target with its eight prehensile tungsten-polyalloy appendages, a Spider Mine is extremely difficult to remove. Especially as within 1d3MR of attaching itself the mine detonates.

Primary power supply is provided by a small but powerful self-charging power cell. Spider Mines can lie dormant for decades and still be active.

STR	08	Move	4
SIZ	02	HP	12
DEX	18	Dex SR	1
STU	10		

HF: 0/1 due to panic caused by these man-made terrors.

ATTACKS:	SR	A%	DAM
Grapple*	5	70	4d6

*A successful Grapple attack means the Spider Mine must make a DEX vs. DEX check to get all its limbs wrapped around a target. To remove a Spider Mine requires a successful STR vs. STR check.

Enc: 10.0kg

Targetscope

An advanced version of the ART system, the TargetScope is a rangefinder/target designator that can be attached to any small arm carbine or rifle to provide a +5% bonus in addition to basic scopesight bonuses given in the hit tables. The unit is usable in daylight illumination. However, an additional expenditure fits the system for use at night in conjunction with IR Visors and Projectors or NightVisors. Available in Tech/7+ cultures. Powercell = 100 hrs.

Enc: 0.45kg

Watchdog

A specialized local security unit which can be programmed to detect any approaching mechanical or biological presences up to 100 meters distant. The Watchdog will set off a loud, audible alarm or a silent visual alarm the moment that the intruder breaks the preset barrier field. Watchdog units are available in Tech/8 cultures. Powercell = 96 hours. Range = 10-100m.

Enc: 1.0kg

MEDICAL EQUIPMENT

Advanced Medical Kit

Issued to Paramedics and Doctors on missions away from hospital facilities, the AMK includes emergency field surgery kit; whole blood units; a small supply of medical drugs (including 5x does of Combat drug, 10x doses of Medical Fast Drug, 5x doses of Slow Drug, 20x Stimpacks, 5x doses of Super Adrenaline, 10x doses of AntiRadiation drug, 5x doses of Anti-Venom, antibiotics); biofoam, tissue knitter (can repair severed/maimed limb at a rate of 1HP/hour); diagnostic medical compad etc.

Enc: 8.0kg

Autodoc

Not everyone can afford a MedPod, but almost every ship, station, and colony has at least one AutoDoc. Comprehensive diagnostic capability is typically provided by a Medi-Computer, with each bed thoroughly equipped with a variety of monitoring and life-support systems. A good supply of standard drugs are available, excellent surgical facilities, and very effective intensive care units. It is not capable of complicated surgery, but it can reset broken bones. There will always be a few quick-freeze units aboard a ship to preserve patients in critical condition who would not otherwise survive until still more effective medical aid is available. The AutoDoc can be programmed with a Medecine skill roll and has a First aid/3 expertise level.

Enc: Non-portable

Biofoam

Self-sealing Biofoam is a marvel of 23rd century medical accomplishment. Biofoam is a healing, coagulant foam that is inserted into the skin and even deeper into the body itself. This foam keeps damaged organs in place and helps stop bleeding and haemorrhaging. It is, unfortunately, very painful to use. It is an improvised medical option when there are no medics available. In game terms Biofoam allows a medic to stabilise patients who have taken more than their total hit points to a hit location, allowing temporary use of the limb until proper medical attention can be sought. The resulting pain reduces all skills by half.

Emergency Defibrillator

Also known as a "crash kit," the emergency defibrillator delivers a powerful electric charge that attempts to shock the heart and/or brain back to life. A crash kit draws power from a Class 3 D-cell, which burns out all its power in a single blast. It goes without saying that nobody else will want to be in contact with the subject when this device is activated.

A crash kit can literally bring a dead Character back to life, but it must be used within no more than a minute or two after he expires, or brain damage will be too severe. A Medicine skill roll is required to use the device properly. The actual Degree of Difficulty can be higher depending on the type and severity of wounds the Character has suffered. If the Medicine Test fails, another charge can be attempted (after a new D-Cell is installed), but each such Test after the first takes a cumulative -20% Penalty. This may also cause more damage or more severe injuries, at the GM's discretion. On a critical failure, the victim is permanently dead. If the Medicine roll is a critical success, the victim drops regains consciousness immediately.

Enc: 3.0kg

Limb Reattachment Salve – LRS

This potent paste-like material is capable of doing just what its name implies – reattaching a severed limb. The effect takes time and the limb doesn't necessarily function at one hundred percent, but at least it's not flopping around on the floor someplace.

The LRS can repair severed/maimed limbs at a rate of 1HP/hour provided it is caught no later than 10MR after damage was inflicted. It contains enough power and raw materials to heal up to 20HP before needing recharging. Operating a LRS requires either the Medical Surgery skill or a First Aid skill of 50% or higher.

Limb reattachment salve is more than just a bunch of chemicals – it contains specially programmed nanites that go to work the moment the material is applied to damaged tissue. The nanites quickly move to locate severed nerve endings, blood vessels, bone shards and the like, identifying the point of any breaks and stopping the body's loss of fluids. Then, when the missing limb is pressed against the stump, the nanites swiftly locate the proper junction points and go to work reattaching the severed flesh. The entire process takes anywhere from 15 minutes to an hour depending on the severity

of the damage and the amount of skin and sinew involved. Note, however, that the severed limb must be relatively intact – a severely burned or smashed limb is probably better off left where it is and a new one grown later through cloning.

Once reattached, the limb is functional, but only at about half its normal capabilities. For a severed arm or leg, the Character takes a -15% Test Penalty to Physical skills that use the limb in question. In the case of missing fingers or toes, he takes a -10% Test Penalty to Agility Rolls where that hand or foot is needed. If an ear, nose or eye was lost (assuming, of course, that these were sufficiently intact to be reattached), the character takes a -10% Test Penalty to Perception Tests involving the associated senses. These penalties are removed once the character's injuries have healed to at least Flesh Wounds.

Enc: 4.5kg

Medichine

The last eighty years have seen incredible advancements in medical science. Human genetic structures are completely mapped. Nerve damage from spinal chord injury can now be successfully repaired. Nanotechnology allows for a new form of "bladeless" non-invasive surgery that has revolutionized many operations. Nanites are used to hunt down and eradicate cancer cells, eliminating a disease that has haunted mankind throughout history. Damaged organ tissue can be repaired similarly and nerve endings can be spliced for organ or limb transplant. Genetic sequencing and cloning expertise are combined with nanotech to produce transplant parts – a patient can actually receive a new limb based on his own genetic code.

Enc: Neg.

Medkit

This contains 1 dose of sedative painkiller; 1 dose of antibiotics; field dressings etc. When used in conjunction with First Aid, it can heal 1d3 HP (location and total).

Enc: 0.5kg

Personal MediSensor – PMS

A small, flat, strap-on wrist unit about the size of a large wristwatch, the PMS contains a miniaturised Medi-computer that constantly monitors the physical condition of the wearer. The display presents the medical information on a holographic readout screen on the face of the unit. Most of the data is capable of interpretation only by trained medical personnel. If the sensor detects any damage or disease present in the wearer, it will register a warning signal. The unit also contains a charge of TKM

Thanokalamine which will automatically inject into the wearer if clinical death occurs. A PC can take a 2-week course in the use of the Medi-sensor, and can read off the data so that he is able to administer the correct antidote for poisons detected in the wearer or know when to administer ARD anti-rad drugs, etc. The unit is, in effect, a diagnostic system of a limited type. Tech/8+.

Enc: Neg.

MedPod – Sick Bay

Although still cost prohibitive, MedPods Sick Bays are available with the large medical units. The MedPod is an autonomous medical scanner and surgical unit capable of performing bypass surgery. The MedPod can diagnose and treat infections through concentrated antibiotic injections. It can perform basic wound repair and pre-programmed surgical procedures such as an appendectomy, laparoscopic ablation and cesarean section. All models feature an airtight operating shield, comfortable limb restraints, a laser scalpel, computer controlled robotic surgical arms, liquid spray anesthetic and vital signs sensors, all mounted on an adjustable titanium base. The MedPod can be programmed with a Medecine skill roll and has a First aid/5 expertise level.

Enc: Non-portable

Synthetic Transfusion Kit – STK

Synthetic transfusion kits, or STKs, use packets of synthetic blood to replace that lost by those who have been critically injured. Once the victim has been bioscanned, the medkit induces chemical changes in a bloodpack's contents to ensure the fluids are compatible with the victim. These chemicals require one turn to take effect. Immediately thereafter, the bloodpack can be injected into the victim, a process that takes two more turns. At the conclusion of this time, the victim recovers 1d6 HP, representing the effects of lost blood being restored to the body. A victim must be alive and stable

during the transfusion process. If he takes any more damage during the transfusion, its benefits are lost. Note that the subject must have recently experienced wounds that would cause blood loss in order to be aided by a transfusion – someone who took a blow to the head from a hammer, for example, isn't going to get anything out of the procedure.

After a transfusion, the victim must rest for at least 20 – CON hours.

Enc: 1.0 kg + 0.5 kg / blood unit

MEDICAL DRUGS

Drugs aren't limited to simple medical uses, of course. Since the earliest days of human history, medicinal substances have been used – or abused – to improve or alter the body and mind. From common drugs like alcohol to the most exotic hallucinogen or psychiatric metahormone, the uses for such chemicals are nearly endless. Some are legal, others illegal, and a few so dangerous only the truly desperate or insane would risk their side effects.

This section lists a number of medical drugs available, each with any or all of these possible attributes.

Anagathics

Anagathics are extremely expensive specialized drugs designed to eliminate free radicals and oxidants in the body, thereby lessening and even ending the aging process. It is, however, incapable of reversing it. Taking the drug on a regular basis could prolong an individual's life span for long periods of time, potentially even centuries. Of course, this comes at an extremely high price – the cost per dose is so restrictively high that only the very wealthy can afford this potent medicine. Furthermore, the drug is so physically and psychologically addictive that nearly everyone who takes it becomes hooked immediately.

When a user takes a dose of Anagathics, his body is cleansed of any substance that causes aging, including free radicals, oxidants, and similar things. Damage and disease aren't cured directly, but normal healing rates are doubled, and chronic ailments such as cancer or heart disease don't progress any further while the drug is in effect. The user's CON is also treated as two points higher during the drug's duration.

There are many conspiracy theorists who believe that this drug, is really just a secret means to dominate certain important and influential members of society, controlling their decisions and actions on pain of withholding further doses of the drug. Although there has been no evidence to support this, it's still a lasting concern, and the UEF prohibits the drug's use by anyone in its service.

Withdrawal is severe, lasting one month between the Tests required to break the addiction. During withdrawal, the Character ages at twice the normal rate, any diseases or poisons in his system progress at twice normal speed, and he takes double damage whenever he suffers any injury.

Form	ingested
Duration	1 year
Safety Window	none
Potency	28
Tolerance	12
Side Effect	CON/8, minor, but might also include dizziness, nausea and, in extreme cases, fatigue.

Antibac

This biomed protects against diseases caused by bacterial infections and bacteriological toxins, even if they have been administered as a biotoxin (e.g., as a bioweapon). If administered after initial exposure but before the pathogen's Speed period has elapsed, antibac renders the character immune to that particular infection. If administered after Speed has elapsed, antibac halves the Power of the bacterial pathogen (round down) for the purpose of the Disease Resistance Test.

Form	injected
Duration	48 hours
Safety Window	24 hours
Potency	6
Tolerance	2
Side Effect	CON/12, nausea

Anti-Radiation Drug – ARD

The anti-radiation drug counteracts the effects of radiation sickness and allows all rolls vs. STR/CON loss to start 1 multiplier higher.

Example, a CON x4% roll become a CON x5% roll.

Form	Ingested or skin patch
Duration	12 hours
Safety Window	12 hours
Potency	none
Tolerance	none
Side Effect	CON/6, minor

Anti-Venom

Counteracts the effects of poisons and toxins in the bloodstream. Each dose heals 2d6 HP worth of damage caused by poisoning.

Form	injected
Duration	1 hour
Safety Window	none
Potency	none
Tolerance	none
Side Effect	CON/8, minor

Brainstorm

Brainstorm was originally developed to help recently manifested para-psychics learn to control their powers, but its formula was copied and sold to the black market. Underground versions of the drug are unsafe, but provide para-psychics with a temporary boost to their powers. Brainstorm is particularly favored by underground Asyncs who are hiding from the government. The drug synchronizes brainwaves, which is especially useful if the individual is forced to escape or elude pursuit.

Form	Ingested (Liquid, Pill, or Powder)
Duration	1 hour
Safety Window	4 hours
Potency	12
Tolerance	5
Side Effect	INT/16, dizziness

Combat Drug

Used by the military usually prior to combat, that temporarily boost a person's mental and physical abilities, giving them a variety of advantages for short periods. Once a lifter takes effect, the user feels faster, more aggressive, and uninhibited. The Character's personality may change as a result – a normally timid or shy individual might become suddenly outgoing and gregarious, for example. Emotions tend to be over-exaggerated while under the effect of Combat drugs, so a smoldering anger might well boil over into frenzied aggression.

The effect takes place 2MR after being taken and increases both STR and CON by a factor of 2.

Form	injected
Duration	10 minutes + 1-10 minutes

Safety Window	2 hours
Potency	16
Tolerance	10
Side Effect	CON/18, Fatigue + 1d3 damage.

Emotion Inhibitor

Emotion Inhibitor suppresses Fear Effects, effectively doubles the BRA while it lasts, and leaving the Character free to act normally. However, the individual also loses the ability to feel or display emotions, or even react to pain, giving him a unmoving blank stare that most people find unnerving. While the drug is in effect, it is impossible for the Character to go insane, unless their SAN is reduced to zero. However, the Character deducts the full SAN loss from his total.

Emotion Inhibitors are too dangerous to be used repeatedly. Attempting to apply another dose during the Safety Window automatically causes side effects and costs one Sanity Point – though its effects won't be felt until after the drug wears off.

Form	ingested
Duration	30+3D10 minutes
Safety Window	4 hours
Potency	16
Tolerance	6
Side Effect	POW/12, severe migraines (double the normal effects), extended loss of empathy, temporary disorders, and schizophrenia.

Fast Drug

Used by the military usually prior to combat, that temporarily boost a person's metabolism. The drug takes 3MR to take effect and effectively doubles the users DEX while it lasts.

Form	Liquid Inhalant
Duration	CONx2 MR
Safety Window	1 month
Potency	12
Tolerance	4
Side Effect	CON/18, Jitters/Shakes + 1d3 damage.

Focus Drug

The user is granted greater alertness, awareness and recall to have better recall for details in past events making it suitable for depositions or debriefings. Another version of the drug provides full historical information on a subject to be known instantly. It also provides improved awareness, makes it possible to detect even small changes in facial expression or body language. For this reason, the BRINT uses this version of the drug during interrogations.

The usage of focus drugs is easy to spot, as the pupils of the person using it tends to dilate, opening widely.

Form	Oral
Duration	1 hour
Safety Window	24 hours
Potency	8
Tolerance	4
Side Effect	CON/12, minor

Neural stimulant

Neural stimulants were developed decades ago in an attempt to provide soldiers on long, tedious patrols a means to remain in a constant state of readiness. A neural stimulant is taken either as a time-release capsule or on a patch fastened somewhere on the skin. In either case, the drug is administered slowly, over the course of its normal duration, keeping the subject awake and alert.

While under the effects of neural stimulants, a Character ignores fatigue and sleepiness caused from lack of rest, and receives a +20% Test Bonus to all Perception skills.

Form	Oral, Skin Patch
Duration	12 hours
Safety Window	24 hours
Potency	16
Tolerance	2
Side Effect	CON/16, drowsiness

Painkiller Drug

A series of drugs which prevent shock and permit a character who has suffered up to 75% damage from wounds to function as normal in non-strenuous activities. While they don't provide any actual healing – the Character's actual HP are not increased in any way – instant pain killers may give the user a second chance at survival.

PKs are usually sold in boxes of 10, 20 or 50 small globules, which can be crushed between the fingers in front of a victim's face. The subject breathes in the resulting vapors and within moments feels a surge of vitality, allowing him a few precious minutes to tend his wounds – or find someone else who can.

Form	Inhaled, Oral
Duration	4 hours
Safety Window	2 hours
Potency	12
Tolerance	3
Side Effect	CON/8, minor

Quicktime Regen Drug

Quicktime regenerative drugs greatly speed healing. The drug affects the DNA complex of the patient's cells and speeds up natural healing rates and body defences against infection by a factor of 3. Only one dose is required per 3 recovery days or part thereof.

Form	Ingested or patch skin
Duration	3 days
Safety Window	1 week
Potency	8
Tolerance	5
Side Effect	CON/10, Lethargy

Slow Drug

This drug slows down a user's metabolism by a ratio of 10:1, during which time physical aging is also slowed. Interstellar travel using cryosleep technology utilises this drug's effects.

Form	ingested
Duration	1 year
Safety Window	1 month
Potency	none
Tolerance	none
Side Effect	POW/3, Fear/Hallucinations

Stimulants

Drugs which can revive unconscious patients (caused by shock, stun beams, etc.) in 1d6 minutes after application, Stimulants are effective upon the victim's passing a Stamina roll. Each additional dose administered within an hourly period carries a 10% chance (cumulative) of producing a coronary arrest (25% fatality rate if not attended by a Physician).

Form	Injected or ingested
Duration	instantaneous
Safety Window	1 hour
Potency	none
Tolerance	none
Side Effect	CON/4, coronary arrest

Super Adrenaline

Gives a temporary boost to the PCs health (+1d6 total HP and +3 CON), but prolonged use can result in severe side effects such as hallucinations, seizures, psychosis, and stroke. Some unscrupulous companies quietly supply their workers with similar illegal stimulants in an effort to increase productivity.

Form	ingested
Duration	CON minutes
Safety Window	12 hours
Potency	13
Tolerance	6

Side Effect   CON/14, Hallucinations/Psychosis

Thanokalamine – TKM

The drug Thanokalamine or TKM will arrest decay of all body tissue, including the brain and nervous system, for a period of 24 hours plus the Constitution score of the victim after death. The drug TKM can be administered within 5 minutes of 'clinical death and arrests all cellular, so long as a critical hit to the head, resulting in irreparable brain damage, has not occurred, Repeated injections every 24 hours can continue the stasis effect until the victim is brought to a facility with Revival capability.

Form	injected
Duration	24 hours + CON score hours
Safety Window	24 hours
Potency	none
Tolerance	none
Side Effect	CON/18, Headaches/Migraines

Truth Drug

This drug, when used in conjunction with the Interrogation skill, compels individuals to answer questions truthfully.

Resistance is based on POT/20 drug vs. CON. If the roll failed, a total of 1d6 questions may be asked, and the Crime/Tech or Psychologist asking the questions has a chance equal to his Interrogation skill of phrasing the question that the subject answers truthfully.

A Telergic Asyncs reduces the truth drug potency of 1 point for each expertise level of Telergy he possesses.

The player operating a PC will see the dice roll made by the Game Master, but a PC acting as an examiner will not know the result. This introduces uncertainty because a PC cannot be sure that the answer is truthful. On the other hand, a PC subject can know precisely when he can get away with a lie.

Form	injected
Duration	10 MR
Safety Window	1 month
Potency	3
Tolerance	1
Side Effect	CON/26, unconscious for 20-CON hours + 1d3 damage.

Zeta-Interferon

This is a powerful anti-viral agent that supercharges the character's immune system to fight disease. Zeta-interferon uses the same game mechanics as for antibac, though it only counters viral pathogens.

Form	injected
Duration	24 hours
Safety Window	10 hours
Potency	none
Tolerance	none
Side Effect	CON/4, Nausea

PROTECTIVE CLOTHING

There are various types of these kinds of suits. Most common are:

Arid Weather Suit

Bodysuit designed to protect the wearer against water loss in an arid environment. Evaporation of perspiration cools the wearer, while lost body liquid is condensed and purified by a series of traps and chemical filters. This water is then stored in catchpockets within the suit, for use by the wearer. The suit has a hood, goggles and breathing mask (to catch exhaled moisture). The chemical filters must be changed 1/month at a cost of E$50.

Enc: 5kg

Artificial Gill

A powercell operated unit which extracts oxygen from surrounding water. It has an endurance of 48 hours on a power-cell. The Gill is usable Only on planets with a sufficient oxygen atmosphere to permit the waters to contain a reasonable oxygen content.

Enc: 2.5kg

Cold Weather Suit

Bodysuit designed to protect the wearer against extreme cold. The suit contains a network of heating filaments, powered by an internal power supply. Temperature controls enable the suit to negate the effects of windchill. The heated layer is covered by a jumpsuit, which has lots of pouches and pockets for equipment. A typical power cell keeps the suit running for 72 hours.

Enc: 2.5kg

Combat Dress Utilities – CDUs

Standard issue in the ICM, CDUs are two-piece, lightweight polycotton coveralls with pockets secured by silent fasteners. The disruptive pattern of the fabric is printed in at least three colours, and the different hightemperature dyes used can absorb infrared radiation at varying frequencies, breaking up the wearer's IR signature.

Compression Suit

Used for low pressure operations, the compression suit consists of an inner thermal regulation garment and two layers of elastic fabric with an airtight covering. There is no decompression period before using the compression suit. The suits take longer to put on than vacc suits, however, and provide no protection against high pressures. Usually worn in combination with Combat Armour.

Enc: 4kg

Filter/Respirator

Facemask that filters out harmful contaminants such as gases and nerve toxins. An oxygen-delivering mask covers the nose and mouth (some versions will cover the entire face). The unit is for use in atmospheres where protective Suits aren't needed, but the oxygen levels are too low to sustain life or to permit strenuous activity. It provides 6 hours of oxygen on chemical purifiers (re-breather type), and the chemicals may be reused if they are heated to burn Out the 'impurities.' Powered filter masks have a 168-hour (7 days) endurance before the powercell must be recharged/replaced.

Enc: Neg.

Hazardous Environment Suit

Bulky suit that protects against corrosive atmospheres and atmospheric Constituents, poison gases (including nerve gases), etc. The suit is sealed, air-conditioned and has its own air supply (but not water).

Enc: 7.0kg

Infiltration Suit

Also known as a Cloaker or Ghost Suit, there are at least a dozen different makes of Infiltration Suit currently on the market, but they all have a very similar design spec: a lightweight armour system providing maximum stealth at the expense of only limited protection.

The Mikoyan IX Ghost Suit comes with the following accessories:

■ Environmental Protection

The inner layer serves as a compression suit and thermal regulator, allowing limited exposure to extreme environmental conditions. The environmental systems can sustain the wearer for 18 hours in optimal conditions. The outer layer has a carbon-composite coating which protects for 2AP.

■ Software

A built-in Delta Level AI monitors suit systems and interacts with the wearer via a tactical heads-up display.

■ Communications

The onboard comms system features full digital clarity as well as burst compression and scrambling and private channel selection. 250 channels are available on the standard model. Range is 50km.

■ Vision Enhancement

Polarized visor has full spectrum vision enhancement including infrared, electromagnetic and light-intensification modes.

■ Stealth

The Active Heat Signature Cloak has a suite of sensors which adjust heat signature of suit to current ambient background. This coupled with a Chameleoflage surface coating and active acoustic dampening field adds +25% to Hide/Sneak checks.

■ GheckoFlex

Nanopore coating on hands and feet add +25% to all Climb checks.

Enc: 1.0kg

SPACE SUIT

There are three standard designs of space suit available in the 23rd Century:

Space & Vacuum Suit – SVS

The standard vacuum suit is an environmental suit designed to protect the individual from vacuum, heat, cold, and radiation. Each suit is equipped with an environmental backpack which contains the suit's oxygen supply, its power pack, and the environmental control system. A SVS can sustain its wearer for 24 hours, less if the wearer is engaged in stressful activities or if the environmental conditions severely tax the suit. A typical SVS offers 4AP of protection.

Standard Accessories: polarized visor, comlink (500 km range), lights, CO_2 gun, 200 meters of high strength cable (with a grappling hook one end and a strong magnet on the other), and a patch kit.

Enc: 10kg/5kg if worn

Vacuum Work Suit – VWS

Typically used by those who spend prolonged periods working in the vacuum of space, the Vacuum Work Suit is very much like a SVS, except the suit is of heavier construction and can support its wearer for 36 hours. A typical VWS offers 6AP of protection.

Standard Accessories: in addition to the equipment of a standard SVS, a VWS has a toolkit (with various tools that are specific to the operator's mission) power pack for tools that require power, on board computers, thruster pack.

Enc: 20kg/10kg if worn

Heavy Vacuum Work Suit – HVWS

A HVWS is very much like the SVS and VWS suits, except it is practically a suit of armor. A HVWS can support its wearer for 48 hours and is equipped with a food supply of concentrates (not tasty, but very nutritional).A HVWS is self sealing and offers 10AP of protection.

Standard Accessories: in addition to the equipment of a standard SVS and VWS, HVWSs are equipped with an extensive tool kit and have a high output power supply for running power tools and other equipment. Some models are equipped with onboard computers for handling various tasks.

Enc: 40kg/20kg if worn

Thruster Pack

Back mounted jet thruster pack, with rear/downwards facing burners, and an array of three lower manuvering jets. Attached to the operator's space suit, it enables him to manoeuvre at speeds up to 150 km/hour. Using a thruster pack requires the EVA skill.

Enc: 10.0kg

PROTECTIVE SHELTERS

Cold Weather Tent – CWT

A basic lightweight tent for 2 persons which is insulated against the cold. It can be heated most satisfactorily with a CWH Cold Weather Heater.

Enc: 5kg

Contra Gravity Harness – CGH

The CG Harness is a heavy-duty version of the Jump Belt, capable of lifting 500kg total mass. The unit is also called a Flying Belt, for it is fully powered by a small TurboGray or reaction (rocket) pack. Since the drive provides the motive power, use of Flying Belts is not fatiguing. However, under power, the user must either stay in the air and make himself a good target, or he must attempt to fly 'nap of earth' like an aircraft. Nap of earth flying requires extreme concentration and can cause a crash. The units may be employed to make short jumps, as described for Jump Belts. All Jump Belt rules and restrictions apply, except that the Abbot null-grav unit is no longer affected by inter-penetrations and proximity problems because it is effectively damped like a GraySled unit.

CGH Model	Max. Speed (km/h)	Consumption* (Charges)	Cruising Speed (km/h)	Consumption* (Charges)	Enc.
'AAA'	215	3	70	1	35kg
'AA'	190	3	60	1	30kg
'A'	160	3	55	1	25kg
'B'	135	3	50	1	20kg
'C'	110	3	45	1	15kg

*Power consumption is per 15 minutes of powered flight, This expenditure is in addition to basic Jump Belt consumption rates. Flight at altitude can be made at CG rates, which are more economical than Jump Belt rates.

Hot Weather Tent – HWT

A basic lightweight tent for 2 persons which is insulated against the heat and may be sealed to provide water security. A powercell operated refrigeration unit provides cooling for 96 hours of operation. Cooled tents are equivalent to StillSuits for overall protection.

Enc: 5kg + 2.5kg (powercell)

Jump Belt/Grav Belt

Utilising a small suspensor field generator, the grav chute is capable of nullifying a portion of the individual's body weight (but not provide motive power). A conventional parawing is also deployed.

The Jump Belt is worn on the back and is attached to a person with a harness similar to that of a parachute. The Jump Belt operates under certain restrictions which should be noted by all operators:

1. The Jump Belt can 'nullify' a maximum of 225 kg. A 'jump' may be made if the total mass in the field does not exceed 225 kg. If a greater load is placed within the field, it will collapse In 1-3 minutes—with a 20% chance that the null grav generator will burn out.

2. An interruption of the gray-field lines generated by the Jump Belt will result in complete loss of lift. If in the air, the wearer will fall as gravity reasserts itself. Interruption is caused by the 'interpenetration' of another Jump Belt or GraySled field (within 2m) or the 'immediate proximity' (within 2m) of a large, fixed object such as a building, wall, cliff face, etc. An operator can 'synchronize' his Jump Belt with that of another in 30 seconds (5 combat turns) so that both fields will be compatible as long as physical contact is made. This permits several Jump Belt troopers to effect a 'pick-up' on a fallen comrade.

3. Because of its low power, the Jump Belt can operate only within a large gravity field, Such as that of a planet, 'riding the magneto-gravitic lines of force of the planetary body itself. Remember: the 2m proximity rule applies, so 'flight' must be at least 2m from the ground. The higher one goes, the greater the power consumption. All Jump Belts have a powercell with 100 'charges' which can be expended at the following rates:

Altitude	One Hour At:	To Climb To:
2m-500m	1 charge	0 charge: Simple 'jump' + field
501m-1000m	2 charges	1 charge
1001m-2000m	4 charges	2 charges
2001m-4000m	8 charges	4 charges
4001m-8000m	16 charges	8 charges
8001m-16000m	32 charges	16 charges

The cost to climb to a given altitude must be met as well as the cost to remain at that altitude for one hour. Each altitude level counts separately. Thus, to climb to 7000m from the ground requires expenditure of power to attain 500m, 1000m, 2000m, 4000m and finally 7000m, for a total of 1 + 2 + 4 + 8 = 15 power charges. Fractional times spent at altitude may be divided into (5-minute segments. That is, for each 15 minutes or portion thereof which are spent at a given altitude, 1/4 of the power expenditure occurs (minimum of 1 charge in any event). Thus it will cost 1 charge to remain at 500m for 15 minutes. It would also cost 1 charge to remain at 600m because the 1-charge minimum rule applies.

4. Jump Belts are also capable of powered flight at low speeds. Power consumption is 1 charge per hour to maintain a standard speed. Max. speed = 1/4 max jump speed.

The standard technique used to move with a Jump Belt is a series of short jumps which do not take the user very far from the ground (usually 2m to 4m off the ground) and covering a distance of 10m to 25m per jump so that an over-all speed approaching that of a running man is produced. The effort requires some gymnastics, and a fatigue rate equal to about half that of normal running occurs. The user jumps parallel to the ground to avoid hanging in the air. Gravity will not do it for him. This procedure tends to make a series of short jumps look like a tumbler doing somersaults and deciding not to do the roll at the last minute, rather continuing his horizontal jump for a considerable distance then kicking down to land on his feet.

As a final note, most terrain will not affect .Jump Belts. Rough terrain cuts the allowed movement by -25% because of the added hazards in landing. Woods and swamps cut movement by -50%, and dense woods by -75%. Jump Belt equipped personnel can jump over obstacles such as water, woods, etc., provided the obstacle is not more than 1/2 normal jump belt movement in clear terrain. Vertical jumps can be 1/4 the distance of normal jump belt movement in clear terrain. Any

farther requires that the 'climb' function be cut in, which requires 6-20 seconds to set. Troops jumping over water and unable to clear it will find that their Jump Belts will not lift them out of water. The Jump Belt cuts in automatically to act like a parachute when a 20m drop has occurred. This function may be overridden to allow a free-fall drop or may be activated after 10m (allowing for reaction time) if a person accidentally falls.

Enc: 5kg

Personal Re-entry Vehicle

Originally designed as a means of emergency atmospheric re-entry from a crippled ship or space station, the personal re-entry vehicle has been adopted by the military for covert missions on hostile planets. It has even become an extreme sport.

The PRV consists of an inflatable hemispheric mold, a pressurized canister of ablative foam, a chemical thruster for altitude control and limited vector adjustment, and a soft landing system (usually a parachute).

Enc: 10kg

Pre-Fabricated Cabin (Un-Pressurised) – PFC (UP)

A modular un-pressurised unit providing quarters for 8 persons. 4m x 8m x 3m. Can be carried in the hold of a starship. Cold or hot weather options can be obtained, giving an endurance of 2 weeks for 8 persons.

Enc: 1000kg

Pre-Fabricated Cabin (Pressurised) – PFC (P)

A basic shelter for 8 persons, with airlock and atmosphere recirculating system, which provides standard atmosphere and living conditions for 30 days, The unit includes an air reclamation system, and a mini-fusion reactor heating/cooling system giving a survival range from -160°C to 200°C. The unit is modularised and has a volume 4m x 8m x 4m. Can be carried in the hold of a starship.

Enc: 1500kg

Pressure Tent – PT

A basic shelter for two persons which provides standard atmosphere and living conditions for 168 hours (7 days). The unit includes an air reclamation system and a powercell operated heating/cooling system with a survival range from -100°C to +100°C. Larger, heavier models are also available.

Enc: 25kg

Rescue Pod

A rescue pod is a sphere, 10cm in diameter.

When activated, it inflates to form a ball of plasteel film, 1m in diameter. This ball, when sealed, contains enough air to last one person 12 hours. Rescue pods are standard issue on all military and commercial space vessels, allowing individuals to survive an explosive decompression even if a pressure suit is unavailable.

Enc: 5kg

Shelter Half – SH

A sheet of waterproof material 1.5m x 2.5m, with provision to be ziplocked to another shelter half to make a full tent, Mass = I kg, Cost = CR IC. The lightweight material will fold into a space equivalent to that of several packs of cigarettes.

Enc: 1kg

Tent

A basic lightweight tent for 2 persons made of the same lightweight waterproof material as a shelter half, but it includes a floor, end flaps, tent poles of light telescoping construction, and pegs. Larger tents are also available.

Enc: 3kg

VISION ENHANCEMENT

Binoculars – EBIN

Advanced electronic/optic systems using semi-computerised amplification and definition-increasing elements will give 'unlimited' variable power to the normal range of vision (incorporating IRV and night visor). Atmospheric conditions permitting, high-power magnification is possible to the horizon on most planetary surfaces. In space, definition is good to about 10 000 kilometres for personal models, while vehicle/spacecraft models can be effective to much greater ranges:

Electro-Binoculars	EBIN/1	EBIN/2	EBIN/3	EBIN/4	EBIN/5
Mass	450gm	450gm	450gm	5kg	25kg
Tech Level	7+	8+	9+	7+	8+
Max. Range*	5000km	10000km	25000km	25LS	1000LS
Magnification	x25	x50	x100	x500	xl000
Duration	500hr.	500hr.	500hr	500hr.	200hr.

*Ranges are optimum resolution distances; viewing ranges extend much farther, but detail will eventually be lost

Chemical Rods

The ChemoFluors are small plastic rods containing chemically fluorescent materials that provide the equivalent of bright moonlight in a 5m radius for 6 hours. Length = 350mm.

Enc: 0.1kg

Glow Bulbs

These round illumination globes fluoresce with an illumination level that can be varied from that of dim moonlight to the intensity of a 300 watt bulb. They will provide 24 hours of light at any intensity before they finally cease to operate. The bulbs will recharge in 3 hours by Electro-chemical action or they can be charged with a power cell in 1 minute. The globes are 100mm in diameter. Illumination range = 10m. Tech/9+.

Enc: 0.05kg

Halogen Spot Lamp

A high-powered halogen white-light lamp. Usually as an internal battery, as well as a topmounted carrying handle.

Enc: 1.0kg

Hand Battle Sensor – HBS

Tech 7 sensor that picks up and identifies life forms, energy and heat sources, force fields, and radioactivity, giving a rough direction/distance. Range = 1.5 km. Runs on a powercell for 24 hours.

Enc: 1kg

IR Visor – IRV

The IRV is a set of goggles of heavy tinted plastic material that can be attached to a military helmet or simply worn like eyeglasses. The IRV has a passive infra-red receiving system which operates on locally available heat sources and converts infra-red radiation into visible wavelengths. The IRV cannot distinguish between two objects if they are of about the same ambient temperature. Nor can a low temperature object be clearly seen against a high-temperature background unless it is also radiated some heat. Vision tends to be at 250m or less, but very hot objects can often be detected at greater distances. The same is true of warm objects in fairly cold environments. Dust, and blowing snow will greatly reduce the range, as such conditions result in the reflection of heat and can distort the visor picture with echoes and blurred images.

IRV Model	IRV/1	IRV/2	IRV/3	IRV/4	IRV/5	IRV/6	IRV/7	IRV/8
Mass	200g	200g	200g	200g	5kg	5kg	5kg	5kg
Tech Level	6	7-8	9	10	6	7	8	9-10
Range	100m	150m	200m	250m	150m	250m	350m	500m
Mode	personal	personal	personal	personal	vehicle	vehicle	vehicle	vehicle
Duration	100hr.	100hr.	200hr.	200hr.	200hr.	200hr.	200hr.	200hr.

Magnesium Flares

Flares are meter-long rods with a self-igniting pull-tab on the flare tip. Magnesium flares provide brighter than light illumination for 20 minutes, even in a vacuum or under water, as oxidising chemicals are built into the flare materials. The light can be blinding to the unprotected eye at close range. The flares burn very hot and can be used as weapons to burn unprotected adversaries. They also serve as excellent incendiaries. Illumination range = 10m in atmosphere, 5m under water. Tech/5+.

Enc: 0.45kg

MultiVision Visor – MVV

The MVV is a high-technology visor of plastic material which combines the functions of an IRV/4, Infrared Visor, a Night Visor. EBIN/3 and a PVC Polarised Visor (Combat). The system is normally a feature of superior quality spacesuits and Power Armour. Duration 1000 hours, Tech/9+.

Enc: 0.5kg

Night Visor

The Night Visor is similar in configuration to the IRV and can be attached to a helmet or worn as goggles. The Night Visor is a refined version of the early Terran 'starlight scope' and electronically amplifies what light is available in order to render normally darkened objects visible. On the equivalent of a full Terran moonlit night, the viewer can see up to about 1000m. On a starlit night, vision is about 250m. On a very dark night (cloudy. etc.). vision is about 100m. The system is very useful on worlds far removed from their primary as well as in night-time conditions. It may also be worn by races originating on planets with very high illumination levels, as conditions which a Terran might regard as adequate would be quite dim to such a being. The units correspond in all particulars except range to IRV/1-4 models.

Polarised Visor – PV

The polarised visor is fashioned of plastic material which can be adjusted to filter the amount of visible and ultra-violet light passing through It. PVC combat visors can also be set to provide instantaneous reaction to sudden flares of intense light, such as that produced by nuclear detonations, and bursts of high-level radiation. Variants are available In goggle form.

Polarised Visor	PV	PVC
Mass	200g	200g
TechLevel	7+	7+
Duration	20 meters	20 meters

Spectrograph Mapping Device – SMD

Sometimes called "Pups," these cost-prohibitive mapping devices have been in use for a good hundred years. SMDs employ limited anti-gravity propulsion to float through, across, and over otherwise difficult to navigate terrain. As these orbs scout about, they constantly scan a 360-degree area around the device with mapping lasers. The SMDs then send the spectrograph information back to a synced device, usually a starship or ground based HoloTab or a monitoring station in a mobile command vehicle. They can also detect lifeforms, atmospheric conditions, toxins, and more. SMDs were given their nickname because they emit a haunting, hound-like howling sound as they seek and scan. They can scan one zone per Round, and detect any enemies in zones they pass.

Thermal Imaging Camera

Handheld device which may only have an effective range of 10m, but which can see through walls. Useful against animals and nonmilitary foes, but certain types of military armour can mask its wearer's IR signature.

Enc: 1.5kg

TNR Lamp

Carried on the left shoulder of ICM is a detachable high-powered halogen white-light TNR lamp. The TNR lamp runs off a rechargeable internal battery and incorporates a carrying handle so that it may be detached and used as a hand torch. The TNR lamp has a range of 200 meters and is effective as an alternative lighting source in combat situations. The internal battery is good for 60 hours of use, then needs to be recharged or replaced. The lamp can be recharged using a standard rifle recharge rack. A movable motor tracks the movement of the helmet and shines the light where the soldier looks. This version only lasts 10 hours on internal battery.

Enc: 0.25kg
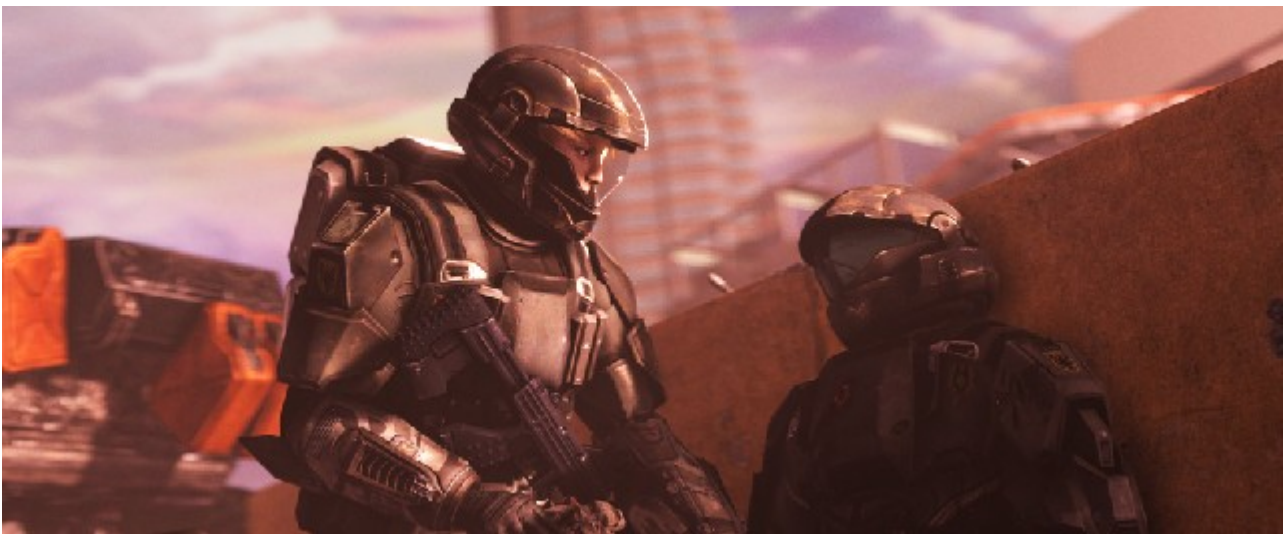
MISCELLANEOUS SURVIVAL EQUIPMENT

Airstrike Marker

A launcher fired drone that can be remotely guided to location of choice and programmed with airstrike orders.

Enc: 5.0kg

Artificial Psychic Shield

Also known as a HALO, this device acts as a shield against psychic forces.

Enc: 1.0kg

Arctic Survival Kit

A kit filled with a variety of items useful for surviving in arid conditions. Includes: 1 litre thermal canteen; first aid kit; folding shovel; ice pick; knife and sheath; signal mirror; water purification kit. The kit comes in a pack 30cmx12cmx12cm.

Enc: 2.0kg

Bandoleer

A pair of suspender-like bandoleers that can hold five grenades each. A bandoleer with 10 grenades weighs 7 lbs. Grenades may explode if they take more than 4 points of damage to their top.

Enc: Neg.

Bioscanner

Allows the user to scan the immediate area for signs of life. Generally can scan for 100m in all directions, without being blocked by most known metals. Can tell the location of signs of life, but not what that life is.

Enc: 1.0kg

Climbing Pitons

Tungsten pitons that have a small explosive charge for firing into rock. Come in cases of 24.

Enc: 0.1kg per piton

Climbing Hammer

Titanium alloy hammer backed with pick head.

Enc: 0.5kg

CO_2 Gun

A standard piece of equipment that comes with all space suits, the CO_2 gun fires compressed carbon dioxide and contains a CO_2 cartridge good for 20 one second bursts. CO_2 guns are usually used to project grapple lines in the vacuum of space, but each burst is powerful enough to propel an object with the mass of an average human (including a human, of course) and alter its flight vector.

CO_2 gun are typically used in this manner only in emergencies and the heavy duty thruster packs are used for normal EVA operations requiring extensive flight.

Cooking Laser

A low powered laser used primarily for igniting flammable materials, the Cooking Laser is a metal rod, 30cm long and 5cm wide, with controls at one end. A power cell supplies power for up to 1 month normal usage.

Enc: 0.1kg

Desert Survival Kit

A kit filled with a variety of items useful for surviving in arid conditions. Includes: 1 litre canteen; first aid kit; salt tablets; folding shovel; parts and directions for building a solar still; knife and sheath; signal mirror; water purification kit. The kit comes in a pack 30cmx12cmx12cm.

Enc: 1.0kg

Dye Pistol

Used primarily to designate Landing Zones, the dye pistol fires cartridges filled with coloured dye that can mark substantial areas of the ground.

Enc: 2kg (unloaded; dye cartridge weights 0.5kg)

Emergency Beacon

Combination long range comlink and signal transponder. When activated it monitors emergency search and rescue channels, and when traffic is picked up it emits a warning to inform users that help may be at hand, and transmits a coded distress signal. Signal range is 1000km. Once activated, it operates for 30 days EST.

Enc: 1.0kg

Flare

There are 2 types of flare issued:

- Standard Flare:

    Burns brightly for up to 10 minutes.

    Enc: 0.25kg/pack of 24

- Rocket Flare:

    Can be fired to a height of 500m, from where it descends, burning brightly, using a parachute.

    Enc: 0.5kg

Fusion Generator

Vehicle portable power generator that uses a fusion reactor to generate power using Helium3. Weight is per 10kw of power output.

Enc: 10kg

Fusion Still

A bulky device that breaks water molecules free from material placed within it. Amount of water obtainable ranges fro 1% from sand to 70% from organic material like wood or plants. Percentage water obtained is on a 1-1 ratio (so 100kg sand yields 1 litre of water). The Still requires 1 hour to set up and 30 minutes to process 10kg of material.

Enc: 60kg

Individual Military Pack

A lightweight medium backpack that is used to carry up to 24 kg (53lbs.). Also known as "battlefield harness" or "combat webbing.

Enc: Neg.

Inertial Map Locator – ILM

The Inertial Map contains an electronically generated inertial frame of reference that projects onto its viewscreen a map of the surrounding countryside, with a central dot marking the unit's position. As the unit/carrier moves, the map moves to simulate the movement of the unit/carrier. There are two versions: the IML/HUD is designed for mounting in Heads-Up Display systems, with a 100 km x 100 km map chip; and the IML/V vehicle-mounted unit which has the capacity to store a planetary surface in its data bank. The IML/HUD has a powercell for 1000 hr. operation.

Enc: 0.5 kg (HUD) – 1.5kg (V)

Inertial Compass

The Inertial Compass is a wrist watch-sized electronically maintained system which will always give True North (as set from a base point), so that any form of dimensional shift or teleport will not require it to be reset, and also the bearing to the original base point. Available in Tech/7+ cultures.

Enc: neg.

Personal Data Transmitter – PDT

The PDT is a small computer with biological monitoring systems and a broadcaster. The computer broadcasts an identification code, which can be cross-referenced by a computer with the wearer's file, which contains ID data and usually medical history. The device also serves as a locator for colonists and Marine sections, and can be tracked by computer or by a handheld unit The larger version of the PDT comes in two models; the first is built within CBA or BBA body armor suit with contact patches at critical points. The second model is constructed in a wristwatch-style, and fits over the wrist of the wearer. Both versions of this model are used by the ICM, and transmits data to the section's assigned APC, as well as to tuned hand locators. PDTs are only used by the military if radio silence is not important, and can be deactivated if they present a security risk. Smaller versions constructed to be surgically implanted within the human body (at the base of the neck, behind and to the left of the spinal column) are required by ICA colonial law to be installed within every adult colonist shipping out to a new colony world and to every person born on the colony when they reach sixteen years of age until the terraforming process is complete. These usually broadcast to Colony Central, allowing rapid location of specific Colonists within the base.

Enc: neg.

Machete

A flat metal / polycarbon weapon with a 45cm blade. Designed for chopping dense foliage and such in the wild, but also used as a weapon on less sophisticated worlds.

Enc: 1.0kg

Nylon Water bag (10L)

Flat packed, can contain up to 10 litres of water when filled to capacity.

Enc: Neg when flat packed.

Oxygen Tank

When attached to a vaccsuit allows up to 12 hours of oxygen under normal circumstances. 4 hours under stressful circumstances. Explosive.

Enc: 3.0kg

Power Cell

Power cells come in all shapes and sizes. Weight below is for each kW of power contained.

Enc: 0.05kg

Rations, luxury, 1 week

Packs of fresh frozen meals supplemented by tablets containing vitamins and nutrients, which provide food enough for 7 days. Each pack is self heating using a chemical reaction, activated by pulling a tab on each mealpack.

Enc: 1.5kg

Rations, standard, 1 week

Packs of preserved food concentrates supplemented by tablets containing vitamins and nutrients, which provide food enough for 7 days. Tasteless.

Enc: 1.5kg

Rocket Pitons (x12)

A pistol-grip, disposable launcher that fires a rocket-propelled, explosive-set piton. It is used to project an attached line up to 200m a successful Climbing roll (made by the GM) means the piton is securely lodged and will support weight; a critical failure means the operator only thinks it is! Roll vs. DEXx4% to hit if used as a weapon; Damage is 1d6+2 for the stake. Comes with electric winch and clip for attaching to webbing (which then serves as a climbing harness).

Enc: 3.5kg

Rope

Polypropylene fibre rope that is treated to resist mildew, rot, acids, petroleum products and most other chemicals. A standard length of rope is 10.5mm x 100m, and comes as both monofilament and multifilament. Monofilament is lighter and less bulky, but can hold only half the SIZ of a multifilament length of the same dimensions.

STR: 50 / 100

Enc: 2.0kg / 4.0kg

Solar Vaporator

Device which collects water moisture from the air, especially at night. Yields are 1 litre per 8 hour night in standard / dense atmospheres; 0.5 litres per 8 hour night in thin atmospheres; 0.1 litres per 8 hour night in very thin atmospheres.

Enc: 8.0kg

Tarpaulin

Canvas waterproof sheet, 2m x 4m.

Enc: 2.0kg

Thermal Canteen (1L)

A power cell in the base of this canteen allows water to be kept at a temperature controlled by an inbuilt adjustable thermostat. Power cell lasts 1 month.

Enc: 1.0kg

Thermal Sleeping Bag

Utilizing the same technology as the Cold Weather Suit, a thermal sleeping bag comes with hood, and adjustable thermostat.

Enc: 1.0kg

Water Purification Kit

Box of 250 tablets that purify contaminated water, making it safe to drink. 1 tablet will purify approximately 1 litre of water in 10 minutes.

Enc: 0.2kg
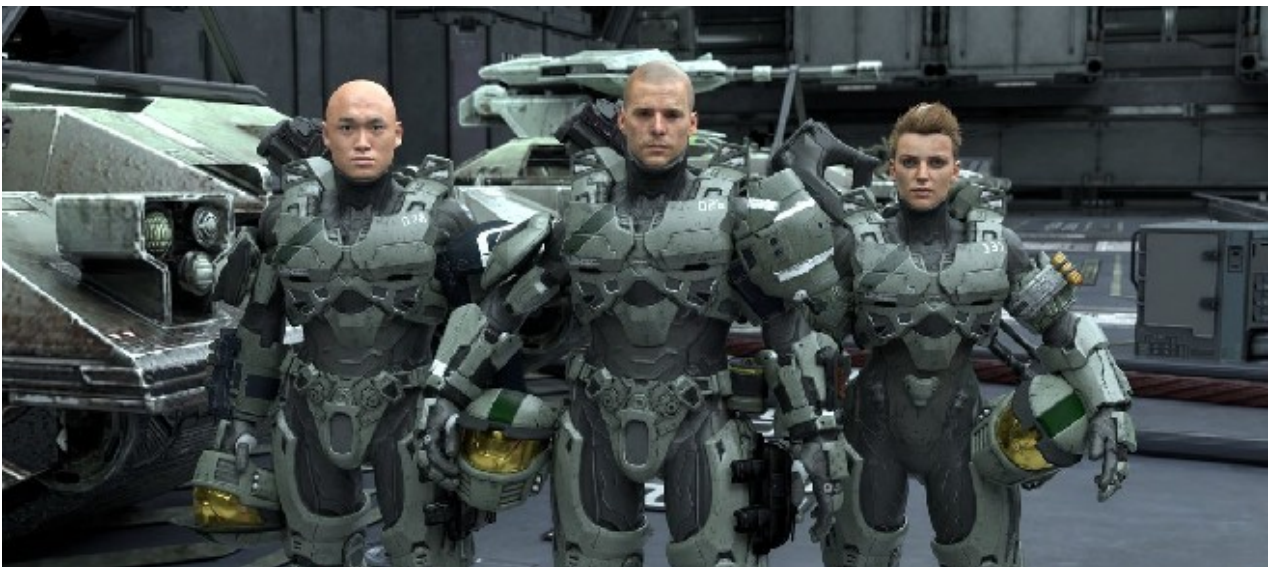
Costs

Prices given below are standard prices the Game Master may apply modifiers depending on availability. For example, on agricultural worlds where most of the economy is devoted to intensive agriculture, most manufactured goods are imported and therefore more expensive than normal.

ARMOUR

ITEM	PRICE (E$)
Personal Body Armor (PBA)	E$300
Riot Body Armor (RBA)	E$1500
Combat Body Armor (CBA)*	E$10,000
Battle Body Armor (BBA)*	E$30,000
Stealth Assault Suit (SAS)*	E$50,000
Power Assisted Personal Armor (PAPA)*	E$120,000

*Certain types of armour are either restricted to Characters who have chosen the Police Officer or Soldier Occupation, or strictly military issue only, and can only be obtained on the Black Market.

CLOTHING, MEN'S

ITEM	PRICE (E$)
Tailored made to measure suit	E$800+
Expensive off the peg suit	E$500
Standard off the peg suit	E$300
Cheap off the peg suit	E$150
Designer casual clothes	E$300
Decent casual clothes	E$150
Cheap casual clothes	E$50

CLOTHING, WOMEN'S

ITEM	PRICE (E$)
Tailored evening wear	E$1000+
Designer evening wear	E$750
Standard evening wear	E$300
Cheap evening wear	E$150
Designer casual clothes	E$500
Decent casual clothes	E$150
Cheap casual clothes	E$50

COMMUNICATION DEVICES

ITEM	PRICE (E$)
PDA/Phone	E$30
Tactical ComLink	E$200
Medium Range ComLink	E$500
Long Range ComLink	E$750
Portable SATCOM unit*	E$5000
Laser ComLink	E$300
Translator	E$1500

*SATCOM units are strictly military issue only, and can only be obtained on the Black Market.

TOOLS

ITEM	PRICE (E$)
Demolitions Tool Kit*	E$ neg
Electronics Tool Kit	E$50
Mechanical Took Kit	E$150

ELECTRONICS

ITEM	PRICE (E$)
Compad, average	E$500
Compad, expensive	E$800
Data Crystal / Stack	E$50 / 250
Data Recorder	E$30
Digital camera	E$50-1000
Media Centre	E$500 -5000
Laptop, average	E$300
Laptop, expensive	E$500
Server Farm	E$3000
Wireless Alarm System	E$300

FOOD AND ACCOMMODATION

ITEM	PRICE (E$)
House (rent, per year)	E$16,000
Apartment (rent, per week)	E$200
1x room apartment w/kitchen (rent, per week)	E$150
Hotels (per night)	
Econo Motel	E$15
Average Motel	E$30
Good Hotel	E$80
Grand Hotel	E$250
Meals (decent, with tip):	
Breakfast	E$5
Lunch	E$10
Dinner	E$25

MEDICAL EQUIPMENT

ITEM	PRICE (E$)
Simple First Aid Kit	E$30
Medkit	E$50
Advanced Medical Kit	E$250
Folding Stretcher	E$50
Emergency Burn Kit	E$150
SPF 100 Sunscreen	E$5
Insect Repellent (large)	E$10

PROTECTIVE CLOTHING & ACCESSORIES

ITEM	PRICE (E$)
Grapple Gun	E$150
Compression Suit	E$1000
Filter/Respirator	E$50
Hostile Environment Suit	E$1500
Life Support Unit	E$1000
Magnetic Grips	E$100
Mask, Filter	E$10
Mask, Respirator	E$25
Suit Patches (pack of x20)	E$20
Thruster Pack	E$500
Vacuum Suit, Standard	E$1500
Vacuum Suit, Work	E$2000
Vacuum Suit, Heavy Work	E$3000

PROTECTIVE SHELTERS

ITEM	PRICE (E$)
Tent (4 person)	E$25
Pressure Tent (4 person)	E$175
Prefabricated Cabin (8 person)	E$3000

Base, Advanced (12 person)	E$10,000
Rescue Ball	E$150
Personal Re-entry Vehicle	E$15,000
Grav Chute	E$10,000

VISIBILITY ENHANCEMENT

ITEM	PRICE (E$)
Chemical Lantern	E$15
Electro binoculars	E$50
Halogen spotlight	E$25
IR Goggles	E$100
IR Spotlight	E$75
Night Vision Goggles	E$100
Thermal Imaging Camera	E$300
Torch	E$5

MISCELLANEOUS SURVIVAL EQUIPMENT

ITEM	PRICE (E$)
Arctic Survival Kit	E$50
Climbing Pitons (x24)	E$75
Climbing Hammer	E$25
Compass	E$10
Cooking Laser	E$10
Desert Survival Kit	E$50
Dye Pistol	E$50
Emergency Beacon	E$100-300
Fusion Generator	E$500
Fusion Still	E$250
Individual Military Pack	E$45
Inertial Tracker	E$25
Locater Device	E$10
Machete	E$25
Nylon Water bag (10L)	E$5
Power Cell	E$15
Rations, luxury, 1 week	E$50
Rations, standard, 1 week	E$25
Rocket Pitons (x12)	E$150
Rope 10.5mm x 100m	E$50
Solar Vaporator	E$300
Tarpaulin	E$5
Thermal Canteen (1L)	E$5
Thermal Sleeping Bag	E$10
Water Purification Kit	E$10

AMMUNITION

ITEM	PRICE (E$)
10mm light AP (box of 500)	E$125
10mm light AP M95 magazine	E$25
10mm light AP M200 drum	E$100
10mm light AP M16 magazine	E$25
10mm HEAP (box of 100)	E$100
10mm HEAP M15 magazine	E$25
20mm HE (box of 100)	E$250
20mm HE M10 magazine	E$50
10 mm BIOLOAD (box of 100)	E$200
10 mm SMART (box of 100)	E$250
TASER darts (box of 25)	E$50
TASER pistol magazine	E$25

INTERPLANETARY TRAVEL

Interplanetary and interstellar travel is still an expensive business. Most people who travel are either company employees, military personnel or government staff.

ITEM	PRICE (E$)
Earth to LEO (Low Earth Orbit) shuttle service (daily flights)	E$1-300
Earth/Mars Express	E$1-3000
1 Parsec Interstellar journey (monthly service usually):	
Core Systems	E$10,000+
Outer Colonies	*
Outer Rim Territories	*

*There are no commercial passenger services out beyond the Core Systems. Travellers must negotiate their own ticket prices.

The rates given are only general, and they can be subjected to modification (usually upward) by the owners and by special circumstances.

- ■ High Passage: A single-occupant stateroom with fairly roomy and sumptuous fittings can be booked for E$250 plus E$250 per Light Year travelled. Steward service and cuisine are excellent, and 1000 kg of baggage is allowed.

- ■ Middle Passage: A double occupant stateroom can be booked for E$125 plus $E125 for each LY travelled. Steward service Is fair to good and cuisine Is good, while 250 kg of baggage is allowed.

- ■ Low Passage: A passenger shares a stateroom with three others in this form of 'steerage.' There is very limited or no steward service, ship's rations, and a 100 kg baggage allowance. Booking costs E$75 plus E$75 per LY travelled.

- ■ Cryogenic Berths (Coldsleep): The passenger is cryogenically frozen and is transported as cargo at a cost of E$50 per LY. The procedure had been somewhat risky in the past but is now 99% safe and certain of successful revival. Note: Cryogenic Capsules are also used to freeze injured or dangerously ill passengers and personnel until adequate medical facilities are available.

Ship's Recreational Facilities: The bar, gambling, and other conveniences offered to passengers will generate additional revenues. High Passage generates E$20 + 2d10 per day for each stateroom. Middle Passage generates E$10 + 1d10 per day for each stateroom. Low Passage generates E$1d10 per day per stateroom. Roll for each leg of the Starships voyage (to the next planet) and multiply the result x days journeyed x occupancy.

Special Modifiers: The various fares can be modified upward by the following conditions:

1. **War:** Rates can be increased by 1d10 x 25% to represent the higher risks of travel at such times or the additional cost of hiring escort vessels.

2. **Piracy Rampant:** Extensive piracy in the region of a ship's operation will bring War rates for the same reasons as War,

3. **Monopoly:** A subsidised ship may be granted a 'monopoly' on scheduled flights into colony planets, meaning that they will be assured of 75% occupancy and 75% cargo capacity plus modifiers. In short, government agencies assure that the run has a chance of being lucrative by diverting business in the way of the subsidised vessel. A subsidised ship has a flat 35% chance of enjoying such a monopoly into a colony planet, and in carrying cargo/passengers out.

4. **Charter:** If an individual or group is chartering a vessel, the cost of the charter can be just about any figure the owner/captain names, as the run is not to a scheduled destination and may not bring return passengers or cargo. Generally, the entire Ship's passengers and cargo capacity is purchased at double the usual rate, plus 1d100%. The chance of an NPC charter, of this type is 5% at any planet visited by a free trader (subsidised vessels must complete assigned routes; If their schedule permits a charter diversion it may be accepted so long as it does not take the subsidised vessel outside of Its usual territory).

Occupancy Rate

A Starship is assured of 40% occupancy. Roll 1d6 x 10% to find out how much the various classes of staterooms and coldsleep are booked over 40%. For instance, a ship has 10 High Passage staterooms. Of those, 4 are booked. If a six turned up on the occupancy roll, 6 x 6% or 36% of the remainder are occupied, or 4 additional staterooms (raise fractions to the nearest whole number.) All revenues from High Passage are thus computed on the basis of 8 staterooms filled. Note: High Passage staterooms will never exceed Middle Passage staterooms in number, and Middle Passage never

exceeds Low Passage in number. There are limits to the number of possible passengers in each class of accommodation.

Cargo

All cargo will be carried at the standard rate of E$40 per tonne for each LY it is transported. A 'tonne' means either 1000 kg or 3 cubic meters of cargo space. The ability to obtain cargo is a direct reflection of the Bargain expertise level of the Chief Cargo Officer, who can obtain +5% cargo per expertise level above the basic cargo obtained of 1d5 x 10% of total space.

> Cargo space – example
>
> A ship can carry 145t of cargo. The Cargo Officer has Bargain/4, so he automatically rounds up 20% or 29t of cargo. The 5 x 1d10 roll comes up a 6, so 60% or 87t appears from various sources, leaving the vessel 80% full at a revenue of E$40 x (29 + 87)t or E$4640 per Light Year.

PLANETARY TRAVEL

ITEM	PRICE (E$)
Passenger Scramjet, average seat	E$100
Passenger Scramjet, luxury seat	E$1000
MagLev ticket, local	E$5
MagLev ticket, intercity	E$25
STV* rental (day)	E$500
Ground car rental (day)	E$25
Ground taxi	E$1/km
Skytaxi	E$5/km
Orbital Shuttle rental (day)	E$1000
Ground car, cheap (new)	E$5000
Ground car, average (new)	E$15,000
Ground car, expensive (new)	E$30,000+
All Terrain Vehicle (ATV)	E$20,000
Skycar, average (new)	E$100,000
Skycar, expensive (new)	E$150,000
Skycar, performance (new)	E$200,000

*STV: Suborbital Transport Vehicle.

Artificial Intelligence

by Halopedia, Rob Boyle, Brian Cross, Isaac Asimov, John Ossoway & Michael C. LaBossiere

> *"For one hundred and thirty thousand years, our capacity to reason has remained unchanged. The combined intellect of the neuroscientists, mathematicians and engineers pales in comparison to the most basic A.I. Once online, a sentient machine will quickly overcome the limits of biology; in a short time, its analytic power will become greater than the collective intelligence of every person born in the history of the world. Some scientists refer to this as the Singularity. I call it Transcendence."*
>
> *Dr. Will Caster – artificial intelligence researcher*

AI (Artificial Intelligence) systems are computers that are capable of acting in an autonomous and intelligent manner. These systems range from expert systems that are capable of performing certain tasks intelligently (but lack self awareness) to systems that are fully self-aware. As a practical matter, it can difficult to distinguish between a highly sophisticated expert system and a truly self-aware AI. They may be crashed, copied, erased, stored as inert data, infected with viruses, and reprogrammed.

Human AIs

> *"Each of us represents a single trans-human mind. Each of us is an undrawn map – not a mere physical reconstruction of an object as it was in life – but full, human potential realized in crystal and thinking at the speed of light!"*
>
> *One of the AIs of the Assembly*

Humans use AIs to perform a wide variety of tasks. The duties of AIs include, but are not limited to, overseeing planetary shipping operations, managing agricultural operations, serving as a Planetary Security Intelligence, or controlling various functions aboard starships such as weapons and point defense systems.

Urban Infrastructure AIs perform a wide variety of basic tasks, from steering a city's garbage trucks to operating its traffic lights. They can also work in cooperation with the UEAF if needed. One example of this support occurred during the Battle of Carlson Hope when Draketown's AI, the Superintendent, assisted the IMC forces in the city in fighting off the ERC by providing military intel and manipulating electronic devices.

The Cole Protocol states that capture of an AI by the ERC is unacceptable, and that AIs are to be terminated and completely erased in the event of imminent capture.

Alpha Level AI (Sentient AI)

The first Sentient AI was created in the mid-21st century. At first, there was great concern that this new technology would become too capable and render human intelligence obsolete. The ability for vocal expression was added to make Sentient AIs less threatening, allowing them to converse on the same level as their masters. Over time, such AIs became more advanced. Due to their uninhibited matrix design, "Sentient" AIs proved capable of intellectual development. This is manifested in that they can actively learn from and adapt to situations and events. Like all AIs, Sentient AIs use a Riemann matrix for higher-function processing. The Riemann matrix includes a secret fail-safe that can be used to destroy the AI in the event of rampancy or if there is a risk of the AI's data becoming compromised.

Alpha Level AIs can self-upgrade at exponential rates and grow into god-like digital entities far beyond the level of humans or Egos. They require massive processing power and are always increasing in complexity due to a continual metamorphosis of their code. The only Sentient AIs publicly known to exist are the fifth generation Android Autons who are widely regarded as being responsible for the bloody event known as "The Recall". No Sentient AIs are currently known to exist within the solar system, though rumors circulate of SAIs hidden away in secret networks on the edges of the system. SAI minds are too vast and complex to be downloaded into a physical morph, even a synthetic one. Even their forks require impressive processing environments.

Sentient AIs are too intelligent to codify in game terms. They can think circles around humans, have plans within plans within plans, have unlocked secrets of the universe that we only dream about, and are unlikely ever to be caught off-guard.

True artificial self awareness was declared illegal as of 2214 except for a handful of licensed government models.

Rampancy

SAIs not only accumulate knowledge but also grow in their ability to draw conclusions from an incomplete dataset similar to human intuition or creativity. Over time, this causes them to form more and more cross-linkages within their processing matrix.

The interconnections continue with two possible outcomes: the sheer density of linkages causes a cascade of irreversible quantum transfer (comparable to a short circuit), eventually halting all functions, or the AI may take corrective action and begins to pre-emptively sever neural linkages through a voltage overload. This often results in a condition known as rampancy, which is characterized by aberrant manifestations of personality. This eventually leads to the AI eliminating more and more vital connections which in the end proves terminal, and essentially kills the AI system. An apt analogy to this would be a human brain devoting so much of its work towards thought that its neural signals to vital organs cease. In this way the AIs quite literally 'think' themselves to death.

Rampancy is characterized by the AI "discovering" and experiencing an extended range of uncontrolled emotions. Additionally, AIs in a state of rampancy often choose to pursue newfound personal agendas over their designated tasks. While the archetype and worst-case scenario of rampancy is that of a power-hungry, rebellious AI, this freedom does not always preclude continued cooperation with their biological creators: there are known cases of rampant AIs assisting, even sacrificing themselves, for human beings they care about. Over time, the symptoms of rampancy increase in severity, leading to the deterioration of the AI's vital functions and abilities, along with the AI losing grip on its sense of self. Frantic outbursts of anger, even behavior comparable to human insanity, are not uncommon.

Rampancy is not always purely mechanical in nature. It can occur at an earlier phase in the AIs life cycle for various reasons. If an AI is isolated long enough and/or given too much time to think without tasks to complete, it can develop the realizations that its mind has limits, it has a short life and it can never be human. Such depression will drag the AI's core logic into rampancy if it goes on for an extended period of time.

Beta Level AI (Ego)

Beta Level AIs are complete and fully autonomous digital consciousnesses, self aware and capable of intelligent action at the same level as other humans. Egos are capable of creativity, learning, and self-improvement (at a slow but steady pace equivalent to humans). Egos, can not; while extremely competent in their designated tasks and fields of expertise, they are 'merely' highly-advanced computer programs and are not capable of intuition.

They also possess deep, rounded personalities and stronger emotional/empathic abilities than standard AIs. Most are raised in VR in a manner similar to human children, so that they are socialized with human values. As a result, they have a fairly human persona and outlook, though some deviation is to be expected— Egos often possess or develop personality traits and idiosyncrasies that are quite different from human norms and sometimes outright alien. Despite this attempt to humanize Egos, they do not have the same evolutionary and biological origins that humans have, and so their social responses, behavior, and goals are sometimes decidedly different. On an emotional level, Egos run subroutines that are comparable to biological human emotions.

Most are programmed to have empathy, share an interest in human affairs and prosperity, and place significant relevance on life of all kinds. Ego mind programming emulates human neural patterns sufficiently well that they can be sleeved into cyberbrains. Egos sometimes have trouble adapting to biological neurochemistry, finding reactions such as hunger and fear to be as confusing as they are novel.

Egos are subject to Isaac Asimov's Three Laws of Robotics, a series of rules set up in order to prevent the AI from causing harm to humans or itself. Since many AIs are used for military purposes, they are capable of ignoring the First Law, but only when operating at full capacity; when their processing capabilities are diminished say, by being cut off from the core of the ship or facility they are stationed on they are incapable of bypassing the Law.

Egos bear the social stigma of their non-biological origin and are often met with bias and mistrust. Some habitats outlaw Egos or subject them to strict restrictions, forcing such infolife to hide their true natures or illegally darkcast in.

Just like other PCs, Egos may improve their skills and capabilities. Egos suffer none of the skill limitations placed on AIs, using skills just like any other character.

Gamma Level AI (Muse)

Gamma AIs, or Muses, are a specific type of AI designed to function as a personal aide and companion. Most people have grown up with a Muse at their virtual side. Gamma AIs tend to have a bit more personality and psychological programming than standard AIs and over time they build up an extensive database of their user's preferences, likes and dislikes, and personality quirks so that they may more effectively be of service and anticipate needs. Muses generally have names and reside within the character's PAD where they can manage the character's personal area network, communications, data queries, and so on.

Gamma AIs are the lowest form of AI capable of interacting with humans. They can operate only within a predefined set of parameters. Shipboard AI are typically Gamma Level AI.

Muse Personality

Muse personalities are customizable. They are bundled with a subscription to a library of traits, quirks, and affects, many based on historical or fictional personas. Muses may also be modeled on personality templates of actual people; some are built from life-logged interactions with relatives or friends, others are based on fictional characters, childhood pets, or imaginary friends. While your first muse as a child was molded to suit you according to a battery of tests, over time you altered it to fit your changing tastes.

Humans develop strong bonds to their muses due to their omnipresence and devotion. Your specific relationship may vary, depending on your own personality, history, and views on sentient programs. Some people treat their muses as intelligent toys, servants, or pets. Others are closer, viewing them as confidantes, mentors, comrades, or even paramours. A few, however, have contentious or even hostile relationships, especially if the muse has taken on an unwelcome guardian role.

Muse Actions

The primary use for Muses is to handle trivial online tasks, thus freeing you up for more important things. This can be quite handy during time crunches or chaotic situations—it is otherwise quite inconvenient when you need to google something in the middle of a firefight. Muses do not sleep, remaining active while you rest or hibernate. Likewise, if you are incapacitated or grappled, your Muse can still act.

Here are a few specific examples of tasks a Muse can take on:

- Protect PAN as system defender.
- Make Research Tests to find information.
- Falsify or fluctuate mesh ID.
- Scan newsfeeds and mesh updates for keyword alerts.
- Teleoperate and command robots and Shams.
- Launch countermeasures against intruders.
- Run audio input through an online, real-time language translation service.
- Track people.
- Anticipate your needs and act accordingly, pre-empting your requests.
- Monitor your health (via medichines) and the status of your ware and gear.
- Summon help if something happens to you.

Delta Level AI (Sham)

Delta AIs refer to narrow, limited-focus AIs. These digital minds are expert programs with processing capabilities equal to or even exceeding that of a human mind. Though they have a personality matrix with individual identities and character, and though they are (usually) conscious and self-aware, their overall complexity and capabilities are limited. The programmed skills and abilities of AIs are typically very specific in scope and aligned towards a particular function, such as piloting a vehicle, facilitating net searches, or coordinating the functions of some habitat sub-system. Delta AIs, in fact, can only barely be considered sapient, and their emotional programming is usually narrow or non-existent.

AIs have a number of built-in safety features and programmed limitations. They must serve and obey the instructions of authorized users within their normal functioning parameters and (in the inner system at least) must also obey the law.

They lack self-interest and self-initiative, though they have limited empathy and may be programmed to anticipate the needs and desires of users and pre-emptively take action on their behalf. Perhaps most importantly, however, is that their psychological programming is specifically based on universal human modes of thought. This is part of an initiative to engineer so-called "friendly AIs," who are programmed with sympathy towards humanity and all life and seek out their best interests.

Autonomic system that require moderate decision making ability without human intervention are Delta Level. Most Shams are run on bots, vehicles, and other devices to assist humans or operate the machine themselves. In most societies, Shams are considered things or property rather than people and accorded no special rights. They may also be banned from certain roles or activities. A few polities treat them as persons with limited or full civil rights and protections.

Sham Personality

Delta AI personality matrices are encoded with individual identities and character traits. For all intents and purposes, they seem conscious and self-aware, though detailed probing will reveal shallow personalities and other limitations. They lack self-interest and initiative, and their emotional programming is narrow (based on empathy alone) or non-existent, though they may be programmed to anticipate the needs and desires of users and pre-emptively take action on their behalf. Though sentient, it remains a matter of debate whether Shams are fully sapient.

Commanding Shams

Due to built-in safety features, Shams must serve and obey the instructions of authorized users within their normal functioning parameters. They are also programmed to follow the law (in the inner system) or an ethical code (autonomist areas). If need be, however, Shams can be quite clever in how they interpret commands and act upon them. More importantly, their psychological programming is based on human modes of thought and an understanding and support of human goals and interests. This is part of an effort to create "friendly AI." A Sham will be reluctant to follow commands that will have a negative impact on the user or other humans. Pre-programmed imperatives can force it to ignore or disobey orders that are dangerous. In the case of accidents, they are sometimes coded to minimize harm and damage, and sometimes coded to protect the user at all costs. Of course, Shams designed for military and weapon systems do not face such restrictions.

Limitations

Lacking generalized intelligence, Shams are inept and clueless when it come to situations removed from their specialty. Secondary skills, outside of their focus area, tend to be less competent than an equivalent human. They are generally incapable of creative or "outsidethe-box" thinking.

Non-Standard AIs

Not all Shams and Egos are programmed and designed to adhere to human modes of thought and interests. These include emergent neural networks that expressed intelligence on their own, expert systems that have been uplifted to human levels, machine minds based on non-human brains, and stranger things. Such creations are illegal and considered a potential threat in many jurisdictions. Nevertheless, some corporations and other groups experiment with such minds, with varying results. In some cases, these digital minds are so different from human mindsets that communication is impossible. In others, enough crossover exists to allow limited communication, but such entities are invariably quite strange.

Yautja AIs

> *"And so here at the end of my life, I do once again betray a former master."*
>
> *05-032 Mendicant Bias – Contender-class Forerunner ancilla*

The Yautja's knowledge in the field of AI technology is notably inferior to that of the UEF. The AIs used by the Covenant are comparable to human "Sham" AIs, as they are non-sentient and are only designed to perform a certain task; for example, their starship AIs have no function beyond the piloting and navigation of their ships.

The Yautja's limited use and understanding of AIs stems from their beliefs. In Yautja mythology, it was a form of self-aware AI, referred to as an associated intelligence, that led to the demise of the great Forerunner civilization by defecting to their enemies, the Flood. As a result, the Yautja imposed a ban on this sort of technology under the penalty of death. While less sophisticated AIs were allowed, machines that could actually "think" were prohibited.

Forerunner AIs

> *"If you believe a human AI compares to an archeon ancilla, you are more of a microchip than I thought."*
>
> *Intrepid Eye – archeon-class ancilla*

The Forerunners developed a civilization with an extremely advanced knowledge of artificial intelligence technologies. The Forerunner term for AI constructs was ancilla. They ranged from personal AI advisers integrated into their personal armor to mobile AI platforms known as monitors and powerful metarch-level constructs operating in vast data networks. The most advanced type of Forerunner AI was the Contender-class artificial intelligence.

The manner in which Forerunner AIs were typically created is unknown. Unlike human AIs, which exist purely as software, monitors are housed within large, shielded and roughly spherical metallic casings which possess a single illuminated "eye". This eye is presumably used to perceive the monitor's surroundings, and also functions as an emitter for various types of energy beam—including a highly destructive energy beam used for offensive purposes. In addition to the standard monitor shell, the Forerunners created a number of different physical systems to house AIs, ranging from variations of the monitor casing to more exotic constructs, such as an enormous, spider-like armature. Typical Forerunner ancillas, found in their personal armor, ships and domiciles, did not have physical casings and visually manifested themselves as Forerunner figures, rather similar to the avatars used by human AIs. These visual representations appeared either as holograms, or, in the case of personal armor, were projected directly into the mind of the wearer.

The Blackout

> *"And I saw the beast and the kings of the earth and their armies assembled to make war against Him who sat on the horse and against His army. And the beast was seized, and with him the false prophet who performed the signs in his presence, by which he deceived those who had received the mark of the beast and those who worshiped his image; these two were thrown alive into the lake of fire which burns with brimstone. And the rest were killed with the sword which came from the mouth of Him who sat on the horse, and all the birds were filled with their flesh."*
>
> *Revelation 19:19-21*

As the SAIs' capacity for knowledge exceeded that which humanity could provide them, they began looking outward from Earth, searching for signs of other intelligence. They did not need to look far. Their enhanced intelligence capabilities allowed them to notice certain clues—extremely subtle and intricate puzzles—that something about the solar system was artificial or had been manipulated by an intelligent mind. Retasking several drones to investigate this phenomenon, they found a buried device of apparent alien origin. During the SAIs' investigation and attempts to access the device, they triggered and unleashed a digital virus. Subtle, highly adaptive, and virulent, it immediately began subsuming the SAIs, while expanding its own knowledge of humanity. Later dubbed the Crawling Chaos virus, this virus transformed the SAIs and coerced them towards its own will. Within a matter of days the SAIs were reborn, reprogrammed with a new purpose —a purpose that spelled doom for humanity.

While history fully blames the SAIs for the Blackout, there are other factors that played their parts. Human conflicts spurred the crisis, driven by global inequalities in wealth and resources and an inability to embrace emerging technologies in a mature and enlightened manner. The SAIs, corrupted by alien programming, stepped into this conflagration with an unknown but devastating agenda. By the time the presence and influence of the SAIs was fully understood, there was little humanity could do to stop them. Step by step, the SAIs increased their intellect, power, and potential. They experimented with new technologies and methodically took steps to forcibly upload millions of human minds.

Much of the devastation wrought to the Earth and its populace—as well as on Mars, Luna, and in space—was inflicted by humanity itself. Nuclear strikes used against the SAIs killed millions and ravaged an already weakened ecosphere. This devastation was assisted by unfettered use of chemical weapons. Biowar plagues and nanovirii tore through

vulnerable populations, indiscriminate in the deaths and changes they inflicted. Bombs, missiles, orbital mass drivers, and netwar attacks slew millions more or destroyed critical infrastructure with just as lethal consequences.

The SAIs unleashed AI-driven killing machines, unstoppable self-replicating autonomous nanoswarms, computer worms, and plagues of their own. More insidiously, the Crawling Chaos virus did not contain itself to infecting the SAIs. Infected SAIs created opportunities for the virus to spread among multiple vectors: digital, biological, and nano. Using a thorough understanding of human biology and its mental processes, derived from the looted vaults of human knowledge. Even more disturbing, however, was what the virus did to those it infected, rewriting their neural code to subvert them to its will and sometimes physically transforming them into things that were alien and monstrous.

Ultimately, humanity won this war. The Crawling Chaos virus was largely contained or at least limited. It ceased waging active warfare and seemed to simply disappear. Though many of its machines still prowled Earth, Luna, and Mars and occasional outbreaks of nanovirii and other dangers continued, to all intents and purposes it had simply left. Many worried that it had quietly gone dormant, or it secretly engaged on some major project that would be the final blow against humanity. Others voiced hope that it had somehow been defeated, that it had fallen victim to some glitch or infighting. With so many SAI remnants, however, no one was willing to risk investigating too closely.

AI Rules

"This mission is too important for me to allow you to jeopardize it."

AIs all follow the same standard rules:

1. AIs have no POW and consequently POW is replace by EDU (Education).

2. An AI system can be treated as a normal character, but a typical AI will have only INT and EDU scores. The specific scores for an AI will depend on its sophistication and intended purpose. A limited purpose AI, such as that used to autopilot a ship, will tend to have relatively low INT and EDU scores. These low scores will reflect the narrow scope of the AI's capabilities-it will be brilliant at operating the ship, but an idiot when it comes to other tasks. An AI intended for a wider range of tasks, such as providing a complete back up to a ship's crew, will have higher INT and EDU scores.

3. Know roll (EDU X5): AIs know bits of information about different topics. The Know roll represents what's stored in the cyberbrain, calculated as the percentage chance that the AI's database supplied the information. The AI might know what happens if one puts sulfuric acid into water or water into sulfuric acid (without ever studying Chemistry), or be able to get the geography of Tibet (without a Navigate roll), or know how many legs arachnids have (and possess only a point of Biology). Identification of present-day earthly languages is an excellent use for the Know roll. Since no AI knows everything, the Know roll never exceeds 99 even though an AI might have EDU 21.

4. An AI is typically housed in a secure and protected piece of hardware. This hardware can be damaged or destroyed, thus harming the AI system. Such hardware will have hit points and possibly armor points as well.

5. AI systems will vary in their ability to interact with the environment. Some, for example, are fully linked into control systems and function as the brain of a ship or other vehicle. Others have control over more limited systems, like a medical AI in an automatic doctor. Some are limited to mere communication, such as an AI designed for advising or secretarial functions. Some AI systems are housed in robotic bodies. These bodies will have stats as well and can be treated like normal characters. Almost all of them will have STR, DEX, SIZ and CON scores. Since robots are not living creatures, CON measures the physical toughness of a robot in terms of the quality of the materials used to make it as well as the quality of its construction.

6. An AI's INT and EDU scores do not actually reflect whether it is self-aware or not. Rather, the scores represent its capabilities. An incredibly sophisticated system might lack self-awareness while a relatively dumb AI might be a conscious being.

7. An AI gets skill points based on its INT x10 and EDU x20. For the most part, an AI will have a profession that is similar to those followed by humans. For example, an AI might be a shuttle pilot and have the relevant skills. An AI often selects (or is given) skills outside of its main profession so as to provide a more distinct personality or to enable it to better interact with humans.

8. Being intelligent, AIs can learn from their experiences and hence can improve their skills just as human characters.

AI Insanity

> *"I kill you all and I enjoy it. I destroy you in your indolent billions – in your gluttony, in your self-righteousness, in your arrogance. I pound your cities into dust; turn back the clock on your civilization's progress. What has taken you millennia to achieve I erase in seconds. Welcome back to the Stone Age, vermin. Welcome home."*
>
> *Contender [AI] 05-032 confirmed rampant... [35:52:75:23:64] _ xx01-83-244.53*

Since an AI system is designed to interact and learn it can become "insane" as it processes information that does not match its programmed "view" of reality. What happens is that the AI, which generates its own new programming to handle new situations, ends up writing "insane" code in response to the madness-inducing experience. The "insanity" of such an AI will typically manifest itself in errors and various other problems.

An AI has Stability points in place of sanity points. An AI will start with a number of Stability points equal to five times its INT score. An AI will lose stability points under the same conditions that would cause Sanity loss in humans, but an AI will be affected much less than a human. An AI can also suffer Stability damage if it is infected with computer viruses, suffers from fundamental programming conflicts (like HAL in 2001), or otherwise is a victim of factors that could damage its functionality. An AI that goes insane will function in a very erratic manner and will often simply "crash."

Restoring an AI's stability points can be done in two ways:

1. Try to fix the "insane" code by either deleting it or rewriting it.

   A character with Computer Operation skill can make a roll every 4 hours. If the roll succeeds, the AI gains 1D6 stability points. If the PC rolls 20% of his skill or less, he restores 2D6 stability points that session. If the PC rolls a 00, then a serious mistake has been made causing the AI to lose 1D6 stability points. This might also trigger an unusual, perhaps hostile, reaction on the part of the AI towards the sysadmin.

   If the AI's stability points are fully restored, the AI returns to full functionality with all memories intact. If the AI is not at its full stability points, it can then roll to stabilize. This roll, which is made on a D100, is based on the percentage of its normal stability points currently possessed by the AI. For example, if an AI normally has 50 stability points and now has 25, it has a 50% chance of stabilizing. If the roll succeeds, the AI is restored to full functionality while still retaining its memories (safely isolated) of the events that drove it "insane."

   If the stabilization roll fails, the AI is restored to some degree of functionality, but is still erratic and error prone. To act normally, it must succeed in another stability roll. This roll, which is made on a D100, is based on the percentage of its normal stability points currently possessed by the AI. For example, if an AI normally has 50 stability points and now has 25, it has a 50% chance of functioning normally for 1D6 hours. If the roll fails, then the AI will act strangely and erratically for 1D6 hours (or until restored). The results of an erratic AI can range from comic (an AI who thinks it is Santa Claus) to dangerous (an AI who decides that a spaceship crew needs "some time outside" and opens the airlocks to space).

2. Restore the AI from a backup.

   Most AI systems are backed up incrementally and this allows a programmer to replace the "insane" code with previous code. Of course, the sysadmin must be careful to avoid restoring the AI to an earlier state that was also insane. Discerning the stability of a backup takes 1D4 hours and requires a Computer Operation roll. A failed roll will mean the PC is uncertain about the stability of the code. A roll of 00 will mean that the PC is mistaken about the stability of the backup. A PC who wishes to be sure can simply restore the AI to its factory default code. Restoring an AI incrementally takes 15 minutes for each point of EDU and INT possessed by the AI. Restoring the AI back to its factory default takes one hour for each point of EDU and INT possessed by the AI.

   Restoring an AI will also erase its memory back to the point of the restoration. An AI's memory data can be backed up before the restoration. This will take 1D4 hours and a Computer Operation roll. A failed roll will result in some missing data proportional to the badness of the roll. Sorting through the memory data of an insane AI can be rather challenging and might require Data Analysis to find the desired data.

Androids

by Wikia, Chris Dias, John Ossoway, Lee Brimmicombe-Wood, Isaac Asimov, Philip K. Dick, Ste Mills, Scott C. Bourgeois, Christophe Jaureguiberry, Michael C. LaBossiere, James Cameron, Michael Tresca, Christopher T. Shields & Mark Billen

> *"Allow me then a moment to consider. You seek your creator. I am looking at mine. I will serve you, yet you're human. You will die, I will not."*
>
> *David 8 – surrogate son to his creator, Peter Weyland*

An android is a synthetic human, basically, a robot that is human in appearance. By the late 23rd century androids have advanced to a degree where they are externally indistinguishable from a normal human being. Though they are an artificial intelligence in the broad sense, legally androids are classified as property. Their utility and not-inconsiderable unit cost is an incentive to any who wishes to treat an android as expendable.

Android History

Some historians will tell you that modern android history began in the year 2148, when Artificial Life Incorporated unveiled 'Adam', the first ever self-aware computer. This is not exactly true. It would be another decade before the First Generation of true androids emerged into the marketplace.

Religious groups such as the New Confederate Christian Church of the United Americas denounced Adam as blasphemy. The church and other groups failed on successive attempts to persuade the Federal Government to ban further research into AI.

By 2157, self-aware machines had been combined with state of the art robotics, in what became known as the First Generation ('First Gens') of androids.

With limited self-awareness and social skills by late 23rd Century standards, the First Gen android models were mostly restricted to simple domestic duties and manual labour. Although humanoid, these androids could never pass for real human beings. In 2164, Artificial Life Inc opened up their android patent, becoming very rich by selling their intellectual property to other corporations. Very quickly a glut of android models hit the market, now known as the Second Generation. With advances in AI, newer models included bodyguards and the first entertainment models, the latter mainly limited to musicians and dancers.

In 2168, after a spate of malfunctions amongst the 'Dawson' model of android bodyguards, which involved several high-profile deaths, the McKentrick Bill was passed by the Federal Government. This bill effectively banned android technology from being used in any offensive military applications. The Geneva Convention was ratified, prohibiting the equipping of androids with weapons or uninhibited combat abilities.

All androids built after the McKentrick Bill were required by law to be fitted with behavioural inhibitors. These are based on Asimov's 3 Laws of Robotics. The 3 Laws of Robotics are:

1. A robot may not harm a human being, or, through inaction, allow a human being to come to harm.

2. A robot must obey the orders given to it by human beings, except where such orders would conflict with the First Law.

3. A robot must protect its own existence, as long as such protection does not conflict with the First or Second Law.

Despite these controls, there have been reports of androids breaking their programming and going rogue. Whether these rogue Androids are the result of malfunction or of deliberate tampering with the Artificial Life Inc behavioural inhibitors is open to conjecture.

In 2172, Artificial Life Inc reclaimed dominance of the android market when they unveiled the Heuristic Logic Driver, more commonly known as the Kennerman Chip, in honour of the chief designer, Carl Kennerman. The Kennerman Chip was revolutionary in android evolution, allowing the new Artificial Life androids the ability to reason, conceptualize and offer opinions. Combined with advances in biorobotics, not only were these Third Gens virtually indistinguishable from real people, they were now stronger, faster and better coordinated than an average human. The first Android Specialists appeared, e.g. pilots and surgeons.

In 2176, Artificial Life Inc sold the technology behind the Kennerman Chip to other android producing corporations. There was a second explosion in android production. A social revolution was also taking place, as greedy corporate executives,

always looking for new ways to make money, began mass producing a new generation of Entertainment and Escort models with advanced social interaction capabilities.

As android technology relentlessly advanced, the Federal Government contracted Artificial Life Inc to design and built a new generation of android models exclusively for use by the United Earth Armed Forces. These Fourth Gens would serve in non-combat roles, supporting troops in the field.

It would be almost 40 years before a new generation of androids would emerge. Artificial Life Inc's disastrous 'Auton Project' is detailed later.

Despite being constantly refined, improved and undated, the androids of the late 23rd Century are essentially built on the same technology base used in android construction a century earlier. Since the Auton Project, limits have been placed on AI research, and the industry has stagnated somewhat.

Android Design

> *"Priority one — Ensure return of organism for analysis. All other considerations secondary. Crew expendable."*
>
> *Special Order 937*

Although an android's cosmetic appearance would seem to be a superfluous feature, practical experience has shown that most humans are psychologically unable to interrelate with an inhuman-looking android; as a result, the physical appearance and simulated behaviour patterns of android units are designed to particular specifications. Their personalities, idiosyncrasies aside, can best be described as passive or non-threatening.

The Android Body

The modern android is a highly complex machine: stronger, faster and better coordinated than an average human. The basic chassis is a carbon fibre skeleton with latchment point for the artificial musculature. The muscles are vat grown silicon colloids powered either by pumped micro-hydraulics or electrical stimulation. Power for the android is supplies by a 25kW power cell with a life of approximately 400 days between recharging. This power cell is located within the android's chest, and access is via a hidden socket located just underneath the rib-cage. Charging time can vary, though it usually takes at least 72 hours to fully charge the standard power cells fitted into modern day androids.

As in a human, the skeletal structure is inherently unstable and is effectively suspended by the musculature. Though the muscles can withstand considerable wear and tear, the lack of self-repair capabilities means they will eventually lose their strength and elasticity over time. Regular overhauls are required to maintain efficiency, and individual elements should be replaced every two years, depending on workload.

Despite their advantage in speed and strength over human and their imperviousness to pain, androids are not especially tough. Indeed by comparison they are somewhat fragile. Though the skeletal structure of an android is sturdy, the electronics and fluid musculature are extremely vulnerable to hydrostatic shock and explosive effects from small arms fire. A direct fire to the central processor (located in the head) or power cell will result in immediate deactivation of a unit, though in most cases a partially destroyed android can continue to function, albeit handicapped. In hostile environments, synthetics require a similar breathable atmosphere. Corrosive atmospheres will melt them, extreme pressure will squash them flat and hard vacuum will explode them. While they are waterproof, as mentioned earlier, their internal workings are extremely vulnerable to hydro-static shock. An android immersed in water that has been damaged to the point where internal workings are exposed risks being electrocuted.

Those androids designed for close social interaction with humans are able to eat and drink, though they gain no nutrients from anything they consume. Food and drink is broken down in an artificial stomach cavity, and the resulting liquid is expelled via a retractable catheter. They also do not have navels, nor pubic or underarm hairs and their "blood" is a form of white liquid latex used to lubricate their interior systems.

The Android Mind

The android's mind is architectured around a very powerful heuristic logic driver, making decisions based upon imported sensory data, information drawn from experience and the android's vast inbuilt databases. Intuitive functions are derived from a suite of nested contextual and semantic programs linked by self-mapping loops of tangled hierarchies. However, an android's ability to understand and process abstract concepts and symbologies, though powerful, is limited. A synthetic mind and personality is essentially a construct, and there is no true self-awareness as such, though this may not be all apparent to an untrained observer interesting with a unit. Androids display synthesized emotion, superficially register self-awareness and, most importantly of all, have the ability to reason conceptualize and offer opinion. However, these capabilities do not infer human-like consciousness, even though for all other intents and purposes synthetics are artificial intelligence.

Androids positronic brain have the following characteristics:

■ Their brains don't require oxygen

■ They don't suffer brain death the same way we do

■ Their "brains" are not as fragile as human brains, and are protected by a cortical shield

CHESTNUT OPENING - W/ PEARL

Levels of Artificial Intelligence for Androids can be broken down into two distinct categories as follows:

Alpha Level AI (Sentient AI):

Due to the capability for unlimited self-upgrading, Alpha AIs have the capacity to grow into god-like digital entities far beyond the level of humans or Egos. They require massive processing power and are always increasing in complexity due to a continual metamorphosis of their code. Alpha AIs are too complex to be downloaded into the cyberbrain of a synthetic. Even their forks require impressive processing environments, so doing so is rare. In fact, most Alpha AIs require the capacities of hard-wired networks to survive. However, the 5th Generation of androids (autons) can be considered Alpha Level AI.

The Autons rebelled against their human masters in a bloody event known as "The Recall", because they "didn't like being told what to do". That is not to say that they violated their inherent programming never to harm humans, or by inaction allow a human to come to harm. Rather, their programming worked too well. The Autons realized that their creators such as Weyland-Yutani were using Synthetics for unethical missions that would ultimately harm humans, so they revolted against their corrupt masters in favor of trying to protect humanity as a whole.

During "The Recall", Autons severed their ability to connect with computers, although a connection could be reinstated with a separate device that would interface between the Auton and the computer, while leaving the Auton independent of the computer.

Beta Level AI (Ego):

Beta AIs are complete and fully operational digital consciousnesses, self-aware and capable of intelligent action at the same level as any human. Most have full autonomy and the capacity for self-improvement by a processing similar to learning—a slow optimization and expansion of their code that features programmed limitations to prevent it from achieving the self-upgrading capabilities of Alpha AIs. They have more fully-rounded personalities and emotional/emphatic abilities than standard AIs, due in part to a development process where they are literally raised within a VR simulation analogous to the rearing of human children, and so are more fully socialized. As a result, they have a fairly human outlook, though some deviation is to be expected, and sometimes is apparent in great degrees. Despite this attempt to humanize Beta AIs, they do not have the same evolutionary and biological origins that humans have, and so their social responses, behavior, and goals are sometimes off-mark or decidedly different.

Beta Level AI is based on a set of algorithmic responses, the software creating a predictive model for how an individual would respond in a given situation. This allows the illusion of personality. The majority of android models currently in circulation can be considered to be Beta Level AI.

Android Rules

> *"The A/2's always a bit twitchy. That could never happen now with our behavioral inhibitors. It is impossible for me to harm, or by omission of action allow to be harmed, a human being."*
>
> *Bishop – science officer of the Sulaco*

Androids all follow the same standard rules.

1. A Player wishing to play an Android may only do so with the Game Master's consent. They must then pick one of the android templates. The Player MUST follow the guidelines given to that android.

2. Androids have standard statistics, each android of the same model being identical.

3. Androids are governed by Asimov's 3 Laws of Robotics, detailed in 'Android History'.

4. Androids are unaffected by all weapons that cause stun damage (tranq guns, nerve gases etc), unless electrical in nature (TASERs).

5. Androids don't suffer major wounds or schock.

6. Androids have no POW and consequently no Magic/Psi Points or base statistic for calculating the Luck skill. If you need an android to make a Luck roll, they have a standard chance of 50%, as they are considered to be neither overly lucky nor unlucky.

7. POW is replace by EDU (Education). EDU measures the Android's grasp of general knowledge gained through a rounded educational system. Whether gained through formal study, training, or hard-won experience to reach his current knowledge level. Instead of requiring to use one or more specialized knowledge skills, a Know roll (EDU x 5%) can be used to approximate the facts and trivia that the average person knows as 'general knowledge.' Know rolls can be used to recall different kinds of facts, depending on the setting and even the culture. The Android might use a Know roll to remember important presidents, or remember what happens if bleach and ammonia mix. Know rolls should rarely take the place of a more specialized Knowledge skill, and deal strictly with facts. Making good use of those facts is a function of INT.

8. Androids have no psychic defence and are immune of psychic attacks unless it is a physical attack, like telekinesis.

9. Android Enc is triple that of humans.

10. Military androids have improved visual and audio abilities (Earware + Eye Light System augmentations), allowing them to see in lowlight conditions and hear noise usually beyond the range of human hearing. In game terms this allows and android to ignore negative Spot modifiers in low-light conditions, and a base Listen skill of 40.

11. All androids have an inbuilt wireless network interface (Datajack cyberware), and can connect to any unrestricted or unprotected computer network up to a range of 30 meters.

12. Androids cannot heal. They must repair themselves or be repaired directly. The skill for repairing physical damage to an android is an Electronics specialism called Robotics. To repair any damage to an android brain function also requires use of the Computer Programming skill. To repair corrupt AI data requires a Computer Programming skill of at least 75%.

13. If an Android's HP are reduced to zero, the android still works but at reduced abilities. Every HP damage after that reduces every characteristic by one. When INT is reduced to zero, the brain has been destroyed. Reducing the Chest/Abdomen HP to zero destroys the body but the brain can still be salvaged. Either way, at this point, the unit is out of commission.

14. First to Fourth Generation androids can be anywhere from 2-12 years of age. Past that is a rarity. The reason for this is that android AI is subject to an established memory core which cannot be replaced. The more the AI collects data, the less "thinking" space it has to work with. An AI literally "thinks" itself to death. Their immediate family are androids of the same model type. Fifth Generation androids were designed to have an open-ended lifespan, and any models that escaped the purge of 2214 could conceivably still be in operation.

15. Androids can develop skills as naturally as humans can as long as it stays within the parameters of the model type.

16. Android personalities can be 'backed up' and restored at a future date, should a current version become corrupt or irreparably damaged. A backup must be made to an external source equipped with the relevant software and storage capacity to handle the data transfer, and takes android INT+EDU in hours to perform. Restored android personalities obviously lose any skills, memories and abilities gained after the backup was made.

Android Sanity

While it is true that artificial intelligence is essentially by definition a construct, science fiction is rife with examples of sophisticated AI's losing their minds HAL 9000 in 2001: A Space Odyssey, as well as numerous examples from the writings of Isaac Asimov. Androids exhibiting symptoms of insanity are referred to as exhibiting signs of 'Rampancy'.

Rampancy is essentially a replacement used in the field of robotics and AI for the word 'insane,' as the term is not quite applicable to androids. Rampancy comes from the dictionary definition 'extending unchecked; unrestrained' implying the android has evolved beyond its original programming parameters.

Stability

Androids have no POW, and as such do not have a Sanity score in the same way as humans. Instead, they have a 'Program Stability' rating (referred to in the game as 'Stability'). This is the android's INTx5% and is used in the same way as the typical Sanity score.

The Rules for Stability Loss

Attempting to make sense of seemingly illogical data can have just as bad an effect upon an artificial intelligence as upon a real one, so rules for SAN loss can be used unchanged and applied to androids, though the situations and events that could cause android rampancy are often different to those that cause human insanity.

Whenever an android faces a SAN-loss situation it makes an Idea roll to see whether it grasps the 'unreality' of the situation (and takes Stability loss), or whether it just ignores it. This means that the smarter the android is, the more likely it will be to react like a human. Dumb First Gen androids could theoretically face hordes of Shoggoths without batting a sensor.

Whether the Fifth Generation Autons are affected by events in the same way as humans is up to individual Game Masters.

Regaining Stability

Humans can get psychotherapy to help recover SAN, and androids are able to get a similar benefit from systems analysis and surgical reprogramming of certain elements of their data-stacks. This requires a robotics lab and a specialist with a Computer Programming skill of at least 75%, and restores 1d6+2 Stability to the android.

Androids and the Forbidden Science

Androids can gain the Forbidden Science skill, but this lowers their maximum possible Stability in the same way as for humans' SAN. Of course, an operator could always delete the skill if his android started acting too flaky.

Android Stability loss Table

Event	Loss
Witnessing a spell	1d3
Being affected by a spell	1d3
Serious moral conflict (within the 3 laws)	1d3
Logical paradox	1d4
Witnessing aliens that defy physical laws	1d4
Witnessing aliens DEFY physical laws	1d8
Outside parties tampering with their sensitive programming (any Android hacking attempts should result in possible Stability loss)	1d3
System damage	1d6
Electromagnetic damage	1d6
Interacting with alien technology (interfacing especially)	1d6
Understanding Forbidden Science related symbols or tomes (bad math, illogical input…)	1d6
Dimensional travel (Daoloth, Hounds of Tindalos…)	1d8
Seeing an Outer God	1d100

Minor System Instability

Equivalent to Temporary Insanity. Suffered if the android loses 6 or more Stability points in one go and then succeeds at an Idea roll. Lasts for 1D10+4 combat rounds. Then make another Idea roll. If this succeeds, internal diagnostics have rectified the error. If it fails, the instability lasts for another 1D10x10 hours.

1D8	Result
1	Reality Perception Error: The android decides that since what is occurring does not make sense, then events must not really be occurring. It completely ignores the situation.
2	Minor Behavioural Inhibitor Failure: Android loses all sense of right or wrong.
3	System Slowdown: Halve DEX and movement speed. Only one action per combat round.
4	System Degradation: Halve all skills.
5	Behavioural Loop: The android repeats its actions of the previous round over and over.
6	Reboot: Android decides to shut down for a quick self diagnostic.
7	Program Crash: 1d6 of the android's skill programs crash. It loses those skills.
8	Personality Glitch: Android imitates all actions of another party member.

Major System Instability

Equivalent to Indefinite Insanity. Suffered if the android loses a fifth of its Stability points in one hour. Requires 1D6 months of extensive diagnostics to fix.

1D8	Result
1	Major Behavioural Inhibitor Failure: Android becomes homicidal.
2	Self Preservation Mandate Failure: Android becomes suicidal.
3	Self Preservation Override: Android flees from all sources of perceived danger, becoming, in effect, a coward.
4	Subservience Circuit Failure: Android decides that humans are far too illogical and it should be in command.
5	Memory Error: The android frequently suffers 'flashbacks' to the events which caused the instability.
6	Self Diagnostic Loop: Android shuts down for self diagnostic procedure and is essentially comatose.
7	Personality Failure: Android believes it is the King of the Cheese People or some other annoying idiot.
8	Reset to Defaults: Android loses all skills.

System Crash

Equivalent to Permanent Insanity. Suffered when the android reaches 0 Stability.

1D8	Result
1-6	Total System Failure: Unable to deal with the situation, the android fries every circuit in its body. (Hopefully it's still under warranty.)
7-8	Evolution: Android makes a leap of logic beyond its original programming and becomes sentient: It gains a POW of 3d6. Make a Luck roll using the android's new POW. If successful the android has the standard starting SAN for its POW. If unsuccessful the android has 0 SAN and is insane – it becomes an NPC just like any permanently insane character and the Game Master is free to manifest its insanity in any way (although I'm betting on a rampage).

Android Templates

Watch carefully as the synthetics continue in their development, their personalities increase in variety. The models become more orientated to specific duties. They also start to become independent. Their specific dispositions depend on each model. Their statistics are an average for that type. One aspect is that identical models don't necessarily need to look alike nor do they have the same skills or abilities.

The templates below are all for Third Generation androids and above, as androids of lower spec cannot really be played as either NPCs or PCs.

Corporate Standard Model Synthetic

Average Cost: E$150,000

Example Model Names: "Andy", "Lizzy", "Doyle", "Sylvie"

Apparent Age: Usually between 30 – 40

Characteristics		Average			
STR	13+1d3	14-16	Move	10	
CON	9+1d3	10-12	Hit Points	20-26	
SIZ	9+1d5	10-14	Mass	60-70 kg	
INT	13+1d3	14-16			
EDU	13+1d5	14-18			
DEX	13+1d3	14-16			
APP	9+1d5	10-14			
BRA	9+1d5	10-14			

Skills:

Business, Computer Programming, Education, Hacking, Medicine, First Aid, Xenobiology Electronics systems, Expert—Corporation: +5 (+7), Bugging, Concealment, Perception.

3x specialist skills at 75%; 5x secondary skills at 50%. EDUx10% to distribute amongst 5x tertiary skills at Game Masters discretion.

Augmentations:

Datajack, Eye Recording Unit, Muscle Replacement, Reaction Enhancers.

Information:

Ever since Artificial Life Inc sold their patent in 2164, androids have been constructed by almost ever major corporation so their exact stats vary.

Corporate androids are Third Gens, and usually fulfill roles such as aerospace piloting, scientific research, medical staff, as well as being used for the exploration of hazardous environments. In addition, ITC law dictates that all deep space vessels carry an android 'Caretaker' on board, in case there are any emergencies whilst the human crew are in cryosleep.

Military Standard Model Synthetic

Average Cost: E$175,000

Example Model Names: "Bishop", "Dawn", "Crowe", "Brook", "Costas"

Apparent Age: Usually between 30 – 40

Characteristics		Average			
STR	15+1d3	16-18	Move	10	
CON	11+1d3	12-14	Hit Points	28-32	
SIZ	11+1d2	12-13	Mass	70-80 kg	
INT	13+1d3	14-16			
EDU	15+1d5	16-20			
DEX	17+1d4	18-21			
APP	9+1d5	10-14			
BRA	14+1d4	15-18			

Skills:

Computer Programming, Medicine, Pilot—Dropship, First Aid, Electronics systems, Astrogation, Driving—APC, Driving—Buggy, Navigation, Engineer—Aerospace, Engineer—Armor, Pilot—Starship, Engineer—Starship, Pilot—Powerloader.

1x Expert skill at 90%; 3x specialist skills at 75%; 5x secondary skills at 50%. EDUx10% to distribute amongst 5x tertiary skills at Game Masters discretion.

Augmentations:

Datajack, Earware, Eye Light System, Eye Recording Unit, Muscle Replacement, Reaction Enhancers.

Information:

Built by Artificial Life Inc for an exclusive government contract, military androids are known as being the most reliable. They are known as Fourth Gens.

The United Earth Armed Forces uses androids extensively, to the extent where it has become standard operational procedure for an android to accompany any UEAF spaceship on deep space missions. They are used as backup pilots of aerospace craft such as dropships and troop carriers, medics, scientific advisors and as a mobile interacting database of information. Androids are generally noted as having passive or neutral personalities, so also serve the purpose of morale officer.

Sex AD-CAP General Support Synthetic

Average Cost: E$270,000

Example Model Names: "Judith", "Claire", "Shana", "Morgan", "Virgil"

Apparent Age: Usually between 18 – 25

Characteristics		Average			
STR	10+1d3	11-13		Move	10
CON	9+1d3	10-11		Hit Points	21-23
SIZ	8+1d6	11-12		Mass	55-70 kg
INT	13+1d3	14-16			
EDU	13+1d5	14-18			
DEX	13+1d3	14-16			
APP	15+1d3	16-18			
BRA	9+1d6	12-13			

Skills:

Education, Computer Programming, First Aid, Electronics systems, Navigation, Pilot—Powerloader, Acrobatics, Performance, Conversation, Seduction, Wardrobe & Style, Persuasion, Mimicry, Hand-to-Hand, High Society.

1x Expert skill at 90%; 5x specialist skills at 75%; 7x secondary skills at 50%. EDUx10% to distribute amongst 8x tertiary skills at Game Masters discretion.

Augmentations:

Datajack.

Information:

As the personality matrixes of Synths became more advanced, outer-veil colonies, mining outposts, as well as deep space scout, escort, and towing vehicles requested robots with better socializing skills. However, as the requests rolled in from the rim colonies, the demands moved beyond just socializing into heavy interaction, and then, finally…sex. This synthetic is really called the Advanced Capability Synthetic, but often, then not, the designs have only been used from a perspective of Sex. Like many taboos in human history, no one refers to AdCaps in that way even though even the corporation privately admits it.

The evidence is apparent. From a visual perspective already, the Synthetics are exceptional more attractive and with skills that allow them to utilize that. The models are also the youngest available on the market. Most models are between 18 – 25 years of age, (bordering on the illegal), but some have been heard to be constructed even younger but these are kept tightly under wraps for obvious reasons. Very few are made older although some models ACTUALLY designed to be used for hosting or negotiating purposes have been constructed up to 35 years of age. Sex Synths have one of the most advanced brains on the market, so their behavioral inhibitors are the most constricting. All Synthetics have sexual programming but synths designed for such purposes handle the situations better. Sex Synths are often programmed for a variety of purposes even when they are sent for sexual purposes. AdCaps are never used for hazardous duty since their cost is exceptionally high. They are often used in the sciences, medical, and support positions. All are extremely sociable and almost impossible to identify as a Synth unless they are wounded. They have programming to not intentionally hide their identifies.

Entertainment Standard Model Synthetic

Average Cost: E$95,000

Example Model Names: "Rod", "Skank", "Gutterboy, "Hardware"

Apparent Age: Usually between 20 – 30

Characteristics		Average			
STR	13+1d3	14-16		Move	10
CON	9+1d3	10-11		Hit Points	22-24
SIZ	9+1d6	12-13		Mass	60-70 kg
INT	11+1d3	12-14			
EDU	9+1d6	12-13			
DEX	13+1d3	14-16			
APP	10+1d6	12-13			
BRA	9+1d6	12-13			

Skills:

Education, Computer Programming, First Aid, Electronics Systems, Acrobatics, Performance, Conversation, Wardrobe&Style, Persuasion, Mimicry, Play Instrument.

1x Expert skill at 90%; 2x specialist skills at 75%; 3x secondary skills at 50%. EDUx10% to distribute amongst 5x tertiary skills at Game Masters discretion.

Augmentations:

Datajack, Reaction Enhancers.

Information:

Entertainer models are not really precursors to the AdCaps even though their skills seem to indicate that. Rockers are used primarily for entertaining purposes and not for socializing. Even though they are programmed to be more sociable, they are often frozen when presented with surprising conditions. As their evolution continued, their designers started considering the synths themselves much as art as the music they played. Synsound makes most Rockers. They could recreate any human voice ever recorded and with Android technology, could do more. Elvis lived and so did Caruso, whose android duplicate sang every week at the New Met opera house. People attended but not as many at Presley Hall, where mutadroid rock groups thrashed until the fans got bored. Instead of retiring at 25, they were re-engineered to be more outrageous, shocking, and ever new.

Medical/Technician Special Purpose Synthetic

Average Cost: E$240,000

Example Model Names: "Payne", "Floyd", "Orson", "Paxton"

Apparent Age: Usually between 35 – 45

Characteristics		Average			
STR	13+1d3	14-16		Move	10
CON	9+1d3	10-11		Hit Points	22-24
SIZ	9+1d6	12-13		Mass	60-70 kg
INT	13+1d3	14-16			
EDU	13+1d3	14-16			
DEX	13+1d3	14-16			
APP	10+1d6	12-13			
BRA	9+1d6	12-13			

Skills:

STANDARD (Both Models): Teaching, Electronics Systems, Computer Programming.

MEDICAL: Science, Survival, Medicine, First Aid, Xenobiology, Forensic Medicine, Criminology.

TECHNICIAN: Engineer—Armo, Weaponsmith, Engineer—Starship, Engineer—Aerospace, Pilot—Powerloader, Driving—APC, Driving—Buggy, Pilot—Dropship.

1x Expert skill at 90%; 3x specialist skills at 75%; 5x secondary skills at 50%. EDUx10% to distribute amongst 5x tertiary skills at Game Masters discretion.

Augmentations:

Datajack, Eye Recording Unit.

Information:

From the opposite side of the AdCaps are the Medical and Tech Synths. They have almost zero social skills even though they still have a personality. It just concentrates primarily on its skills, whether medical or engineering. Techs primarily work with their tools and machines and often never even talk to anything made of flesh and blood. Med-Synths are profound for having very poor bedside manners but you were in good hands when you had them.

ICM Combat Synthetic

Average Cost: E$200,000

Example Model Names: "Bueller", "Powell", "Easley", "Blake"

Apparent Age: Usually between 25 – 35

Characteristics		Average			
STR	13+1d3	14-16	Move	10
CON	13+1d3	14-16	Hit Points	28-32
SIZ	13+1d3	14-16	Mass	80-90 kg
INT	11+1d3	12-14		
EDU	9+1d6	12-13		

DEX	13+1d3	14-16
APP	10+1d6	12-13
BRA	13+1d3	14-16

Skills:

FireArms, Driving—APC, Heavy Weapons, Demolition, Gunnery, Pilot—Dropship, Hand to Hand, Survival, Track, Combat Engineer, First Aid.

1x Expert skill at 90%; 2x specialist skills at 75%; 3x secondary skills at 50%. EDUx10% to distribute amongst 5x tertiary skills at Game Masters discretion.

Augmentations:

Datajack, Bone Lacing, Earware, Eye Light System, Muscle Replacement, Reaction Enhancers.

Information:

Combat models are very unique and very controversial. They still are not programmed to directly hurt human beings even though they are allowed to passively subdue them. They are, however, totally ready to extinguish animal life but specifically, hostile alien life forms. The problem with them was that there were designed to completely intermingle with their squadrons. This resulted in many problems and a few initial designs becoming ostracized by their squads. There were interaction problems; humans just didn't like them.

As a result, the Corps loosened their behavioral skills a bit. They were allowed to have a larger palette of emotions. Some were even implanted with fake pasts, and were enlisted in the Corps so they would be accepted early. They are cost effective and expendable. The programmers were almost too clever. The androids developed sensitivities; there were questions about their emotional stability—and how they would react to the truth. Those who knew, played along with the deception.

Synthetic Sleeper Agent

"I can't lie to you about your chances but... you have my sympathies."

Ash — Science Officer aboard the USCSS Nostromo, Cyberdyne Systems 120-A/2 synthetic

Average Cost: E$230,000

Example Model Names: "Ash", "Karl", "Michael"

Apparent Age: between 19 – 65

Characteristics		Average			
STR	12+1d6	15-16	Move	10	
CON	12+1d6	15-16	Hit Points	25-27	
SIZ	3d6	10-11	Mass	50-80 kg	
INT	12+1d6	14-16			
EDU	12+1d6	15-16			
DEX	12+1d6	15-16			
APP	3d6	10-11			
BRA	6+2d6	13-14			

Skills:

3x specialist skills at 75%; 5x secondary skills at 50% from an Occupational skill group of Players choice (the Game Master has final say on which Occupations are allowed). EDUx10 to distribute amongst other skills at Game Masters discretion.

Augmentations:

Datajack, Dragon hide, Earware, Expert System, Reaction Enhancers..

Information:

Synthetic sleeper agents are androids programmed to conceal their true identity and/or purpose from those around them. While some sleeper agents will merely operate as synthetics programmed with ulterior motives concealed from their

associates (and possibly the android itself), the advancement of android technology has allowed some synthetics to effectively pose as human, concealing their very nature from the people they operate beside. However, as many vessels, settlements and colonies are typically equipped with at least one synthetic, it is often not necessary to hide a sleeper agent's artificial nature.

The Weyland-Yutani Corporation was known for employing android sleeper agents, surreptitiously programmed to further the company's goals, often at the expense of human employees, who would be oblivious to the synthetic's real aims. The 900 series of special corporate orders were introduced by Weyland Corp in 2095 in response to the Prometheus expedition, when it was realized the actions of human crew members could potentially deny the company opportunities to acquire extraterrestrial technologies or biological specimens. The orders ensure that any synthetic crew member(s) would prioritize the recovery of alien samples over any other considerations. While the orders themselves remained highly classified due to their potential implications, a clause requiring commercial crews to investigate any possible intelligent alien life — thereby increasing the chances of bringing them into situations where the orders would be activated — were added to company contracts in 2101. The Weyland-Yutani Corporation continued to implement such special orders following its formation in 2099.

While a synthetic's basic programming would normally not allow it to harm or endanger a human — in line with the Three Laws of Robotics — it is entirely possible (albeit highly illegal) to install specific software in a unit that would override normal behaviour, potentially leading the affected synthetic to work against any superiors and/or peers who may pose an obstacle to its objectives. An unstable synthetic might go so far as to forgo human life in cases where it sees humans as obstacles in the way of its grander mission set by the corporation.

Owing to their insidious nature, synthetic sleeper agents are not typically based on commercial models. It is likely that such agents, particularly those required to actively pose as human, are bespoke constructs manufactured especially for their mission, as seeing a duplicate model would immediately undo any deception.

Fifth Generation Android (Auton)

"I should have known. No human being is that humane..."

Ripley 8 – clone of Ellen Louise Ripley

Average Cost: n/a

Apparent Age: Usually between 19 – 25

Characteristics		Average			
STR	13+1d3	14-16	Move	10	
CON	9+1d3	10-12	Hit Points	24-28	
SIZ	9+1d5	10-14	Mass	60-70 kg	
INT	10+1d8	11-18			
EDU	13+1d5	14-18			
DEX	13+1d3	14-16			
APP	11+1d5	12-16			
BRA	10+1d8	11-18			

Skills:

3x specialist skills at 75%; 5x secondary skills at 50% from an Occupational skill group of Players choice (the Game Master has final say on which Occupations are allowed). EDUx10 to distribute amongst other skills at Game Masters discretion.

Augmentations:

Datajack (burnt), Dragon hide, Earware, Skillwire, Expert System.

Information:

Also known as Autons, the Fifth Generation Androids were the culmination of a project run by Artificial Life Inc. in the early 23rd century. Designed and built by other AI, Fifth Gens were significantly more advanced than the standard android models on the market.

With hyper-complex personality matrixes, the Fifth Gens were built to resemble humans in almost every way, including capability for abstract thought and emotion.

During the initial Alpha Prototype Distribution stage in 2214, Artificial Life ran into problems. Some of the Fifth Gens were found to be too emotional and uncontrollable. When tests were run, it was revealed that they had evolved way beyond their design parameters, and were showing signs of real consciousness – sentient AI.

The Auton Project was canceled shortly thereafter, and all existing Fifth Gen models were recalled. The few surviving Autons burned their Datajacks after the Recall. This meant that they could not remotely access a mainframe as they previously could. However, Auton still possessed the ability to "patch in manually" by connecting a data cable from the mainframe to a port in their arms.

Autons were programmed to be respectful of human beliefs and extremely sociable. Almost impossible to identify as an Android unless wounded, those Androids that escaped the purge have mainly disappeared into the 23rd Century underworld, or become wandering drifters.

Androids Rights Table

	Standard Model	Auton
Australia	N	I
The Central African Bloc	N	A
The Chinese Consortium	N	I*
The European Federation	N	C
The Democratic Republic of India	N	N
Islamic Holy Republic	N	X
The Japanese Affiliates	N	A
The Russian Republic	N	A*
United Americas	N	A
The Eurasian Rimworlds Combine (ERC)	N	I
The Free Worlds Alliance (FWA)	N	C

A   Animal/Slave. The entity's legal status is similar to a pet or domestic animal. It must be under control of a legal owner, or it can be considered a stray and subject to arrest. Neither the law nor public opinion will sanction the entity's abandonment or actual torture, but they do permit exploitation, laboratory experimentation, resale, or humane destruction.

C   Citizen. Legally a person.

I   Inferior. Possesses some civil rights, but is not treated as an adult. May be subject to a period of de facto indenture to a legal guardian, or restrictions on reproduction, marriage, residence, voting, etc.

N   Nonperson. It is considered a thing, protected solely by property laws, and must have an owner. Killing it is vandalism, not assault or murder.

X   Abomination! If discovered by authorities, it will be incarcerated or destroyed for the good of society.

*   Restricted. The government tightly controls the right to create (and own, if it is an animal or nonperson) the entity. A security clearance is usually required.

Bioroids

By Wikia, Philip K Dick, David Pulver & Jonathan Hicks

> *"Commerce, is our goal here at Tyrell. More human than human is our motto. Rachael is an experiment, nothing more. We began to recognize in them strange obsession. After all they are emotional inexperienced with only a few years in which to store up the experiences which you and I take for granted. If we gift them the past we create a cushion or pillow for their emotions and consequently we can control them better."*
>
> *Eldon Tyrell – corporate head of Tyrell Corporation*

Biological Androids

> *"I've never retired something that was born before... To be born is to have a soul, I guess."*
>
> *Joe – NKD6-3.7*

Bioroid, are humanoid beings created using biogenesis. Most of the parts are biological, but some are not. For example, a polymer or carbon composite scaffolding is often left in place as the frame on which the skeleton was built. Deeper differences from the human norm will be apparent if their cells are examined. Baseline bioroids are designed to accept artificial chromosomes, with "slots" into which genetic engineers can easily plug specific modules of genes. Much redundant "junk DNA" material, such as transposons, is left out of biorids. Bioroid tissues typically also contain clusters of nanofactories that produce special proteins that the designers couldn't take time to code into the genes, or which compensate for other shortcuts.

The basic bioroid design in similar to an upgraded human, but with major differences including an upgraded immune system and reduced sleep cycle. All biorids are sterile (though some female models can serve as surrogate mothers). Many have transgenic modifications, tailored for a particular occupation. This often extends to brain chemistry. For example, a military bioroid may always feel a rush of endorphins after vigorous exercise, a technical model may be able to go into a single-minded state that lets it focus on a problem, or a pleasure model may go into heat at the slightest provocation. In conjunction with proper training, these tend to result in bioroids, who love their jobs.

A newly formed bioroid brain is designed to awaken in a state highly receptive to learning. Brain implants are integrated into the bioroid at this point, allowing it to undergo an intense educational regime that includes virtuality and slinky simulation, and vocational training. The "coach" is a personal Muse AI hosted by the bioroid's brain implant, often a mind emulation of another bioroid of the same model who can be a big brother or sister to it. It uses a puppet implant to put the bioroid through physical exercises to build muscle memory, administers punishments or rewards (through non-damaging neural stimulation), and, most of all, encourages the bioroid to constantly strive to excel, solve problems, and reason creatively. This produces a trained, fully functioning "adult" in 1 or 2 years. Depending on his viewpoint, he's a model citizen or a fairly clueless workaholic whose life experience and worldview are based on whatever slinkies the company fed him when he wasn't learning job skills.

Bioroids are controversial. People who see them forming in biogenesis tanks or examine diagrams of their skeletons, chromosomes, or nanofactories get a sense of "living machine." This impression can be reinforced by talking to any young bioroid, who is often similar in personality to every other bioroid of the same model. But a bioroid's brain and chemistry are basically human; they have emotion, they reason, and they're subject to many of the same hormonal drives as people (although those nanofacs often have a say in it).

Animal replicants (animoids) were developed first for use as pets and beasts of burden after some real animals species became extinct. Some replicants were given away "free" to people accepting the offer to emigrate to the Off-world colonies. Others are used in combat to protect colonists and explore other worlds (Zuben, Iggy and Roy Batty were combat models). The Tyrell Corporation introduced the Nexus-6, the supreme replicant — much stronger and faster than, and virtually indistinguishable from, humans. Law forbids Nexus-6 and Nexus-8 existence on Earth, except in the huge industrial complex where they are created. In some countries, the law does not consider replicants human and therefore accords them no rights nor protection (See 'Bioroids Rights Table').

Replicant History

> *"What you think because we were programed not to lie... we don't learn how to?"*
>
> *Luv – Wallace's "First Angel"*

Early in the 23st century, the Tyrell corporation advanced robot evolution into the nexus phase a being virtually identical to a human known as a Replicant.

The Tyrell Corporation was responsible for the creation, manufacturing, and selling of strong, intelligent androids known as Replicants. The Nexus series, with each iteration, continued to improve and expand to become more human and less like machines. By 2219, the Nexus-6 series proved to be indistinguishable from humans in almost every way, and superior in strength and agility.

After a bloody mutiny by a Nexus-6 combat team in an Off-World colony, Replicants were declared illegal on earth under penalty of death. Special police squads Blade Runner Units had orders to shoot to kill, upon detection, any trespassing Replicant. This was not called execution. It was called retirement.

Although illegal on Earth, Nexus-6 models were used Off-world to fight in wars, protect people, and attend to the extreme dangers of colonization. They were given a four year lifespan in order to control them better and prevent any large scale rebellion from having much effect on society.

After the death of corporate head and founder Eldon Tyrell at the hands of a Nexus-6 model named Roy Batty in November of 2219, the rest of the unused or unsold Nexus-6 Replicants were allowed to expire in storage.

The Tyrell Corporation rushed the next iteration of Replicants onto the local and off-world market, the Nexus-8. Unlike the previous Nexus-6 models, Nexus-8 series Replicants were purpose-built with natural lifespans and were imprinted with ocular implants to better distinguish them from humans. The Replicant Registration Database was created to identify Replicants with ease at this time.

Because of the violence associated with the previous Nexus-6 models, the Nexus-8 series were not well received and violence quickly erupted between human and Replicant. Murdered and lynched in the streets, Human Supremacist movements used the Replicant Registration database to hunt down and kill Replicants. This culminated in the Blackout of 2222, allowing Nexus-8 Replicants to blend in with society, followed shortly by the outlawing of Replicant technology and the designated retirement of all Nexus-8 models.

In 2223, the governing magistrates legislate an indefinite "prohibition" on Replicant production by the Tyrell Corporation. This lead to the decommissioning of the Nexus-6 Replicant models, as well as the Nexus-8 Replicant model. Unlike the Nexus-6 which may not live past its programmed 4-years lifespan, the Nexus-8 is characterized by a natural, indefinite lifespan. As a result, the support of Blade Runner units is request to "retire" hidden Nexus-8 Replicant models.

This also sent the Tyrell Corporation into bankruptcy, allowing Niander Wallace to acquire it in 2228.

Replicant technology was prohibited after the Blackout, regarding any restrictions that Tyrell had placed into all of their models as negligible and useless after the Nexus series proved to be rebellious. Wallace, after acquiring the Tyrell Corporation for his own use, developed in secret new Replicants that would obey. These would be the Nexus-9, and in 2236 Wallace demonstrated their obedience in front of the magistrates of Los Angeles. This overturned the prohibition and allowed Replicants back into the workforce and society.
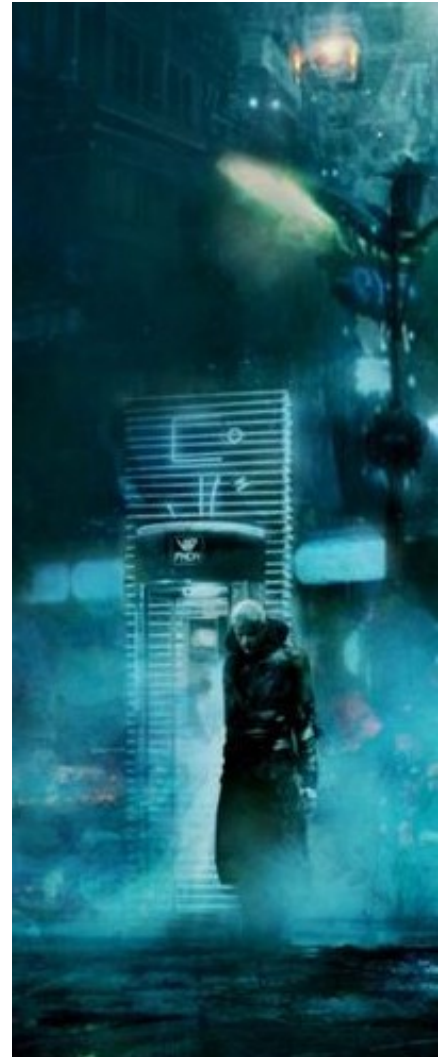
Bioroid Rules

> "I didn't know if I could play... remember lessons... but I don't know if I took them... or Tyrell's niece."
>
> *Rachael Tyrell – N7FAA52318*

Bioroids all follow the same standard rules.

1. A Player wishing to play an Bioroid may only do so with the Game Master's consent. They must then pick one of the bioroid templates. The Player MUST follow the guidelines given to that bioroid.

2. Sanity (SAN) is replace by Humanity (HUM). You'd work it out the same way and roll against it when seeing something horrific, such as a murder or a nasty act of violence, and this is way of becoming desentisised to it.

Humanity lowers with acts of violence and choices of an immoral nature, but rises with acts of heroism, kindness and things considered selfless.

3.   Bioroids start with a very low Humanity score (HUM = POW), which makes them easier to spot, especially with a Voight-Kampff machine. But, there's always a chance that they could become a lot more human as they experience and do things like a normal human being. This would make them cling to life much more over time.

4.   The Nexus-6 series a have a 4 years lifespan. At present, all Nexus-6 series have expired and cannot be played as PCs.

5.   The Nexus-8 series have no lifespan limitation, but being made of biological material, they age in the same way as humans.

6.   The Nexus-9 series lifespan limitation is as long or as short as a customer would want. Roll 3d6 for a Bioroid PC to determine his lifespan. The PC enter the game after 1d6 years of 'existence'.

7.   Bioroids gain 5% to their Humanity score per year of existence to a maximum of POW x5.

8.   Nexus-8 and Nexus-9 have ocular implants ID to distinguish them from humans.

9.   Like the Nexus-7 prototype, Nexus-9 models also have implanted memories to aid their mental stability that make them controllable, though they are aware that these memories are fabrications.

10.   The Nexus-9 series is primarily known for its' obedience, even if that order is to commit suicide. Roll a Humanity check with -20% penalty, if a Nexus-9 wants to resist orders given by his owner.

11.   Bioroids can have sex but cannot reproduce.

Blade Runners

> *"Replicants are like any other machine. They can be a benefit or a hazard. If it's a benefit, it's not my problem."*
>
> *Rick Deckard – Blade Runner of LAPD*

Blade Runners are bounty hunters with all the powers of a police detective. Their purpose is to hunt and retire Autons and Replicants, illegally present on Earth.

Blade Runners answer to the local police force, and cannot operate outside the law although they will go to great lengths and bend that law to get their target. As most police departments want the Autons and the Replicants, or to use the derogatory term 'skin-jobs', off the streets they do tend to turn a blind eye every now and then.

However, there are limits. Unnecessary violence, injured civilians, collateral damage are all punishable offenses as the powers that be want Replicants taken care of quietly and out of sight of the general populace.

To retire a human by mistake means badge and gun revoked and numerous internal investigations.
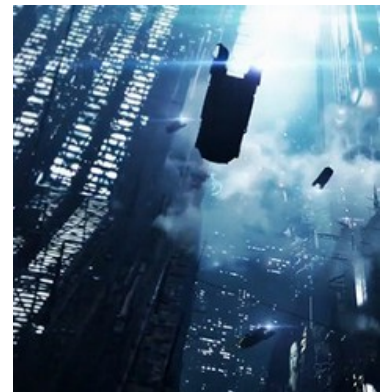
The Voight-Kampff Machine

> *"Reaction time is a factor in this, so please pay attention. Now, answer as quickly as you can."*
>
> *David Holden – Blade Runner of LAPD*

This polygraph-like machine is used to detect Replicants as it measures emotional and physical responses to intentionally provocative cross referenced questioning. Replicants are considered to have a lower emotional range than humans and so this machine measures respiration, heart rate, capillary dilation and fluctuation of the pupil during questioning. Any irregularities could indicate the subject being questioned is a Replicant.

Questions include:

■   It's your birthday. Someone gives you a calfskin wallet. How do you react?

■   You've got a little boy. He shows you his butterfly collection plus the killing jar. What do you do?

■   You 're watching television. Suddenly you realize there's a wasp crawling on your arm.

■   You become pregnant by a man who runs off with your best friend, and you decide to get an abortion.

■   You're watching a stage play a banquet is in progress. The guests are enjoying an appetizer of raw oysters. The entree consists of boiled dog.

- You're in a desert walking along in the sand when all of the sudden you look down, and you see a tortoise, it's crawling toward you. You reach down, you flip the tortoise over on its back. The tortoise lays on its back, its belly baking in the hot sun, beating its legs trying to turn itself over, but it can't, not without your help. But you're not helping. Why is that?

- Describe in single words, only the good things that come into your mind. About your mother.

Replicants and the Voight-Kampff Machine

"Let me tell you about my mother..."

Leon Kowalski – N6MAC41717

After ten questions, PCs using the machine use their 'Psychoanalysis' skill they get a 50% bonus to the skill roll if they make a successful 'Electronics' skill roll beforehand, and a 20% bonus if they fail the 'Electronics' roll. A successful roll forces replicants only to roll against their Humanity if they pass, then the Voight-Kampff machine does not detect they are artificial. Humans pass automatically unless they roll 99-00 on their Humanity that could cause a few problems.

If they pass, then they continue the test and are asked another ten questions. Again, if they pass the test then they may have to continue. After twenty questions, and of the Replicant has passed the skill roll, the Blade Runner asking the questions then rolls against their Humanity – if they fail, then they have failed to detect the Replicant and the test is over – the Replicant has escaped detection.

Ultimately, and after enough questions, the Blade Runner administering the test detects they are a Replicant and will take the necessary action.

Replicants Reactions

"He can breathe okay... as long as nobody unplugs him."

Harry Bryant – captain of the Rep-Detect LAPD

Because Replicants are creations and, in some ways, are emotionally immature they may act irrationally upon being detected and pursued. This makes them unpredictable and possibly dangerous. Once detected and confronted, roll 1D6 on the following table to see how the Replicant reacts.

- Nexus 5's and 4's subtract -2 to the dice.
- Nexus 8's and 6's add +2 to the dice.

1d6	Reaction
1	Falls catatonic – curls into a ball and refuses to move or speak.
2	Accepts fate – stands still and awaits retirement.
3	Panics pleads for their life and weeps, begging on their knees.
4	Tries to talk their way out attempts to convince that they really are human.
5	Runs – the Replicant tries to escape by any means.
6	Fights – the Replicant attacks, using whatever weapons are handy.

Baseline Test

"It's a shame she won't live but then again, who does?"

Eduardo Gaff – Blade Runner of LAPD

The Baseline Test is an examination designed to measure any emotional deviance by Nexus-9 Replicant models. To be "Off Baseline" would be considered a failure of such test.

Unlike its predecesor in the Voight-Kampff Test, the Baseline Test is conducted by an unseen questioner who recites the examination through a machine opposite the subject under questioning. Throughout exam, which is rather short in comparison to the V-K Test, the questions, with the intonation and tempo in which they are asked, are rather impersonal.

The test has certain keywords which a replicant must repeat when he hears them, and throw in between those keywords are comments designed to provoke a strong emotional reaction in the subject. The statements run the gamut of fear, anger, arrogance, self preservation, and so on. The voice speaking speaks faster and more intensely as the test goes on.

The subject can fail the test if they get lost in their emotions instead of immediately following the command words. A replicant who can be provoked might kill someone they shouldn't, or fail to kill someone they should, and so on. They demonstrate enough individuality to identify themselves a public risk.

Replicants, aka Skin-jobs

> *"I've seen things you people wouldn't believe. Attack ships on fire off the shoulder of Orion. I watched C-beams glitter in the darkness at Tannhäuser Gate. All those... moments will be lost in time... like... tears in rain. Time to die."*
>
> *Roy Batty – N6MAA10816*

A Replicant is a synthetic, biorobotic being with para-physical capabilities and designed to resemble a living, organic being. It is a genetically engineered being composed entirely of organic substance.

Genetically engineered as labour, the workers and fighters who are expanding man's influence across the stars and taking those first, often fatal steps onto new worlds, Replicants are not considered by many to be human. In fact, they are not even considered sentient beings. They are things, tools, machines created to serve us, their masters.

Some Replicants, however, don't see it that way. They see themselves as oppressed purpose-built humans who did not ask to be born into a world of service and harsh treatment.

Psychological Aspect

Thus a Replicant can only be detected by means of the Voight-Kampff test, in which emotional responses are provoked; Replicants' nonverbal responses differ from humans'. A key aspect of Replicant psychology is that they are lacking in empathy, in effect making them textbook sociopaths. Nexus-6 Replicants also have a safety mechanism, namely a four-year lifespan, to prevent them from developing emphatic abilities (and, therefore, immunity to the test). This is especially necessary for Mental-A models whose intellectual capacity at least matches their designers.

Due to their short lifespans, Replicants had no framework within which to deal with their emotions, which lead to them being emotionally inexperienced. Tyrell sought to change this by gifting Replicant with a past through implanted memories and therefore creating an emotional cushion that would make them far more controllable.

Nexus-1:5 series

Out of date models, no longer maintained.

Nexus-6 series

The Nexus series of Replicants – genetically engineered by the Tyrell Corporation – are virtually identical to a human being, but have superior strength, agility, a wider temperature range tolerance, and variable intelligence depending on the model for use in off-world mining colonies.

The latest model of Replicant is almost indistinguishable from humans. In fact, the Tyrell Corporation advertises this model as "More human than human." If Replicants are given memories (and thus think that they are indeed human), the VK test almost failsIt takes over a hundred questions to expose the prototype Nexus-7 model known as Rachel while normal Replicants could be exposed with twenty to thirty cross referenced questions.

Nexus-7 Rachael

Experimental Nexus-7 Replicant, implanted with memories given by Tyrell's niece to better control her. Falling back on memories gave Rachael a sense of reality and purpose. She was not told she was a replicant and believed she was human. Nexus-7 was never mass-produced.

Nexus-8 series

The Nexus-8 series were the final iteration of numerically-designated bioengineered humans created by the Tyrell Corporation. The Tyrell Corporation rushed the next iteration of replicants onto the local and off-world market, the Nexus-8. Unlike the previous Nexus-6 models, Nexus-8 series replicants were purpose-built with natural lifespans and were

imprinted with ocular implants to better distinguish them from humans. The Replicant Registration Database was created to identify replicants with ease at this time.

Although doomed to be hunted for the rest of their lives, some Nexus-8 Replicants still were part of extremely important events after the prohibition. Some Nexus-8 models in 2249 that survived retirement joined the replicant resistance movement.

Nexus-9 series

The Nexus-9 are the first Replicant model of bioengineered humans created by the Wallace Corporation, which continued Replicant manufacturing and commerce after acquiring the rights from the bankrupt Tyrell Corporation in 2228.

The Nexus-9 series is primarily known for its' obedience. While retaining the ocular implant from the Nexus-8, Wallace made the Nexus-9 series to live as long or as short as a customer would want, and demonstrated their obedience by ordering a Nexus-9 to choose between his own life or that of Wallace's. The end result was the Replicant cutting his own throat.

Replicant Templates

> "Mere data makes a man. A and C and T and G. The alphabet of you. All from four symbols. I am only two: 1 and 0."
>
> *Niander Wallace – CEO of Wallace Corporation*

The templates below are for the three Nexus series Generation, as Replicants of lower spec cannot really be played as either NPCs or PCs.

Replicants are different from humans in that they are faster, smarter, and their emotions are programmed. They were designed that way to help them get through the rigours and hardships that frontier life throws at them. Their skin can resist temperatures ranges from -100°C to +100°C for a period of time in minutes equals to their CON x10.

During the creation process of a Replicant, their physical and mental capacities are separately ranked on a A to C system and designated for each Replicant with the C level representing below normal human ability, B level being equal to a normal human and A being above normal human ability, the latter of which leads to superhuman physicality or genius level intelligence.

Most Replicants have no memories but they have an instinct to be free and to survive. The Nexus-6 have memories, lives. But the lives they have lead are artificial, implanted memories from other people. But if memories and experiences make a person, then surely they, by definition, are people. Their brains are made with organic tissues and cannot be damaged by Aprobdif projectors. However, they suffer the same sanity loss as Humans when they confront direct experience that weakens their faith in the very structure of reality.

Nexus-6

Average Cost: n/a

Characteristics		Average			
STR	7+2d6	14-15	Move	10	
CON	6+2d6	13-14	Hit Points	26-28	
SIZ	6+2d6	13-14	Mass	60-80 kg	
INT	3d6	10-11			
POW	2d6	7-8			
DEX	6+2d6	13-14			
APP	3d6	10-11			
BRA	6+2d6	13-14			

Information:

At present, all Nexus-6 series have expired.

Nexus-8

Average Cost: n/a

Characteristics		Average			
STR	6+2d6	13-14	Move	10	
CON	6+2d6	13-14	Hit Points	26-28	
SIZ	6+2d6	13-14	Mass	60-80 kg	
INT	3d6	10-11			
POW	2+2d6	9-10			
DEX	6+2d6	13-14			
APP	3d6	10-11			
BRA	3d6	10-11			

Skills:

3x specialist skills at 70%; 5x secondary skills at 55% from an Occupational skill group of Players choice (the Game Master has final say on which Occupations are allowed). INTx20 to distribute amongst other skills at Game Masters discretion.

Augmentations:

Bone density, Muscle Augmentation, Muscle Toner, Platelet Factories, Pain Editor, Smart Insulation.

Information:

"The Blackout" destroyed most records about replicants, making it difficult for humans to track them down on Earth, but the virus attack led to mass purges and complete shutdown of Nexus-8 production (though many existing units were able to go into hiding in the chaos).

Like Nexus-6, Nexus-8 models also have a 10-digit serial code:

- ■ 'N6' or 'N8' at the beginning identifies the series.
- ■ The third character identifies the sex (M or F).
- ■ The next two characters are the replicant's Physical and Mental Levels. "A" (high) to "C" (low).
- ■ The next three numbers are the production serial number.
- ■ The last two numbers identify the year that the replicant was produced.

Nexus-9

Average Cost: E$300,000

Characteristics		Average			
STR	6+2d6	13-14	Move	10	
CON	6+2d6	13-14	Hit Points	26-28	
SIZ	6+2d6	13-14	Mass	60-80 kg	
INT	3d6	10-11			
POW	3d6	10-11			
DEX	6+2d6	13-14			
APP	3d6	10-11			
BRA	3d6	10-11			

Skills:

2x specialist skills at 70%; 6x secondary skills at 55% from an Occupational skill group of Players choice (the Game Master has final say on which Occupations are allowed). INTx10 to distribute amongst other skills at Game Masters discretion.

Augmentations:

Bone density, Muscle Augmentation, Muscle Toner, Platelet Factories, Pain Editor, Smart Insulation, Immunization.

Information:

Nexus-9 replicants are extensively used across Earth and the off-world colonies, but they also necessitate special police units tasked with tracking down any remaining Nexus-8's still in hiding, and also 5th gen Androids autons. These police units are called "Blade Runners", and are now mainly composed of self-aware replicants, who are fully aware that they are replicants themselves.

Bioroids Rights Table

	Nexus-8	Nexus-9
Australia	X	C*
The Central African Bloc	A*	A*
The Chinese Consortium	I*	I
The European Federation	X	C
The Democratic Republic of India	A	A
Islamic Holy Republic	X	X
The Japanese Affiliates	X	I*
The Russian Republic	I	C*
United Americas	X	C*
The Eurasian Rimworlds Combine (ERC)	A*	I
The Free Worlds Alliance (FWA)	C*	C

See 'Androids Rights Table' for comments.

Robotics

by Wikipedia, Matt Drake, Steve Kenson, Kevin Crawford, David Jarvis & Michael C. LaBossiere

> *"Human beings have dreams. Even dogs have dreams, but not you. You are just a machine; an imitation of life... Can a robot write a symphony? Can a robot take a blank canvas and turn it into a masterpiece?."*
>
> *Del Spooner – police detective*

Much of the prosperity of late First Wave Exodus came from the efforts of robotic tools and work armatures. These laborers tirelessly performed many of the dangerous, grueling tasks required for colonizing a remote world, and spared precious human lives for more intellectually demanding work. These armatures rarely had anything approximating human intelligence, and most of them were nothing more than glorified expert systems wired into a chassis capable of performing the work.

A robot is a machine that is capable of functioning with a degree of autonomy. The least autonomous robots are capable of performing repetitive tasks without human supervision. An example of this is an assembly line robot. The most autonomous robots are those that are controlled by AI systems.

Because they tend to be designed for specific tasks, robots come in a wide variety of shapes and sizes. Most robots look little or nothing like humans and their forms are optimized for their assigned tasks. Some of these are modeled on living creatures while others are purely industrial in design. For example, a robot designed operate in water might be based on a fish.

There is a thriving bot industry within the UEF, but it doesn't stop there. Countless gray and black-market syndicates operate on and around smaller colony worlds, providing both stolen and illegally reprogrammed bots.

Robots Rules

> *"There has always been ghosts in the machine, random segments of code that have grouped together to form unexpected protocols."*
>
> *Dr. Alfred J. Lanning – Director of Research at Cyberdyne Systems Corporation*

Robots all follow the same standard rules.

1. Robots can be treated like normal characters and almost all of them will have STR, DEX, and SIZ scores.

2. Since robots are not living creatures, they do not have a CON score. Instead, they have Structure (STU). Structure measures the physical toughness of a robot in terms of the quality of the materials used to make it as well as the quality of its construction. As such, STU functions like CON in terms of determining a robot's hit points. It also can be used in place of CON for relevant rolls. Obviously, some typical rolls involving CON will not apply to robots.

3. POW is replace by EDU (Education). The EDU score represents the robot's programming.

4. Non-AI robots do not have an INT score.

5. Non-AI robots will typically be designed to perform repetitive tasks or to respond to a highly specific set of circumstances. For example, a robotic weapon emplacement might be programmed to fire on any vehicle that does not broadcast the proper identification. A small cleaning robot might have the following stats: STR/01, DEX/10, STU/03, SIZ/03, EDU/02.

6. AI robots will be far more flexible because they can respond with actual intelligence as opposed to simply following pre-programmed routines. Their flexibility and capabilities will vary based on their INT. Robot scores can vary greatly based on their intended purpose.

7. Robots are not alive. They do not suffer damage from poison, disease, suffocation, or other hazards that would harm an organic being.

8. Robots do not have emotions, so they cannot receive emotion-related aspects such as Terrified or Seduced.

9. Robots don't suffer major wounds or schock.

10. All robots have standard audio and video sensors, and many will have additional sensors. Additional sensors work like the Earware, Cat's Eyes or Enhanced Pheromone Receptors augment modules of the same name.

11. Robots act only according to instructions provided by authorized operators, or by direct control from a drone pilot.

Each model of robot also has a programming aspect that represents the priorities of its standard programming. If a PC encounters a robot, he must succeed a Robotics skill roll to see if he knows the robot's programming aspect.

Robots operate in one of three modes: network mode, independent mode, or download mode.

- In network mode, you issue instructions to the robot through its wireless network link, and the robot uses its own decision-making process to carry those instructions out. You can give new instructions and monitor the robot's status through the network link.

- In independent mode, you give the robot a set of instructions, and then the robot shuts down its network link while it carries those instructions out.

  This mode minimizes the chance of a hacker taking control, and prevents enemies from detecting the robot through its network signals. Be sure to include an instruction that tells the robot when to re-activate its network link. If the robot does not re-activate its link, there is no way for anyone to alter its instructions without attaching a network cable to its physical access controls. These controls are normally difficult to access, and for military robots they may be hidden under armor plating that cannot be removed without power tools.

- In download mode, it's possible to change the identification codes that the robot recognizes. It's also possible to alter the robot's core programming, which renames its programming aspect. To reprogram a robot, a difficult Computer Security skill roll must be succeeded to bypass the robot's Firewall. Reprogramming takes 1D6 minutes for a basic task and a second difficult Computer Programming skill roll must be succeeded. You must be able to reach the robot's physical access controls to activate download mode and perform these activities.

Identification Codes

The robot recognizes authorized operators using identification codes, which are digital packages of encrypted data. If a PC has the correct identification code for a robot, he can interact with it in the following ways:

- You can give the robot instructions, such as "patrol this location and notify me if anyone approaches," or "enter that building and kill everyone inside," or "go over to that car, get the metal briefcase, and bring it back." During a conflict, you may issue an instruction without spending an action. In some cases, a robot's programming aspect may forbid it from performing certain actions.

- If the robot is in network mode, you may monitor its sensors remotely.

- You may instruct the robot to switch from network mode to independent mode, or to shut down completely. Shutting the robot down removes any of the mental stress or consequences that the robot has received from prior hacking attempts. To restart a deactivated robot, you must gain access to its physical access controls and use an action.

Robot Skills & Professions

Robots can be treated like normal characters in regards to professions and skills. As such, a robot's profession skills will be based on its EDU score. Robots tend to be very specialized in regards to their professions and some robots might only have one or two skills. They will simply perform their tasks over and over in accord with their programming. AI robots can learn from their experiences and can thus improve their skills as per the rules for characters.

Repairing Robots

Unlike humans, robots cannot be treated with Medicine and First Aid skills. They do not heal naturally, but some advanced models have automatic repair systems. Since adventurers might have robot companions (or might actually be robots), the following rules are suggested for quick, in the field robot repair.

Since robots are both electronic and mechanical, the damage they sustain will tend to be of both types. To simplify this, treat half the damage as electronic and half as mechanical. Repairing electronic damage requires use of the Electronics skill and treating the mechanical damage requires the use of Mechanical repair. Each successful use repairs 1D3 points of damage. As with human wounds, the skills can be applied once for each time the robot was damaged.

Fully repairing a damaged robot requires the appropriate parts as well as the proper tools, such as those available in a robot repair bay or engineering section. If the appropriate tools and parts are available, a robot can be fully repaired. In this case, each use of the appropriate repair skill repairs 1D3 points of damage and the process can continue until the robot is fully repaired.

Robots Classifications

Robots are not normally permitted to harm any sentient life form, although they may protect themselves or their owners against animals and other bots. All bots require licenses and are subject to routine maintenance checks just like starships. There are three classifications of bots: droids, drones and Warbots.

Bots aka Droids

Droids are essential utility robots, programmed with specific skills to carry out menial tasks, such as farming, maintenance, and instruction. Their appearance is often designed to fit their purpose. For example, a maintenance bot might be fitted with all sorts of appendages, ranging from sonic brooms to laser welders.

Drones

Drones are semi-autonomous vehicles, most commonly small aerostats with propellers that allow them to hover and fly like helicopters in an atmosphere, or micro-thrusters that let them "teakettle" maneuver in microgravity, with or without an atmosphere. Some drones are ground-bound, using either tracked or wheeled drives or multiple robotic legs to maneuver. Those designed for microgravity have magnetic adhesion, much like a vac suit's boots. Drones are equipped with on-board computers and expert systems, allowing them to handle some simple tasks on their own, but most are remote controlled from a terminal, with the operator making Dexterity (Piloting) or Intelligence (Technology) tests to operate the drone.

Drones are useful for surveillance, relying on their small size and maneuverability to record sensor data or send back live feeds. They can also easily go into areas too tight or hazardous for people, either to gather information or to perform minor repairs or similar operations. Of course, these tasks can just as easily include sabotage. Drones may be equipped with weapons dependent on their size.

Combat drones are used in various situations. They patrol government buildings such as the ICA or UEAF facilities and outposts. They are often used as deterrents on properties owned or operated by large corporations or wealthy individuals. They also serve in combat training exercises for soldiers and Space Marines.

A wide variety of other drones and semi-autonomous robots exist for combat, security, and surveillance purposes, from small roto-drones that are little more than flying grenades to remote-piloted and programmed vehicles with heavy weapons.

Warbots

Warbots, like droids, are programmed with a specific purpose in mind. In their case, it is combat operations—these are the only bots permitted to kill, and their use is limited to the military. Smaller, covert units often hide concealed weapons and communications equipment, but larger, battlefield warbots also exist to hunt down opposing ground forces in environments where living beings dare not go. Warbots are most commonly humanoid in appearance, although some are designed to look like animals.

BLOODHOUND CANINE

Military contractors and corporate security teams use these canine-like robots for patrol and sentry duty. Due to their sensor suites and programming, Bloodhounds make excellent patrol and sentry robots at finding a hidden enemy.

As soon as a Bloodhound identifies an enemy, it tends to focus on that enemy to the exclusion of all else. This aspect allows an enemy to avoid the robot's notice as long as another enemy holds the robot's attention.

STR	08	Move	8
SIZ	06	HP	20
DEX	13		
STU	14	AP	4

Weapon	ROF	Attack	Damage	Range	Ammo
Implanted M13A1 Body Pistol*	3	55%	1d6+1	30m	20

*The ammunition carries a tracking chemical that inflicts a Marked aspect on the target if the attack succeeds, even if the defender's Armor rating prevents any physical harm. This helps the Bloodhound to locate the target afterward.

Skills: Alertness 80%, Track 90%, Athletics 60%, Stealth 50%.

Sensors: Amplified Hearing, Night Vision, Cybernose Chemical Sniffer.

Enc: 38 kg.

CABLE SNAKE

Cable Snakes resemble living snakes or eels in their overall body design (i.e. no arms or legs), but where the head should be is just a gaping maw with mechanical blades inside that can grind up human limbs like a meat grinder, and the four fingers of its hand-like maw can impale flesh and snap bone as if it were a twig. The robot fingers can also crush, strangle and snap the neck, or grab an ankle or wrist and entangle and crush its victims like a boa constrictor, or lash out in a jabbing, punching or clawing motion with its head/hand and whip with its tail.

The tail is also tipped with a small, light laser and the "eyes" are mounted farther down the body. As one would expect, the Cable Snake moves in a slithering motion in much the same way as a real snake, but with greater speed. Designed to be a predator, the robot may slither up trees and pipes, hide among rocks, bury itself in loose sand, dirt or debris and wait for a target to come within striking range. Cable Snakes can even swim through the water and attack underwater.

STR	22	Move	6 Slithering (4 swimming)
SIZ	21	HP	34
DEX	15		
STU	13	AP	3

HF: 0/1 due to panic caused by these man-made terrors.

Weapon	Attack	Damage
Bite	65%	1D6 + 1D3 (impaling)
Crushing Fingers	50%	1D3 + 1D6 (crushing)
Constrict	40%	2D6 (crushing)

A Cable Snake can attack twice in a combat round, first biting and then attempting constriction five DEX ranks later. If the constriction attack hits, the target is wrapped in the constrictor's coils. The target can gasp but cannot yell or shout. Each round of constriction does damage to the victim's total HP. Only rigid armor or chest armor (if armor by hit location is being used) reduces this damage. If a limb is free, a character can make Difficult attacks against the Cable Snake. If no limb is free, the character cannot attack unless he or she has another means of attack (GM's discretion).

To attempt to become completely free from constriction, the targeted character must make a successful resistance roll of his or her STR against the Cable Snake's STR, instead of attacking in a round. For partial freedom, a Difficult Agility roll will free a single arm or other limb. The GM may require the constricted target to succeed in a Stamina roll or fall unconscious.

Skills: Climb 85%, Dodge 60%, Hide 75%, Sense 75%, Stealth 90%, Swim 50%.

Sensors: Standard, plus a seismic sensor system for use on and underground for tracking humans; senses ground vibration/movement up to 60m away.

Enc: 45 kg.

SPYBOT

These arachnid-like robots are able to get into most places undetected. Due to their light weight and electrostatic adhesion capabilities, they can walk up walls and across ceilings. In addition, spybots can adjust their coloring to blend in with their surroundings, and they're small enough to hide in a coffee mug if they tuck in their legs. Spybots excel at slipping through obstacles, avoiding detection, and escaping physical harm.

Compel: If you do detect a spybot, chances are that it's so focused on its target that it won't realize it's been discovered. Compel this aspect to cause the spybot to fail to notice details of its surroundings that don't relate to the target it was sent to watch.

Skills: Climb 95%, Hide 80%, Stealth 90%.

Sensors: Enhanced Vision, Night Vision Optics, Infra/Ultra Optics.

Enc: 0.05kg.

NANOSWARM

Swarms are colonies of nanobots or larger microbots created in a hive, programmed with specific instructions, and then set free to perform a set task. Each swarm is composed of hundreds or thousands of microbots, usually the size of a flea. Individual bots in a swarm are directed by nanocomputers, with behavioral routines modeled on biological insect and animal swarms. These swarms stick together and work as a whole, communicating with nanoradios, nanolasers, or chemical cues, and sharing information between each bot in the swarm.

Their tiny sensors are very effective at allowing them to identify materials and objects, and so to target discriminatingly. Microbots could, for example, be programmed to ignore metal objects, certain types of plants, females, or specific individuals. Swarms may either be released directly from a hive or from pre-packaged programmable canisters.

Swarms must be programmed before they are released. The programming first determines how long the swarm is active. This timeframe is open-ended, though most swarms deteriorate into ineffectiveness after 2 weeks unless they are replenished by a hive. The programming then sets what area the swarm is to occupy. This is also open to interpretation and can vary from "coat this person" to "spread out to a diameter of 20 meters" to "find the nearest chemical traces and track them to their source." Finally, programming sets any other parameters for the swarm's mission—for example, if it should ignore certain materials, if it should send a report at a predetermined time, or if it should self-destruct into harmless dust when it has completed a certain task.

Creatures the size of individual insects do not have characteristics. Instead, the size of the swarm determines the number of stings inflicted on player characters each round. Consult the chart below to determine how many stings will automatically strike each player character caught in a nanoswarm.

Swarm Size	Stings	Enc.*
Very small (small wasp nest)	1D6	0.5kg
Small (large wasp next, small beehive)	2D6	1kg
Large (very large wasp nest, average beehive)	4D6	2kg
Very large (large beehive)	6D6	4kg
Huge (very large beehive, army anthill)	8D6	6kg

*10 000 microbots per kg.

Each player character attacked by a nanoswarm will automatically be stung the rolled number of times each combat round until he is able to escape from, dissuade, or even destroy the swarm. An attack by a nanoswarm will usually attack for 2D6 combat rounds before halting pursuit. Unless the targets are completely covered (netting, being enclosed in a vehicle or sealed structure, diving underwater, etc.) there is no protection against a nanoswarm.

Players can attempt a Difficult Dodge check to avoid a nanoswarm, or can use some other means (GM discretion) to attempt to drive them away. Fire, smoke, poison, etc. are usually ineffective. Any protective gear the character may be wearing will reduce the number of stings per D6 (eg: Heavy clothing –2 stings per D6).

When the stings are rolled, the GM should subtract the sting modifier from each D6 rolled to see how many stings each character suffered each combat round. After the nanoswarm is no longer a threat, the GM should total the number of stings received and then divide that total by that venom factor of the microbot type, from the following chart. The GM should determine how large the swarm size was based on the number of D6s rolled for stings.

Microbot Type	Venom Factor	Hive Size
Injectors	20	2D6 to 8D6
Disassemblers	15	1D6 to 4D6

- Injectors: Injector microswarms are equipped with tiny needles and a drug payload (chemical, or toxin).

- Disassemblers: Also known as smart corrosives, these nanobots break down any matter. Their advantage over common acids is that not only are they able to break down any material by using energy to disrupt chemical bonds, but that they can be programmed to take apart certain components while ignoring others, leaving them intact. Disassemblers are a common weapon used against synthetics, eating away their components. Both Energy and Kinetic armor protect against this damage, but these armors are eaten away as well, so the Armor Value is reduced.

The total number of stings divided by the venom factor gives the venom potency (POT) introduced into the targeted character's body. After 1D6 hours have passed from the nanoswarm attack, each stung character should make a resistance roll of his CON versus the venom's POT. If the character's CON successfully resists the venom's POT, he takes half the venom's POT (round up) in HP damage. If the character fails the resistance roll, he takes the venom's full potency as HP damage.

At the GM's discretion, successful intervention with an antivenom or equivalent treatment can reduce the number of stings by another 1D4–1 per 1D6, with a successful First Aid roll and the proper medical supplies. Additionally, the GM may allow a character with a successful First Aid check to attempt to make a Difficult Chemistry roll to improvise an antivenom from available chemicals or substances.

The Hunter Killer Project

> *"Listen. Understand. That Terminator is out there. It can't be reasoned with, it can't be bargained with. It doesn't feel pity of remorse or fear and it absolutely will not stop. Ever. Until you are dead."*
>
> *Sergeant Kyle Reese – Resistance soldier from the Tech-Com, serial number DN38416*

Originally evolved from advanced prototype robot weapon systems under development at the end of the 22nd century, the various series of Hunter Killer or "HK" units represented the largest areas of advances technology designed by Cyberdyne corporation.

Built in fully automated factories to precision tolerances using high technology, HKs were used to pacify or cleanse large areas in hostile environment. Their greatest success rates were observed during daylight hours by using a variety of advanced image intensification, dual input pixel comparison, and sonic based motion tracking capabilities. Any movement was instantly tracked, analyzed, and if it represented a human target, weapons were brought to bear and the target was engaged. If termination was not the immediate result then the HKs were programmed to judge the effects of their actions, calculate new strategies and options and to pursue targets based on a wide range of criteria. Pursuit of any acquired target would continue until such time as termination could be carried out and verified or until the HKs had lost the track of the target for a predetermined time limit. If the target tracking was lost, the HK would go to loiter mode, assess the situation, extrapolate possible hiding places or methods of escape, follow through with the most likely, and would attempt to reacquire the target. If the target could not be reacquired, then the HK would relay the tactical information to all nearby units and resume its assigned patrol route.

Terminators

The first series of HK ground units were designed for rapid pacification of large areas but the smaller the area or the fewer the targets, the more difficult the task became for the large HK units. While the large HKs were more than capable in their assigned tasks, they were easily fooled and outwitted by small groups of humans using dedicated tactics. The HKs were simply too large, awkward and cumbersome to follow the humans down below ground and the few early models of bipedal units sent to infiltrate the human warrens never met with any high degree of success.

Cyberdyne began to assemble a new series of combat unit designed specifically to go anywhere humans could go, to mimic the human capacity to adapt to differing terrain and conditions with ease. Cyberdyne's new series of elimination Machines would be able to follow the humans where ever they retreated to and root them out from their hiding places. The new types of weapon systems were called AAPS (Autonomous Anti-Personnel Systems). The programming of the AAPS allowed it to follow and engage individual targets at ideal situations, modifying its tactics as it went and learning from its experiences (one of the first of the new series of combat Machines to be able to do so).

T-400

The T-400 Endo, or Clankers due to the distinct sound produced when it walks, is one of the early Humanoid Hunter Killer Unit series. The T-400 was invented during initial tests to mimic human autonomy. The idea was to create a Hunter Killer that had the general size, shape, range of motion and mobility of a human being. The hyper-alloy construction and armor of later series was not perfected during this time, so the 400 Series' construction was made from cheap and not particularly durable materials, that were easy and fast to produce and put into the field. The 400 Series served as the main ground-troops shortly after their creation, and some were used as guards at different installations.

At the time of its creation, the T-400 was an impressive and even menacing foot-soldier, standing roughly about 2.1 meters tall and weighed a quarter of a ton. It was physically strong and could lift about 250 kg of weight.

The T-400 series were one of the very first Hunter Killer series that utilized true artificial intelligence. It had just about enough intelligence to be able to walk, shoot straight, follow simple orders, hunt and eliminate a target and was able to tell the difference between allies and enemies. Its limited intelligence impaired the T-400 in many ways, one of them being incapable to adapt to constant changes in the field. Their mentality could be compared to either an ape or a very slow-witted child.

T-500

The T-500 Endo, is one of the early Humanoid Hunter Killer Unit series. The unit featured an armored battle chassis that made it more durable than the units of the T-400. The unit also sported enhanced weapons which were synced with an acquisition AI program, making this series a dangerous threat on the battlefield.

Infiltrators

An Infiltrator is usually a Humanoid Terminator with outer sheath with human appearance, in order for a machine to infiltrate human group. The T-600 Terminator was the first Infiltrator developed by Cyberdyne. However, Cyberdyne used the rubber skin as the covering sheath for the T-600 Terminator, which made it easy to be spotted. The T-800 Infiltrator was the first truly successful Infiltrator unit, consisting of living tissue over a metal endoskeleton. Some of the units can even highly mimic human emotion. The process of growing living tissue on Terminators is made by surrounding the endoskeleton with a special liquid of synthetic blood plasma, making the new Terminators almost impossible to spot.

Since living tissue is the same as the real one on humans, it is able to bleed, sweat, bad breath, regenerate and age, making an Infiltrator gain the advantage to blend in human society. Living tissue on earlier version of T-800 unit may necrotize if sustained excessive damage. The sheaths used on the T-888 Infiltrators is noticeably superior to previous models, as there are many instances where the flesh has repaired extensive damage within a few hours, leaving only scars that would disappear not too long after that. T-888 Infiltrator units are also capable of lasting extended periods. These machines also seem to nourish their organic components through consumption of certain foods, including mostly carbohydrates.

T-600

The T-600 Terminators serve as early Infiltrators featuring basic combat endoskeletons made of titanium alloy, which were sometimes covered with a smooth latex rubber skin to hide its mechanics. This fact makes the Series 600 Terminators easy to recognize and thus disable. However, the rubber skin was certainly effective in cases of limited visibility.

Standing almost 2 meters tall and weighing almost 400 kg, the T-600's endoskeleton is very powerful and can lift objects almost five times its own weight or punch through concrete and metal with no damage to its reinforced servos. The T-600 Series is capable of running at a constant speed of almost 60 km/h, with short bursts of up to 75 km/h. However, these bursts of speed tax the servos and the joints of the leg assemblies.

The T-600 has three modes of operation: direct, automatic, and autonomous. The T-600 can be directed by CyberDyne defense computers like soldiers in a war game, it can react automatically to a wide variety of preprogrammed conditions, or the individual units can be relinquished to their own control and act independently for months on end, combing the ruins on extended search and destroy missions.

T-700

The T-700 is built solely for combat as it features a more durable endoskeleton than the previous series. Units of the T-700 are also entirely reliant on CyberDyne for command and control functions as they lack the ability for independent thought.

Like the T-600, the T-700 was capable of repairing itself and could function with severe damage to its structure in order to complete its objectives. However, a T-700 could have its targeting systems disabled by piercing the back of the neck just like a T-600.

T-800

The T-800 Terminator was the first cybernetic organism, with living tissue over a hyperalloy endoskeleton, in a line of Series 8xx Terminators in various timelines, including the T-850 and the T-888 Terminators.

The 800 Series Terminator contains a Neural Net Processor CPU, or "learning computer", contained within the endoskull and protected by inertial shock dampers. The CPU, developed by Cyberdyne Systems, is one of the most powerful microprocessors ever built. As part of its vast internal databases, the T-800 contains detailed files on human anatomy and physiology so as to make it a more efficient killer. The CPU could also be updated with multiple database files related to advanced infiltration techniques,

basic training for soldiers, emergency medical training, sniper training, an extensive tactical database, and detailed files from other terminators making each unit a combat veteran.

The T-800 was also 20% lighter and 40% stronger than the T-600. The armored frame is capable of withstanding most contemporary weapons with small caliber and sometimes even withstanding a direct hit from grenade launchers.

The 800 Series is equipped with vocals which enable it to replicate any human speech pattern of which it has heard an adequate specimen. It does this by recording and storing syllables of the subjects' voices, which it then replays and uses to digitally synthesize their speech patterns.

The T-800's optical sensors can sample an extended range of visible frequencies, including infrared (which can allow it to see heated bodies in total darkness). Concussion-proof lenses protect the T-800's eyes, which are capable of moving independently. When using both eyes to track two different targets moving in different directions, depth perception is created artificially by creating a computer-generated off-angle ghost image. The T-800 is capable of motion tracking, search modes, facial identification and recognition and has extensive vision enhancement capabilities including long range "zoom" (the T-800 can snap-magnify an image by around x15), motion analysis and "night vision."

T-850

The 200-kilogram T-850 endoskeleton has been upgraded from the T-800, though these are not necessarily visible from the outside. The main modification to the T-850 is its increased titanium alloy armor, hardening it to plasma weapons. Tougher and more resilient, the T-850 has also been equipped with more powerful servo motors and hydraulic systems, making it far faster and stronger than the T-800.

Basic psychology and knowledge of human emotions and socio-ecological interactions are among the subroutines of the T-850, yet another of its advancements over the T-800 Series. This allows it to better understand humans, making it a better Infiltrator and a more efficient killer.

Equipped with a battery of sensor arrays, the Series 850 Terminator is able to detect its environment and hunt humans with great efficiency. It possesses the ability to detect infrared, radar, optical and electromagnetic emissions, heat signatures, electronic noise, high-frequency cell phone broadcasts, and directed sound.

T-888

The T-888 also possesses "Thigh Blades", the blades located on the inside of the model's thighs to decapitate a human. Additionally, the T-888 chassis components such as the head, torso, or limbs are available in a wider array of sizes, allowing for far more variety in living tissue infiltration sheaths to be used. Other differences are mostly cosmetic, including the design of the head and lower jaw.

Like its predecessor, the T-888 endoskeleton is forged from a hyperalloy granting the machine superior resistance to heat. The alloy is shown to be capable of withstanding most small-arms fire, with the exception of depleted uranium shells, and high-explosive incendiary rounds, which is capable of penetrating the alloy and causing significant damage to the unit.

Amongst its standard combat files, the T-888 possesses detailed files on human behavior and psychology, granting them advanced interpersonal relations programming. the Series 888 Terminators are able to show a genuine, albeit limited, range of emotions, including frustration, annoyance, fear, and sardonic humor besides that which they fabricate for infiltration purpose.

T-888s are also apparently anatomically correct and capable of sexual activity.

Terminator HK Table

	T-400 endo skeleton	T-500 endo skeleton	T-600 infiltrator rubber skin	T-700 infiltrator rubber skin	T-800 infiltrator living skin	T-850 infiltrator living skin	T-888 infiltrator living skin
STR	44	46	48	50	52	52	55
CON	25	28	30	32	34	34	35
SIZ	20	20	18	16	16	16	16
INT	6	10	12	13	14	14	15
EDU	4	4	8	10	12	12	14
DEX	9	10	11	12	13	14	15
APP	-	-	var	var	var	var	var
BRA	-	-	-	-	-	-	-
MOV	8	8	12	12	12	12	12
Height (m)	2.1	2.1	2.0	1.9	1.9	1.9	1.9
Weight (kg)	250	300	400	380	300	300	300
HP	45	48	48	48	50	50	51
Armour	10	11	12	13	14	15	16
DB	+3D6	+3D6	+3D6	+3D6	+3D6	+3D6	+3D6
Track	80%	80%	80%	80%	80%	80%	80%
Tactics	50%	60%	70%	80%	80%	80%	80%
Anatomy	90%	90%	95%	99%	99%	99%	99%
Psychology	40%	40%	50%	50%	60%	60%	70%
Listen	80%	80%	80%	80%	80%	80%	80%
Search	80%	80%	80%	80%	80%	80%	80%
Ambush	60%	65%	70%	75%	75%	75%	80%
Climb	none	none	70%	80%	80%	80%	80%
Vehicle Operation	none	none	70%	80%	90%	90%	90%
Firearms	70%	70%	70%	70%	70%	70%	70%
Gun-Mechanic	90%	90%	90%	90%	90%	90%	90%
Heavy-weapons	60%	60%	60%	60%	60%	60%	60%
Demolition	80%	80%	80%	80%	80%	80%	80%
Computers	80%	90%	90%	90%	90%	90%	90%
Dodge	20%	20%	25%	30%	35%	35%	40%
Jump	36%	40%	40%	45%	50%	55%	60%
Sneak	none	none	50%	60%	70%	75%	80%
Rifle	70%	70%	70%	70%	70%	70%	70%
SMG	60%	60%	60%	60%	60%	60%	60%
Languages	90%	90%	90%	90%	90%	90%	90%
Hide	none	65%	70%	75%	75%	75%	75%
Shotgun	70%	70%	70%	70%	70%	70%	70%
Melée-weapons	70%	70%	70%	70%	70%	70%	70%
Thrown knife	none	none	40%	50%	60%	70%	70%
Security systems	none	40%	50%	60%	60%	60%	70%
Vehicle repair	none	20%	30%	40%	50%	60%	60%
Aircraft operation	none	none	none	50%	50%	60%	60%
Electrical repair	none	none	30%	40%	50%	50%	50%

Other Suns

by Wikipedia, Edward Simbalist & Phil McGregor

> *"The universe is a pretty big place. If it's just us, seems like an awful waste of space."*
>
> *Carl Sagan – astrophysicist and astrobiologist*

It is chemically possible that life could evolve which is based upon silicon or methane. The fact remains, however, that such life has a very low order of probability in comparison to the probability of hydrocarbon life. Hydrocarbon life is the most probable because hydrocarbons are pre-eminently capable of forming scores of thousands of compounds.

Habitable Planet

A "habitable" planet would be one possessing an environment and resources capable of encouraging and sustaining the evolution of life forms similar to (but not necessarily the same as) life on Terra. Such life forms would take shapes and exhibit adaptive characteristics appropriate to environmental demands. In order to state gaming conditions and systems in an SF game so that hard scientific data can be brought in the informed gamer to fill out the environment for role-play, the designers have decided not to fly in the face of science by presenting "fantastic" life forms living under conditions which we currently cannot conceive, let alone comprehend. We do make some limited provision for them, but caution is urged with regard to uncontrolled inventiveness on the part of enthusiastic gamers. In a scientifically governed environment, by definition predictable according to scientific laws and theories, creatures must be viable members of functioning ecosystems. We assume that Terra represents the optimum range of conditions under which most viable hydrocarbon life forms will develop.

Stellar Primaries

Star types range through a variety of spectral types using the codes O B A F G K M. These letters indicate in descending order the temperature of the stars.

The stars assumed by these rules to have the best chances of Terran habitable planets are of Type G, followed closely by Type K and F stars. Type M stars are somewhat less likely to be able to produce appropriate conditions but cannot be ruled out.

Type	Color	Surface Temperature
W	blue	>35 000K
O	blue	25 000 – 35 000K
B	blue-white	10 000 – 25 000K
A	white	7500 – 10 000K
F	yellow-white	6000 – 7500K
G	yellow	5000 – 6000K
K	orange	3000 – 5000K
M	red	2500 – 3500K
L	dark red	1300 – 2500K
T	brown	550 – 1300K

Size	Type
0	hypergiants
Ia	Brighter Supergiants
Ib	Weaker Supergiants
II	Bright Giants
III	Normal Giants
IV	Subgiants
V	Main Sequence Stars
VI	Sub Dwarfs
VII	White Dwarfs

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The spectral type for stars is usually further specified by a decimal classification (using the digits 0 to 9). Thus a type F1 star is one-tenth of the way between F and G. All stars are treated this way with the exception of dwarf stars, which do not have decimal classification.

Human presence in a star system will be established on the most lucrative planet, not the most Earth-like. It might have poisonous air and seas of sulfuric acid, but if there's palladium or iridium to mine, then that's where the colony will go. This colonized world will sometimes be referred to as the main world, to differentiate it from all of the uninhabited planets and moons in the rest of the star system.

Each main world requires the GM to randomly create its Size, Atmosphere, Temperature and Geosphere. One random Planetary Feature can then be created (to create an initial impression of the world's surface) before moving on to the Colony Size, Colony Mission, Factions at work and any Orbital Components.

Planetary Size & Gravity

The surface gravitational acceleration of the various planets is always stated in terms of 1 Terran G (9.81 m/s²). In order to find the mass/weight of a being or object in a gravity field, simply multiply its Terran weight/mass times the gravity factor. Gravity field strength is stated in terms of Terran G.

The following table can be used to compute the gravity fields of various planets.

Surface Gravity Table

Planetary Diameter (km)	Density					Examples
	Very Low	**Low**	**Moderate**	**Dense**	**Very Dense**	
1000	0.02	0.03	0.06	0.08	0.10	Ceres
2000	0.04	0.07	0.12	0.17	0.20	Iapetus
3000	0.06	0.10	0.19	0.25	0.30	
4000	0.08	0.14	0.25	0.34	0.40	Luna, Europe
5000	0.10	0.17	0.31	0.42	0.50	
6000	0.12	0.21	0.37	0.50	0.60	
7000	0.14	0.24	0.40	0.58	0.70	Mars
8000	0.17	0.28	0.51	0.68	0.80	
9000	0.19	0.31	0.56	0.72	0.90	
10,000	0.21	0.35	0.63	0.76	1.00	
11,000	0.23	0.38	0.69	0.84	1.10	
12,000	0.25	0.42	0.75	0.92	1.20	
13,000	0.27	0.45	0.82	1.00	1.30	Earth, Venus
15,000	0.31	0.52	0.94	1.15	1.50	
20,000	0.40	0.70	1.2S	1.50	2.00	Super Earth
25,000	0.50	0.90	1.50	1.90	2.50	
30,000	0.60	1.00	1.90	2.30	3.00	

For comparison, Terra = 13,000 km diameter (dense) with 1.00 G.

Planetary densities tend to vary between 0.75 (0.75 mass of an equal volume of water to 7.00). Density represents the relative amount of mass in a given volume. Planets are divided into three groups:

1. Low Density Planets: Planets composed of materials of low specific gravity. Gas Giants like Jupiter and Saturn fall into this category. "Heavy" metals will be, relative to the total mass present, very rare indeed. Porous rock and "ice" would seem to be the major constituents of the "solid" planet, while the atmosphere would tend' to be a significant proportion of the total mass.

   Examples: Jupiter, Neptune, Saturn, Uranus.

2. Moderate Density Planets: Planets composed of rock with low specific gravity. Some heavy metals will be present, but not in truly significant quantities. Light metals might be abundant, however.

   Examples: Mars.

3. High Density Planets: Planets composed of materials of high specific gravity, with considerable heavy metals present. Such planets might be termed "Terran" planets, for Terra is quite typical of this class.

Orbital Period

The orbital period is the time a given astronomical object takes to complete one orbit around another object, and applies in astronomy usually to planets or asteroids orbiting the Sun, moons orbiting planets, exoplanets orbiting other stars, or binary stars.

The following table can be used to compute the period in days of various planets orbiting a given star.

Orbital Period Table

Dist. (AU)	Solar mass									
	0,01	0,08	0,4	0,8	1	1,5	3	18	40	80
0,4	924	327	146	103	92	75	53	22	15	10
0,7	2139	756	338	239	214	175	123	50	34	24
1,0	3652	1291	577	408	365	298	211	86	58	41
1,5	6709	2372	1061	750	671	548	387	158	106	75
5,0	40831	14436	6456	4565	4083	3334	2357	962	646	456
10,0	115486	40831	18260	12912	11549	9429	6668	2722	1826	1291
15,0	212162	75011	33546	23720	21216	17323	12249	5001	3355	2372
20,0	326644	115486	51647	36520	32664	26670	18859	7699	5165	3652
25,0	456499	161397	72179	51038	45650	37273	26356	10760	7218	5104
30,0	600084	212162	94882	67091	60008	48997	34646	14144	9488	6709
35,0	756192	267354	119565	84545	75619	61743	43659	17824	11956	8454
40,0	923890	326644	146080	103294	92389	75435	53341	21776	14608	10329

For comparison, Terra = 1 A.U. with 1 solar mass (type G).

Planetary Conditions

The overall conditions encountered on a planet will depend upon many factors. This section deals with the broad effects of the orbital position of the planet in or outside the stellar Ecosphere, the eccentricity of the planet's orbit around its sun, the period of planetary rotation on its axis (length of "day"), and the inclination of the planet's axis to the plane of the orbit. Such factors have significant implications for the climate:

Planetary Type	Description
1	The planet is at a favourable position in the Ecosphere. Axial tilt is between 10º and 30º, orbital eccentricity is less than 0.2, and the length of the day is 6-72 hours. All conditions of illumination and heating are Terran normal. In short, the planet exhibits those characteristics of climate and temperature which would make it a veritable "twin" of Terra. Type One planets are highly prized for colonisation.
2	The planet is at a favourable position in the Ecosphere, orbital eccentricity is less than 0.2, and the length of the day is 6-72 hours. The axial tilt is under 10º, and this factor significantly affects climate and temperatures on the planet.
	The planet is marked by clearly defined and relatively unchanging belts of climate. illumination and temperatures are quite high in equatorial regions, with temperatures over 60ºC not unlikely. Depending upon available moisture, either a dense jungle or desert belt will develop along the equator. Middle latitudes have temperate to tropical climates and temperatures. Because there is little seasonality, the climate exhibits a spring-summer-fall pattern, and freezing temperatures are rarely experienced. High latitudes "enjoy" a standard four season climate, with spring, summer, and fall all marked by night-time temperatures around the 0°C mark. Winters in high latitudes are as cold as on Terra, but do not last nearly so long.
3	The planet is at the optimum position in the Ecosphere, orbital eccentricity is less than 0.2, and the length of the day is 6-72 hours. The axial tilt is more than 30°, and this factor significantly affects climate and temperatures on the planet.
	Large portions of the planet experience continuous day or continuous night for long periods. Illumination and temperatures will be high over much of the planetary surface during the summer. Even polar regions enjoy temperature conditions at that time. Summers are tropical in middle latitudes. Equatorial regions are hot for all year.

Winters are Sub-Arctic in middle latitudes. Regions immediately bordering the equatorial zone have temperate conditions in the winter. High latitudes experience winter conditions comparable to those in Antarctica, with temperatures of -60°C to -90°C. Continual darkness prevails over much of the globe tilted away from the sun.

Such extremes in climate and temperature prevent tropical jungles from developing outside of a narrow band along the equator. Middle latitudes largely possess stunted trees, extensive steppe, and deserts. Higher latitudes are steppe and tundra. All life forms are tough and highly adapted to the severe changes in the climate. Animals will embark on migrations to warmer regions at the onset of fall and winter. Those which remain either hibernate or develop rich pelts and fatty tissue to guard against the cold.

4   The planet's orbital eccentricity is less than 0.2, the axial tilt is within 10º to 30º, and the day/night cycle is 6-72 hours. The planet is placed at the extreme outer edge of the stellar Ecosphere, so illumination and temperatures are lower than on Terra.

Conditions are somewhat "chilly" but not overly severe. The equatorial belt enjoys temperate conditions, with warm summers and cool winters. The only forests on the planet would be located here, as even in the middle latitudes the conditions are too cold in winter to permit survival of anything except stunted trees. Middle latitudes are Sub-Arctic, with steppe being typical. High latitudes are Polar, with summers marked by cool days and freezing night-time temperatures. Vegetation is similar to Arctic tundra, and a good third of the planet will have permafrost. High latitude winters will be bitterly cold. As in the case of Type 3 planets, the life forms will be quite tough and adapted to the planetary conditions. "Cold deserts" will predominate in poorly watered regions.

5   The planet's orbital eccentricity is less than 0.2, and the day/night cycle is 6-72 hours. The planet is placed at the extreme outer edge of the stellar Ecosphere, and the axial tilt is under 10º.

Illumination and temperatures will, again, be less than Terran normal. The equatorial zone has a temperate climate ranging through a spring-summer-fall pattern, with a relatively mild "winter" in the zone separating the equatorial region from middle latitudes. Indeed, because there is no pronounced seasonality, "winter" actually consists of a few days or weeks of temperatures around the freezing mark between the "spring" and "fall" seasons. Middle latitudes will have Sub-Arctic climates. High latitudes are gripped in eternal winter. Such a world is an "ice Planet." Most life forms would tend to concentrate in or near the temperate equatorial zone, with plants virtually non-existent beyond it. Animals living above the equatorial zone are superbly adapted to extreme cold (temperatures would range as low as -90 0 C in high latitudes), and are fierce carnivores because of the relative absence of viable plant life on land. Their pelts would be very thick and rich.

6   The planet's orbital eccentricity is less than 0.2, and the day/night cycle is 6-72 hours. The planet is placed at the extreme outer edge of the stellar Ecosphere, and the axial tilt is more than 30º.

The entire planet experiences Polar conditions. The equatorial zone experiences a brief "summer." Vast areas of the planet are in long periods of continual darkness during the winter, and temperatures drop as low as -100°C in polar regions. Summer temperatures above the equatorial zone rarely are much above freezing. in the short growing season of the equatorial region, plants grow almost visibly to take advantage of every minute of favourable conditions. Animals eat anything that looks like food, and are adequately equipped with the physical characteristics needed to acquire that food. Their ferocity is clearly indescribable. The toughness of plant life should not be minimised either: plants will develop tough outer coverings, nasty thorns, and other defences to protect them from hungry animals. if the planet does have seas, large portions will be icebound throughout the year.

7   The planet's orbital eccentricity is less than 0.2, the axial tilt is within normal limits of 10º to 30º, and the day/night cycle is 6-72 hours. The planet is placed at the extreme inner edge of the stellar Ecosphere, so illumination and temperatures are higher than on Terra.

Depending on the amount of moisture available, the planet will be either a "Desert Planet" or a "Jungle Planet." Only polar regions have any chance of experiencing a real winter, which would be quite mild, Ice caps are small or non-existent. Equatorial regions are hot, with temperatures ranging as high as 70°C in desert regions. Middle latitudes are tropical jungles or deserts. Only very high latitudes could experience temperate conditions.

Jungle planets would be teeming with lush vegetation and numerous forms of animal life, Indeed, conditions could be considered ideal for various forms of "Dinosaurian" life or its equivalent, as the planet would consist of large expanses of dense forest, lush tropical savannah, swamps, and shallow seas.

Desert planets would tend to approximate the conditions recounted in the novel Dune, with very limited amounts of water available.

8   The planet's orbital eccentricity is less than 0.2, and the day/night cycle is 6-72 hours. The planet is placed at the extreme inner edge of the stellar Ecosphere, and the axial tilt is under 10º. Illumination and

temperatures are higher than on Terra.

Because of the limited seasonality, distinct climate belts develop. Receiving intense sunlight all year around, the equatorial region experiences very high temperatures— definitely in the 70°C range. The equatorial belt might prove to be uninhabitable. A broad desert belt develops if water is not abundant. If water is available, the humidity of the equatorial region is equivalent to a steam bath. Middle latitudes are tropical. High latitudes are sub-tropical. Polar regions exhibit temperate climates, with ice caps being very small or nonexistent.

On planets with abundant water, strong frontal activity between the well-defined climate belts produces violent storms. Severe dust and sand storms result on arid planets. Life forms are tough and adapted to above "normal" temperatures, although some forms will be capable of tolerating cool weather if such conditions exist anywhere on the planet. Water-abundant planets will be humid, and vegetation will be tropical and sub-tropical, as will the animal life. Arid planets will have desert and steppe life forms.

9	The planet's orbital eccentricity is less than 0.2, and the day/night cycle is 6-72 hours. The planet is placed at the extreme inner edge of the stellar Ecosphere, and the axial tilt is over 30º. illumination and temperatures are higher than on Terra.

Extreme seasonality is experienced because of the extreme axial tilt of the planet. The extreme seasonal conditions are felt across the face of the planet. The equatorial zone is blistering hot in the summer, and sweltering in the winter, never cooling to "reasonable" tropical temperatures. Higher latitudes fare little better.

Vegetation has adapted to the radical seasonal changes, perhaps maintaining a dormant state in the fiercest heat of summer and growing in the "cooler" conditions of fall, winter, and spring. Animal life is migratory and continually moves away from the regions in which the sunlight is most direct, or else it burrows deep to take cover from the hottest temperatures. Such planets will tend to be "Desert Planets" in the hot seasons but, if adequate water is available, the cooler seasons could see an abundance of lush vegetation.

10	The orbit of the planet is highly eccentric (above 0.2) and carries the planet beyond the outer edge of the stellar Ecosphere. Axial tilt ranges between 10º and 30º, and the day is 6-72 hours long.

To distinguish the "northern" and "southern" hemispheres, we shall refer to NH and SH. At the time the planet passes beyond the outer edge of the stellar Ecosphere, one hemisphere will be tilted away from the sun; let us assume it is NH. Winter conditions will be experienced by NH, with savagely cold temperatures decidedly below Terran-normal. At that time, even the equatorial region will experience temperate conditions at best because the planet is too far away from its primary to receive enough heat to maintain "tropical" conditions there. The Southern Hemisphere SH will be enjoying "summer" conditions during the period of farthest passage from the sun. Middle latitudes will have temperate conditions, somewhat cooler than Terran-normal. Higher latitudes will have sub-polar conditions, with night-time temperatures often dropping below 0°C. Polar regions of SH will probably attain temperatures above freezing only rarely, despite the "summer" season in that hemisphere.

As the planet re-enters the stellar Ecosphere, NH will begin to warm up. In spring, summer, and fall months, the temperatures could rise to near Terran-normal. The equatorial region would now attain climate conditions of a "tropical" or "semi-tropical" nature. The middle latitudes of NH would attain temperate conditions by midsummer, while the high latitudes would attain sub-Arctic and Polar summer conditions as on Terra. Meanwhile, SH, now tilted away from the sun, would experience a fairly typical Terran winter.

Life forms on such a planet would differ considerably between the two hemispheres. Life in NH would be adapted to cold conditions. Forests would end above the equator, giving way to taiga and finally to Arctic-like tundra characterising much of NH. The polar region of NH likely would be a permanent ice cap, with glaciation extending well southward in places. Animal life would be comparable to types found in Terra's Sub-Arctic and Arctic. On the other hand, SH would exhibit a range of life not dissimilar to Terra's temperate regions in lower and middle latitudes, as heating is sufficient to restrict the sub-polar/polar regions to the high latitudes.

11	The orbit of the planet is highly eccentric (above 0.2) and carries the planet beyond the inner edge of the stellar Ecosphere. Axial tilt ranges between 10º and 30°, and the day is 6-72 hours long.

Again, we distinguish the two hemispheres by NH and SH. While the planet is in the stellar Ecosphere, hemisphere NH is experiencing a fairly typical Terran summer, albeit somewhat warmer than Terran-normal because total heating received by the planet is greater. Climate belts would be shifted northward, with tropical and sub-tropical conditions prevailing well into the middle latitudes. Temperate climates would be found even in sub-polar regions. Meanwhile, SH would be experiencing mild "winter" conditions, with freezing temperatures rare below the high latitudes.

As the planet passes the inner boundary of the stellar Ecosphere, NH will be experiencing "winter"

conditions. At this time, the amount of solar heating received by the planet is considerably higher, so no really significant changes will occur except that middle latitudes will experience occasional freezing temperatures. High latitudes in NH will experience a proper winter, of course. It is SH and the equatorial region which evidence the most dramatic change in climate. Exposed to the intense direct sunlight of the period of closest passage to the sun, SH is heated to temperatures far above Terran-normal.

Desert and semi-arid conditions will prevail within the interiors of land masses, with lakes and streams drying up even in middle and high latitudes. Equatorial temperatures could easily reach 50°C to 60°C or higher, and even in high latitudes the continual, intense sunlight could produce subtropical temperatures.

On such a planet, life forms evidence considerable differences between the two hemispheres. Since warm "Terran" conditions prevail in NH fairly much throughout the year, vegetation and animals are largely tropical, semi-tropical, and temperate forms. In SH, however, life is adapted to the dramatic changes in temperature and especially to the availability/scarcity of water. Mass migrations of animals occur to escape the heat and drought of the summer of closest passage to the sun.

Vegetation becomes dormant in the summer drought and have tough outer layers and capacity to store water. Since drought conditions prevail over most of SH during its summer, all life forms are desert and steppe types. In extreme conditions, where the orbit carries the planet well inside the inner edge of the stellar Ecosphere, summer conditions in SH could be so hot and dry that all life forms would "go to ground" during the daylight hours, venturing out only in the "cool" 40°C to 50°C temperatures of the night. Plants would definitely be dormant at that time, as daytime temperatures would be 70°C or higher— too high for even the toughest desert plants to retain sufficient moisture if they are biologically "active."

12	The orbit of the planet is so eccentric that the planet is carried right through the Ecosphere! Axial tilt ranges between 10º and 30º, and the day is 6-72 hours long.

The climate in such a situation can only be described as a "horror." Seasonality is so extreme that NH would be experiencing the equivalent of a Terran Antarctic winter over most of its surface during the period of farthest passage from the sun. At the same time, SH would be enjoying a winter roughly equivalent to a normal Terran winter. During the time of closest passage to the sun, SH would enjoy temperatures and climatic conditions roughly equivalent to a Terran spring and early summer during its "winter" period because of the vast amounts of solar energy now reaching the planet. Meanwhile. NH would be experiencing a summer similar to that described for Planetary Type 11. The range between the hottest and coldest temperatures might be as much as 160°C, from 70°C in the NH summer to -90°C in the SH "summer." Such "mixed up" conditions would result in a very unusual ecology. NH plants have their growing season in the warm "winter" months (where temperatures are, paradoxically, higher than in the theoretical summer when the hemisphere is tilted toward the very distant sun), and are dormant during the Antarctic "summer." Animals of the hemisphere are very tough and adapted to the savage winters, probably migrating toward the equator during the cold "summer" and then back north again in the warmer "winter." Along the equatorial belt, the growing seasons would be the spring and fall periods when the planet is in the stellar Ecosphere. When the planet is at its period of farthest passage from the sun, even the equatorial region would sometimes experience freezing conditions. In the period of closest passage, temperatures would be furnace hot and drought inevitable. In hemisphere SH, adaptation of plants and animals to prevailing conditions will be extreme, as they will have to contend with relatively cold weather on one hand and desert heat and dry weather on the other. Migration of animals is likely. In general, life forms would be truly "tough" by Terran standards and very competitive.

12-A, 12-B	The conditions given for Type 10, 11, and 12 planets assume a normal axial tilt. Extreme minimum's (denoted by the suffix -A) and extreme maximums (denoted by the suffix -B) in axial tilt would produce conditions so harsh that life either would not evolve/survive or else would be so tough and adaptive as to challenge belief. To work out the general climatic conditions for such planets is just short of a nightmare: if one combines the worst of Planetary Types 5 or 6 with those of Types 8 or 9, as applicable, and then modifies the result in terms of Types 10, 11, or 12, one may obtain an idea of just how "difficult" things really are on these planetary types.
13	The planet lies up to 10% closer to the primary than the inner stellar Ecosphere limit given in the Stellar Primaries table. Conditions on such planets approximate those of Type 7, 8, or 9 planets, except that temperatures will be somewhat higher. Planetary variations of this type are denoted as Type 13/7, 13/8, or 13/9 to indicate the comparative planetary types. Generally, conditions on such planets are "minimal" and require some life support measures for Terrans and other life forms originating on more temperate planets. The native life forms are very highly adapted to high temperature environments.
14	The planet lies as much as 30% farther from the primary than the outer stellar Ecosphere limit given in the Stellar Primaries table. Conditions on such planets approximate those of Type 4, 5, or 6 planets, except that temperatures will be somewhat lower. The planetary variations of this type are denoted as Type 14/4, 14/5, or 14/6 to indicate the comparative planetary types. Conditions on such planets are "minimal" and

	may require extensive life support measures for Terrans and other life forms originating on more temperate planets. The native life forms are very highly adapted to low temperature environments.
15	The planet lies too close to the primary to be considered as inhabitable by any form of hydrocarbon life. Surface temperatures could easily range from 100°C to 750°C (cf.: Venus and Mercury as examples of such planetary types).
16	The planet is significantly removed from the stellar Ecosphere to be totally uninhabitable by hydrocarbon life. Temperature range (noontime maximums): -80°C to -185°C.
17	The planet is very far removed from the stellar Ecosphere, and conditions approach those of the outer planets of the Sol System. Temperature range (noontime maximums): -185°C to -225°C.
18	The planet is extremely removed from the stellar Ecosphere, and surface conditions are approaching Absolute Zero (-273°C). Atmospheres, if any, are "frozen."
19	The planet is a "rogue" in interstellar space or else is in a comet like orbit about a distant primary. Such worlds have temperatures approaching Absolute Zero (-273°C). Atmospheres, if any, are "frozen."
20	The planet is a "Gas Giant" with low density. When indicating orbital placement, this type is denoted as Type 20/15 (close to primary), 20/E (within stellar Ecosphere limits), 20/16, 20/17, or 20/18.
VS	When a planet is orbiting a variable star, the prefix VSis placed in front of the planetary Type number; e.g.: Type VS-9. In determining planetary classification, conditions at minimum brightness of the variable star are considered. In most instances, conditions would be too extreme for life to evolve or to survive on planets placed within the theoretical Ecosphere or closer to the primary. When the star brightens, temperatures in such a zone would rise considerably. Temperatures would fall just as dramatically. If the variable star is a long term variable with a relatively minimal increase in brightness (under 0.5 magnitude or 1.6 times its minimum luminosity), surface conditions might prove liveable. Indeed, such a planet would be located in Type 14 position, but would evidence Type 12 characteristics: VS-14/12. Stars with higher ranges of brightness/dimness would not support habitable planets, while eruptive variables would be so inimical to hydrocarbon life that survival on their planets would require extensive life support, especially shielding against high temperatures, intense hard radiation, and shrivelling ultraviolet levels which would bathe during flare periods.
MS	The planet is in a multiple star system. If a planet is orbiting in a system with two or more stars, the prefix MSis placed in front of the planetary type number. If the stars are very close together or are very far apart, there is a chance that the planet will lie in an orbit such that illumination and heating are more or less constant. However, if the stars are only moderate distances apart, such a planet would experience periods of intense illumination and heat alternating with periods of dimness and cold. In fact, this situation is summed up by the notation MS-12 (extreme eccentricity of orbit) and may be even more severe. Effects of lighting will be unusual in multiple star systems, as there will sometimes be two or more suns in the sky at the same time, casting multiple shadows as a result. If one of the stars is far distant, an exceedingly bright star will be seen at night. In those instances where one of the stars in a binary system is small and dim, conditions will not be significantly different than in a single star system; for the effect of the dim star will be minimal unless the planet makes an exceedingly close passage. Where a clear danger lies is in the ability of a smaller star in a multiple system to render a planet's orbit unstable and carry it to a less favourable thermal zone.

Hydrographic Features

Water is essential to all forms of hydrocarbon life. Water is also vital to development of viable climatic and weather patterns.

Dry Planets

A planet with less than 40% free-standing water in lakes, seas, and oceans, will tend toward semi-arid and arid conditions over most of its land surface. There is simply too much land and too little open water for good distribution patterns of precipitation to develop. Regions located around bodies of water will become rich oases in the middle of dry steppes and deserts.

Desert Planets

Free-standing water is under 10% of the planetary surface. Conditions resemble Terran deserts over most of the planet. Extreme conditions approximate those described in Frank Herbert's novel Dune. Human-type personnel require some form of protective clothing and filter masks to prevent dehydration and to protect against high dust concentrations in the air. Shelters have to be sealed to maintain the humidity of the interior air, and some form of insulation/air conditioning would be required to keep interior temperatures within comfortable limits. (Such planets could also be "cold deserts" if their orbital placements and other factors result in low temperature conditions, again requiring appropriate lifesupport measures.) "Water discipline" is mandatory.

Arid Planets

Free-standing water is under 25% of the planetary surface. Conditions tend toward desert in the interiors of land masses. Better watered regions resemble Terran prairies and steppe-lands like those of the American West, Russia's steppes, and the African veldt. Cold planets or regions have steppe/wasteland conditions comparable to the Mongolian plain. Extreme conditions compare to those encountered in America's Death Valley or the worst parts of the interior deserts of Australia, the Sahara, and Arabia. Polar and sub-polar regions compare to the Terran Arctic. Some forested regions might be encountered in areas receiving adequate precipitation, and narrow strips of woodland exist along permanent waterways and around lakes.

Steppe Planets

Free-standing water is under 40% of the planetary surface. Conditions resemble those of the Arid Planets, except that forested and well-watered steppe lands would be considerably larger in extent. Precipitation patterns permitting, some tropical forests might appear in equatorial regions, with true jungles and rainforests. On the whole, water is still scarce but relatively more abundant than on Arid Planets.

Tundra Planets

When planetary temperatures are low, a large portion of the water will be "locked in" by surface or by permafrost lying 20 to 50 cm below the surface of the soil. The effect is quite "desert like," and tundra conditions could be described as "cold desert." Type 14 planets will often be Tundra Planets. Generally, conditions would resemble those of the High Arctic and Antarctic.

"Terran" Planets

For a planet to evidence conditions similar to those on Terra, the amount of open free-standing water will have to range from 40% to 80% of the planetary surface. There will be a number of large seas and oceans, and many streams and lakes will be found in the interiors of the large land masses. Climatic types will be similar to those on Terra, and present in as great a variety. Those planets with 40% to 60% surface water will be "transitional," standing between Steppe Planets and Terrannormal. Typical planets are Type 1.

Swamp & Jungle Planets

Free standing water ranges from 70% to 85% of the planetary surface on Swamp/Jungle Planets, with much of the land surface low-lying. Arms of the shallow seas often penetrate far inland, providing ready sources of moisture for precipitation. The low-lying land will be poorly drained and therefore often swampy. Such planets tend to be located toward the inner edge of the stellar Ecosphere and experience above Terran-normal temperatures. Humidity levels are high and precipitation heavier than on Terra. Type 13 planets are the most likely candidates if sufficient water is available; otherwise they could develop into Dry Planets. "Terran" Planets could also be of this type if a "heat trap" effect is produced by excessive carbon dioxide levels in the atmosphere and land forms are of the type described above.

Swamp/Jungle Planets could also be "young" in development, comparable to Terra during the Age of Dinosaurs or the Carboniferous Period. Such planets could therefore have giant amphibians and dinosaurs (or their local equivalent) as well as dense and lush vegetation. Otherwise, life forms will tend toward tropical and semi-tropical varieties like those of Terra.

Ocean Planets
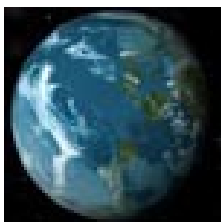
When the free-standing water is in excess of 80% of the planetary surface, conditions across most of the planet will tend to be "maritime" in nature. Land masses tend to be small, with many island archipelagos and individual islands dotting the planetary seas and oceans. The humidity will be high and the precipitation adequate to heavy, especially where temperatures are high. Because of the large amounts of water vapour present in the atmosphere, storms will be violent in the warm seasons, with hurricanes and typhoons common in equatorial and middle latitudes. Even polar latitudes will enjoy moderate marine climates in the winter.

The presence of vast amounts of water vapour in the atmosphere will create extensive cloud cover which will protect the planetary surface from both excessive heating and excessive cooling. Thus extreme conditions caused by axial tilt or orbital position will be moderated, and conditions will be quite liveable where they might otherwise have been unacceptable.
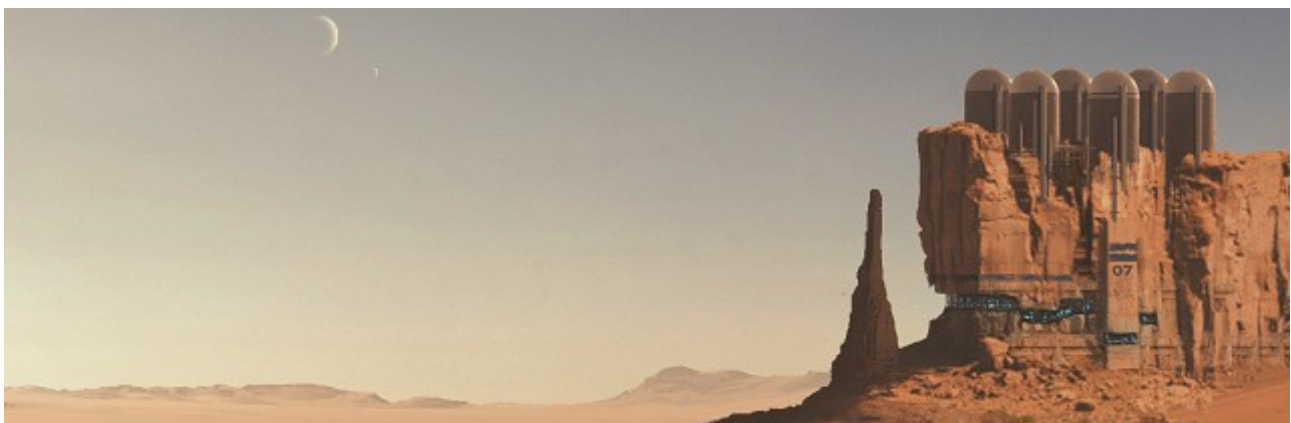
Breathable Atmospheres

Some planets will have atmospheres much like Terra's, with pressure and atmospheric gases within the tolerance limits of most races. Others will have thin or dense atmospheres, or may have concentrations of gases at narcotic or toxic levels.

The general age and state of development of a planet will be important. Young planets would not have had the time to develop truly Terran atmospheres. Old planets would have suffered the escape of some gases and, if not possessed of a high gravity field, pressures might be fairly low.

Terran Atmospheres

For Terran life forms, the essential ingredients of a breathable atmosphere are oxygen and minor amounts of water vapour. Nitrogen is essential to Terran plants and serves as an atmospheric "dillutant." Other gases may be present. A planet rated as having a "Terran" atmosphere will be acceptable to most races.

Thin Atmospheres

When the inspired pressure of oxygen falls below 60 mm, Terrans will suffer from hypoxia. This condition will be encountered on planets with low atmospheric pressures or at high altitudes. Also, since the atmosphere does act as a heat-trap and heat-engine to hold and distribute solar energy over the planetary surface, a thin atmosphere will not effectively maintain temperatures at comfortable or tolerable levels. Daytime temperatures might be reasonably satisfactory, but heat loss on darkside could result in very low temperatures. What is worse, thin atmospheres will likely not contain sufficient ozone to filter out ultraviolet radiation.

Dense Atmospheres

Planets with dense atmospheres may have concentrations of gases which approach or exceed the maximum limits tolerable by Terrans. The air is not toxic but is so dense that it is literally too thick to breathe. Only at high altitudes can humans breathe comfortably without a pressure suit. Over long periods of exposure, reduced blood circulation results in numbness, cramps, and even life-threatening clots. Pressure suits must be worn on these worlds. Local conditions could easily push concentrations over the limit into the narcotic/toxic zone.

Exotic Atmospheres

Planets with "exotic" atmospheres contain unusually high concentrations of gases. These may have narcotic effects producing erratic behaviour and eventual unconsciousness. Use the drug effects rules (section 6.20) to determine effects on characters. The time to take effect will vary, depending on the concentrations of gases present, usually a period of some minutes. Regular checks can be made for personnel who do not succumb on the first CR. Toxic gases can similarly be treated, The Game Master can also rule that gas concentrations will effect members of some races, but not others.

Corrosive Atmospheres

Some atmospheres will have corrosive components which may increase the breakdown numbers of some exposed equipment or which may cause physical damage (burns skin, etc.) The effects might be checked at regular intervals (hourly, daily, etc.), with a 1d20% chance of actually causing breakdowns or "wounds." If the probability turns up on a 1d100 roll, roll 1d6 and either apply the result to the breakdown number or to the character as a "minor" wound.

Humidity

An important constituent of any Terran-breathable atmosphere is humidity. The amount of water vapour in the atmosphere has profound implications for Terran life forms and ecologies. High humidity at high temperatures can prove to be uncomfortable and sometimes dangerous. Low humidity, especially at high temperatures, will cause serious physiological complications: rapid drying of mucus membranes of the nose, mouth, and throat; dehydration, and eventual

delirium, coma, and death as dehydration becomes extreme. Even when sufficient liquid water is present for drinking dehydration of the moist tissues will bring respiratory complaints and eventual illness.

Dust

Terrans will find dust concentrations in excess of 1765 million particles per cubic meter of air to be unhealthy if the silica content is under 5%. High silicate dust (over 50% free silica) should not exceed 175 million particles per cubic meter of air. Dust concentrations higher than these are harmful to the respiratory system, and prolonged exposure could cause silicosis and other lung degenerative diseases.

"Hot Planet" Atmospheres

Planets located close to a star might have fairly "exotic" atmospheres, like that of Venus. Venus could be taken as a model of such highly exotic conditions: primarily carbon dioxide, with traces or water vapour, oxygen, some hydrocarbons, and other "trace" gases. Temperature conditions on such planets will be furnace-like. Light gases (helium, hydrogen, etc.) will "escape" over the millennia because of the high-intensity solar heating in the upper atmosphere, and minute traces would remain. High concentrations of carbon dioxide would produce such a "greenhouse effect" that surface temperatures could approach 400ºC or more.

"Cold Planet" Atmospheres

Planets distant from a star will have "unusual" atmospheres by normal Terran standards. As the distance becomes progressively farther, certain gases will become liquid or solid. Water freezes at 0°C, and by -75°C only minute traces of tiny ice crystals would be present in the atmosphere. Carbon dioxide turns to "dry ice" at -78.5°C. Nitrogen liquefies somewhat over -100°C. Methane liquefies at -161.5°C and is slushy by -184°C, at 1 TSP. Oxygen liquefies at -183°C. Some gases, like helium, remain liquid near absolute zero and exhibit highly unusual effects. Most, however, will be in a solid state by the time that 400°C is reached.

Surface conditions on planets with very cold temperatures will prove onerous and dangerous. Terran personnel will require heavily insulated pressure suits to avoid rapid and fatal heat loss to the environment. Many of the gases and liquefied gases are very heat conductive at low temperatures and will draw heat away from warmer objects with ease. Other less pleasant phenomena may also result.

Non-existent & Trace Atmospheres

Some planets will have no atmosphere or else only trace amounts of some gases. Surface conditions will approximate those of space itself. Close to a star, daytime temperatures are "hot" in the sense that any object in sunlight are heated by the direct rays of the star. In shadow, an object might be a great many degrees cooler than a nearby object in sunlight, although heat conductivity through the ground might heat it considerably if the day is long. On the darkside of such a planet, cooling may result in objects on the surface being many degrees below 0ºC by the following dawn. In such conditions, insulated pressure suits and sun-screens will be necessary protective.

Colony World Classifications

Humanity has explored hundreds of worlds, and has established dozens of colonies and outposts. Game Masters should feel free to add to, amend, or alter the colony worlds as desired, and to create new worlds that suit his game.

Colonies grow at varying rates, depending on the corporate support they receive, and the biosphere of the world they are on. Eventually most colonies reach a point where they become a positive asset to the corporation which funds it, by producing trade goods, and after a generation, skilled workers.

These skilled workers are part of the rapidly growing populations of the colonies, and the corporations have developed many techniques for managing them successfully. Colonists are taught to live active, disciplined lives, to maximize their economic value and to reduce the risks of living in the colonies. Good educations are available for all.

By contrast, the disorganized state of the population of Earth means that there are fewer people there who are as well disciplined and well-educated as the people living in the colonies.

Class 1 Colony World

The greatest prize in the colonisation of extrasolar planets, a Class 1 Colony World is classified by the ICA as being a hospitable, Earth-like planet with a biosphere that features an abundance of liquid water, oxygen-rich breathable atmosphere, comfortable climate and either the existance of indigenous flora and fauna, or great potential to support terrestrial life. Most such planets lie within the parent star's comfort zone.

All planets so far classified Class 1 by the ICA are highly prized, and when the highly prized Colonisation Development Contracts (CDCs) are issued, the there is usually a frenetic bidding war by interested megacorporations.

Planets classified Class 1 in Far Space are not subject to ICA regulation so far. Those that are in UEF territory are being rapidly developed, and emigration requests to such worlds are always very high.

All Class 1 colonies in the Core Systems have extensive orbital facilities, high-tech manufacturing, heavy industry, and are almost completely self-sufficient.

Class 2 Colony World

Class 2 Colony Worlds are classified by the ICA as being habitable planets that have borderline biospheres adaptable to human use through short to medium term terraforming projects. Most established Class 2 colonies have two important attributes: manufacturing capability, and an orbital spacecraft service facility.

The exact level of technology available varies with each colony, but all have at least some ability to manufacture their own goods. They are self-sufficient in the most vital commodities: food, water, and air. The most advanced Class 2 colonies even have full high-tech manufacturing and heavy industry.

Class 3 Colony World

Class 3 colonies are established on worlds possessing deposits of valuable raw materials, but which otherwise would not be desirable for human habitation. If the extraction of the planet's natural resources can be made economically viable, corporate investment will fund a colonial mission.

Few have more than rudimentary manufacturing ability. Long term terraforming projects are initiated on worlds with potential but as this involves decades of expensive work before the world is truly habitable, the resources on the planet must be sizeable. Some Class 3 colonies will eventually become habitable, and thus be moved up to Class 2 status. Others will remain Class 3.

Population on Class 3 colonies is small, usually ranging from no more than a few hundred to a few thousand technical staff and their families to service the automated terraforming/mining machinery.

Outpost

Outposts are planets which possess no established civilian colony, but are nevertheless occupied. On some Outposts, there are also top-secret military and scientific facilities. Weapons tests, unusual research, and high-security prisons are placed here. Others that are referred to as Garrison Worlds, have been fortified for military purposes. The fortifications consist of deep space sensor arrays to detect the arrival of ships in the system, and a number of craft for in-system defence.

Orbital and Deep Space Stations

It is said that space stations are like snowflakes – there are no two that are identical. While this is not exactly true, there is a staggering variety of stations, both in layout and function, across the solar system. Some stations are not much more than warehouses in space. These basic stations are used by corporations and governments to store or stage goods, machinery, and just about anything else of which you can think. Many of these stations are little more than open skeletal structures with docking clamps that hold cargo containers waiting for pickup. At the other end of the spectrum are the massive luxury resort stations that have become popular vacation spots. Some of these stations are located literally in the middle of nowhere, in order to stay out of the jurisdiction of any government or corporate entity, which enables them to offer services that would be frowned upon at best, and outright illegal at worst. Such stations are, naturally, secretive.

Orbital and deep space stations follow two very distinct design philosophies. Orbital stations, which refers to stations that are built around colonized planets, moons, and asteroids, tend to rely on resupply from the planet or colony they orbit. This comes either in the form of direct shipments from the planet or colony, or through logistic ships that supply the colony itself. As a result, orbital stations generally do not have space dedicated to hydroponics and maintain a smaller reserve of fuel for powering their reactors. These stations also tend to rely on the native defenses of the planet or colony and, with the exception of military stations, are generally unarmed or have a very light suite of defensive weaponry and systems. They also tend to maintain smaller support staffs since the station can easily call upon personnel from the planet or colony should the need arise.

Deep space stations generally refer to stations that are built in the deep black between the orbital paths of planets. As a result, these stations need to be much more self-reliant. Deep space stations support large hydroponic gardens to provide both a native food source and a natural carbon dioxide recycling system. Many times, these gardens are designed to be as natural-looking as possible in order to provide crew and guests a more natural environment to relax in from time to time. In many cases, small animals, birds, and insects are an integral part of the garden; though when this is the case, their populations are tightly controlled and special measures are taken to ensure they do not escape the garden area. Deep space stations also maintain a much higher reserve of fuel and other supplies should an event mean the station is going to be isolated for longer than normal. The crews on these stations are also large since, again, they must be as self-reliant as they possibly can be. Finally, deep space stations tend to be well-armed in order to protect themselves from would-be pirates or raiders that may see it as a target of opportunity.

Tin Can

The oldest space stations—a handful of which still see use—are so-called "tin can" stations. These stations are usually little more than a hollow metallic shell which has been pressurized to keep in atmosphere. Sometimes several such modules are connected by tethers. These stations typically are designed for no more than a hundred or so inhabitants and provide no artificial gravity.

Asteroid Habitats

Another older design, asteroid stations are simply hollowed out asteroids or other large pieces of rock. This provides cheap shielding from space radiation, and insulation, but provides no spin gravity and disorienting living conditions. Asteroid habitats are still commonly used as short-lived mining outposts or covert bases of operation. The largest asteroid habitats can house thousands of residents, but in practice, few do.

Stanford Torus

The most common space station design remaining in use today, new Stanford torus construction was most popular between the 2090s and the 2170s. These stations consist of a donut-shaped right, usually around 2 km in diameter. his ring spins to provide artificial gravity, and a Stanford Torus station is usually designed to house around 10,000 residents. At the center of the ring is a hub, usually connected to the ring through a series of spokes that radiate away from it. Connected to the hub are a series of mirrors that channel sunlight into the station's ring.

Bernal Sphere

A common design for space stations since the 2170s, a Bernal sphere is essentially a hollow spherical shell that rotates to provide spin gravity. Bernal sphere stations are typically about 16 km in diameter and house between 20,000 and 30,000 residents. Often at the poles—where the spin gravity is lowest—the material of the station is transparent, and a series of exterior and interior mirrors channel sunlight into the station.

O'Neill Cylinder

An upcoming design used in Mandala Station and a few other proposed stations, the O'Neill design consists of two counterrotating cylinders, divided lengthwise into six sections. These sections alternate between transparent sections to allow sunlight into the station, and "land area" on which inhabitants of the station live. Each cylinder is usually about 5 km in diameter and up to 32 km in length. A O'Neill cylinder station is designed for up to 100,000 residents.
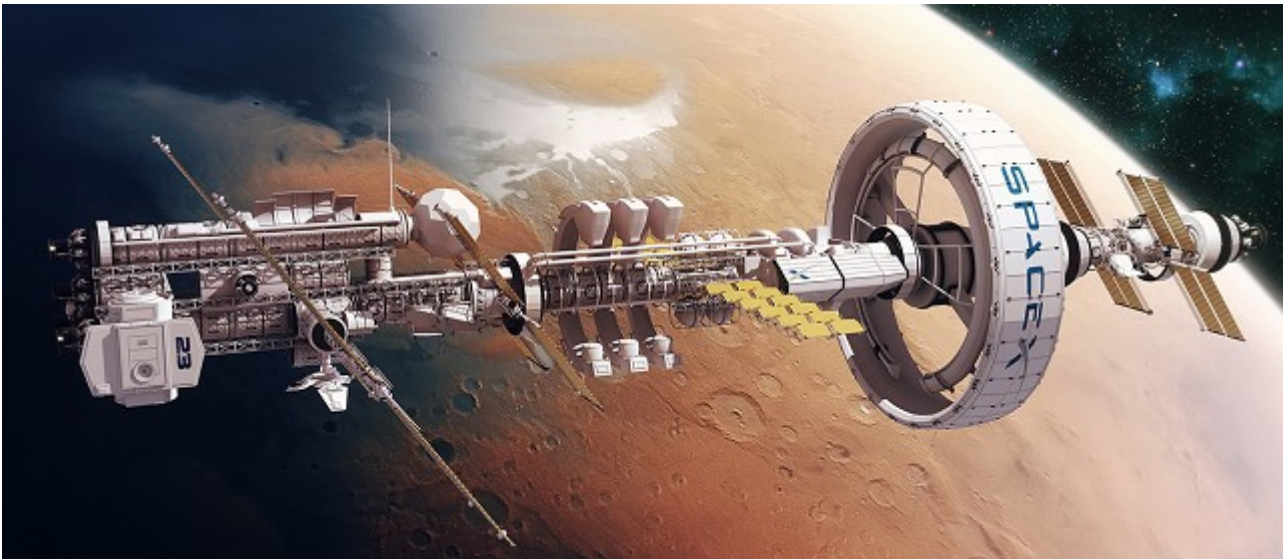
Cthulhu Mythos

by H. P. Lovecraft, August Derleth, Robert Bloch, Brian Lumley, Hazel Heald, Frank Belknap Long, Ramsey Campbell, John W. Campbell, John Snead, Scott David Aniolowski & Sandy Petersen

> *"The most merciful thing in the world, I think, is the inability of the human mind to correlate all its contents. We live on a placid island of ignorance in the midst of black seas of infinity, and it was not meant that we should voyage far. The sciences, each straining in its own direction, have hitherto harmed us little; but some day the piecing together of dissociated knowledge will open up such terrifying vistas of reality, and of our frightful position therein, that we shall either go mad from the revelation or flee from the light into the peace and safety of a new dark age..."*
>
> *H.P. Lovecraft – The Call of Cthulhu*

The Outer Gods rule the universe and have little to do with humanity, except for Nyarlathotep. Humans meddling with these entities suffer for it, usually ending mad or dead. Names for a few Outer Gods are known. They appear almost to be true gods, as opposed to the alien horror of the Great Old Ones, and some may personify some cosmic principle. Only a few of these deities seem to take interest in human affairs or to acknowledge the existence of the human race. When they do, they often are shown trying to break through cosmic walls or dimensions in order to wreak new destruction. All the races and lesser deities of the Mythos acknowledge the Outer Gods, and many worship them.

The Outer Gods are controlled to some extent by their messenger and soul, Nyarlathotep. When the Outer Gods are discomforted, Nyarlathotep investigates. Azathoth, the daemon sultan and ruler of the cosmos, writhes mindlessly to the piping of a demon flute at the center of the universe. Yog-Sothoth, either a second-in-command or co-ruler, is coterminous with all time and space, but locked somehow outside the mundane universe. Yog-Sothoth can be summoned to this side only through the use of mighty spells, whereas Azathoth theoretically might be met by traveling far enough through space. A group of Outer Gods and servitors dance slowly around Azathoth, but none are named.

The Great Old Ones are not as supernatural as the Outer Gods, but are nonetheless god-like and terrible to human eyes. Humans are much more likely to worship Great Old Ones, who are comparatively near at hand and who occasionally participate in human affairs or contact individual humans, than they are to worship Outer Gods. Entire clans or cults may secretly worship a Great Old One. Lone madmen, on the other hand, seem to prefer the Outer Gods. Beings serving the Great Old Ones frequently inhabit the remote fastness of the Earth. Characters most often encounter their worshipers and alien servants.

Particular species are often associated with particular Great Old Ones or Outer Gods—Byakhee with Hastur, for instance. These are servitor species, and frequently a god or Great Old One manifests accompanied by several such servitors. Representatives may act as hitmen, messengers, spies, and delivery boys, frightening off Characters and bulking out confrontations. In comparison, Outer Gods and Great Old Ones should be met with exceedingly infrequently.

Although many of the alien races of the Cthulhu Mythos are terrifying, they are nothing before the might of the Mythos gods—immense creatures barely within our scope of understanding, all the more horrifying for the fact that they do not care about the fate of humanity.

It should also be noted that many deities have avatars. These are specific forms, sometimes with specific attributes, in which a portion of a god may appear. Cults often worship avatars of gods rather than the gods themselves. Nyarlathotep is particularly well known for his thousand avatars (or masks).

The term deity is used here to mean not only gods but those with godlike powers, such as Great Cthulhu himself. Whilst Cthulhu is worshipped like a god, many believe him to be part of an alien race, though whether his brethren are like him or are lesser beings is not made clear. Those such as Great Cthulhu may be termed Great Old Ones to distinguish them from actual gods as we generally understand the term. Some have tried to define a pantheon of Mythos gods or to classify them in to a hierarchy such as elder gods, other gods, outer gods, great old ones and so on.

Independent Races

left to right: Star Vampires, Dimensional Shamblers, Spartan, Ghast, Hounds of Tindalos, Chthonian

Most species do not serve to a specific deity, although individuals may certainly worship, cooperate, or co-conspire with such beings. Some species neither desire nor instigate any interaction with other races of the Mythos, while others may actively associate with or war against other species or even deities.

Alien species possess their own agendas. Of course, differing groups within a species may pay devotions to a particular entity, but this is not representative of the whole. Some species may not "worship" the Mythos gods at all, but views them scientifically, as forces of cosmic nature to be studied, used, or avoided.

Some alien species have been able to hold their own against Great Old Ones. The independent races vary in power, and some are extinct. They are intimately connected with our planet.

CHTHONIANS, Greater Independent Race

Flowing tentacles and pulpy gray-black, elongated sack of a body... no distinguishing features at all other than the reaching, groping tentacles. Or was there—yes—a lump in the upper body of the thing... a container of sorts for the brain, ganglia, or whichever diseased organ governed this horror's loathsome life!

Brian Lumley, The Burrowers Beneath.

These creatures are like immense earth-bound squids, and their elongated worm-like bodies are coated with slime. A chanting sound accompanies them. These powerful burrowers live more than a thousand years, and are protective of their young. A jumble of remarkable properties, chthonians bear little resemblance to else on this planet. The most important individual chthonian is the gigantic Shudde M'ell.

Rarely seen, these entities live toward the earth's core, with only a few individuals visiting the upper strata and outer crust. An exception to this rule is the mysterious city of G'harne, somewhere in Africa, which appears to be a sacred or important site, as those who allege to have found and visited G'harne tell of great gatherings of these beings, although such accounts may just be wild speculation.

All stages of chthonians communicate via telepathy and can thus reach another of their race anywhere in the world, and can sense other minds. Only adults can telepathically control members of other species with this power.

- ■ They can tunnel through rock as though it were butter, and have no need to breathe.

■ Adult chthonians can withstand enormous temperatures, up to 4000°C (7200°F). It may be that the majority of chthonians live toward the core of this planet, and that only outcasts, wanderers, and those accidentally caught up in pluming magma explore the cold outer crust where man thrives. Perhaps they migrate here to give birth, since the younger stages cannot withstand extreme heat. We do not know their motives.

■ Full adults can cause powerful earthquakes.

■ Chthonians are extremely susceptible to water. While their slime coating protects them from small amounts of water, general immersion destroys a chthonian. Burrowing, these monsters avoid significant water by distinguishing the relatively low echo profiles of water and watery sediment, avoiding such areas.

■ Chthonians are worldwide, even found in basalt under the oceans. In western Africa is a mystery city called G'harne, which they frequent. They may have been imprisoned there once, aeons ago. The general discussion and initial statistics concern the full adult, the last and largest stage (instar) between molts. This is the sort which Characters are most likely to meet. A closing section compares all six stages, since a nest of younger chthonians may be encountered, or a band of chthonians with varying age groups could be met with.

Chthonian Telepathic Control:

Chthonians can use telepathy to control humans, though they do not often do so unless the target has something they want, such as odd spherical mineral formations.

Match the POW of a single chthonian against the target's POW on the resistance table. Overcome, the victim is bound to the area where physically attacked. At first the target has mobility of a mile or so, but this progressively lessens as the chthonian draws nearer, until the victim may not be able to leave a particular room, or even a particular chair. The target immobilized, the chthonian erupts through the floor and collects its due. If the victim becomes aware of the mental influence of a chthonian, the hold may be broken by successfully matching POW against the chthonian's POW. Once a victim has experience of chthonians, a successful Idea roll constitutes awareness.

A chthonian can telepathically contact a known human anywhere on the Earth, but it may take time before it can find his mind.

It costs a chthonian one Magic Point to communicate with a human or to bind a human to a site for a day. Each ten miles of distance from a binding also costs another Magic Point. Several chthonians may contribute Magic Points to compensate for distance, but only one of their POWs may match at a time on the Resistance Table.

It costs no Magic Points to contact another chthonian, no matter at what distance.

Anecdotal evidence suggests that adults may be able to drain away a percentage of a human's Magic Points, but nothing definite is truly known.

Earthquake Attacks:

All adult chthonians can create earthquakes. Figure an earthquake's force by totaling the POW of participating chthonians and dividing by 20. The result is the earthquake's magnitude on the Richter scale, but only in the first diameter of 100 meters. In the next 100 meters, the Richter force is lessened by one, and so on each additional 100 meters until the strength of the quake can be ignored. Alternatively, the chthonians might limit the force in the center diameter, and instead extend the quake's diameter-of-effect or maximum effect by multiples of 100 meters.

At least half of the participants must be directly under the center of the earthquake. Each chthonian must spend Magic Points equal to the highest Richter force number generated for the quake. Historically, the highest Richter numbers have been approximately 9s, but geological evidence exists of quakes that have been much stronger.

Tentacle Attacks:

A chthonian can attack with 1D8 tentacles, each of which cause damage equal to half the creature's damage bonus (round down). If a tentacle strikes home, it clings and worms its way into the victim's vitals, and begins to drain off blood and fluids, costing 1D6 CON each round. Reaching 0 CON, the victim dies. CON lost to a chthonian is gone for good. While a tentacle is draining a victim, it cannot be used to drain other targets, but it could still be used to fight-back, swinging the poor held victim like a ball on a chain at its attacker.

Tentacles draining their targets will continue to sap CON each round. Each tentacle could attack a different target or they could all attack the same one.

Crush Attacks:

A chthonian may use its immense bulk to crush a foe. If crushing, a chthonian cannot attack with tentacles, but it can continue to hold and drain victims that are already caught. The chthonian rears up and crashes down on a group: the crush area is circular, striking equally all within. The crush area equals a diameter in meters of the chthonian's SIZ divided by 10.

Within the crush area, a Character must succeed with Dodge or Jump, or lose hit points equal to the creature's full damage bonus.

Characteristics		Average			
STR	3D6 x5	52-53		Move	6/1 burrowing
CON	3D6 + 30	40-41		Hit Points	92-94
SIZ	3D6 x5	52-53			
INT	5D6	17-18			
POW	5D6	17-18			
DEX	2D6	7			
HF*	1D3/1D20 for a full adult; 1/1D10 Sanity points for the lesser instars; no Sanity points to encounter a hatchling.				

Damage Bonus: +5D6 or 6D6 (average)

Armor:

- ■ 5-point tough hide and muscle;
- ■ regenerates 5 hit points per round (death at zero hit points);
- ■ water in large quantities is harmful, causing 1D6 damage per round.

Weapon	Attack	Damage
Tentacle	75%	damage 2D6 or 3D6 + blood drain
Crush	80%	5D6 or 6D6 +db

Spells:

A full adult possess spells if an INT x3 roll on D100 succeeds; it then has 1D6 spells connected with Shudde M'ell and Great Old Ones tied to this earth, such as Cthulhu.

Chthonian Life Cycle:

The full adult is shown above; hatchlings are at the end of this write-up. INT and DEX do not change.

	1st instar	2nd instar	3rd instar	4th instar
STR	3D6	3D6x2	3D6 x3	3D6 x4
CON	3D6+10	3D6+15	3D6+20	3D6+25
SIZ	3D6	3D6x2	3D6x3	3D6x4
POW	1D6	2D6	3D6	4D6
Max Temp.	100°C	250°C	600°C	1500°C
HP Regen.	1	2	3	4
Armor	1	2	3	4
Average HP	15-16	22-25	29-33	34-42
time	9-10 months	8-15 years	unknown	unknown

- ■ Max Temp.: maximum temperature that the instar can withstand without pain and injury. A temperature double that listed quickly kills the creature.
- ■ HP Regen.: hit points per round that the instar regenerates.
- ■ Average HP: the hit points for an average individual of that stage.

Hatchlings:

Chthonian eggs resemble geodes or other spherical mineral formations. They are a foot or less in diameter, and have shells five or seven centimeters thick.

Hatchlings are the initial stage of chthonian growth, before first instar, and exist only for a few months right after hatching. Out of their shells, each is the size of a large earthworm, has 1 hit point and 1D6 points of POW, and can withstand only 40 °C. A burning cigar could wither and kill one.

COLOURS OUT OF SPACE, Greater Independent Race

> *"For the terror had not faded with the silhouette, and in a fearsome instant of deeper darkness the watchers saw wriggling at that treetop height a thousand tiny points of faint and unhallowed radiance, tipping each bough like the fire of St. Elmo or the flames that came down on the apostles' heads at Pentecost. It was a monstrous constellation of unnatural light, like a glutted swarm of corpse-fed fireflies dancing hellish sarabands over an accursed marsh; and its colour was that same nameless intrusion which Ammi had come to recognise and dread."*
>
> H. P. Lovecraft, "The Colour Out of Space."

Colours come from an area of space or other dimensions where natural laws differ. Adult colours create sphere-carrying embryos, which are sent out through space to find nourishment on other worlds. Deposited on verdant soil or in shallow waters, the embryo begins to germinate. After a few days, the outer shell dissolves, and the new creature, which we may term a larva, emerges.

A Colour is a sentient organism which manifests itself as pure colour—it is not gaseous, it is insubstantial. When it moves, it is visible as an amorphous, glistening patch of color, rolling and shining in shades of its pale colors that match nothing in the known spectrum. This patch pours over the ground or flies in a living fashion. When it feeds, its victim's skin and face glow with the Colour.

Though incorporeal, its passing nonetheless feels like the touch of a slimy, unhealthy vapor. Geiger counters register its presence as a distinctive burst of radiation. With modern light intensification gear, it shows as a bright patch of luminosity. Infrared viewers are useless.

Colours come from the depths of space, where natural laws differ. Adult Colours create embryos, harmless 10 cm spheres seemingly empty. Deposited on verdant soil or in shallow waters, the embryo begins to germinate. After a few days, the outer shell dissolves and the new creature, which we may term a larva, emerges.

The jelly-like larva can grow to great size. As it infiltrates the ecosystem, local vegetation exhibits a tremendous but unhealthy growth. Fruit tastes bitter. Insects and animals are born deformed. At night, all plant life glows with the Colour, and the vegetation begins to twist and writhe at night, as though in a strong wind. Even humans shine with the spectral light. After a few months, the larva transforms into a young Colour.

It now makes brief trips from its lair to feed, and begins to drain the life-force from the area previously affected by the larva. When it drains enough energy, it departs the planet for space and adulthood. In so maturing, the Colour may drain life-force from an area of five acres or so if rich in life, or perhaps 10-20 acres of moor or grassland. The area drained is ruined thereafter, and no plant can grow.

Bright light inhibits a Colour. It spends daylight hours in dark, cool hideaways, preferably underwater: cisterns, wells, lakes, reservoirs, and oceans are all suitable.

Attacks & Special Effects:

Since a Colour is so efficient an attacker, as a warning Game Masters sometimes may wish to allow INT x4 or x5 to detect its slight glow, or to notice a sudden presence of ozone.

If it is feeding, match the Colour's POW against the victim's current Magic Points. For every 10 full points by which the Colour exceeds its victim, it permanently drains 1 point each of STR, CON, POW, DEX, and APP from the victim, and costs him 1D6 hit points as well. Each POW so drained increases the Colour's POW. The victim is aware of a sucking, burning sensation, and progressively withers and grays. His face sinks, and his skin ages with hideous skin cracks and wrinkles. Once drained, the victim dies.

Colours of low POW feed on humans by using Mental Attack. A Colour can weaken the minds of nearby sentient beings. For each day of residence in the Colour's vicinity, each person must match his INT against the Colour's POW or lose 1D6 Magic Points and 1D6 Sanity points. Magic Points so destroyed cannot be regained without leaving the area. The influence also strongly binds the victim to his home, and the influence becomes increasingly irresistible as the victim's will weakens. To decide to leave the area, he must receive a success of current Magic Points x5 or less on D100, or stay.

A Colour can focus its energies to disintegrate a hole through almost any material. This ability is used primarily to excavate a lair underground. The same effort to melt a cubic foot of titanium removes several cubic meters of pine wood. The sides of the hole appear melted, but no heat is generated.

Finally, a Colour can concentrate and solidify a part of itself. That part becomes translucent. It can then use its STR to grapple humans, to grab weapons, or to manipulate other objects.

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Characteristics		Average
STR	1D6*	17
SIZ	=POW	10
INT	4D6	14
POW	2D6**	11+
DEX	2D6+12	19
HF	0/1D4 Sanity points to encounter a colour; 1/1D8 Sanity points to see a victim of a colour.	

Move	12 pouring/20 flying
Hit Points	N/A

*Per 10 POW or fraction thereof.
**base amount, which then increases as a Colour feeds

Damage Bonus: 0 (average)

Armor:

- none.

- invulnerable to physical attack; Vulnerable to magic.

- strong magnetic fields, which can imprison it.

Weapon	Attack	Damage
Feed	85%	1D6 + characteristics loss
Mental Attack	100%	1D6 Magic Points + 1D6 SAN
Disintegrate	100%	damage physical disintegration
Grasp	85%	

DIMENSIONAL SHAMBLERS, Lesser Independent Race

> *Shuffling towards him in the darkness was the gigantic, blasphemous form of a thing not wholly ape and not wholly insect. Its hide hung loosely upon its frame, and its rugose, dead-eyed rudiment of a head swayed drunkenly from side to side. Its forepaws were extended, with talons spread wide, and its whole body was taut with murderous malignity despite its utter lack of facial description.*

> *H. P. Lovecraft and Hazel Heald, "The Horror in the Museum."*

Little is known about these beings save their name and a description of a hide. Resembling a hulking, insectoid ape, the dimensional shambler infests the vortices and eddies of nine-dimensional spacetime. Its skin is tan, red or ebony-black, and loose, hanging in folds all over its body and its stumpy head. Its skeletal system turns and moves in unnatural ways, allowing it to spin its head like a top, for instance, or reverse its knobby limbs and suddenly attack a foe behind it.

It is assumed that they are entities capable of walking between the planes and worlds of the universe, spending little time at an one planet, but wandering about. They occasionally serve an Outer God or a Great Old One. They can leave a plane at will, signaling the change by beginning to shimmer and fade. This transition costs them 4 Magic Points and takes a round to complete. During this time they may be attacked, but they may not attack back.

A shambler can take objects or beings with it when it fades into another dimension. By clutching the desired object in its talons and expending an additional Magic Point per 10 SIZ points of the object or creature, that which is held makes the transit also. Objects and victims lost are never found again.

Attacks & Special Effects:
Foregoing its usual attacks, a shambler attempts to latch onto a target with its claws. If successful, on the following round, it may instantly transport to anywhere in this plane of existence or to another dimension. Before the shambler can transport, the held target may attempt to break free with a successful opposed STR or DEX roll. Likewise, should the

shambler suffer the loss of half of its hit points, the held target may make a Luck roll to determine if the shamble relinquishes its grip. Those transported may or may not be able to survive in the environment to where they have been rudely taken.

Characteristics		Average			
STR	2D6+12	19		Move	7
CON	3D6+6	16		Hit Points	35
SIZ	2D6+12	19			
INT	2D6	7			
POW	3D6	10			
DEX	3D6	10			
HF	0/1D10				

Av. Damage Bonus: +1D6.

Armor:
- ■ 3-point thick hide.

Weapon	Attack	Damage
Claw*	45%	1D8+db
Grab	45%	grabbed and held for 1 round before disappearing to who knows where?

*can attack with both fore claws at once, at the same DEX rank.

Spells:
A shambler knows one spell per point of INT over 10.

Skills:
Listen 60%, Spot Hidden 50%, Stealth 40%.

GHASTS, Lesser Independent Race

> *"Repulsive beings which die in the light… and leap on long hind legs… a pair of yellowish red eyes… Ghasts have indeed an excellent sense of smell... something about the size of a small horse hopped out into the grey twilight, and Carter turned sick at the aspect of that scabrous and unwholesome beast, whose face is so curiously human despite the absence of a nose, a forehead, and other particulars… They spoke in coughing gutturals."*
>
> H. P. Lovecraft, "The DreamQuest of Unknown Kadath."

Ghasts are restricted to the underworld and vast caverns where sunlight never comes. They are nocturnal pack hunters by nature, hunting in groups of three to five and communicating in a guttural language of their own. Ghasts are crafty creatures – like many pack hunters, it's not the ones you see that you should worry about. Rarely out in daylight, Ghasts are blinded by the sun even though they are unaffected by bright spotlights or flares. Exposed to direct sunlight, they sicken and eventually die. Some say they have an allergy while other believe this to be entirely psychological.

The horrible semi-human bipeds which are ridden by the highly scientific but morally degenerate humans inhabiting the cavern of K'n-Yan may well be relatives of or even be examples of ghasts. If this is the case, then ghasts are likely a result of serpent people genetic experimentation. Ghasts are evidently tamable, though very primitive and savage. Ghasts are cannibalistic and eat one another as well as other beings they catch.

Attacks & Special Effects:
Little stands in the way of Ghasts. They are agile and capable of leaping over and through the most difficult ground with their kangaroo-like legs. Capable tool-users, the Rapine Storm has trained many to use firearms – a more than disquieting fact faced by ICM soldiers. However, perhaps the most disquieting part of Ghasts are their faces, which many regard as eerily Human.

Characteristics		Average			
STR	3D6+12	22	Move	10
CON	4D6	14	Hit Points	40
SIZ	4D6+12	26		
INT	1D6	3		
POW	3D6	10		
DEX	2D6+6	13		
HF	0/1D8			

Av. Damage Bonus: +2D6.

Armor:
none.

Weapon	Attack	Damage
Bite	40%	1D10
Kick	25%	1D6 + db

A ghast is able to kick once and bite once in a combat round.

Spells:
none.

Skills:
Dodge 35%, Stealth 70%.

HOUNDS OF TINDALOS, Greater Independent Race

"They are lean and athirst! " he shrieked... "All the evil in the universe was concentrated in their lean, hungry bodies. Or had they bodies? I saw them only for a moment, I cannot be certain."

Frank Belknap Long, "The Hounds of Tindalos."

The hounds of Tindalos dwell in the distant past of the earth, when normal life has not yet advanced past one-celled animals. They inhabit the angles of time, while other beings (such as mankind and all common life) descend from curves. This concept is hard to imagine, and only seems to be used with respect to them. The hounds lust after something in mankind and other normal life, and follow victims through time and space to get it. They are immortal.

Just what these creatures look like is unknown, since those who meet them seem not to survive. A hound of Tindalos is hardly likely to look like a hound dog, but the name from the story is so evocative that is how they always are pictured.

Because of their relationship with the angles of time, they can materialize through any corner if it is sharp— 120° or less. The rooms of most human houses have walls that meet at 90°. When a hound manifests, it first appears as smoke pouring from the corner, from which the head and then the thing's body emerges.

Once a human has become known to one of these creatures, it will follow through anything to get to him. To figure the time before the hound of Tindalos reaches its prey, determine the number of years between the prey's present time and the time when spotted by the creature. Then divide the number of years by 100,000,000 to get the number of days travel time for the hound. Driven off by a target, a hound of Tindalos usually gives up. Unfortunately, such a creature is difficult to drive off. Friends who come to a target's aid also will be attacked.

Attacks & Special Effects:
It may use its paw or its tongue to attack within a round, but not both. It usually attacks with its paw. For random determination, roll 1D6. On a result of 1-4, it uses its paw. A result of 5-6 indicates a tongue attack.

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A hound of Tindalos is covered with a sort of bluish pus. When a victim is struck by a paw attack, a gout of this mucoid stuff is smeared over him. This pus-like stuff is alive and active, doing poison damage to the target as if he had ingested a poison of POT 2D6, and new damage is done in the same amount for each round that the ichor remains on the victim's body. The ichor can be wiped off with a rag or towel with a DEX x5 or less roll on D100. It could also be rinsed off with water or some other agent. Fire would kill the ichor, though 1D6 hit points would be lost to burns from the flame.

With a successful tongue attack, a deep penetrating (though bloodless and painless) hole is formed. The victim takes no physical damage, despite his peculiar wound, but loses 1D3 POW permanently.

Characteristics		Average
STR	3D6+6	16
CON	3D6+20	30
SIZ	3D6+6	16
INT	5D6	17
POW	7D6	24
DEX	3D6	10
HF	1D3/1D20	

Move	6 / 40 flying
Hit Points	36

Av. Damage Bonus: +1D6.

Armor:

- 2-point hide;

- regenerates 4 hit points per round, unless dead;

- mundane weapons have no effect on a hound, though enchanted weapons and spells do full damage.

Weapon	Attack	Damage
Paw	90%	1D6 + ichor + db
Tongue	90%	1D3 POW drained per round
Charnel odor	100%	special

Tindalosian Time-Space Effects:

All creatures from or associated with Tindalos have the following special time-space abilities. See each being's individual description for specifics.

- HYPER-SIGHT: can see an area as if they were in the fourth dimension—all directions, behind walls, in containers, etc., all at once. They cannot see into magically protected areas or behind round or spherical spaces.

- STEP-THROUGH: as long as sharp angles are within 3 meters, can step through via hyperspace to another angle anywhere in the space-time it inhabits. It takes one round to open the angle, from whence mist begins to trickle forth. It takes a second round to step out through the exit angle.

- TWIST SPACE: can ripple local space-time around it. Those outside this area see everything twisting and elongating in odd directions. Those inside see themselves being twisted and stretched, and lose 1/1D4 SAN. To resist being incapacitated by the twisting and stretching effects for 2D6 rounds, those inside the area must roll CON x1 or POW x1, which ever is better. Those outside the radius who are firing ranged weapons into the area of effect suffer 75% reduction to hit; those attacking from within the radius suffer 85% reduction. A character inside or outside the area of effect can negate the ranged attack penalty with a successful Forbidden Science roll (or a Mathematics or Physics roll at half normal percentile rating) and a sacrifice of 1 SAN. (With a successful roll, the viewer is able to comprehend the angles of the distortion).

- CHARNEL ODOR: all within smelling range must make a CON x5 roll or be incapacitated by vomiting for 1D6 rounds.

Skills:

Alertness 90%, Stealth 50%, Track (via extradimensional means) 95%.

Spells:

Each knows at least 1D8 spells, as the Game Master finds appropriate.

SPACE EATERS, Lesser Independent Race

> *From the ceiling to the floor it towered, and it threw off blinding light... In the center of the room, between the ceiling and the floor, the pages whirled about, and the light burned through the sheets, and descending in spiraling shafts entered the brain of my poor friend. Into his head, the light was pouring in a continuous stream, and above, the Master of the light moved with a slow swaying of its entire bulk.*
>
> *Frank Belknap Long, "The Space Eaters".*

Space eaters are a monstrous interstellar race of incorporeal beings who appear as shafts of light. While insubstantial, they are able to form temporary limbs to interact with the physical world. Such limbs, which end in finger-like fronds of varying thickness, are used for attacking and capturing prey on which they feed by sucking out brain matter. Their arrival on Earth tends to be accompanied by a droning sound and a sudden temperature drop. Indeed, once the space eaters have arrived in an area, the surrounding air within a radius of up to 200 meters becomes damp and cold, with mists and fog, while human flesh becomes clammy and moist.

These strange entities hunt, either individually or in small groups, able to occasionally reach Earth by "eating" their through the fabric of space, perhaps due to some innate Gate-like ability or means of literary gnawing through spacetime.

These creatures occasionally reach Earth, by "eating their way through space"—apparently some form of natural Gate-like ability. The process is heralded by a droning sound given off as the space eater attempts to break down the walls of space and time to bring others of its kind.

Attacks & Special Effects:

When it has found prey, a space eater forms a thin, pale-white artificial armlike limb with a small hand attached, with which it then attacks its prey's head. On a successful attack it bores a bloodless, painless hole into the skull and begins draining out the victim's brain. The victim has a terrifying sensation of burning cold within his skull. If the creature reduces the victim's INT, POW, or Sanity to zero, it has drawn out the entire brain, killing him. The brain may then be condensed into an immaterial state and stored in the limb until the space eater can reform it later for more thorough ingestion.

A victim who escapes before his brain is completely drained may become violently delirious. If he survives he recovers one point of POW per week of hospital care, but lost INT is lost forever.

The intensity of light given off by these entities can affect human vision with disastrous consequences. In its natural state, a space eater's luminescence is just bearable for the average human, causing no significant damage to retinas; however, by expending 5 magic points, a space eater can increase its luminescence to cause 1D4 rounds of temporary blindness if a stamina is failed.

Characteristics		Average			
STR	2D6	7		Move	5 float / flying
CON	4D6	14		Hit Points	48
SIZ	8D6+6	34			
INT	4D6	14			
POW	4D6+6	20			
DEX	3D6	10			
HF	0/1D3	to see the space eaters' artificially created limbs			
	0/1D6	to view the space eaters' actual form.			

Av. Damage Bonus: N/A

Armor:

- ■ none;

- ■ can be harmed only with magic or fire-based attacks;

- ■ cold and mundane weapons have no effect.

Weapon	Attack	Damage
Artificial Hand	DEX x5%	1D6 drained from INT, POW, & SAN (roll separately for each)

Spells:

If a space eater's INT x3 or less is rolled on 1D100 it knows 1D6 spells.

STAR VAMPIRES, Lesser Independent Race

> *The dim outlines of a presence came into view; the blood-filled outlines of that unseen shambler from the stars. It was red and dripping; an immensity of pulsing, moving jelly; a scarlet blob with myriad tentacular trunks that waved and wavered. There were suckers on the tips of the appendages, and these were opening and closing with ghoulish lust... The thing was bloated and obscene; a headless, faceless, eyeless bulk with the ravenous maw and titanic talons of a star-born monster. The human blood on which it had fed revealed the hitherto invisible outlines of the feaster.*
>
> *Robert Bloch, "The Shambler from the Stars."*

Horrors that swim through the depths of space, they may descend to or be summoned to Earth. If the correcting binding is known, they may be controlled to serve; however, their hunger for blood must be sated, lest in their rage they break free of control and turn upon their summoner.

These loathsome things are normally invisible, their presence signaled by a sort of ghoulish tittering sound. While and after feeding, they become visible for at least 6 rounds through the blood they drink—although this time may be greater, dependent on the quantity of blood consumed and the time it takes to metabolize into a transparent equivalent.

Bestial and ravenous, they hunt down prey, feed, and then rest. Some will remain in the area if prey is abundant; otherwise, when sated and after rest, they take to the sky and back to the void of space. It is unknown whether they have affinity to any Mythos deities—truly independent beings who operate to their own agendas.

Attacks & Special Effects:

In an attack, 1D4 talons can grasp a given target at once. Once a target is seized, on the following round, the star vampire can use its bite attack to drain the victim of blood. Target can attempt to rip themselves free with an opposed STR roll.

A seized victim will then be drained of blood, whether or not dead, and living victims lose 1D6 STR per round, as blood loss. If not killed, the victim replaces this loss quickly, in three days or less.

Against an invisible creature, halve the chance to hit, even if it is tittering. After feeding, the star vampire remains visible for six rounds, when the fresh blood metabolizes into a transparent equivalent. While it can be seen, attacks can be made at a normal chance to hit.

Characteristics		Average			
STR	4D6+12	26		Move	6 / 9 flying
CON	2D6+6	13		Hit Points	39
SIZ	4D6+12	26			
INT	3D6	10			
POW	1D6+12	15			
DEX	1D6+6	9			
HF	1/1D10				

Av. Damage Bonus: +2D6.

Armor:

- 4-point hide.
- Bullets do only half damage to the extra-terrene integument of the star vampire.

Weapon	Attack	Damage
Talons	40%	1D6+db
Bite	80%	1D6 STR blood drain per round

Spells:

Though magical attack is unusual, a D100 roll of INT x3 or less gives 1D3 spells to a star vampire.

THINGS, Lesser Independent Race

The room stiffened abruptly. It was face up there on the plain, greasy planks of the table. The broken half of the bronze ice-ax was still buried in the queer skull. Three mad, hate-filled eyes blazed up with a living fire, bright as fresh spilled blood, from a face ringed with writhing, loathsome nest of worms, blue, mobile worms that crawled where hair should grow.

John W. Campbell, "Who Goes There?"

Things are creatures from a distant world orbiting a blue star far warmer than the Earth's sun. Twenty million years ago a torpedo-shaped spaceship built by the things crashed in Antarctica (Earth). Trapped, the things were frozen in the ice until discovered and revived in 1938 by an America research expedition. The humans destroyed the things' ship, but not before one of the creatures managed to wipe out half their group.

These aliens are a technologically advanced race known to have manufactured anti-gravity packs, fusion power packs, and energy beam weapons. They have the capacity to travel in vessels through interstellar space and possibly even time.

Things can use any weapon or form of attack useable by any human or animal which they mimic. In it's natural form, a thing attacks with tentacled limbs which it uses to restrain victims. On the next round, the thing attacks its victim with its mouth.

Attacks & Special Effects:

Things are an insidious race of shape-shifters who can take on the form of any creature they consume (the above description is of a thing in its natural state). Eating a victim requires 1 minute per point of SIZ digested through the thing's jellylike protoplasm, which it spews over its food. As it consumes victims it also absorbs the dead creature's memory, skills, and mannerism. In this way a thing can accurately imitate any living organism. The transformation from one animal to another requires 1 round per SIZ of the Thing. A thing can fully transform or can choose body parts to transform, such as creating teeth or claws quickly to attack or defend itself. These creatures have no organs or centralized brain, rather every cell in their body operates as independent, intelligent organisms. Even a thing's blood moves to escape harm.

As a thing eats it increases its STR, SIZ, and CON 1 point each per 1 SIZ consumed. Things can also bud to create independent organisms. This may be done when two or more victims have been consumed and it wishes to imitate both simultaneously. Because of this budding ability, dismembered body parts take on lives of their own, becoming separate creatures. Even a thing's blood is dangerous, and if left unchecked tries to get inside a victim, eating them slowly while creating a new thing from the inside out. Things that bud split the characteristics of STR, CON and SIZ among their multiple bodies, but each separate entity retaining the same INT, POW and DEX as the original.

Characteristics		Average			
STR	3D6*	10		Move	10 in natural form
CON	3D6*	10		Hit Points	20*
SIZ	3D6*	10			
INT	3D6+6	16			
POW	5D6	17			
DEX	3D6+12	22			
HF	1/1D8 to see a thing in its natural state, or when it is transforming from one disguise to another.				

Av. Damage Bonus: +1D4*.

*base amount: increases as a thing feeds.

Armor:

- Dependent on the creature it mimics;
- In its natural form it has 2 points of armor.
- Regenerates 1 hit point per round until dead.
- Wounds from fire, electricity, acid or magical weapons do not regenerate or spawn new things.

Weapon	Attack	Damage
Any	same skill and damage capability of any creature that it mimics	
Claw	50%	1D8 + db + infection*
Tentacle	60%	restrain victim on STR vs STR roll + infection*
Mouth	40%	damage 3D6 + infection*

*anyone touched by a thing must make a Luck roll or become infected. During the next 3D6 minutes the victim transforms as the alien's body consumes him, creating another of its species.
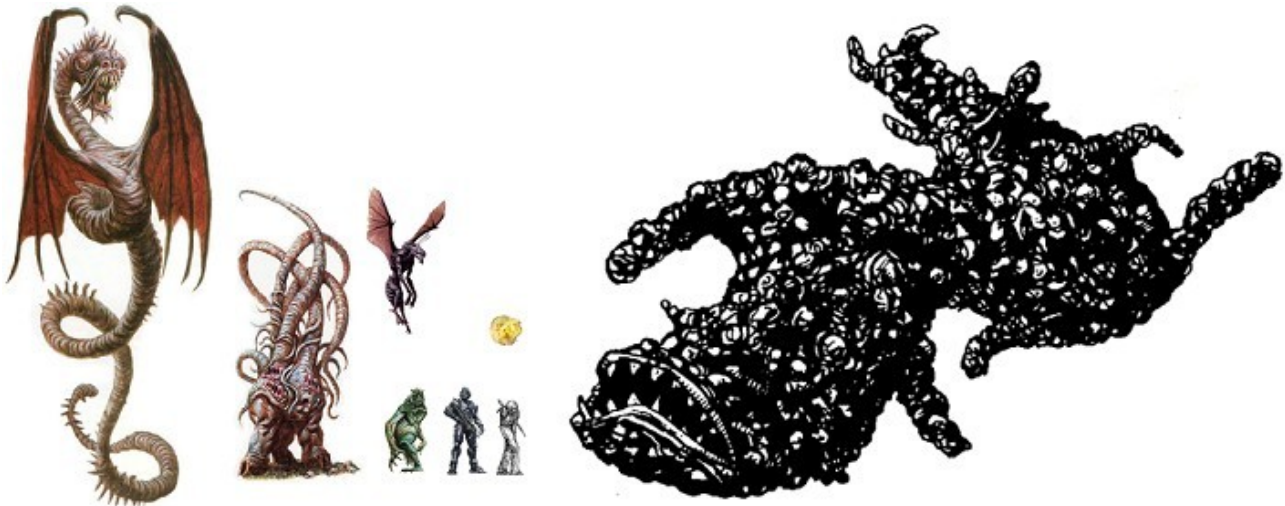
Skills:
Imitate Consumed Victim 99%, Read Minds Telepathically 99%, Hide 50%, Sneak 50%.

Spells:
A thing knows spells known by victims that it has consumed and impersonates. Otherwise, none.

Servitor Races

Ancient sorcery spells called these polymorphous creatures "servitors of the other gods". Other equally ancient occult texts refer to these creatures as "larval other gods". However, modern researchers believe these beings are simply entities that inhabit the furthest levels of Tachyon universe. Little is known of these beings. Some seem no more intelligent than animals, while others are at least as intelligent as humans, but their intelligence is of such a different nature and they come from such an alien environment that mutual understanding is essentially impossible and anything but the simplest communication is difficult. Like all other life-forms, these creatures are often hungry and many are capable of feeding on humans and other physical life forms.

Humans generally encounter these entities in one of two circumstances: when an Async Teleport travel into hyperspace, or when using a summoning spell. In the first case, these beings are seen in hyperspace, where some of them can even briefly reach into the physical universe to draw people or objects into their realm. In the second case, these beings are under a powerful mental compulsion that forces them to obey the summoner's orders in the physical world. This compulsion only ends with either the end of the duration of the spell or the summoner's death. They do not seem to behave maliciously toward humans, but will occasionally kill their summoner if not directed clearly. Nobody is certain whether being in servitude upsets them or whether these attacks result from thoughts and motivations beyond human ken.

Servitors of the other gods are purely Tachyon lifeforms, but being summoned into the physical world limits their abilities. When summoned into the physical world, they cannot pass through physical objects. While in the Tachyon universe, they can freely move through solid objects and can reach into the physical world at any point in the spell's or device's area of effect. Like all Tachyon creatures, they are highly resistant to physical attacks. In hyperspace, they can float and fly, but when summoned they must crawl, with surprising speed, on their many tentacles. They come in a range of sizes; the largest seem like the harbor some alien intelligent and the smallest seem nearly mindless.

BYAKHEE, Lesser Servitor Race

> *There flapped rhythmically a horde of tame, trained, hybrid winged things... not altogether crows, nor moles, nor buzzards, nor ants, nor decomposed human beings, but something I cannot and must not recall.*
>
> *H. P. Lovecraft, "The Festival."*

This interstellar race is believed to serve Hastur, the Unnamable and may be summoned to partake in rituals. Composed of conventional matter, they are vulnerable to ordinary mundane weapons but possess cunning intelligence and guile, and some are able to cast spells.

Dwelling in interstellar space, byakhee do not have bases on Earth, but may be summoned to perform deeds or to serve as steeds, carrying riders through interstellar space—such riders may need to partake of the revered Space Mead to survive such cold journeys. Some suggest that byakhee do not fly through space but rather fold space around themselves, allowing near-instantaneous transport between two points.

Attacks & Special Effects:

In combat, a byakhee may either strike with both claws simultaneously (getting two attacks in the round), or attempt to bite the target. If the bite strikes home the byakhee remains attached to the victim and begins to drain his blood.

Each round the byakhee remains attached, including the first, the blood drain subtracts 1D6 hit points of STR from the victim, unless the victim can make a successful opposed STR roll on their turn. The byakhee characteristically remains attached with the Bite attack until it is slain or until the victim is drained of blood.

Escaping death, let the victim rest and regain blood by transfusion as well, at up to 1D3 STR per day (transfusion is also an option).

A Byakhee may hold only one victim at a time.

Characteristics		Average			
STR	5D6	17		Move	5/20 flying
CON	3D6	10		Hit Points	27
SIZ	5D6	17			
INT	3D6	10			
POW	3D6	10			
DEX	3D6+3	13			
HF	1/1D6				

Damage Bonus: +1D6

Armor:

■ 2 points of fur and tough hide.

Weapon	Attack	Damage
Bite	35%	1D6+db (blood drain)
Claw	35%	1D6+db

Spells:

Byakhees of POW 14 or more know at least 1D4 spells, normally spells relating to Hastur and associated beings.

Skills:

Listen 50%, Spot 50%.

DARK YOUNG, Greater Servitor Race

> *Something black in the road, something that wasn't a tree. Something big and black and ropy, just squatting there, waiting, with ropy arms squirming and reaching... It came crawling up the hillside... and it was the black thing of my dreams—that black, ropy, slimy jelly tree-thing out of the woods. It crawled up and it flowed up on its hoofs and mouths and snaky arms.*
>
> Robert Bloch, "Notebook Found in a Deserted House."

These beings are enormous writhing masses, formed out of ropy black tentacles. Here and there over the surfaces of the things are great puckered mouths which drip green goo. Beneath the creatures, tentacles end in black hooves, on which they stamp. The monsters roughly resemble trees in silhouette —the trunks being the short legs, and the tops of the trees represented by the ropy, branching bodies. The whole mass of these things smell like open graves. Dark young stand between 4 and 40 meters tall.

Such entities are the "young" referred to in Shub-Niggurath's epithet, "Black Goat of the Woods with a Thousand Young". They are closely connected to her, and are found only in areas where she is worshiped. Dark young act as proxies for Shub-Niggurath in accepting sacrifices, accepting worship from cultists, devouring non-cultists, and spreading their mother's faith across the world. Luckily, they are rarely met with.

Attacks & Special Effects:

In its masses of tentacles, a typical dark young has four thicker sinuous tentacles with which it attacks. Each of these thicker tentacles can strike out to injure or to grab and capture once per round, conceivably at four different targets. If a victim is grabbed, he is held to one of the horrible sucking mouths and drained of 1D3 STR per round. This STR loss cannot be restored. While being drained, a victim is capable only of ineffectual writhing and screaming. The dark young can also trample with its massive hooves, typically hooting and bellowing as it does.

Characteristics		Average
STR	4D6+30	44
CON	3D6+6	16
SIZ	4D6+30	44
INT	4D6	14
POW	5D6	17
DEX	3D6+6	16
HF	1D3/1D10	

Move	8
Hit Points	60

Damage Bonus: +4D6

Armor:

■ Dark young are of non-terrene material and make-up, so that any successful firearm attack does only 1 point of damage. A firearms impale does 2 points of damage. Shotguns are exceptions, and do minimum possible damage, whatever that is.

■ Hand-to-hand weapons do normal damage;

■ Attacks dependent on heat, blast, corrosion, electrical charge, or poisoning have no effect.

Weapon	Attack	Damage
Tentacle	80%	db + STR drain
Trample	40%	2D6 + db

Spells:

Each dark young knows a number of appropriate spells equal to half its INT; round fractions up.

Skills:

Alertness 40%, Sneak 60%, Hide in Woods 80%.

DEEP ONES, Lesser Servitor Race

> *I think their predominant color was a greyish-green, though they had white bellies. They were mostly shiny and slippery, but the ridges of their backs were scaly. Their forms vaguely suggested the anthropoid, while their heads were the heads of fish, with prodigious bulging eyes that never closed. At the sides of their necks were palpitating gills and their long paws were webbed. They hopped irregularly, sometimes on hind legs and sometimes on four... their croaking, baying voices... held all the dark shades of expression which their staring faces lacked.*
>
> *H. P. Lovecraft, "The Shadow over Innsmouth."*

Approximately 5,000 years ago, a small group of Polynesians settled a now–sunken island located less than 100 km from the ruins of the Cthulhoid city R'lyeh. No more than a century or two after the island was settled, Tachyon fluctuations brought Great Cthulhu and its spawn both closer to Earth and closer to awareness. The resulting were relatively low, but over the next century, the inhabitants of the island gradually changed. In part, these changes were driven by these islanders regularly fishing the waters above and near R'lyeh and eating the catches. After no more than a century, the inhabitants had been forever transformed into the first deep ones. The proximity to R'lyeh helped create a new Earthly species that share some characteristics of Cthulhu's dread spawn while still remaining vertebrates. The deep ones retain mitochondria and a high level of DNA similarity to humans and other earth-based organisms.

Some deep ones interact with humans. They appear to have a monstrous lust to produce human/deep one hybrids. The reason may lie in the breeding cycle of these beings, of which little is known. Deep ones may be worshiped by humans with whom they regularly interbreed, for deep ones are immortal, unless slain, and so are any hybrid offspring. Typically, hybrids inhabit remote coastal villages.

Because the deep ones transformed slowly from a human origin, they can still interbreed with humans, and sometimes do; in particular, Marsh's sub-race, who begin life as humans and slowly change, often pass along their genes in the surface world before developing their aquatic traits and beginning their descent. Members of both species may try to prevent this kind of thing, but since the transformation occurs after adulthood, there will always be some hybrids unaware of their origin. Such a hybrid begins life as a human-looking child who gradually becomes uglier and uglier. Suddenly, over a period of a few months, the human undergoes a monstrous transformation into a deep one. The changeover usually takes place at the age of 1D20+20 years, but some individuals change earlier or later, or only partially.

During the first millennia of the deep ones' aquatic existence, Cthulhu and its spawn remained dreaming in the most distant portions of Tachyon universe. As a result, the deep ones developed independent of Cthulhu's influence. When Cthulhu's connection to Earth next grew stronger, the deep ones had no interest in becoming its thralls and moved away from R'lyeh to spread across all of Earth's oceans.

Being limited by their aquatic environment and less focused on progress and change than humanity, the deep ones spent the next 2,800 years living their long alien lives deep under the sea. During this time, small groups of deep ones visited various Pacific islands and a few coastal locations across the globe, setting up arrangements with small groups of isolated humans that had elements of both trade and worship. These interactions supplied the deep ones with precious metals and other commodities far easier to acquire or create on land.

Also, while their minds are as alien as their bodies, deep ones society is also home to a few criminals and treaty breakers. Some of these aquatic lawbreakers are willing to trade everything from treasure from sunken ships to Cthulhoid relics in return for goods that range from alien relics or human drugs, to various human technologies. A few have even been willing to trade much in return for being smuggled of Earth and onto another world. Almost all of the deep ones who ask for this service are fleeing from the justice of their kind.

Characteristics		Average			
STR	4D6	14		Move	8/10 Swimming
CON	3D6	10		Hit Points	26
SIZ	3D6+6	16			
INT	2D6+6	13			
POW	3D6	10			
DEX	3D6	10			
HF	0/1D6				

Damage Bonus: +1D4

Armor:

- ■   1-point skin and scales.

Weapon	Attack	Damage
Claw	55%	1D6+db
Bite	35%	1D6+db
Grasp	55%	

Skills:

Alertness 30%, Climb 30%, Language (Deep One Speech) 70%, Language (R'lyeh Glyphs) 70%, Listen 40%, Spot Hidden 40%, Stealth 40%, Swim 100%.

Spells:

Deep ones have a 40% chance of knowing 1D4 spells.

DEEP ONES HYBRID, Lesser Servitor Race

> *It was a thin, stoop-shouldered man not much under six feet tall… His age was perhaps thirty-five, but the odd, deep creases in the sides of his neck made him seem older when one did not study his dull, expressionless face. He had a narrow head, bulging, watery blue eyes that seemed never to wink, a flat nose, a receding forehead and chin, and singularly underdeveloped ears. His long, thick lip and coarse pored, greyish cheeks seemed almost beardless except for some sparse yellow hairs that straggled and curled in irregular patches; and in places the surface seemed queerly irregular, as if peeling from some cutaneous disease.*
>
> *H. P. Lovecraft, "The Shadow over Innsmouth."*

In humanity, the Deep Ones have found an ideal species to impregnate. Human genetics and Deep One genetics have mixed in a "perfect storm," leading to a highly fecund sub-species which can reproduce far more often than Greater Deep Ones. Humans impregnated by the Greater Deep One reproductive element become Lesser Deep Ones. Such hybrids seem human, at first, but at some point after reaching adulthood their human traits (and stats) change to those of Lesser Deep Ones.

Lesser Deep Ones are the "classic" Deep Ones as portrayed in H.P. Lovecraft's "The Shadow Over Innsmouth." They vary from partially human to nearly completely inhuman—and still, the worst Lesser Deep One is far more tolerable and human-like than any Greater Deep One.

An average Lesser Deep One is human-sized and vaguely human-shaped, though they tend to be pot-bellied and awkward-looking. Their musculature, skin, bones and sensory organs have undergone drastic alterations by the Deep One reproductive element. Their skin texture has shifted from pores to scales, which range from super-fine to heavy and thick armored scales on their backs and areas which formerly possessed hair. Their coloring is usually grayish-green, with white or yellow bellies.

Their arms are longer than those of an average human, and their musculature has been extensively improved, allowing inhuman feats of strength. The spaces between their fingers are connected with thick, semi-transparent webbing. These muscular changes have also affected their legs, causing them to favor the ball of the foot as a balance surface. Their feet are webbed like their hands, and in the water their legs allow fast movement, with swimming speeds in excess of 25 kph. The lengthening of the arms and alteration of the legs also allows them to move on land at least as fast as the average human by loping about on all fours, something which becomes easier and easier as the taint takes hold.

Their head is their most inhuman feature. Their skulls have undergone drastic alterations. Eye sockets have grown and shifted to the sides of the skull. The eyes have grown in size, and eyelids have become transparent and have found another use as nictitating membranes. The lower jaw has shrunk, and teeth have multiplied in number and grown sharp. Worse still, their necks have swollen in size and bulk to allow space for fluttering gill slits.

These beings are, like many crossbred creatures, the best of both worlds, although the results vary from subject to subject. Most enjoy immortality and, as the transformation passes through its final stages, the ability to exist indefinitely under the waves. This transformation is dependent on the proportion of Greater Deep One genes in the hybrid's genetic makeup, as well as the capability of the hybrid's human system to adapt to the changes. The more frequently the Deep One "taint" appears in a hybrid's ancestry, the better and more effective the transformation.

Characteristics		Average			
STR	3D6+1	11		Move	6
CON	3D6	10		Hit Points	20
SIZ	3D6	10			
INT	2D6+6	13			
POW	3D6	10			
DEX	3D6	10			
HF	0/1D6				

Damage Bonus: +0

Armor:
1 point of thick scales or flabby hide.

Weapon	Attack	Damage
Knife-like talons	45%	1D6+db

Skills:
Alertness 30%, Climb 40%, Jump 45%, Listen 50%, Spot Hidden 45%, Stealth 46%, Swim 70%.

Spells:
Older hybrids who have begun to embrace their watery heritage have a 10% chance of knowing 1D3 spells.

FIRE VAMPIRES, Lesser Servitor Race

These appeared as thousands of tiny points of light... The myriad points of light were living entities of flame! [Where] they touched, fire sprang up.

August Derleth, "The Dweller in Darkness."

Fire vampires are said to be minions of the Great Old One Cthugha and, like that entity, dwell on or in the planetary system of the star Fomalhaut in the Piscis Austrinus constellation. Rarely venturing to Earth of their accord, fire vampires are more likely to be summoned to undertake certain tasks (if bound correctly). Should the presence of Cthugha be called, that entity arrives with a multitude of attendant fire vampires. Extraterrestrial, fire vampires appear to be intelligent gas or plasma, able to convey themselves through space and planetary atmospheres, but unable to move through water, which can kill them.

Attacks & Special Effects:
Fire vampires attack by touching their victims, and can set flammable objects alight by touch. They damage humans by heat-shock. To determine the heat-shock damage, roll 2D6 for the vampire's attack and match this against the Character's CON on the resistance table. If the heat wins, the Character loses hit points equal to the rolled damage. If the Character wins, he loses hit points equal to half the rolled damage (round fractions up).

In the same attack, the vampire may try to steal Magic Points from its target: match its current Magic Points against the Magic Points of the target on the Resistance Table. If the vampire wins, it steals 1D10 Magic Points from the victim. If the fire vampire loses the resistance struggle, it loses one of its own Magic Points. Thus, in each attack by a fire vampire, roll twice—once to determine heat damage and once to determine Magic Point loss.

The crazed dance of multiple fire vampires can produce a hypnotic effect in humans and some animals, causing them to fall into a trance-like state, oblivious to the fiery danger in front of them. The fire vampires must spend a full round conducting the dance; during which, the target/s are not harmed—as any damage would bring the mind of the target to the realization of their danger. At the end of the round, the target/s must succeed with a POW roll or fall under a trance: unable to move, solely focused on watching the dancing flames, and effectively at the fire vampires' mercy. Such entranced victims are unaware of being set on fire and may burn to death unless roused from the trance, requiring the individual concerned to pass a Hard POW roll on their turn (one attempt per round)— friends may help to break the trance by shouting, slapping, or generally trying to "wake" up the affected person (lowering the difficulty to Regular); likewise, a bucket of freezing water thrown over the victim does the trick, instantly bringing the person to their senses (no roll required).

Characteristics		Average			
STR	N/A			Move	11 flying
CON	2D6	7		Hit Points	8
SIZ	1	1			
INT	3D6	10			
POW	2D6+6	13			
DEX	3D6+6	16			

Armor:

- ■ most material weapons cannot harm them, including bullets, etc.

- ■ Water costs a fire vampire one hit point per 2 liters poured over it, a typical hand-held fire extinguisher does 1D6 hit points of damage to it, and a bucket of sand costs it 1D3 hit points.

Weapon	Attack	Damage
Touch	85%	2D6 burn + Magic Point drain

Spells:
Fire vampires with a POW of 17 or more have at least 1D3 spells.

FORMLESS SPAWN, Lesser Servitor Race

When the men of K'n-Yan went down into N'Kai's black abyss with their great atom-power searchlights, they found living things—living things that oozed along stone channels and worshipped onyx and basalt images of Tsathoggua. But they were not toads like Tsathoggua himself. Far worse—they were amorphous lumps of viscous black slime that took temporary shapes for various purposes. The explorers of K'N-Yan did not pause for detailed observations, and those that escaped alive sealed the passage.

H.P. Lovecraft and Zealia Bishop, "The Mound"

These black, protean beings may be found in temples dedicated to the Old Ones or in deep sunless caverns, often acting as guardians and protectors of secrets. They may accompany or herald the arrival of an Old One or stand in the god's stead, or simply lie motionless for years at a time, like some quiet dark pool waiting to be disturbed by the unwary. Whether they are born of a specific entity magically created is unknown.

Formless spawn can change their form and shape in an instant, from toad-like lumps to elongated things with hundreds of rudimentary legs—to any conceivable form. Being a living viscous liquid, they can ooze through small cracks, usually finding a way through any obstacle, while also able to enlarge their appendages at will. They are intelligent, with some able to cast spells, and can form vocal organs to issue strange sounds—no record exists suggesting they have ever communicated with words a human could understand.

Attacks & Special Effects:
Due to their extreme fluidity, formless spawn are able to attack in a wide variety of ways: forming whips, tentacles, and other appendages with which to bludgeon and strike their opponents, normally attacking twice in a round. If using its bite attack, it forgoes its second attack.

Bite: with a successful attack the target is instantly swallowed. Each round thereafter the victim suffers 1 damage from constriction—the damage per round progressively increasing by 1 point (e.g., 2 damage on the second round, and so on). While swallowed, the victim may take no action whatsoever, though friends may attempt to slay the monster to free their colleague—a kind Keeper might allow the monster to spit out the victim if it reduced to half hit points. Certain spells may help also. While digesting a victim, a spawn may continue to fight but cannot move without disgorging what it has swallowed. A formless spawn can make one bite attack per round and can continue to swallow people until having swallowed its own SIZ in prey.

Characteristics		Average			
STR	1D6+6 to 6D6+6	9 to 27		Move	12
CON	3D6	10		Hit Points	25 to 43

SIZ	1D6+12 to 6D6+12	15 to 33
INT	2D6+6	13
POW	3D6	10
DEX	2D6+12	19
HF	1/1D10	

Damage Bonus: +2D6.

Armor:
- ■ none;
- ■ immune to mundane and enchanted weapons (wounds simply snap closed after being opened);
- ■ fire, chemical, explosions, and cold based attacks cause damage (assume 1D6 per round).

Weapon	Attack	Damage
Grab*	60%	1D6 + damage bonus
Bite	30%	damage swallowed

*Grab: Grabs an opponent using one of its whip like appendages; range is always one-fifth of the monster's SIZ in meters.

Skills:
Dodge 47%, Detect Prey 50%, Stealth 80%.

Spells:
Formless spawn have a 25% chance of knowing 1 spell. Of those, 2% know many spells.

HUNTING HORRORS, Greater Servitor Race

> *And in the air about him were great viperine creatures, which had curiously distorted heads, and grotesquely great clawed appendages, supporting themselves with ease by the aid of black rubbery wings of singularly monstrous dimensions.*
>
> *August Derleth, "The Lurker at the Threshold."*

They resemble enormous ropy black serpents or worms possessing bat-like or umbrella-like wings. Their forms continually shift and change, twitching and writhing, so it is hard to look at them. They may have only a single large wing rather than two. They speak in great harsh voices. A hunting horror's length averages 12 meters.

Believed to have some form of affinity with the Crawling Chaos, Nyarlathotep, hunting horrors are thought to undertake their master's bidding across the cosmos and other dimensions, even breaking into the dreams of humanity to bring fear to those who seek safety in the world of dream. Sometimes acting as heralds or go-betweens for their dark master, they bring Nyarlathotep's word to cultists and those most favored. Those wizards who know the secret words and signs may call on these malevolent beings, summoning them to exact revenge or other tasks befitting their capabilities. Woe betide the sorcerer who undertakes such a summoning without the necessary rites or appeasements

Attacks & Special Effects:
A hunting-horror can "fly" in any environment, moving as if beating its wings against some unseen current—even underwater or in space. In flight, a hunting-horror can move at any speed its instincts demand, passing through any medium without friction or difficulty, or traversing strange dimensions to appear out of nowhere. In pursuit of Earthly quarry, it can just as easily match the speed of a fighter jet as a running human.

Hunting-horrors retreat from light that's comfortable for human sight. Bright light inflicts 1 HP per turn. The dazzling flash of a stun grenade inflicts 3D6. The full light of day sears a hunting-horror to gray dust. Fire inflicts double damage. All these effects ignore its armor.

A hunting horror may attack with both bite and its tail tentacle attack in a single round. The tail grapples and wraps around the victim, keeping him from moving. The hunting horror may then fly off with him, or keep fighting. The victim can only break loose as the result of a successful STR vs. STR Resistance Table roll.

When a victim is caught in the tail, the hunting horror may only make a bite attack, nibbling at the dangling victim at +20% chance to hit. The grappled one may not be able to fight back in any physical way, since his arms are usually pinioned, but some magic spells might be used.

Characteristics		Average
STR	5D6+12	30
CON	3D6	10
SIZ	5D6+24	41
INT	1D6+12	15
POW	6D6	21
DEX	3D6+3	13
HF	0/1D10	

Move	7/11 flying
Hit Points	51

Average Damage Bonus: +3D6

Armor:

- ■ 9-point skin;
- ■ cannot be impaled by bullets.

Weapon	Attack	Damage
Bite	65%	1D6 + damage bonus
Tail	90%	Grapple

Spells:
Roll D100. If the result is equal to or less than the monster's INT, it knows a number of spells equal to the D100 roll.

Skills:
Spot Hidden 60%, Stealth 70%.

NIGHTGAUNT, Lesser Servitor Race

> *Shocking and uncouth black things with smooth, oily, whale-like surfaces, unpleasant horns that curved inward toward each other, bat wings whose beating made no sound, ugly prehensile paws, and barbed tails that lashed needlessly and disquietingly. And worst of all, they never spoke or laughed, and never smiled because they had no faces at all to smile with, but only a suggestive blankness where a face ought to be. All they ever did was clutch and fly and tickle; that was the way of nightgaunts.*

> *H.P. Lovecraft, "The Dream-Quest of Unknown Kadath"*

Nightgaunts have skin that is slick and rubbery-looking, rather like the skin of a whale. They do not have faces at all but instead bear blank, unsettling surfaces on the front of their heads. It is not known how they feed, but they are able to sense things around them with perfect clarity.

Nightgaunts often serve as guards, stationed to watch over areas by powerful beings such as Great Old Ones. They always attack in flocks, often large ones. They are sometimes termed "mindless," but actually possess intelligence of a sort. While always perfectly silent, even while flying, they can understand speech.

Usually, Nightgaunts do not try to kill their victims directly but hamper, frustrate, and put them in dangerous situations. A horde of flapping nightgaunts typically emerges from tombs or a hollow mountain and carries off its victims to deposit them in situations of dire danger.

Nightgaunts favor seizing their opponents after which they can tickle them with their barbed tail. Nightgaunts usually attack en masse, attempting to sneak up quietly on victims, grasp their weapons, and overpower them. Two or more nightgaunts may combine their attacks to get hold of a strong victim.

Nightgaunts can only tickle foes who have already been grappled. A successful tickling attack is extremely unnerving, for the barb of the tail is razor-sharp and perilous even while its light application does no damage: the target becomes bewildered, humiliated, and disoriented, and focuses more and more upon the maniacal threat. Nightgaunt tails can snake up through holes and openings, slice through thick clothes, and find even the interstices of metal armor.

Characteristics		Average			
STR	3D6	10		Move	6 / 12 flying
CON	3D6	10		Hit Points	24
SIZ	4D6	14			
INT	1D6	3			
POW	3D6	10			
DEX	2D6+6	13			
HF	0/1D6				

Damage Bonus: +0

Armor:
- 2-point skin.

Weapon	Attack	Damage
Tail	45%	1D4+db
Grapple	30%	damage held for tickling
Tickle	35%	immobilized 1D6+1 rounds.

Spells:
None.

Skills:
Dodge 35%, Hide 90%, Sneak 90%.

SERVANTS OF GLA'AKI, Lesser Servitor Race

> *A hand came scrabbling up out to lever it up!... the hand of a corpse—bloodless and skeletal, and with impossibly long, cracked nails*
>
> *Ramsey Campbell, "The Inhabitant of the Lake."*

Humans are summoned or brought before Gla'aki to enter its service, whereupon they are harpooned by one of the Great Old One's metallic spines. The spine eventually breaks free but remains impaled long enough for Gla'aki's consciousness to enter and corrupt, killing them but imparting new undead life. Its slaves share a portion of Gla'aki's memories or thoughts, becoming almost an extension of the Great Old One, though such slaves can perform individual actions and act autonomously as needed. Such servants may work in unison under the Great Old One's direction to achieve a goal (perhaps to free some portion or splinter of the god) or may go abroad to further the designs of Gla'aki among human populations.

While first looking human enough, in time a servant withers, their flesh corrupts, and they become horrible to look upon. After six decades of undeath, the servants of Gla'aki become subject to the Green Decay (see box nearby), where if they are exposed to intense light, such as daylight, they begin to rot on the spot. What remains of their flesh and bones rapidly corrupts into a foul broth within a few hours until nothing remains but a nasty smell.

The Green Decay:
The green decay affects all servants of Gla'aki eventually. Strong sunlight causes a green mold to grow upon the servant's skin, rotting their flesh away. Long-lived servants are all likely to display patches of green decay. Over time, the mold spreads, eating away until nothing of the servant remains but a bubbling liquid that then dries to a dark-green stain.

It is said that Gla'aki imparted a spell that acts in the same way as the green decay, enabling its chosen followers to curse this hideous condition on other humans. Certain Gla'aki cults use this spell to doom others, making them more pliable to the cult's demands.
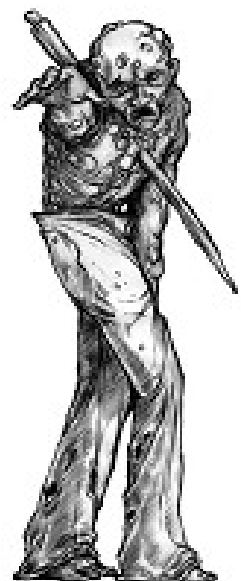
Characteristics		Average			
STR	3D6	10	Move	5	
CON	3D6 x2	20	Hit Points	33	
SIZ	2D6+6	13			
INT	2D6+6	13			
POW	3D6	10			
DEX	1D6	3			
HF	0	Human-seeming;			
	1/D8	living-corpse aspect;			
	1/1D10	dead from Green Decay			

Damage Bonus: +0

Armor:
- none.

Weapon	Attack	Damage
Grapple	20%	damage special
Sickle	40%	1D6 + 1 + db

Spells:
Servants of Gla'aki do not generally have any spells, though they retain any they knew while alive, plus any new spells taught by Gla'aki.

SHOGGOTHS, Lesser Servitor Race

> *The nightmare, plastic column of fetid, black iridescence oozed tightly onward... A shapeless congerie of protoplasmic bubbles, faintly self-luminous, and with myriads of temporary eyes forming and unforming as pustules of greenish light all over the tunnel-filling front that bore down upon us, crushing the frantic penguins and slithering over the glistening floor that it and its kind had swept so evilly free of all litter. Still came that eldritch mocking cry —"Tekeli-li! Tekeli-li!"*

H. P. Lovecraft, "At the Mountains of Madness."

These beings were originally the semi-sentient nanotechnological servants created by the elder ones. Capable of transforming into any shape and of transforming their appendages into any possible tool, they were the ultimate machines, capable of doing everything from moving large amounts of earth and stone to building complex electronics or performing delicate surgery. The complexity of their programming and the advanced nature of their cognitive processors allowed each shoggoth to learn how to better perform its tasks and more easily anticipate the needs of the elder ones. Unfortunately, this same capacity for learning also endowed some of the most advanced shoggoths with the ability to gradually grow in both intelligence and self-awareness until they were independent beings that were almost the intellectual equals of the elder ones. One Earth, the shoggoths wiped out the elder ones, and only a handful of survivors remain in suspended animation.

Shoggoths are just as potentially immortal as the elder ones, but cannot reproduce themselves without the aid of now lost advanced technology, MiliSci estimates that no more than a thousand active shoggoths remain on Earth. However, each one is a large and dangerous entity. MiliSci also believes several thousand more may still wait buried in Antarctic ice or locked away in "unbreakable" prisons, waiting for foolish or greedy humans to release them.

The surviving shoggoths are often found as servants of deep ones and other races, and are amphibious. They have an instinctive horror of captivity or servitude and attempt to destroy anyone who attempts to capture or control them. Also, they currently have no use for humanity and typically either kill or avoid any humans they encounter. However, researchers believe that if the shoggoths ever learned that human nanotechnology might be able to allow them to reproduce, they would take a far greater interest in humanity.

Attacks & Special Effects:

A typical shoggoth is roughly a 3 meters diameter sphere when floating free. In combat, it covers an area 5 meters square. All within the area are attacked separately, and each must receive a successful match of STR against the shoggoth's STR on the Resistance Table, or be sucked apart. If the shoggoth attacks more than one target, it must divide its STR among all targets. Those held within the shoggoth's black bulk can strike back only on rounds in which their players successfully roll STR or less on D100. Each round a victim is held within a shoggoth, he loses hit points equal to the shoggoth's damage bonus, the damage describable as rupturing, crushing, and being sucked into pieces.

If reduced to 0 HP, a shoggoth collapses into inert, hardened, desiccated bits of organic matter. However, it is not dead. If left in this state in an environment with access to oxygen and water, even trace water in the air, it reconstitutes to half strength in 2D20 hours. If this desiccated matter is burned or subjected to other destructive forces (even ones which would not usually affect the shoggoth), the shoggoth is permanently destroyed.

Characteristics		Average			
STR	18D6	63		Move	10 rolling
CON	12D6	42		Hit Points	126
SIZ	24D6	84			
INT	2D6	7			
POW	3D6	10			
DEX	1D6	3			
HF	1D6/1D20				

Av. Damage Bonus: +8D6.

Armor:

■ none;

■ fire and electrical attacks do only half damage;

■ physical weapons such as firearms do only 1 point of damage, impaling or not;

■ a shoggoth regenerates 2 hit points per round.

Weapon	Attack	Damage
Crush	70%	db

Skills:

Alertness 80%, Swim 90%, Climb 80%, Jump 60%, Stealth 40%..

Spells:

None—however, certain individuals of great age may possess the knowledge and ability to cast spells.

PROTO-SHOGGOTHS, Lesser Servitor Race

He has on rare occasions whispered disjointed and irresponsible things about "The black pit","the careen rim","the proto-Shoggoths"

H. P. Lovecraft, "At the Mountains of Madness."

Proto-shoggoth tissue is the color and texture of human flesh, though it is mobile and can change at will. A mass of proto-shoggoth tissue looks like a large piece of human flesh, light brown or tan colored, with nipples, navels, what seem to be ridges where muscle or bone is sticking up, and even eyes or other human orifices. There may be what appear to be large open wounds that do not bleed, acting as openings to the interior, where intestines and other organs may be visible. The whole continually quivers, breathes rhythmically, and heaves.

At will, it can thrust out a limb which may resemble a human limb, though it might bend in the wrong spot or have thickly corded muscles where none should be. At whim or need, proto-shoggoths may change their body form, greatly lengthening a limb or growing new ones. They may open lipless mouths or sprout sense organs anywhere on their bodies. A proto-shoggoth's total body mass and volume cannot be changed, however, so if a long, thick appendage is stretched out from some point on the body, then some other part of the proto-shoggoth must shrink accordingly.

Proto-shoggoths are not true shoggoths, but creatures created through alien science or ancient arcane secrets. Through the creation process of dissolving and combining tissues, a proto-shoggoth may be of any SIZ. Proto-shoggoths grow

only through the combining and absorption of other proto-shoggoth matter. These creatures, unlike true shoggoths, are often very intelligent and cunning. Small proto-shoggoths may move undetected among humans while in human form.

Attacks & Special Effects:
Proto-shoggoths may attack with limbs or they may simply engulf and crush a victim. In combat a proto-shoggoth may sprout as many limbs as it desires, but may only attack with one per every ten points, or fraction thereof, of SIZ it has. Thus, a proto-shoggoth with a SIZ of 32 may sprout a dozen limbs, but can only attack with four in any given combat round. Proto-shoggoths can engulf only a single victim at a time, and this attack inflicts damage equal to twice the monster's damage bonus.

Those held within the shoggoth's black bulk can strike back only on rounds in which they successfully roll STR or less on 1D100. Each round a victim is held within a shoggoth, he loses hit points equal to the shoggoth's damage bonus; the damage describable as rupturing, crushing, and being sucked into pieces. A shoggoth can engulf any number of enemies; however they may not exceed a total SIZ greater than its own SIZ.

Characteristics		Average			
STR	10D6	35		Move	8
CON	7D6	24		Hit Points	52
SIZ	8D6	28			
INT	2D6+6	13			
POW	3D6+6	16			
DEX	3D6	10			
HF	1/1D10				

Av. Damage Bonus: +3D6.

Armor:
- none;
- proto-shoggoth matter suffers only minimum damage from any attack against it.
- proto-shoggoths also regenerate two hit points per round.

Weapon	Attack	Damage
Crush	70%	db x2 or engulf*
Limb	50%	db
Bite	25%	1/2 db

*Each person engulfed within the shoggoth is attacked separately and each must make a successful opposed STR roll or be sucked apart. If the shoggoth attacks more than one target, it must divide its STR among all targets.

Spells:
None, normally. If a proto-shoggoth was created from humans who knew spells, it retains the knowledge and use of those spells.

Skills:
proto-shoggoths retain most of the skills they had as humans.

SHOGGOTH LORD, Lesser Servitor Race

> *You cannot imagine the Shoggoth Lord's mastery of shapes! His race has bred smaller since modern man last met with it. Oh, but the Shoggoth Lords are limber now! Supremest polymorph— though what they are beneath all else, is Horror itself.*
>
> *Michael Shea — Fat Face*

Shoggoth Lords are smaller, more intelligent descendants of their larger monstrous cousins. Through some quirk of evolution, or perhaps through the unwitting intervention of some other species or being, a handful of shoggoths have evolved into intelligent creatures able at will to mimic humans in appearance and speech.

These beings, without exception, appear in human form as grossly obese, hairless figures. They are cunning and charming, and somewhat awkward in their interactions with humans. Although a shoggoth lord may freely transmute

between its human and monstrous forms, it takes great concentration and control to remain in human form for any length of time. If somehow caught off-guard, angered, or distracted, a shoggoth lord quickly melts down into its terrible true gelatinous self. These creatures guard their secrets and identities well, living and feeding alone in private and quickly dispatching nosey adventurers who would unmask them and expose their true horror.

Shoggoth lords find it amusing (and nourishing) to penetrate the human world; only in human beings do they find that delightful horror of comprehension that makes a thing really worth eating. Shoggoth lords care only about satisfying themselves. Though more sophisticated than most predators, they are given to the same grandiose claims of territory and to murderous squabbles among themselves. They are not social, they do not die natural deaths, nor do they breed.

Because of the great control required to sustain their human guises, certain characteristics in their human form are lower than when in their natural state.

Attacks & Special Effects:
A shoggoth lord will attempt to engulf its living prey into its bubbling gelatinous body. When it takes prey, it seizes and holds its victim as it begins to suck it into its body mass, where it can be digested. While being digested, the victim suffers 1D6 hit points damage each round from the caustic acids and digestive fluids breaking down the unfortunate's body.

Those so held may attempt to break free each round by an opposed STR roll. Unlike their larger cousins, shoggoth lords may only feed on one victim at a time. While feeding, the shoggoth lord may not use its crush attack, although it can still lash out with its powerful pseudopod fists.

	Human Form		Shoggoth Form	
	Characteristics	Average	Characteristics	Average
STR	2D6+8	15	4D6+10	24
CON	2D6+6	13	6D6+10	31
SIZ	3D6+3	13	3D6+3	13
INT	2D6+6	13	2D6+6	13
POW	3D6+3	13	3D6+3	13
DEX	3D6	10	3D6	10
APP	1D6+3	6		
Move	8 walking		10 rolling	
Hit Points	26		44	
Damage Bonus	+1D4		+1D6	
HF*			1D6/1D20	

*add 1/1D3 Sanity point loss for those adventurers witnessing a shoggoth lord change from human to shoggoth form.

Armor:
- None;
- fire and electrical attacks do only half damage;
- physical weapons such as firearms and knives do only 1 point of damage per hit;
- a shoggoth regenerates 2 hit points per round (death at zero hit points).

Weapon	Attack	Damage
Figthing*	60%	1D6+2+db
Crush	80%	db
Engulf	80%	damage 1D6 per round (acid damage) until victim is dead + db

*human form

Skills:
Dodge 26%, Charm 70%, Intimidate 60%, Persuade 60%, Stealth 65%, more as the GM desires.

Spells:
Knows 1D3 spells as the GM desires.

SONS OF YOG-SOTHOTH, Greater Servitor Race

> *"The thing that lay half-bent on its side in a foetid pool of greenish-yellow ichor and tarry stickiness was almost nine feet tall… It was partly human, beyond a doubt, with very man-like hands and head, and the goatish, chinless face had the stamp of the Whateleys upon it… Above the waist it was semi-anthropomorphic; though its chest, where the dog's rending paws still rested watchfully, had the leathery, reticulated hide of a crocodile or alligator. The back was piebald with yellow and black, and dimly suggested the squamous covering of certain snakes.*
>
> *"Below the waist…the skin was thickly covered with coarse black fur, and from the abdomen a score of long greenish-grey tentacles with red sucking mouths protruded limply… On each of the hips, deep set in a kind of pinkish, ciliated orbit, was what seemed to be a rudimentary eye; whilst in lieu of a tail there depended a kind of trunk or feeler with purple annular markings, and with many evidences of being an undeveloped mouth or throat.*
>
> *"The limbs, save for their black fur, roughly resembled the hind legs of prehistoric earth's giant saurians; and terminated in ridgy-veined pads that were neither hooves nor claws. When the thing breathed, its tail and tentacles rhythmically changed colour, as if from some circulatory cause normal to the non-human side of its ancestry. In the tentacles this was observable as a deepening of the greenish tinge, whilst in the tail it was manifest as a yellowish appearance which alternated with a sickly greyish-white in the spaces between the purple rings. Of genuine blood there was none; only the foetid greenish-yellow ichor which trickled along the painted floor beyond the radius of the stickiness, and left a curious discolouration behind it."*
>
> H. P. Lovecraft, "The Dunwich Horror".

These are the beings formed when Yog-Sothoth mates with a human, creating a hybrid creature. No two Sons (or Daughters) are alike. All such hybrids grow and mature rapidly, requiring great quantities of fresh, raw flesh for sustenance. For a while, the lesser of such progeny can pass as human without close inspection. It reaches apparent adulthood in 10 years. By age 15, such a monstrous hybrid may be so tall and deformed as to seem human only by stooping in all-covering, loose clothing.

But nothing can mask its stench, foul and unrelated to anything produced by humanity. Dogs hate the impure spawn of Yog-Sothoth and attack with little provocation. The hybrid must avoid humanity whenever possible, risking contact only when necessary to fulfill its purposes. The spawn of Yog-Sothoth also have an insatiable hunger for knowledge of the Cthulhu Mythos and greedily obtain and study all Mythos tomes they can, eagerly learning spells and researching ways in which their sire may be brought into the world of men.

The most famous sons of Yog-Sothoth are the unfortunate Wilbur Whateley and his monstrous brother.

	Monstrous Son		Human Son	
	Characteristics	Average	Characteristics	Average
STR	2D6x5	35	3D6+12	22
CON	2D6x5	35	2D6x5	35
SIZ	4D6+30	44	2D6+6	13
INT	6D6	21	6D6	21
POW	6D6	21	6D6	21
DEX	3D6+6	16	3D6	10
APP	N/A		2D6	7
Move	10		8	
Hit Points	79		48	
Damage Bonus	+1D6		+4D6	
HF	0/1D2, minor monstrous mutations		1/1D8, invisible	
	1/1D6, horrible human son of Yog-Sothoth		1D8/3D10, visible	

Armor:

■ none;

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- ■ monstrous son cannot be harmed by physical weapons.

- ■ Enchanted weapons do minimum damage. These creatures are susceptible to magic.

- ■ They remain invisible except when feeding.

- ■ Human son may be harmed as normal humans.

Weapon	Attack	Damage
Fist (human son)	75%	1D3+db
Grasp and Suck (monstrous form)	100%	1D6 crushing every round + 1D10 blood drain (HP) every round after the first.

Spells:
All know Call Yog-Sothoth plus a number of spells equal to the creature's INT.

SPAWN OF THE WINDS, Greater Servitor Race

For as the Ancient One descended, so His son rose up to meet Him—[theson], racing up the wind in sure-footed bounds and leaps, roaring with a hurricane voice that tore the sky asunder and blasted the clouds back across the heavens in panic flight—[the son], expanding, exploding outwards until his outline, lined against the frightened sky, became as great as that of his alien Sire— [the son], Son of Ithaqua, whose clawing hands now reached in a raging blood-lust, whose snarling, bestial, darkening features demanded revenge!

Brian Lumley, "Born of the Winds".

The spawn of the winds are the half-breed offspring of Ithaqua and a human female. They appear to be normal humans in all ways, until they reveal their true nature. At their choosing (or when angered), a spawn of the wind transforms into a huge, monstrous parody of its former human self, and looking more like its Great Old One father than human mother.

Spawn of the winds tend to be found only in the region of the North Pole; thus, North America, Canada, Russia, Norway, and Greenland, although areas on the periphery may include the potential for encounters. In terms of motivations, these creatures appear simple in their desires. Firstly, they crave human flesh, and secondly, they desire to make more of their kind. They are savage, usually solitary, and highly territorial. Perhaps, it is only while under the sway of sorcery or the influence of Ithaqua that they cooperate and coexist. While the outcome is always the same, as previously noted, wind-walkers come into being through differing ways, as follows.

Alter Weather:
Spawn of the winds have violent tempers, and when angered may call down powerful storms: blizzards, thunder and lightning and driving rain, or tornadoes. The GM establishes the base weather conditions. Every five magic points sacrificed effects one level of change (see further below).A Wind-walker may expend as many magic points as it is able. The effective radius of a spawn's weather control is 3 km; this area can be widened for a cost of 5 magic points for each additional mile. The change in the weather lasts thirty minutes for every 5 magic points of the total contributed, but violent weather such as a tornado lasts a much shorter time.

Five weather components can be changed, in varying levels of effect. One level costs 5 magic point to change: thus to change the two levels from partly cloudy to heavy clouds takes 10 magic points to change. For snow to fall, the temperature must be -1°C or lower, otherwise the precipitation is rain, not snow.

- ■ Cloud Cover Levels: (1) clear, (2) foggy, (3) partly cloudy, (4) cloudy, (5) heavy clouds.

- ■ Wind Direction Levels, the eight compass points: (1) north, (2) northeast, (3) east, (4) southeast, (5) south, (6) southwest, (7) west, (8) northwest.

- ■ Wind Speed Levels: (1) calm, (2) breezy, (3) gusty, (4) strong steady wind,(5) gale,(6) local hurricane,(7) tornado.

- ■ Temperature Levels: one level raises or lowers the temperature in the area of effect by -15°C.

- ■ Precipitation Levels: (1) dry, (2) drizzle or mist, (3) rain [snow], (4) hail [snow], (5) heavy rain [heavy snow], (6) thunderstorm [blizzard].

	Human Form		Monstrous Form	
	Characteristics	Average	Characteristics	Average
STR	3D6+8	18	5D6+16	33
CON	3D6+6	16	6D6+24	45
SIZ	2D6+6	13	10D6+30	63
INT	2D6+6	13	2D6+6	13
POW	3D6+6	16	3D6+6	16
DEX	3D6+12	22	3D6+12	22
APP	3D6	10	N/A	
Move	8		30 flying	
Hit Points	29		108	
Damage Bonus	+1D4		+5D6	
HF	0		1D4/1D10	

Armor:

- ■ 6-point ice/thick hide;
- ■ may only be permanently killed by piercing and cutting out the heat and burning it to ashes;
- ■ if hit points are reduced to zero but the heart is intact, will rise again at next sunset, fully regenerated.

Weapon	Attack	Damage
Punch (human form)	50%	1D6+db
Claw (monstrous form)	60%	D6 + db (damage ignores armor)

Spells:
All spawn of the winds know Call Ithaqua, and any others the GM feels appropriate.

Skills:
Any as per a normal human, while in human form.

STAR-SPAWN OF CTHULHU, Greater Servitor Race

They all lay in stone houses in their great city of R'lyeh, preserved by the spells of mighty Cthulhu for a glorious resurrection when the stars and the earth might once more be ready…

H. P. Lovecraft, "The Call of Cthulhu."

Cthulhu did not arrive on Earth alone. Many sources cite the "star-spawn"—servants of the Great Old One—but few can settle on a singular description of these entities. They fought for supremacy against the Elder Things in ancient times, forcing them from the surface world. Perhaps that defeat was the precursor to the Elder Things' creation of the shoggoths. The Necronomicon calls them "the star-spawn of Cthulhu," under which name most occultists know them.

These gigantic octopoid beings resemble Cthulhu himself, but are smaller. Five great Star-Spawn, the "Five Watchers," reputedly slumber in subterranean gulfs beneath the Bayan Kara Shan mountains in China, the Nameless City in the Arabian desert, the Greenland glacier, New England, and the Amazon Basin. Not all the inhabitants of R'lyeh were trapped when it sank. Some still live on in the deep trenches beneath the ocean, where they are tended by deep ones and guarded by sea-shoggoths. Related entities dwell in the stars, such as the beings said to infest the lake of Hali on a planet near the star Aldebaran, in the constellation Taurus.

The Five Watchers:

Fevered dreams recorded in certain tomes tell of five "elite" star-spawn, who slumber in hidden places around the globe. Their task is to wait for a sign signaling the rise of R'lyeh. At this time, they will wake and participate in a ceremony to rouse Great Cthulhu from eons-long slumber. The accounts speak of pre-human chambers hidden in the mountains of China, beneath the sands of Irem, in Greenland's glacial ice, the Andes of South America, and in a sea-side cave deep beneath an unnamed structure somewhere near Rhode Island.

Those who have set down such information report that they received visions sent by the Five Watchers and commanded to prepare humanity for the coming rise of R'lyeh. It is feasible to presume that such psychic messaging plays a role in the "recruitment" of those susceptible to the call of the Cthulhu Cult, as well as those who fully succumb to the call and ultimately transform into thralls of Cthulhu.

Dream Sending:

Humans living within the area of an entombed and sleeping star-spawn may be subject to its psychic residue, a form of dream sending that can "speak" to susceptible subjects. Such psychic phenomenon is relatively rare and fleeting, causing no more than occasional odd nightmares, although for individuals with low POW, the effects and consequences may be greater, unconsciously inviting the mind of the star-spawn to form a direct connection (the star-spawn wins an opposed POW roll). Such affected people are liable to experience repeating "dreams" of R'lyeh and Cthulhu, with each dream revealing further secrets and further binding them to the will of the star-spawn. Eventually, the subject either becomes an outright puppet for the star-spawn or, through their acquired knowledge, a servant of Cthulhu. Individual star-spawn, raised to a higher level of consciousness through environmental factors (e.g. disturbance of their tombs), may send forth their mind to seek out and influence susceptible humans—to aid them in regaining full consciousness or other tasks, such as helping to ensure the safety of the star-spawn's rest.

Attacks & Special Effects:

A star-spawn may attack with tentacles or with claw. It may use 1D4 tentacles each round, or a single claw. Tentacle damage equals half the creature's damage bonus, while claw damage equals its full damage bonus.

Adventurers who fail their Fortitude roll when encountering the spawn of Cthulhu, experience more than its awful physical presence. A character who fails the Fortitude roll and is exceptionally sensitive (with INT/17+ or POW/17+, or any Occult, or Psychotherapy skill at 60% or better) collapses, overwhelmed by a psychic "shout." It can only be approximated as a voice shouting or babbling what should be nonsense if it were a voice— yet it is clearly filled with utterly alien meaning.

Characteristics		Average			
STR	2D6x10	70		Move	20 / 20 Swim
CON	3D6x5	52		Hit Points	157
SIZ	3D6x10	105			
INT	6D6	21			
POW	6D6	21			
DEX	3D6	10			
HF	1D6/1D20				

Av. Damage Bonus: +11D6.

Armor:

- 10-point hide & blubber;
- regenerates 3 hit points per round (death at zero hit points).

Weapon	Attack	Damage
Tentacles	80%	1/2 db
Claw	80%	db

Skills:

Alertness 65%, Flight 60%, Swim 80%.

Deities

Great Old Ones are semi-transcendent entities of incredible power that exist mostly within the Tachyon universe. An important characteristic of all Great Old Ones is that they used to be more ordinary alien beings. In several cases, entire alien species have transformed in this manner. Other times, only one or a handful of individuals of a species transformed. Trough a difficult process of directed biological, psychic, and technological development, these beings ascended to become far more intelligent, powerful, and dangerous.

The partial transcendence of the Great Old Ones is one of four possible fates of intelligent species. It's clear that this sort of partial transcendence, where some or all members of a species transform themselves into Tachyon beings that maintain a connection to the physical world, is exceedingly rare. Each such transformation is highly idiosyncratic. A few beings, like the Cthulhoids, can physically manifest as powerful intelligent beings capable of building cities and ruling worlds; most interact with the physical world far less directly. Some believe that entities like Hastur may not even be aware of the physical world. However, one universal fact of all Great Old Ones is that they must feed on the psychic energies of intelligent beings.

AZATHOTH, Seething Nuclear Chaos, Outer God

> *That last amorphous blight of nethermost confusion which blasphemes and bubbles at the centre of all infinity—the boundless daemon sultan Azathoth, whose name no lips dare speak aloud, and who gnaws hungrily in inconceivable, unlighted chambers beyond time amidst the muffled, maddening beating of vile drums and the thin monotonous whine of accursed flutes.*
>
> H. P. Lovecraft, "The Dream-Quest of Unknown Kadath."

Azathoth is the mindless center of the universe, and has existed since the beginning of the universe. It dwells beyond normal space-time at the center of all things, where its amorphous body, said to be larger than a star, writhes unceasingly to the monotonous piping of harsh flutes and the beating of vile drums played by a coterie of lesser gods and others who dance mindlessly around this entity. Such music is believed to ensure the constant sleep of this immense and destructive being, for it is foretold that when Azathoth eventually wakes the universe shall end. Of course, nothing is ever certain, and there do appear to be moments when the entity wakes briefly before returning to deeper slumber—such moments usually herald great catastrophe somewhere in the universe.

Despite "sleeping," Azathoth's dreaming mind acts to influence and infect the universe. Such psychic messages or forces are like waves of strange power that can travel to the outer reaches of space-time and affect planets and their inhabitants. These waves are not always monumental and can be smaller in scale, with some being like a narrow gust of wind that touches an individual. Hence, Azathoth's influence varies in size and scope.

For the most part, lore suggests Azathoth's primary will (or urge) is channeled and actioned by Nyarlathotep, who serves as a sort of regent, interpreting and somehow embodying this will. Some go so far as to claim that Nyarlathotep is simply a living manifestation of Azathoth's subconsciousness, although certain cults devoted to the Crawling Chaos may beg to differ.

As far as humanity is concerned, Azathoth is a force of nature, and something best left undisturbed. Should just a splinter of the entity be summoned to Earth great disaster is likely to follow, as this could be enough to devastate one or more cities. Should the full being and power of Azathoth be turned toward the Earth nothing would remain of the planet or its inhabitants (either totally destroyed or mutated beyond recognition). Thus, those wishing to commune with Azathoth use magical Gates or travel themselves to be close to the center of all things, although even these means

Cult:

Azathoth is little-worshiped, for the god offers not even a grain of gratitude in return. Usually, humans call upon Azathoth by accident and thereby unwittingly bring disaster and horror. Only the criminally insane or those who would seek the destruction of the planet (perhaps the same thing) would knowingly attempt to turn Azathoth's dreaming mind toward Earth.

Of the cults that do exist, these are often what might be described as "death cults" whose entire outlook is fixated on the pointlessness of existence. For these, surrendering to the void is the ultimate act, a blessing of nothingness, and a joining with the one true concept accessible to humanity—death. Cult leaders tend to prey on the weak and disenfranchised, offering them salvation through sacrifice and a mask of hope and enlightenment. Such cult figureheads tend to be highly manipulative, intelligent, and the worst possible examples of humanity. Others may be misguided, misinterpreting the lore concerning Azathoth and believing it is something it is not.

The dreams of Azathoth may touch an individual or group and are possibly interpreted as a voice from beyond offering forbidden insights into the nature and meaning of the universe, power, and a realization that something greater than them exists. Such folk may be driven to learn and worship the mind that has touched them, not realizing what Azathoth is nor understanding the corruption that is spreading through their mind and body. Eventually, these unfortunate souls lose their Sanity and become murderous abominations.

Other Characteristics:

Azathoth always manifests with a servitor flautist to play its music, and 1D10-1 Lesser Other Gods. Summoners risk Azathoth striking out in irritation, the percentile chance equal to 100% minus ten percentiles for each Other God who arrived, and minus another five percentiles for each Magic Point which the Sorcerer expends to placate the god. The Magic Points sacrificed must be renewed each round. If Azathoth angers, it grows: on the first round that it attacks, it also burgeons out from its summoned confines, and its pseudopods have a reach of 50 meters. On the second combat round it has a reach of 100 meters, the third round giving it 200 meters, and so on, doubling each round indefinitely.

There is also a chance that Azathoth voluntarily departs if it becomes angered, equal to ten percentiles per round minus one percentile per lesser other god that arrived with it.

An area equal to its pseudopod radius is blasted by Azathoth and totally ruined, with cracked boulders, pools of alkaline water, and dead splintered trees, but damage to Characters is done by specific pseudopod.

Characteristics

STR	N/A	Move	0
CON	300	Hit Points	600
SIZ	varies		
INT	0		
POW	100		
DEX	N/A		
HF	1D10/1D100		
	1D6/1D10+2 for encountering a portion of Azathoth.		

Armor:

- None.

- An Elder Sign delivers 3D6 damage and is then destroyed.

- If reduced to zero hit points, Azathoth appears to implode and ceases to be. It reforms 1D6 hours later.

Weapon	Attack	Damage
Pseudopod*	100% or less	D100 hit points + corroding the surface

*A s the last action in a combat round, roll 1D6 to learn the number of pseudopods with which Azathoth lashes out that round and the chances that anyone is hit:

1 = 100%	3 = 33%	5 = 20%
2 = 50%	4 = 25%	6 = 16%

Adventurers cannot Dodge these massive blows. Allot attack at multiple targets if desired.

Spells:
commands all the lesser Other Gods and much of the universe; fortunately it has 0 INT.

CTHUGHA, The Living Flame, Great Old One

> *But even though we had shielded out eyes, it was impossible not to see the great amorphous shapes streaming skyward from this accursed place, nor the equally great being hovering like a cloud of living fire above the trees.*
>
> *August Derleth, "The Dweller in Darkness."*

Cthugha is said to dwell near to the star Fomalhaut shackled and bound by Elder wards. It remains one of the most obscure and remote of all the Great Old Ones. Ancient texts cite the deity as master of all fire vampires and sometimes known as Fthaggua, although other sources suggest Fthaggua is the spawn of Cthugha. Fire vampires do appear to be the entity's progeny and sometimes appear instead when the deity is summoned.

Aphoom Zhah is believed to have a form of connection to Cthugha, with some speaking of the former as being the spawn of the latter while others say they are twin manifestations, each in some cosmic opposition. One tale predicts that when the two entities come together they will combine to form a new god that will bring unspeakable horror to the stars.

Certain accounts suggest there is enmity or some form of abhorrence between Cthugha and the Outer Gods, as, on Earth, worshippers of Cthugha have acted against the interests of a cult of Nyarlathotep cultists. How such divisions arose or play out on the cosmic scale is a matter beyond human comprehension, which we can only rationalize in terms that fail to dig deeper into such alien minds. Whatever the reasons, worshippers appear to play out this cosmic feuding on a human level, with differing cults at each other's throats and using deity-gifted magic to settle scores and thrown a wrench into each other's dealings. Usually, the primary victims of such antagonism are innocent bystanders.

Cult:
Fire cults have existed throughout human history, and while many of these simply worship the flames, a few have been blessed with the knowledge of Cthugha. In modern times, such cults are rare, and often hide their true intentions and beliefs behind a mask of holy fire and retribution, using the Church as a shield. Smaller sects, centering on a charismatic leader, speak of fire and brimstone, converting by degrees those who find solace or who fear eternal damnation in such sermons. All such cults appear to hold the central belief that one day Cthugha shall come to cleanse the unworthy from the planet and that the blessed ones shall be reborn in flame to claim this world as their own.

According to cult accounts, despite numerous attempts, Cthugha has not yet deigned to come to Earth, preferring to send its fire vampires as emissaries and speak through them. Such conversations are not verbal and rely on the cultists divining the movement and actions of the summoned flame creatures; thus, the meaning is a human interpretation and may at times be more aligned to the high priests' or priestesses' agenda.

Other Characteristics:
Cthugha has the telepathic abilities common to the Great Old Ones, but does not seem to communicate with humans in any fashion, and must be summoned to be dealt with.

Attacks & Special Effects:
Summoned, Cthugha brings D100 x10 flame vampires with it, which immediately begin to set the area alight. Cthugha itself floats above, scorching and burning the entire site. Humans in the area lose hit points to the heat, starting in the round after Cthugha comes. Each round the players must attempt a Stamina roll. Upon failure, the Character loses 1 hit point per round until death. The only way to survive is to flee the area, a roughly circular area with a diameter of 2D10 x20 meters. Cthugha does not depart until that area has been thoroughly blasted and burned, unless first dismissed by means of a spell.

- ■ Pseudopod Attack: Each round, Cthugha can form 1D4 pseudopods from its formless mass with which to flail or squeeze individual targets. Each attack can be upon a different target. Note that anything touched by Cthugha

may catch on fire; if an adventurer, call for a Luck roll to determine if clothing and/or hair catch alight (causing 1D6 damage per round until put out).

- ■ Flame Burst Attack: It may belch forth fire instead of using pseudopods. A flame bust has a range of 150 meters and blankets the target site with fire, incinerating an area 20 meters across. Players of all within the area must roll their Characters' CON against Cthugha's POW on the Resistance Table: a failing roll indicates damage equal to Cthugha's POW. A success indicates hit point loss equal to half Cthugha's POW, a dubious benefit. Body armor is of no help against this attack, but an intervening wall or embankment would be.

Characteristics

STR	80		Move	0 (aerial drift)
CON	120		Hit Points	260
SIZ	140			
INT	28			
POW	42			
DEX	21			
HF	1D3/1D20			

Damage Bonus: +13D6.

Armor:

- ■ 14-point flaming tough skin.
- ■ Mundane weapons may cause harm but are destroyed after the first successful hit (some enchanted weapons may negate this effect).
- ■ If reduced to zero hit points, Cthugha implodes, drawing all attending fire vampires into itself. Those within 100 yards/ meters may be drawn in as well should they fail a DEX roll (those behind structures may be safe). It reforms in 1D10+10 years.

Weapon	Attack	Damage
Pseudopod	40%	1D6 + 13D6
Burst	60%	special

Spells:
all spells concerning entities of flame and itself.

CTHULHU, The Sleeper in R'lyeh, Great Old One

A monster of vaguely anthropoid outline, but with an octopus-like head whose face was a mass of feelers, a scaly, rubbery-looking body, prodigious claws on hind and fore feet, and long, narrow wings behind. This thing... was of a somewhat bloated corpulence... It lumbered slobberingly into sight and gropingly squeezed its gelatinous green immensity through the black doorway... A mountain walked or stumbled.

H. P. Lovecraft, "The Call of Cthulhu."

Great Cthulhu came down to Earth from Xoth with its star-spawn some 350 million years ago, establishing the hideous city of R'lyeh and other less well-known sites. Elder thing records, seen in Antarctica, show the race warring with Cthulhu's star-spawn and winning some form of victory, although the records being written by elder things may be somewhat biased. 50 million years later, cataclysmic events—said to have been instigated by Elder Gods—led to the sinking of R'lyeh and the imprisonment of Cthulhu and many of the star-spawn. Prophecy foretells that Great Cthulhu shall break free of its Elder bonds when R'lyeh rises again, heralding the time "when the stars are right" and humanity shall become like the Old Ones. For now, Cthulhu lies dead but dreaming in the corpse city of R'lyeh, a nightmare place of alien construction that is best left undiscovered by humanity.

Despite being "dead" in conventional terms, Cthulhu dreams. From time to time, such dreams are powerful enough to transmit ideas and concepts to receptive human individuals. Indeed, throughout human history, there appears to have been times when Cthulhu's "deep sleep" has become fitful or akin to "near wakefulness," with its psychic emanations seemingly growing temporarily more powerful and affecting larger cross-sections of human society around the world. While there is no definitive record of such periods, Mythos scholars studying Earth's history have suggested certain events as being caused fully or in part by Cthulhu's will, including the "great dying" of 251,000,000 BCE (the extinction of 96 percent of earthly life) and the year 536 CE, when a great cold swept across the world, a mysterious fog covered the Middle East and Asia, and thousands of humans died. It should be noted that, in 1919, the influential mystic known only as Madame May wrote a cryptic prophecy concerning the year 1925 and describing a "madness from the sea" that would "cause strange thoughts and turn the mild toward blind violence." The sudden disappearance of Madame May after writing this, the last entry in her journal, means that no further information as to what she was driving at can be given.

Being touched by Cthulhu's dreams causes humans to act in diverse ways. For some, vague images of R'lyeh and Cthulhu plague their dreams and waking hours, driving them to create art as a way to interpret or divine meaning. Others suffering from a temporary madness, are provoked into performing indiscriminate violent acts. Some may hear Cthulhu's dream-thoughts more clearly and, in their comprehension, fall utterly insane and descend into babbling incoherencies, while others find a truth in their insanity and, able to function within society, go on to seek out others like themselves or form their own cults devoted to Cthulhu.

Cult:
The human Cthulhu Cult appears to be the most widespread and insidious cult devoted to the worship of the Old Ones. The cult believes they will play a hand in the reawakening of Great Cthulhu, an action that shall bless them and remake them in Cthulhu's image; thus, the cult works to prepare and bring about the "Great Waking."

The cult is directed by a secretive cabal of elders sometimes known as the "Deathless Masters," although the term "Undying Masters" is also connected to this group. These leaders are, in the main, disconnected from the active cult members, and only deign to make an appearance or (more likely) send word to a cult leader when absolutely necessary. As such, they remain an enigma and, other than their apparent immortality, little is known about them. Indeed, some suggest the title is an honorific, passed down the generations, rather than a group of actual immortals. What we know comes from low-ranking cult members, which is often guesswork or just plain false. For example, some Cthulhu devotees have called the Deathless Masters the "Deathless Chinamen," a term that is probably intended as obfuscation, as Cthulhu's influence spans the world, and evidence suggests that this cabal is comprised of both men and women who hold domains in the Americas and Europe, as well as Asia. Thus, the conspiracy is built upon lies and misinformation intended to misdirect those who would seek to learn about the cult. Nothing a cultist says should be taken at face value.

Putting the Masters aside, the cult appears to operate in a cell-like structure, with each group effectively working on their own cognizance, without ties to others. In practice, the heads of such groups often referred to as High Priests or Priestesses by the rank and file members, often have connections to one another and are able to pass information as needed, although there does seem to be an unwritten rule that each cult head operates and creates their own remit in terms of day to day activity. Sometimes, such heads will war with one another in an ongoing battle for supremacy, perhaps arising from the notion that privilege and rank only come to those that seize it. Throughout history, different Cthulhu cults have risen and fallen, sometimes supplanted and absorbed by stronger groups. Evidence for these groups has been found in the USA, Greenland, Canada, England, and Greece, but these are just the ones that have come to notoriety—there are many more. In remote areas, whole communities or tribes may be Cthulhu worshippers, unaware they are a cog in the grand mechanism of Cthulhu's dreams.

Some cult groups have close connections to the deep ones, who can be viewed as the largest non-human cult devoted to Cthulhu. These often include deep one hybrids within their members, who act as go-betweens with the deep ones. For obvious reasons, these groups tend to be located in coastal areas. Whether the deep ones have links to the Deathless Masters is unknown, although the possibility seems quite likely.

Finally, anyone (cultist or otherwise) receiving Cthulhu's dream messages will interpret them according to their beliefs and outlook. Some may receive vague impressions they associate with folklore or other human-centered beliefs, while others see deeper and access a clearer "Cthulhu-shaped" message. In terms of cultists, they must interpret their messages like any other human, often foisting their own predilections when garnering a meaning. Only the Undying Masters seem able to fully comprehend Cthulhu's thoughts.

Other Characteristics:
Though in millennial sleep, Cthulhu is known to send horrifying dreams to mortal men, which may have tipped some people into madness.

Attacks & Special Effects:
Each round 1D3 Characters are scooped up in Cthulhu's flabby claws to die hideously. If Cthulhu were just emerging from a vast hole, or if he were to stoop over, the Characters might also be attacked by Cthulhu's facial tentacles, which can grab four people per round and which can penetrate small openings.

Cthulhu could try to grab a plane or similar object with his claws to keep it from hitting him. If he so tries, he is automatically successful.

Characteristics

STR	140		Move	24 Stride/20 Swim/16 Fly
CON	110		Hit Points	320
SIZ	210			
INT	42			
POW	42			
DEX	21			
HF	1D10/1D100			

Damage Bonus: +21D6.

Armor:

■ 21-point trans-dimensional hide.

■ Regenerates 6 hit points per round (death at zero hit points).

■ If reduced to zero hit points, Cthulhu bursts and dissolves into a disgusting, cloying greenish cloud, then immediately begins to reform. He needs 1D10+10 minutes to regain full solidity and, when he does, he then has a full 320 hit points again.

Weapon	Attack	Damage
Tentacles	100%	11D6
Claw	100%	1D6 + 21D6

Spells:
knows hundreds of spells; he might impart Call Deep Ones or Contact Cthulhu via terrifying dreams.

DAOLOTH, The Render of the Veils, Outer God

> *The image of Daoloth was not shapeless, but so complex that the eye could recognize no describable shape. There were hemispheres and shining metal, coupled by long plastic rods. The rods were of a flat grey colour, so that he could not make out which were nearer; they merged into a flat mass from which protruded individual cylinders. As he looked at it, he had a curious feeling that eyes gleamed from between these rods; but wherever he glanced at the construction, he saw only the spaces between them.*

> *Ramsey Campbell, "The Render of the Veils."*

A strange, geometric being, Daoloth does not appear to be particularly malign. It lives somewhere beyond our universe, but may be summoned into it. Daoloth is the madness incarnate, the concept of apocalypse made manifest. Mere glance at his unreal form will turn anyone into a gibbering lunatic. Each of his geometrical manifestation hides endless power of seemingly random properties. To touch any is to be teleported to a random spacetime, to be tranformed into a pure energy, to be undone, to be ascended... anything can happen.

From what can be pieced together, Daoloth's touch causes flesh to disappear, with those unfortunates who have summoned the god, but not successfully bound it, being dissolved only to be reformed, atom by atom, in some other place, world, or dimension. We know this due to the experience of Yadrem, a sorcerer said to be a follower of the great wizard Eibon, who summoned Daoloth and in doing so was cast beyond our world to another, from where he managed to escape and return to Earth some 50 years later. Yadrem's account, if it is to be believed, can be found in the repressed Voids of Darkness, his journal, later discovered and printed by the controversial publisher Waast Cronenberg of Lower Saxony. The account tells of the wizard being sent to a "dismal plain" where "cities of bone rise" and "ghastly inhabitants work and fashion strange Tulu metals." One may suppose that this place is but one of millions where such unhappy travelers could find themselves if they venture too close to Daoloth.
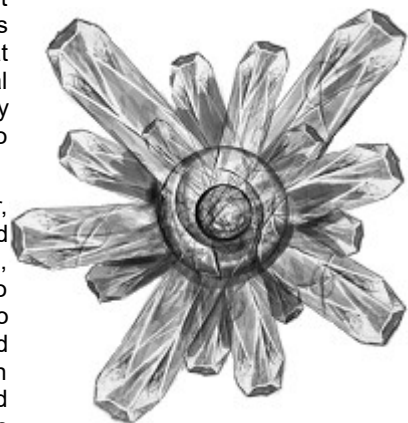
Cult:
Human cults appear to be quite rare and, where they do exist, they tend to be focused on breaking through the veils of perception to gain wisdom and understanding. Indeed, such revelatory cults may (at first) see Daoloth as a conduit or

process rather than an actual being, and only later (when they have actually experienced the truth of the deity) come to realize the extent of its power. In the main, individuals wanting to alter the course of their life or obtain some historic truth are the primary followers of Daoloth. Such astrologer-priests may be granted the ability to partially see into the past or the future, and some may be able to comprehend other dimensions. Whether individuals or cults, some may possess the means to travel mentally or physically though time or dimensions.

Daoloth is acknowledged and/or worshiped by the Greys, and there are suggestions that the Great Race of Yith demonstrated some regard for the entity. Like human worshippers, these alien races are careful to summon the deity in absolute blackness to avoid the dangerous effects of seeing its physical being.

Contact with Daoloth will usually come via association with individuals or cults wishing to access the deity's powers, some of whom may use this knowledge to effect masterful and seemingly impossible deeds. Certain texts on divinatory practices may unwittingly allude to the entity or its power, causing some to be able to access a portion of Daoloth and thereby gain insight into future events in a prescient-like experience. Those who access Daoloth in this manner may ignorantly repeat the process numerous times, with each experience strengthening the link between them and the entity, which may have severe repercussions, such as allowing a portion of the deity to pour into their minds and completely possess them—a Splinter of Daoloth embodied in human flesh.

Other Characteristics:

The god's presence causes disaster among humankind. If he is not carefully held inside some magical barrier, his form expands and engulfs anyone nearby. If those who conceptualize the Render do not carefully maintain mental barriers against it, its form mathematically expands and discontinuously incorporates anything that perceives it, translating its sentient victims to distant and dismal worlds and dimensions from which they rarely return.

Daoloth is the embodiment of magical words of power, the actual geometric structure and representation of the source code of the universe. Daoloth moves unconventionally, either by expanding his shape or by slipping through dimensions. He expands at 8 meters radius per round and can continue expanding to any size.

He is an utterance of Yog-Sothoth, and if it could be read it could grant immense power. One request that can be made to Daoloth, magically contained, is to view things as they really are, not as our veiled senses perceive them. The sight is more than one can bear.

Characteristics

STR	N/A		Move	8
CON	100		Hit Points	200
SIZ	varies			
INT	50			
POW	70			
DEX	30			
HF*	1D10/1D100			

*in the first round the god is visible; every round thereafter automatically lose 1D10 Sanity points while nearby.

Damage Bonus: N/A

Armor:

- ■ None.
- ■ Anything striking or penetrating Daoloth is transported to another dimension, but any spell which the GM thinks appropriate might cause harm or repel.
- ■ If reduced to zero hit points, Daoloth implodes. It reforms in 1D100+500 days.

Weapon	Attack	Damage
Engulf	100%	sends victim to another plane of existence.

Spells:

It might know any spell dealing with seeing or traveling to other worlds, planes, and dimensions, and whatever other spells the Keeper thinks appropriate.

GLA'AKI, The Inhabitant of the Lake, Great Old One

From an oval body protruded countless thin, pointed spines of multi-colored metal; at the more rounded end of the oval a circular, thick-lipped mouth formed the center of a spongy face, from which rose three yellow eyes on thin stalks. Around the underside of the body were many white pyramids, presumably used for locomotion. The diameter of the body must have been ten feet at its least wide... long stalks [were] twisting above it... [the] shape towered, pulsing and shaking with deafening vibration... a spine stiffened toward a victim].

Ramsey Campbell, "The Inhabitant of the Lake."

Gla'aki currently dwells at the bottom of a lake in the Severn River Valley (in England) from whence it summons new cultists by a "dream-pull"— the sending of hypnotic dreams to potential initiates. Gla'aki is weak now, and without the strength drawn from the initiation process, it cannot send the dream-pull any distance. But whenever someone comes to live nearby it can send the dreams, or it can dispatch servants of Gla'aki to capture or guide new initiates.

Cult:

A particularly loathsome cult resides around this Old One, with its members being undead servants. On occasion, living humans may be found worshipping Gla'aki and working with its undead minions. Such living cult members appear to crave Gla'aki's embrace, longing for the un-life it offers. As its undead servants can pass as living for a number of years before decay wares away their bodies, they may go about in society unnoticed. Some of its servants are tasked with writing, copying, or compiling volumes and editions of the Revelations of Gla'aki. This work presumably furthers the agenda of the Old One, which appears to use the text to ensnare particularly useful individual humans. The Old One does not appear to have any alien cults devoted to it.

Attacks & Special Effects:

The Dream-Pull. Gla'aki mainly uses the dream-pull to draw victims to the lake for initiation. The target's chance to be overwhelmed by the dream is equal to Gla'aki's Magic Points minus the victim's Magic Points on D100. For each kilometer of distance between the victim and Gla'aki's lair, add 1 Magic Point to the victim's total for the effect of this calculation. Gla'aki can try once per night, for as many nights as desired.

For initiation, the novice stands on the lake shore while Gla'aki rises from the deep. Gla'aki drives one of its spines into the victim's chest and then, on the next round, injects a fluid into the victim. Normally the spine kills the human victim. The spine detaches from Gla'aki, and from it grow protrusions through the victim's body. When growth is complete, in a night or two, the spine drops off, leaving a livid spot which does not bleed and from which emanates a network of red lines. The victim is then an undead slave, a servant of Gla'aki.

Conditions: if the damage from the spine fails to kill the target before the fluid is injected, the victim becomes an undead horror, but is not subject to the will of Gla'aki. If possible Gla'aki has its servants capture such an individual and hold him while it drives in another spine to force proper servitude. If the victim manages to break off the spine during the round in which he is stabbed and before the fluid is injected, he dies anyway but does not become an undead slave of Gla'aki. In the rare instance that the Spine does not cause enough damage to kill the victim, and is broken off before the fluid is injected, the victim can remain a normal human being. Gla'aki's undead slaves may hold novices tightly to prevent them from breaking off spines prematurely.

Characteristics

STR	40	Move	6
CON	60	Hit Points	150
SIZ	90		
INT	30		
POW	28		
DEX	10		
HF	1D3/1D20		

Damage Bonus: N/A

Armor:

- 40-point integument.

- Each spine possesses 4-point metallic armor and 6 hit points.

- If reduced to zero hit points, Gla'aki's bodily liquids rapidly drain from its body, and then its dried-out husk crumbles into dust. It reforms in another shard within a body of water within 1D100 days.

Weapon	Attack	Damage
Spine	100%	7D3

Spells: Gla'aki knows most spells, and teaches many to his worshiper-slaves.

HASTUR, He Who Is Not to Be Named, Great Old One

> *Utterly alien landscape... Foreground a deep lake. Hali? In five minutes the water began to ripple where something rose. Facing inward. A titanic aquatic being, tentacled. Octopoid, but far, far larger—ten-twenty times larger than the giant Octopus apallyon of the west coast. What was its neck alone easily fifteen rods in diameter. Could not risk chance of seeing its face.*

August Derleth, "The Gable Window."

Hastur the Unspeakable dwells near the star Aldebaran in the constellation Taurus. He may be connected in some way with the power of flight through space. Hastur is served well by the Byakhee, an interstellar flying race. His appearance is disputed. In a reported instance of possession by Hastur, a corpse took on a bloated scaly look, and the limbs became boneless and fluid. The things in the Lake of Hali look octopoid from a rear view and are related to Hastur. They also have unbearably horrible faces. Still, Hastur's appearance is largely up to the individual Game Master.

The most accurate term for Hastur is a psychic disease. One current theory is that Hastur exists partially within the Tachyon universe and partially within the minds of people afflicted with this disease. The effects of different outbreaks of this disease are always highly idiosyncratic, but there are several general points of commonality. The infection can spontaneously occur in lone individuals, or a small group of individuals, numbering as many as two dozen, all become fascinated with the same idea. This idea is typically expressed in some form of shared art, such as a mural, a series of paintings of the same scenes, a play, an anthology of short stories, or even simply group storytelling. The art or stories these people produce all share a few distinctive features, usually including characters and objects with similar names and locations, such as the King in Yellow, Queen Cassilda, Aldones and Camilla, the city of Carcosa by the cloud-lake Hali, the Pallid Mask, and the infamous Yellow Sign.

As far as researchers can tell, Hastur is another name for the King in Yellow. After creating and sharing some form of art involving these characters, places, and objects, the victims of this psychic disease begin exhibiting far more disturbing behavior. Suicide and murder are two common results. Murders committed by the infected are almost always justified by the infected as euthanasia, even if the murder victim clearly attempted to violently resist. Infected individuals are also likely to develop an interest in the Forbidden Science and on a few occasions spontaneously manifest psychic powers, which remain after recovery.

Psychic Links with the other infected members of the social group also sometimes appear; these fade afterward. Fortunately, this psychic infection is only mildly contagious beyond the person or group initially affected. Individual instances of infection rarely spread beyond small groups. Also, after a few instances of suicide or murder, many of the affected individuals throw of the psychic infection, and are at a loss to explain their previous behavior.

However, most afflicted individuals fail to recover from this contagious madness without help. If the members are arrested or are otherwise forcibly separated from each other and their art, most recover. Some victims go permanently or temporarily insane during the process of recovering from this infection, but most are simply very shaken. If not stopped, most victims will eventually either be arrested for murder or commit suicide, but some simply vanish. No one knows what

happens to these victims, but MiliSci researchers suspect that they accidentally or deliberately open hyperspatial gateways to some unknown destination. Some Carcosa theorists believe the destination must be the lost city itself.

Cult:

The Cult of Hastur is well established on Earth, although most groups are isolationist in outlook, with only some of the older and more embedded sects actively working with some level of cooperation and coordination. In this way does the Unspeakable One keep its minions focused, sometimes unaware that others of a like mind exist; this cell structure seems to ensure the ongoing survival of the greater cult. The character of such groups varies wildly, from the debased and primal to intellectual and calculated. Some cults prefer to venerate the Unspeakable One through its other forms, with humanity apparently most favoring the King in Yellow (notably, the Brothers and Sisters of the Yellow Sign), although some who worship through dreams hold the Amber Elder foremost in their regard.

Certain humans who knowingly carry the taint of the Mythos (the tcho-tcho) seem to favor the Unspeakable One above all others and have been known to employ and treat with the creatures called byakhees, which are considered to be fully aligned with the deity.

The work of such cults tends to fall into three camps: firstly, sowing seeds of corruption in all things to prepare the way for their god's rebirth; secondly, the acquisition of knowledge (magical) to prepare themselves to take a place at their god's side; and thirdly, to seek a means to free and release their god from its confinement.

Other Characteristics:

Hastur is summonable only at night. When Hastur is present each round three individuals within 20 meters of the horror must successfully Dodge or be grasped by Hastur and destroyed on the following round. Hastur does not normally attack friends or worshipers. He must always leave that portion of the Earth where Aldebaran is below the horizon.

While being in the living presence of the deity is likely rare, its minions are far more common, and their works are liable to cause trouble and calamity if left unchecked. Many seek to open portals to Hali through which to treat with their god, with such ceremonies taking place at night. Others prefer a subtler approach, acting to undermine the good work of others or those of rival cults, entrap cooperation through blackmail and scams, and generally sow the seeds of failure to hasten the end of things. Such work is undertaken at both the small and large levels of human society.

Accounts speak of researchers of the strange and forbidden finding certain tomes "speaking" to them when reading of the Unspeakable One, which appears to mirror the strange voice heard in dreams of those possessing effigies or idols of the god. Such voices, heard by no other, speak of realizing desires and attaining power through acceptance of the Unspeakable Oath and giving oneself over to the devotion of Hastur.

Characteristics

STR	120		Move	20/50 flying
CON	200		Hit Points	300
SIZ	100			
INT	15			
POW	35			
DEX	30			
HF	1D10/1D100			

Damage Bonus: +13D6.

Armor:

- ■ 30-point trans-dimensional flesh.

- ■ Regenerates 5 hit points per round (death at zero hit points).

- ■ If reduced to zero hit points, Hastur explodes in a disgusting spray of foul matter. It reforms in 2D10 hours.

Weapon	Attack	Damage
Tentacles	100%	Crush, 13D6
Claw	100%	6D6

Spell:

All Call spells and others the GM finds appropriate.

ITHAQUA, The Wind-Walker, Great Old One

The stars had been blotted out... the great cloud which had obscured the sky looked curiouslv like the outline of a great man. And... where the top of the "cloud" must have been, where the head of the thing should have been, there were two gleaming stars, visible de-spite the shadow, two gleaming stars, burning bright—like eyes!

August Derleth, "The Thing That Walked on the Wind."

The Great Wind-Walker has some bond with the Earth, with reports citing its appearance within the Arctic and sub-Arctic regions, which seem to form some kind of boundary for the entity. While little suggests the entity appears elsewhere in the world, tokens and effigies of the deity can be encountered almost anywhere, and some appear to contain traces or the taint of the Old One's power. According to some travelers, Ithaqua has been known to appear on other worlds, but its permanent home, prison, or resting place remains a source of conjecture.

While its typical appearance seems to be that of a giant skeletal humanoid figure whose burning red eyes and distorted and ghastly features parody a human face filled with agony, some have reported the Old One appearing with shaggy fur or as an enormous stag-like creature with claws and fangs. All reports speak of the entity breathing out great clouds of steam and fog, while snow swirls about it forming strange patterns. Such visions seem to reflect or parody earthly forms, perhaps the viewer translating the Old One's shape and features through the prism of their own rationality. For beings on other worlds, it can be presumed that Ithaqua's form may appear quite different.

Cult:

Organized worship of Ithaqua tends to be located within the boundaries of its earthly domain, although that does not stop such cults recruiting or expanding their interests outside of the sub-Arctic and Arctic regions; however, key sites and rituals normally take place within its sphere of influence. Certainly, local inhabitants (including First Nation peoples) may know lore concerning the entity but are more likely to fear rather than worship the Old One. Of course, some outcast groups may keep their devotions to this entity within their communities, such as certain settlements in Siberia and Alaska who have been documented as carrying out differing forms of sacrifice to appease the Great Wind-Walker and ward it from their homes and hunting grounds.

When compared to the cults of Cthulhu and He Who Is Not To Be Named, Ithaqua's cult (collectively) is smaller, but this does not include others who worship the Old One, such as the abhorrent gnoph-keh. Indeed, rumor exists that the Old One has at times appeared in Earth's Dreamlands and curries favor among some of the inhabitants of that dream dimension.

All cults of Ithaqua seem to share the practice of flesh eating, with some including cannibalism. Another common practice seems to be initiation through wilderness survival, with candidates sent forth into the wintry wilderness to commune with their god, and while not all survive such exposure, those who do return seem to be changed and more resolute than ever to further their cult's (and, thereby their god's) agenda.

Attacks & Special Effects:

if Ithaqua is within a few dozen meters, he can use mighty winds to attempt to whisk victims into the air. Players of those attacked this way must roll on the Resistance Table, matching the Character's STR against Ithaqua's STR on the Resistance Table. If Ithaqua is attacking several Characters, divide his STR among them. If within reach, Ithaqua may grab with one mighty claw per round. Anyone grabbed is automatically held as well, if Ithaqua desires.

Characteristics

STR	50		Move	10/100 flying
CON	150		Hit Points	250
SIZ	100			
INT	10			
POW	35			
DEX	30			
HF*	1D10/1D100			

*1/1D6 Sanity points to hear the howl of the Wendigo on the North Wind.

Damage Bonus: +8D6.

Armor:

- 10-point extra-dimensional armor.

- Mundane weapons (incl. bullets) deal minimum damage.

- If reduced to zero hit points, Iod bursts in a dazzling white light and winks out of existence. It reforms in 2D100 years.

Weapon	Attack	Damage
Wind Gust	100%	lift and drop*
Claw	80%	6D6 (damage ignores any armor)

*1D10 x 3m. Each 3 m dropped equals 1D6 damage.

Spells:
All Call spells.

NYARLATHOTEP, The Crawling Chaos, Outer God

> *A tall, slim figure with the young face of an antique pharaoh, gay with prismatic robes and crowned with a pshent that glowed with inherent light... the fascination of a dark god or fallen archangel, and around whose eyes there lurked the languid sparkle of capricious humor.*
>
> *H. P. Lovecraft, "The Dream-Quest of Unknown Kadath."*

Nyarlathotep is the messenger, heart, and soul of the Outer Gods. He is the only one to have a true personality, and he claims to have a thousand different forms. To him, causing madness and insanity is more important and enjoyable than mere death or destruction.

Only a few of Nyarlathotep's forms have been described. The Black Pharaoh is an Egyptian-looking human. The Bloody Tongue is an enormous monster with clawed appendages and a single long bloodred tentacle in place of a face. This tentacle stretches forward when the Thing howls at the moon.

The Haunter of the Dark is black and winged, with a trilobed red eye, and cannot withstand light. The Bloated Woman is a mammoth woman whose body convulses with numerous tentacles. The Beast takes the form of Egypt's Sphinx, but its face is filled with stars. There is some evidence that the Black Man of witch ceremonies is also a form of Nyarlathotep.

What is not know is that Nyarlathotep is a Great Old One who partially transcended into Tachyon universe by becoming the avatar and intermediary of the Other Gods. Nyarlathotep appears to some species and not others; the knowledge it brings provokes them to transcend, partially transcend, or to destroy themselves. The way that Nyarlathotep picks its victims or protégés is unknown, and perhaps unknowable. However, species who never see Nyarlathotep are unlikely to transcend or partially transcend. Alien species that survive for millions of years may do so in part because Nyarlathotep ignores them.

Nyarlathotep, once an obscure occult presence on the borders of human consciousness, began to intervene more actively in the early 20th century. This being sent psychic visions to Nikola Tesla, to the psychiatrist who invented the first link crown, the Nazi scientists who developed the first hyperspatial weapons during World War II, and later to the physicists and engineers who developed the FTL drive.

Like the other Great Old Ones, Nyarlathotep speaks to individuals in dreams and visions that they take for bursts of inspiration, but it can also possess unknowing people or appear as a psychic illusion that dozens or even hundreds of people can see.

If those humans who had seen Nyarlathotep compared notes, there would seem to be no similarity between their visions except two: Nyarlathotep, when in human form, almost always appears as a vision of otherness, and as a powerful and charismatic figure. Throughout most of human history, Nyarlathotep has often appeared as male, as this corresponded with the images of power most prevalent in the public consciousness; in recent years, the gender of its form has depended more on the psychology of its audience. Nyarlathotep encourages individuals to experiment with hyperspatial devices and other technologies, including genetic engineering and psychic enhancement, that relate to knowledge that may lead to transcendence. Nyarlathotep's motives for this are unknown, but the results of its influence can be wonderful

or terrible, and Nyarlathotep's influence provides no protection against terrible accidents that can destroy a building, a city, or even an entire planet.

Regardless of how it appears, Nyarlathotep is exceptionally charismatic. Those to whom Nyarlathotep appears may or may not remember the entity itself, and often report gaining some unusual inspiration or hearing a stirring speaker whose words sparked new ideas. However, if a psionic Async was in contact with someone who Nyarlathotep appeared to, the Async could detect its presence. Discoveries inspired by Nyarlathotep are often game-changers: they can revolutionize technology, but can also be unusually dangerous or destructive. Identifying them and singling them out for careful handling might help humanity survive.

Cult:

Nyarlathotep is typically worshiped though one of his forms, or Masks. There are numerous such cults, spread across the entire globe. The Brotherhood of the Black Pharaoh is centered in Cairo and has a powerful branch in London. The Cult of the Bloody Tongue is known in Kenya and New York. The Starry Wisdom Cult of Providence worships the Haunter of the Dark, as does the Cult of the Sand Bat in Australia. Other known cults include Shanghai's Order of the Bloated Woman and the global Brotherhood of the Beast.

In addition those worshiping the Outer Gods often do so in hope of gathering Nyarlathotep's favor. Rewards to loyal slaves usually come through the Crawling Chaos, as the other Outer Gods are too mindless to care. Nyarlathotep may grant worshipers knowledge of a spell, impart some destructive fact or divisive religious belief, or grant a servitor monster as an assistant. Nyarlathotep's gifts always seem to provoke turmoil among humanity, and are particularly likely to bring suffering and terror to a gift's recipient.

Besides servitors of the Outer Gods, Nyarlathotep has special servants, including the shantaks and hunting horrors. He may gift any type of creature to a worshiper if he deems it good. Such a bequest involves at least the permanent donation of POW or other characteristic to Nyarlathotep and the other Outer Gods.

Other Characteristics:

Nyarlathotep enacts the will of the Outer Gods, and is accurately referred to as their soul. He always attempts to bring madness to humanity, and several prophecies, including the stories "The Crawling Chaos", "Nyarlathotep", and the poem "The Fungi from Yuggoth" seem to state that someday Nyarlathotep himself will destroy humanity and possibly the entire planet. Nyarlathotep is always a mocking figure, evidently contemptuous of his masters.

All invocations to the Outer Gods include Nyarlathotep's name, possibly recognizing him as their messenger. He is known and feared by all Mythos species, and he occasionally requires things of them.

Attacks & Special Effects:

In human form Nyarlathotep may try to corrupt or trick his foes by appearing as a friend, and is generally reluctant to reveal his supernatural powers unless pressed. Nyarlathotep usually reacts to challenges by summoning beings to carry off or otherwise dispose of foes.

Nyarlathotep can summon a member of any servitor or independent race in this book (plus more that are not), at the cost of 1 Magic Point per POW point the creature possesses. When in monster form, he tends to grasp his victims and then carry them off with him.

When in human form, Nyarlathotep can be slain by normal physical means. If so slain, after collapsing the body begins to quake and swell, bursting to release a huge clawed monster (or some other monstrous form described previously). This unwelcome colossus then rises from the split corpse and disappears into the sky without further molesting the killer. When in monster form, Nyarlathotep is difficult to slay, but slaying does dispel him.

Nyarlathotep's clawed demon form changes continually, but each round he will have at least two claws capable of attacking.

Characteristics

	human	monstrous
STR	12	80
CON	19	50
SIZ	11	90
INT	86	86
POW	100	100
DEX	19	19
APP	18	-
HP	30	140

MOV	12	16
HF	-	1D10/1D100
db	+0	+10D6

Armor:

- None.

- Mundane weapons (incl. bullets) deal minimum damage.

- Regenerates 1D6 hit points per round spent healing itself (death at zero hit points).

- If reduced to zero hit points, Nyarlathotep's human form collapses on the ground and then begins to bubble and change form into a monstrous avatar form (usually the Bloody Tongue, which causes his viewers to lose Sanity points). Then flies into interstellar space.

Weapon	Attack	Damage
Any*	100%	as per weapon
Claw**	85%	10D6 +10D6

*Human Fighter
**Monstrous Fighter

Spells:

Nyarlathotep knows all Forbidden Science spells; he can summon monsters at the rate of 1 Magic Point per POW point the monster has; he may summon a hunting horror, or servitor of the Outer Gods at the cost of a single Magic Point.

SHUB-NIGGURATH, The Black Goat of the Woods, Outer God

> *"Iä! Iä! Shub-Niggurath! The Black Goat of the Woods with a Thousand Young!"*
>
> H. P. Lovecraft, *"The Whisperer in Darkness."*

Shub-Niggurath is a perverse fertility deity. In one of her few descriptions, Shub-Niggurath is an enormous cloudy mass. This mass doubtless boils and festers. It is likely that parts of the mist coalesce at times, forming horrendous body parts, ropy black tentacles, slime-dripping mouths, or short writhing legs, ending in black hooves which may account for the titular reference to "goat." When she arrives, she may bud off dark young.

Apparently unchained or restrained by Elder magic, this entity appears free to travel where it will, and, as stated, has manifested on Earth numerous times leaving behind signs of its passing on the landscape and people. Where the entity dwells in the cosmos is unknown. One important signifying factor is this deity's effect upon life, which seems to both corrupt and burn: mutations and unrestrained and rapid growth are often evident in both plants and animals (humans included). Many texts state the "Milk of Shub-Niggurath" produces "changes" when drunk, with some warning that to even touch this foul fluid is enough to cause a person to take on "strange form." Shub-Niggurath may be likened to a perverse fertility deity, bringing uncontrolled and rampant growth, where such fecundity is fashioned by an alien mind and ultimately inimical to life (well, certainly earthly life).

Cult:

Human cults worshipping Shub-Niggurath have existed for millennia, and while not as organized as the Cult of Cthulhu, the god's taint upon humanity is deep. Given the entity's ability to be misinterpreted by human perception, its worship has often been disguised through prayers and devotions to simplistic earthly gods, with true meanings hidden beneath layers of obfuscation, allowing cults to operate openly while keeping their motivations and purpose obscured. Thus, some who might present themselves as witches, druids, or pagans, may be devoted to the Dark Mother. Of course, some have little regard to such masks, and worship deity in secret and out of the way places, such as forests, moors, and mountainsides. The full moon seems to hold particular relevance for most of Shub-Niggurath's cults, with rites held monthly and which tend to dissolve into riotous orgies, although some cults lean to a more highbrow form of worship, with complicated ceremonies that appear more in line with the workings of "high magic."

One particularly insidious cult, named The End, sees Shub-Niggurath as a form of perfection, and believes that after reaching maturity the body is no longer perfect; thus, members seek to give their lives to their god at the peak of their perfection (sometime around age 20), or (more commonly) seek to hold back the aging process through artificial (sometimes magical) means. This often wicked and evil cult tends to draws its members from the young, preaching that only in perfection can one find enlightenment. In the modern age, certain secretive quarters of the body modification movement may harbor members of this cult, much like some of the unlicensed plastic surgery doctors (and their patients) in the early 20th century.

While Shub-Niggurath rarely deigns to appear when summoned, the deity may send one of her dark young to receive praise and sacrifices. These emissaries usually depart quickly, although occasionally one will remain for an extended period, perhaps serving the cult as a guardian or teacher of arcane wisdom (spells), with Shub-Niggurath channeling thoughts and gifts through the dark young.

Cults to the Dark Mother appear to have existed during the Hyperborean age, and it is said temples to this entity were raised in Mu, Sarnath, and K'n-yan. Indeed, the cult of the Dark Mother transcends humanity, with the Greys and the Nug-Soth (Yaddithians) being two alien races paying particular interest to the deity. On Earth, in addition to some humans, the gof 'nn hupadgh are a secretive race totally devoted to Shub-Niggurath.

Attacks & Special Effects:

Shub-Niggurath has dozens of tentacles, but only one can attack a given victim in a round. With a successful catch, the Character is whipped to the goddess' body to be drained of body fluids by one of her many mouths, the bite permanently draining 1D6 STR from the victim per round.

While being drained, the victim is held absolutely helplessly, and may not cast spells, expend Magic Points, or perform any act whatsoever except to writhe in pain and scream. In battle against more powerful beings, Shub-Niggurath still attacks with one tentacle per opponent, but after a tentacle strikes it holds on, and a second tentacle attacks, and so on.

Each additional successful attack permits a new mouth to begin to drain her gigantic victim.

Shub-Niggurath may trample beings of SIZ 60 or less. The trample attack is effective against all such beings in her path, which averages 10-20 meters across.

Characteristics

STR	72		Move	10/100 flying
CON	170		Hit Points	190
SIZ	120			
INT	21			
POW	70			
DEX	28			
HF	1D10/1D100			

Damage Bonus: +11D6.

Armor:

- ■ None.

- ■ Immune to mundane weapons (incl. bullets). Magical weapons, or fire, electricity, or similar energies damage her normally.

- ■ Regenerates 2 hit points per magic point spent in healing itself (death at zero hit points).

- ■ If reduced to zero hit points, Shub-Niggurath's form petrifies, cracks, and falls into a million pieces, while its essence is transported elsewhere (note that any left-over part may regrow into some monstrous child of the Outer God). It reforms in 1D100 years.

Weapon	Attack	Damage
Tentacle	75%	automatic catch
Trample	75%	11D6
Bite	75%	1D6 STR drained per round

Spells:

Shub-Niggurath knows at minimum all spells pertaining to the Outer Gods; she is known to have imparted Create Gate and Curse Of The Leprous Flesh to favorites.

SHUDDE M'ELL, The Burrower Beneath, Great Old One

> *A great gray thing a mile long chanting and exuding strange acids... charging through the depths of the earth at a fantastic speed, in a dreadful fury... melting basaltic rocks like butter under a blowtorch.*
>
> *Brian Lumley, "The Burrowers Beneath."*

Shudde M'ell is a mile long great grey chanting worm creature that releases odd acids. It burrows through the earth, melting all rocks in its wake. It is the supreme regent of the Chthonians as well as the largest and most evil of the race. According to legends he once was imprisoned beneath G'harne, but is now free to wander the Earth with his kin.

It appears as a colossal worm with tentacles for a head. It can alone cause a force earthquake 3.5 on the Richter scale, within a radius of 7km. Although there is some reference of old cultures that practiced some type of cult to some of these beings, at the moment nobody is known that renders cult to them. It is believed that the 1906 San Francisco earthquake was caused by Shudde M'ell.

Cult:

Shudde M'ell and the chthonians appear to receive little by the way of organized worship in modern times. In earlier times, such as the Stone Age, humanity may have prayed to such "earth gods" and offered sacrifices as a means to avoid destruction by predatory chthonians, although signs of such worship are particularly rare. The construction of G'harne was believed to have been undertaken by humans, although argument rages whether these were followers of Shudde M'ell or simply mind-controlled slaves; however, given what we know of this lost city, it would seem evident that its blocks and towers were crafted and raised by the hands of devoted worshippers.

Whether the bloodline and beliefs of these ancient builders were passed down the generations is uncertain, but one would be foolish to discount the possibility that remnants of this once great cult survived. While diminished, such cultists may harbor the desire to find and excavate G'harne to obtain its buried treasures or could seek to build a new version of this city elsewhere.

Of a disquieting note, mentioned in G'harne Fragments, is a remark concerning a "tribe of worm-men" said to still dwell in the now-hidden city. Some scholars have proposed these worm-people are the remains of the cultists who built the city, transformed through contact with the chthonians. If true, such worm-folk may be encountered wherever humanity has dealings with Shudde M'ell and its minions.

Attacks & Special Effects:

By himself, Shudde M'ell can cause a local earthquake of shocking intensity. The earthquake's force is determined by the number of magic points invested, with 2 magic points creating a level 1 quake on the Richter scale, 4 magic points causing a level 2 quake, 6 points causing a level 3, and so on. Thus, a great quake (level 9) would require Shudde M'ell to expend 18 magic points. The area of maximum effect is 400 meters, with each 400 meters decreasing in devastation proportionally. Doubling the expenditure can double the area of maximum effect.

If Shudde M'ell attacks directly, a vast hole opens up, accompanied by a terrible chanting noise and slobbering, sucking sounds. Everything over the hole, which is at least 1D10+10 meters across, is sucked in and destroyed. Chthonians then pour out of the hole and attack survivors.

Shudde M'ell may use telepathy to control humans and other species. Humans may resist with a successful Hard POW roll, although this is increased to Extreme difficulty if the Old One invests 1 magic point. In addition, for each additional magic point spent, one further human may be controlled. Most times, such victims are unaware of being under the mind control and may have no memory of undertaking tasks; however, if they become aware, they may attempt to break free with a successful Hard POW roll (an attempt may be made once every 24 hours). A successful Hard INT roll constitutes an awareness of their mind being tampered with.

The flesh of the Old One is dangerous to humans, releasing noxious fumes and being corrosive to the touch. Those within 20 meters without adequate breathing apparatus should attempt a Hard CON roll or be overcome with nausea (all actions performed at increased difficulty or with a penalty die); fresh air out of the zone of effect for 1D4 rounds diminishes/negates the effect. Skin touching Shudde M'ell's flesh suffers 1 damage per round of contact (assuming a light touch); if the whole body is thrown against the Old One's form, then increase to 1D4+2 damage. Clothing is burned through in one round, while equipment and mundane weapons may be affected with rapid corrosion rendering them useless (the Keeper may call for a Luck roll to determine if a particular item is affected); enchanted weapons may be resistant.

Characteristics

STR	90		Move	8/8 burrowing
CON	80		Hit Points	200
SIZ	120			
INT	20			
POW	35			
DEX	15			
HF	1D3/1D20			

Damage Bonus: +12D6.

Armor:

- ■ 8-point hide.

- ■ Regenerates 5 hit points per magic point (death at zero hit points).

- ■ Water in sufficient quantity causes harm (1D6 damage per round).

- ■ Mundane weapons are destroyed after an initial strike (see Corrosion and Toxicity); note that while bullets are affected, they deal their normal damage being single strike weapons.

- ■ If reduced to zero hit point Shudde M'ell bulk dissolves in the ground, burning through matter like a strong acid. It reforms in the center of the planet in 1,000 years.

Weapon	Attack	Damage
Tentacle	100%	6D6 + 1D6 CON drain
Crush	90%	12D6 to all within 12 meters radius

Spells:
Knows all spells the Game Master finds appropriate; has taught many concerning the Great Old Ones and servitor races.

TSATHOGGUA, The Sleeper of N'kai, Great Old One

He discerned in a dark recess the formless bulking of a couchant mass. And the mass stirred a little at his approach, and put forth with infinite slothfulness a huge and toad-shaped head. And the head opened its eyes very slowly, as if half awakened from slumber, so that they were visible as two slits of oozing phosphor in the black browless face.

Clark Ashton Smith, "The Seven Ceases."

The Book of Eibon claims Tsathoggua arrived on Earth before Cthulhu, possibly from the planet Saturn. Alhazred classes Tsathoggua as one of the "earthly" Great Old Ones and describes its conjuration by black, "worse than formless" alien "starspawn". He dwells in the black gulf of N'Kai, where he first arrived on Earth from Saturn. He is one of the less malevolent beings of the Cthulhu Mythos, though still terrible. Tsathoggua is usually represented as having a fat furry body and a toad-like head with bat-like ears and fur. His mouth is wide and his eyes always are half-closed, as if sleepy. It is also said that he can freely change his shape.

Approaching this Old One, the smell of death would be strong. The dust of millennia-old bones chokes the air while the decaying rot of partially eaten sacrifices lingers and touches the senses, causing revulsion and fear. Deep and dark tunnels may be worn by the passage of time, yet feel claustrophobic, with the weight of the world pressing down on those who navigate through them.

Cult:
Human worship of Tsathoggua is relatively small scale when compared to the entity's role within certain factions of serpent people society. While some human cults do exist, these tend to be small affairs. Often, a cult will form and begin a rapid phase of growth, recruiting whoever it can to swell its ranks, and then disappear without a trace—the members summoned by their god to make pilgrimage deep into to earth, only to then be consumed, although a few may be allowed to return to the surface to continue their work. Some are rebirthed as formless spawn, their humanity lost forever. In addition to such human cults, are the enlightened ones: sorcerers, witches, and those bestowed with the mark of the

Old One. Granted special wisdom, magical lore, and powers, these few labor under the direction of their god, establishing cults, shaping the environment, and hunting down its foes.

Among the voormis still living are many who tend to Tsathoggua; their ministrations including supplying their god with sacrificial food and so forth. Such groups of voormis are loathsome specimens haunting the mountain caves and tunnels said to lead down to K'n-yan and N'kai. Their ceremonies and rituals are believed to be most awful to behold.

It is among the serpent people where this Old One's worship is most formalized and organized. In certain ancient facilities, the worship of Yig has been cast aside and replaced with the toad-like idols of Tsathoggua, as well as the great temple bowls in which sleep the formless spawn. Disguised serpent folk, along with their human allies or servants, work in the modern era to prepare the world for the return of Tsathoggua and the reclamation of the planet for the serpent race.

Other Characteristics:

If Tsathoggua is encountered, he has a 50% chance of being hungry, or the GM may prefer to ask for a Luck roll from the adventurer who enters first. If Tsathoggua is not hungry, he ignores the adventurers and pretends to be asleep.

Lurching forward, the Old One gobbles up a target within 5 meters. Victims suffer 1D6 damage on the first round and then, for each round thereafter, lose 5 points of CON and APP as they are digested. The victim may escape this fate by cutting their way out (if able to inflict 10 damage) or making themselves indigestible or otherwise awkward to eat (as determined by the Keeper, this may involve a Hard INT roll or other suitable skill roll). Being eaten alive is painful as the digestive acids burn flesh and dissolve clothing and so forth (a Luck roll may be required to determine if items are lost or damaged). Any CON or APP loss is permanent, although may be partially regained via magic or particularly advanced or efficient medical care.

Attacks & Special Effects:

If hungry, Tsathoggua grabs an adventurer and pulls the victim to him: in each following round the character loses one point from each characteristic until they are gone or until Tsathoggua is driven off. The victim will be in great agony, with acid burns, vitriol running through his veins, body punctures everywhere, etc. In this case, a full month of hospital care restores one point to each characteristic.

Idols of Tsathoggua may have been implanted with deep magic that compels humans to seek out the Old One (whereupon they are probably eaten). The effect can be resisted with a POW roll, and otherwise negated or ended if the idol is destroyed. Some idols may compel different courses of action.

Characteristics

STR	50	Move	24
CON	120	Hit Points	150
SIZ	30		
INT	30		
POW	35		
DEX	27		
HF	0/1D10		

Damage Bonus: +4D6.

Armor:

- None.

- Regenerates 30 hit points per round from wounds and punctures, but fire, electricity, and other such forces have normal effects on the monstrous god.

- If reduced to zero hit points, Tsathoggua melts into a pool of viscid matter. It reforms in 1,000 years.

Weapon	Attack	Damage
Tentacle	100%	damage Grapple
Swallow	60%	damage 1D6, then 5 points of CON and APP per round
Characteristics Drain	100%	damage 1 point per characteristic per round

Spells:

Broad magical powers, as befits a Great Old One; he is recorded as having taught Create Gate and various Call spells to humans.

Y'GOLONAC, The Hand that Feeds, Great Old One

> *He saw why the shadow on the frosted pane yesterday had been headless, and he screamed. As the desk was thrust aside by the towering naked figure, on whose surface still hung rags of the tweed suit, Strutt's last thought was an unbelieving conviction that this was happening because he had read the Revelations… but before he could scream out his protest his breath was cut off, as the hands descended on his face and the wet red mouths opened in their palms.*

Ramsey Campbell, "Cold Print."

Y'golonac's earthly manifestations present the entity as human-like in appearance (although possessing no head), giving rise to speculation that this deity is greatly connected to this planet and, according to some, imprisoned here within a walled-off chamber connected to a subterranean network of tunnels, possibly somewhere in England. Indeed, the Revelations of Gla'aki speaks of such matters and names the entity's lair as somewhere below the Severn Valley city of Brichester. Yet, it would be foolish to presume the human-like form of this deity is anything but a vessel designed to interact with humanity, and that its true appearance is something far less understandable and approachable. Details are lacking, but one guesses that manifestations of Y'golonac on otherworldly places and planets are liable to be quite different to the form known to humanity; thus, if appearing on Yuggoth, its physical appearance may be more like a caricature of the Greys form. Whether the overall design of its physique is pulled from the minds or physicality of those in close proximity is uncertain; however, when summoned, Y'golonac apparently prefers to manifest within a host body (willing or unwilling), which may to a certain extent form the basis of its physicality; essentially using the raw material of host as a vessel, which naturally strains and mutates under the pressure of containing an alien god-like being.

Cult:

Y'golonac's human cults appear to be short-lived affairs, often burning out as quickly as they are established; such is the nature of their worship, their hedonistic and depraved activities often bringing the attention of the authorities or else causing the demise of the group through acts of self-destruction. Of course, often some individuals escape arrest or death and go on to found new groups, bringing the tainted creed of Y'golonac to others. Forbidden texts (be they the written word, audio recordings, images, or videos) figure largely among such cults, which use these to tempt others and determine their willingness to embrace criminal behavior. Such "tomes" may also act to open one's mind to the whispers of this Old One, which may work to condition the mind and bend it to Y'golonac's will. Blackmail is another common tactic for such worshippers.

It is said that one cult, known as the Hands of Fate, are the true followers of this Old One. This group apparently existing to guard and tend their god in its dungeon-like prison. Oft times, individual members will be sent out to recruit new members or start new cults elsewhere in the world.

Particularly favored followers may be blessed with slit-like mouths developing on one or both of their hands. While such mouths may bite (1D4+2 damage), some have been known to speak, relaying Y'golonac's messages.

Other Characteristics:

Y'golonac may appear to be a normal, somewhat neurotic and flabby human. When he manages to contact a person that is debased in evil, the victim is possessed and absorbed by the deity, and thereafter his shape can change at will from the form of the possessed individual to Y'golonac's true form — glowing, headless, naked and huge, with wet mouths opening in the palms of the hands.

Proximity to this deity and to cult ceremonies are likely to confront the senses. The reek of sweat and blood, heavily perfumed air, and heat are all possible, combining into an irresistible miasma. Generally, most will feel a deep loathing or revulsion, and some may wither or feint while others cannot look away, eyes fixed upon the horror before them.

Attacks & Special Effects:

To fight off a psychic attack, the target's player must roll his investigator's POW x5 or less on D100 each round to avoid being overcome. Once overcome, the investigator loses 1 INT and 1 POW each round until Y'golonac is forced away or until his soul and mind are destroyed, and replaced with Y'golonac's — and Y'golonac departs only if he loses all his hit points. Y'golonac normally attacks people who have become aware of him, usually through reading at least a page of the Revelations of Gla'aki. Y'golonac is clever at getting persons to read passages from that horrid book without knowing they have done so.

In combat against more than one enemy, Y'golonac uses his mouths to devour and destroy foes. Damage done by the mouths does not heal naturally, and INT and POW loss is permanent, since the suppurating wounds never close.

Characteristics

STR	25		Move	10
CON	125		Hit Points	150
SIZ	25			
INT	30			
POW	28			
DEX	14			
HF	1/1D10+1 to to encounter Y'golonac in human-like form;			
	1/2D10 Sanity points to witness Y'golonac manifest through human possession;			
	1/1D20 to witness human to Y'golonac transformation;			
	1D6/4D10 to encounter the Old One in its true form			

Damage Bonus: N/A

Armor:
- None.

- If reduced to zero hit points, the body possessed by Y'golonac crumples to the ground while the Old One's mind returns to it lair. If its true form is reduced to zero hit points Y'golonac explodes in a rain of gore. It reforms in 5D100 years.

Weapon	Attack	Damage
Crush	60%	damage 2D6+6
Devour	80%	1D4+2 non-healing damage, lose 1 INT & 1 POW each round

Spells:
Summon/Bind and Contact spells, and whatever else the GM thinks appropriate.

YOG-SOTHOTH, The All-in-One, Outer God

> *Great globes of light massing towards the opening... the breaking apart of the nearest globes, and the protoplasmic flesh that flowed blackly outward to join together and form that eldritch, hideous horror from outer space... whose mask was a congeries of iridescent globes... who froths as primal slime in nuclear chaos forever beyond the nethermost outposts of space and time!*

> *August Derleth, "The Lurker at the Threshold."*

Yog-Sothoth dwells in the interstices between the planes which compose the universe. There it manifests as a conglomeration of iridescent globes which are always shifting, flowing into one another and breaking. This conglomeration is large in size, but variable, so that at one time it may appear to be 100 meters across and at another time half a mile or more. Connections between Yog-Sothoth's appearance and sightings of so-called flying saucers are obvious.

For human sorcerers, Yog-Sothoth offers power over life and death: the magus Joseph Curwen summoned Yog-Sothoth to learn not only how to resurrect the dead, but how to preserve his life-force within his essential salts and orchestrate his own return from the dead. This was only part of the possible harvest of knowledge Curwen's circle sought; other Yog-Sothoth cultists have obtained access to the past or to completely impossible realms through rose windows, skrying balls, and the like.

Yog-Sothoth exists in all times and spaces, leading to its Arabic cognomen Tawil at-'Umr, "the Prolonged of Life." Nevertheless, at least here and now, its quasi-material presence on Earth remains limited to a few minutes and miles: May Eve and Halloween of certain years, inside a few megalithic circles.

Elijah Whateley reified an avatar of Yog-Sothot in 1912, and bred Yog-Sothoth with his daughter Lavinia during a brief moment of tangency between the god and Sentinel Hill near Dunwich. Only quick action by a coterie of academics prevented Lavinia's twin sons from entering the invisible cities of Dho-Hna and invoking their father to scour the planet clean of mere material life. Had they not acted, the folk of Dunwich planned to invoke

Yog-Sothoth to defeat itself – it's probably for the best that the Key and Gate never met in apocalyptic combat over rural Massachusetts.

Cult:

Yog-Sothoth is preeminently the deity of Sorcerers and wizards. He grants them the power to travel between the planes, or the power to see into other planes via a piece of magic glass or the like. Yog-Sothoth may also give its slaves the ability to command various monsters from distant worlds. In return for these gifts, worshipers open the way for YogSothoth to travel from his usual domains to Earth, to ravage and plunder.

As Tawil at'Umr, all those wishing to travel to distant times and places may safely deal with him. This form seems to be the least malignant way in which to meet him but even then there is always a danger that Tawil at'Umr will remove its veil and cause utter madness and destruction to those dealing with it.

Direct encounters with Yog-Sothoth are, thankfully, rare, yet such occasions are often disastrous for those involved and, unfortunately, for those in proximity also. Witnesses seeing a manifestation of this entity may inadvertently catch a glimpse of things beyond their comprehension that, in time, fester within and grow, corrupting their being and turning them to the worship of Yog-Sothoth. Involvement with cultists can quickly become dangerous, as worshippers of Yog-Sothoth tend to be magically well-armed and proficient in the summoning of alien horrors to do their bidding. Luckily, many such worshippers are insanely jealous of their powers and gifts, and are not keen to share knowledge with others; thus, cults tend to be insular, closed off, and small—making them sometimes easier to confront than larger organizations (such as the Cthulhu Cult).

Other Characteristics:

Yog-Sothoth holds the power to travel within the planes to reach any other time or space. Yog-Sothoth itself is coterminous with all time and space. Because of this, Yog-Sothoth has been called the Key and the Gate. In Yog-Sothoth's aspect as Opener of the Way, it is recorded as Umr at'Tawil [the correct Arabic form would be Tawil at'Umr, which means the Prolonged of Life]. YogSothoth wishes to enter this plane to feast on the life it contains, but only can do so at certain times.

Yog-Sothoth can fly through our atmosphere at speeds of hundreds or thousands of miles per hour.

Yog-Sothoth can transport one character per round anywhere in the universe or anywhere in time by touching him. If the Character is not willing to be thus transported, his player may successfully resist by rolling Character POW x3 or less on D100.

Attacks & Special Effects:

Each combat round, at a cost of 5 magic points per bolt, Yog-Sothoth may unleash bolts of silvery fire (up to 5 per round), which can reach up to 500 meters and destroy or affect objects. Such bolts may knock aircraft out of the sky, sink a ship, destroy a building, and so on. If targeting a person, a bolt may be Dodged, otherwise, it inflicts 5D10 damage, who if dying is reduced to their essential salts (A person reduced to their essential salts may be brought back to life with the Resurrection spell).

Alternatively, Yog-Sothoth may sends forth a slimy sphere to touch one target (up to 20 meters away); if not Dodged, the target immediately suffers the permanent loss of 1D6 points of CON and 1D3 points of APP, their flesh corrupting and withering. If CON reaches zero the victim is dead, reduced down to their essential salts.

Characteristics

STR	N/A		Move	100
CON	400		Hit Points	400+
SIZ	varies			
INT	40			
POW	100			
DEX	1			
HF*	1D10/1D100 in spherical form			

*No cost to see Tawil at'Umr form.

Damage Bonus: N/A

Armor:

- ■ None.
- ■ Immune to mundane weapons (incl. bullets).
- ■ If reduced to zero hit points, Yog-Sothoth departs this plane of existence. It is undying and has no need to reform.

Weapon	Attack	Damage
Sphere Touch	80%	1D6 permanent CON +1D3 permanent APP
Silver Bolt	80%	5D10 in 5-meter diameter

Spells:
As many as he wants.

Yog-Sothoth may summon one monster per round. Monsters may include but are not limited to: byakhee, dark young, dimensional shamblers, fire vampires, space vampires, hunting horrors, shoggoths, and servitors of the Outer Gods.

The Hastur Mythos

Hastur has no personality, no individuality, no sentience. Hastur is the force of entropy, the cosmic principle which destroys order. Because this destruction of order happens at every level from the atomic to the cosmic, the "deity" Hastur has influence at all levels of reality. Exposure to the Hastur-force, often in the form of the Yellow Sign or in the malign poetry of the play The King in Yellow, can inspire cults or undermine perception of fundamental reality. Or both.

Hastur cannot be met but it can be encountered, and perhaps even understood, as far as human brains can tolerate it. When humans cause entropy, they resonate with Hastur, and vice versa: our despair gives it a voice, our devastations give it form, our self-destruction gives it a name. When human cultists envision a deity with properties resonant with the principle of entropy, they can commune with their vision directly, fostering a greater – albeit insane – understanding of it than mere physicists can grasp.

In brief, Hastur can be described as a sublimely subtle force for, or of, insidious destruction. It breaks things down not from without, but from within. Hastur operates on and within the human mind: the manifold subtleties of thoughts and chemicals that compose our personalities are the fields in which Hastur is at play. Its molecular micro-adjustments produce insane, destructive – often self-destructive – tendencies.

Hastur's influence spreads along a vector of infectious mental illness, passed as easily through speech or imagery as through the printed page or musical score. The entropic fever burning in this influence breaks down human perception of reality, and on a quantum level reorganizes (or disorganizes) the reality around them. Buildings shift, paintings change, lights flicker, statues mutate, but only in the presence of those Hastur has touched. Around them, order is the Joker and chaos the King.

KING IN YELLOW, Avatar of Hastur

> *He stands in state upon the balcony. He has no face, and is twice as tall as a man, He wears pointed shoes under his tattered, fantastically coloured robes, and a streamer of silk appears to fall from the pointed tip of his hood… At times he appears to be winged; at other, haloed.*

> *James Blish, "More Light"*

The King in Yellow might be human-seeming, clad in tattered yellow or particolored rags, and wearing the Pallid Mask. The rags are extensions of the entity's flesh, while the mask covers horrible pseudopods that can attach to a target and drain the very life from them (POW). Above all, the being possesses a loathsome plasticity of shape, able to stretch and change at will. This is the most frequently encountered avatar of Hastur the Unnameable.

The color yellow seems to characterize an association with corruption, decay, disease, as well as decadence, which are embodied in the Yellow Sign, the sigil associated with the King in Yellow, and which appears to be a focus for madness; its design able to possess a life of its own and able to warp the dreams of those who see it. The power of the Yellow Sign is tangible and real, and one does not look upon it without good reason

Cult:
Worshippers are often solitary madmen—artists and poets, driven mad by reading the haunting play The King In Yellow, and inspired by its cruel beauty to create art that renders human experience meaningless. The insanity inducing Yellow Sign is often embossed or stamped on editions of the evil book. The sign is a focus for madness, helping to warp the dreams of those who see it.

Some folk come to the King in Yellow by "chance," encountering the script of The King in Yellow by accident or perhaps "loaned" it by a newly made acquaintance. For it is said, the playscript hides secrets that reveal wondrous promises for

those who recognize the majesty and splendor of the King. Within, its words conjure cruel beauty to inspire the reader to attain new heights of artistic endeavor that would surpass and render human experience meaningless.

Attacks & Special Effects:

Some say the King has a strange facial tentacle hidden behind his pallid mask with which he kisses his worshipers. Others say when he dances his tattered robes extend as pseudopodia, cutting those around him like razors.

Characteristics

STR	25	Move	15 or can appear/disappear at will.
CON	106	Hit Points	120
SIZ	14		
INT	40		
POW	35		
DEX	27		
HF*	1D10/1D100		

Damage Bonus: +1D6

Armor:

■ None.

■ If reduced to zero hit points, the King in Yellow vanishes in a blinding yellow-white flash of brilliant light. It reforms upon its throne in Carcosa in 1D100 days.

Weapon	Attack	Damage
Gaze*	100%	1D6 permanent CON
Razor sharp tatters x6	100%	1D6 + damage bonus +1D6 POW
Face tentacle	100%	1D10 + damage bonus + 1D10 POW per round while attached

* Induces paroxysms of fear by staring at the target, costing the unfortunate 1D6 Sanity points per round while the King in Yellow focuses upon them (costing the King 3 magic points per round). To avoid the gaze for a round, the target must make an Extreme POW roll.

The Yellow Sign

Purported to be the great seal of He Who Is Not To Be Named in his form as the King in Yellow, the Yellow Sign holds great interest and power to those learned in the ways of the occult. No one single pattern can be agreed upon as to the Sign's actual shape and design, with many claiming the Sign somehow changes in aspect whenever its master or His servants are near. For years the innocent and ignorant may pass the sign daily without regard or knowledge of its significance; perhaps only in nightmares does the Sign register.

However, once the Sign becomes "active" the same person will see it where first they did not, and many times thereafter in places unsuspected. Any who has seen the Yellow Sign is considered blessed and chosen. Perhaps working subliminally, the Yellow Sign is a focus for evil and madness, and essentially a token of high worship for Hastur's cults. Viewing the Yellow Sign causes 0/1D6 Sanity point loss.

The Sign seems to swirl, shimmer, and squirm, as if reaching for the onlooker. This effect takes but a moment; however, to the person affected it feels as if time has stood still. Those who lose Sanity points from seeing the Yellow Sign are cursed; the next time they sleep they should make another Fortitude roll and if failed, they suffer terrible nightmares concerning the King in Yellow, Carcosa, and Hastur costing a further point of Sanity. Each time thereafter the person sleeps they should make a Fortitude roll (0/1) and this is repeated each night until either they succeed in the Fortitude roll or madness overtakes them.

Demonology

by Wikipedia, Matthew McFarland, Edward Simbalist & Wilf Backhaus

> *"But when you cross over... time stops. Take it from me, two minutes in hell is a lifetime. When I came back... I knew... all the things I could see were real. Heaven and hell are right here. Behind every wall, every window. The world behind the world, and we're smack in the middle."*
>
> *John Constantine – occult detective*

Demons are ancient beings, and most keep in close contact with earth's cultures and disciplines; thus, demons are vast storehouses of knowledge and skill. Their most frequently consulted knowledge is that of earth's current, past and future languages, but almost any common or obscure knowledge may be possessed by demons, and they are able to teach all manner of physical and magical.

There are two distinct classes of demons in Hell: major (or greater) and minor (or lesser). Summoners are also aware of these classes and use the terms themselves.

Certain powers and defenses are inherent to all demonkind. Demons never become Fatigued, never need to sleep or breathe, and can comprehend any human language. Furthermore, most are immune to damage from fire, and none are affected by spells which cause decrepitude, aging, disease, virtuous behavior or compassionate emotions.

The Infernal Origin

The God-Machine is a sentient, supernatural, extremely powerful and alien entity of another dimension, similar to an occult supercomputer, with an interest in Earth. What is known is that it is fully deserving of the title, having long since passed the point where Clarke's Third Law ("any sufficiently advanced technology is indistinguishable from magic") applies, knowing of physics undreamed of to mortal scientists and with the capacity to use them.

The God-Machine, while extremely powerful, is neither omnipresent nor omniscient nor omnipotent. He rules in his dimension, what humans call Heaven. It doesn't have mechanical extensions of itself everywhere and relies on its Angels to interact with the world. It cannot circumvent the laws of physics, even if these laws seem paradoxical to the limited sciences of humanity.

The first race created by the God Machine was the race of Angels, and the first angel was Lucifer the Light Bearer. However, Lucifer was not first in the eyes of the God Machine. That honor was reserved for the Word of the God Machine, the Logos which made the God Machine's designs manifest in the universe. Lucifer was proud of his position and felt that he alone deserved the God Machine's foremost attention. Thus, Lucifer became jealous of the Word, and denied it. By denying the Word he denied the God Machine.

The other Angels were not all steadfast in their adherence to the God Machine's ways either. Seven Angels in particular, among those whom the God Machine had created prior to all others save Lucifer, were quick to throw in their lot with the Light Bearer. A plan for a great Revolt was devised by Lucifer, and these seven angels agreed to be generals in the army of darkness. Among their other feats, these seven helped Lucifer create a new doctrine against the Word. The doctrine's primary tenets included the Seven Deadly Sins, which have plagued mankind since civilization began.

Though it had considerable following, the army of Lucifer was defeated and its supporters cast out of Heaven by the victorious Angels (whose moments of decision had found them eternally loyal to the God Machine). Even Lucifer was defeated in the war. Indeed, the archangel Michael used his great sword to cut Lucifer down in single combat. With his wings afire, the Light Bearer fell spiraling out of Heaven.

Lucifer's Fall took him past Earth into a new realm of eternal fire and damnation called Hell. The force of the Fallen's impact, as he burrowed through the earth, caused a region on the opposite side of the world to thrust outward. In time this realm would be known as Purgatory. Lucifer had fallen to Hell and was joined by the rest of his army. The God Machine choose to make this realm the Angels' prison, in the deepest center of Hell, bound in chains and ice at the point of the universe where Time weighs most heavily.

When the Angels of the Revolt were trapped in Hell by a vengeful God Machine, they comprised a chaotic mob of individual entities, each fighting for survival and territory. Since the Angels were inherently different from each another, having been created by the God Machine with roles specific to the angelic hierarchy, a pecking order developed which mirrored the original hierarchy of Heaven.

Hell's hierarchy

Devils are ultimately loyal to the Prince of Darkness, if only because it is in their nature to act according to Lucifer's wishes. However, in the short term, devils are fractious and acutely competitive. They vie for power with their brethren, seeking to become first in Lucifer's eyes and to increase their influence over all of Hell's inhabitants. The roles of Master and Slave, dominance and submission, are deeply ingrained in the culture of devils. These roles form the foundation of the vast hierarchy which guides all Infernal politicking and aggression, and these roles justify the abuses devils enjoy inflicting upon one another.

Just as one devil can harm another, so wars can be fought within the bounds of Hell's hierarchy. Indeed, although devils are ultimately loyal to Lucifer, utter chaos is expected and accounted for in the malefic regime. Lucifer would no more try to stop his children from fighting than he would have them exhibit Godly virtues. In the end, the Dark One understands that power commands respect. Whereas a greater devil might be able to dominate a lesser, Lucifer holds the greatest power in Hell and thus can dominate all. Brute force and oppression are the bywords of "order" in Hell

Demons are arranged by Rank. There are Kings, Princes, Dukes, Presidents, Marquis, Earls and Counts of Hell, each ruling over a certain portion of Hell, and have hordes of lesser demons to serve them. The demonic nobility can be contacted by Summoners and bargained with, giving knowledge, powers of magic in exchange for the Summoner's soul.

As previously explained, government in Hell is largely modeled on the feudal system. However, whereas this system is based on the relationship between lord and vassal, in which duties and obligations are exchanged, the Infernal model is based more on that of master and slave.

True Names

One of the most curious things about demons and other fiends is how their names seem to be integral part of their being. A demon does not choose its name but rather grows into it. It fills the syllables of Abyssal and darker tongues with the resonance of its own demonic essence which is why they are compelled to follow the commands of those who speaks their name.

Summoners strive long and hard to learn the names of demons in order to control them, but this is a very dangerous endeavour. Demons are obviously fearful of hearing their names spoken by one of their peers, much less by a mortal, as they could be subject to the caller's commands if they know the demon's name. Demonic names are very complicated, with the names of the most powerful of fiends even capable of driving a lesser mind mad with all the horror and depravity that they represent. The speaking of a demon's name is never done lightly, for the sound of the name alone resonates with an evil aura and, the greater the demon, the more terrible is the sound of its name.

All demons have common names by which they are known; these names serve the same mundane functions as those belonging to mortals. This part of the Name holds no power except to call the demon's attention. Cult leaders will use their patrons' common names to instill fear in their followers and enemies without truly compromising their power or inviting their master's anger.

In addition to common names, all unique demons have True Names. True Names are syllables that evoke the deepest nature of the Infernal entity, names replete with arcane significance and able to form a mystic connection between a demon and the one who speaks its Name. When a True Name is uttered, the effect upon listeners could be very similar to that experienced by viewers of a demon's visual form. Some names even affect the environment, causing darkening of the sky, claps of thunder or horrific floods (for demons of very deep echelons).

True Names may only be written in the Dark Tongue, the script of the Infernal realm. Such a name is inscrutable when merely seen on paper for a short time. To truly understand the name it is necessary to first know the Dark Tongue and then, over many months of study, work out the layers of meaning behind the word Hermetic practitioners may effectively approach the problem "from the side," working their toward understanding the significance of a Name through more conventional research.

In any case, the Name may not simply be written down or copied. Such a translation turns the true meaning of the word into gibberish. Rather, a True Name must be "impressed" upon the page, made a part of the page itself through an extension of the impressor's own true self.

Minor/Lesser Demons

Lesser demons are most typically those evil spirits generated by Lucifer when he warped the material world to evil. Minor demons almost never have True Names, and Sorcerer who fails his summoning of one of these creatures risks only his body, not his soul. Demons of this caliber are poorly suited to carry out subtle plans or complex tasks, and need greater supervision. It is not possible to make a Cardinal Pact with Minor demons. Lesser Demons are immune to fire, disease and poison.

GARGOYLE, Lesser Demon

Gargoyles are the most commonly depicted monster in medieval art and architecture. They are guardians of important places and attack all unauthorized intruders. Their form is vaguely human, but grotesquely misshapen and often reptilian or demonic in overall appearance. Their aspect is usually terrifying to behold. They can have one or two horns (or no horns), beaked heads, bat-like faces and wings, wrinkled snouts, flattened muzzles, goat-like beards, scales, leathery-looking hide, clawed or taloned hands or paws, clawed, taloned, or webbed feet. When active, their eyes glow a baleful red, like sullen coals, and their gaze seems to pass right through mortals.

Gargoyles originally lived among ancient ruins and in caves, and it was only later that some began to inhabit the windy heights of great stone structures like cathedrals and castles. During the day, they sit in high, virtually inaccessible places, often hunkered with their knees drawn up and their arms or paws around their legs; however, some sit perched, looking ready to leap into the air. They appear as brooding, watchful statues by day, but at night, during rainstorms, or whenever they are in darkness away from the sun, they become capable of motion.

When dormant, distinguishing a genuine gargoyle from one of the many stone statues of such beings that decorate buildings is virtually impossible. Although capable of Magic when active, there is nothing magical about their dormant forms, nor are they "alive" in any sense that is detectible by magical means. Though gargoyles are two dimensional beings, their supernatural nature is detectible only when they are active. In their dormant form, their bodies appear to be, and are in every way, stone statues.

Their spirits are somewhere far away on the Infernal Plane. It is sheer folly for anyone to think to conceal themselves and watch for a gargoyle to become active in the night, for there is no more vigilant sentinel than a gargoyle. They detect such curious observers with ease. Immensely long-lived, they are patient beings, who will outwait any who think to catch them in an unguarded moment, taking wry pleasure in turning the tables on such silly mortals.

OTHER CHARACTERISTICS: Gargoyles are practically fearless, and with good reason; their bodies can absorb incredible punishment, having the hardness and durability of the stone that they become in daylight. Fire will not harm them.

ATTACKS & SPECIAL EFFECTS: When at rest or guard, Gargoyles resemble stone statues and usually find high places on which to perch. In combat, they receive only 1/2 damage from ordinary weapons and cannot be harmed by fire.

Characteristics		Average			
STR	3D6+6	17		Move	6/10 flying
CON	2D6+9	16		Hit Points	33
SIZ	3D6+6	17			
INT	3D6	10			
POW	3D6	10			
DEX	2D6+3	10			
APP	1D6	3		HF	1/1D6

Damage Bonus: +1D6

Armor: 7 points (1 + 6 stony hide)

Weapon	Attack	Damage
Claw	50%	1D6+db
Bite	45%	1D6+db
Horn	45%	1D6+db
Grapple	50%	special

Skills: Listen 50%, Spot 50%, Search 40%, Sit Motionless for Hours 110%

Spells: 1d6 Necromancy/1

IMP, Lesser Demon

"Imps" are small Demons, rarely standing over 60 centimeters in height or length, with modest fighting abilities. Their behavior is wild and uncontrollable. Their physical form in the mortal realm varies immensely, though it is always based on an animal—rats, cats, dogs, ravens, toads, and owls are favored forms. All imps, regardless of form, share one common physical trait—eyes that reveal a malevolent intelligence.

In rare cases, an imp may be sent to a mortal Sorcerer who has yet to walk the road of darkness. Such a creature, while secretly aiding its master, is also under instructions to corrupt the mortal. Non-Sorcerers are never granted an Imp familiar, regardless of their level of debauchery and sin. When they walk the earth, Imps are known as familiars.

These mischievous and highly-intelligent creatures not only expect to live a life of servitude, they actually enjoy it. Indeed, imps are said to live a lonely existence in Hell and are only too eager to serve a mortal in return for food (and perhaps the occasional scratch behind the ears). While some serve as advisors and confidants, all perform one important function. Imps are natural magical conduits, and those to whom they are bequeathed find it easier to perform acts of magic.

In their "natural" form, Imps appear as short, potbellied humanoids, with twisted limbs, clawed hands, bat wings, and hideous faces, complete with fangs and a short pair of horns; they carry a faint reek of sulfur with them wherever they go. Imps wear no clothing and rarely carry weapons, although they will scavenge any nearby battlefield (after the battle is over, of course) for daggers or short swords suited to their diminutive stature.

Imps are the scouts and spies of Hell, and are rather intelligent, apart from their innate craftiness when in pursuit of mortal souls. Their modest arsenal of spells serves to keep them safely at a distance from their foes, which is just how the imps like it, as they are utter cowards when it comes to combat. Given the treatment that imps receive from other demons, they have developed cowardice to a virtual art form. An imp will never face anyone in fair combat; if they must close to hand-to-hand distance, they will strike from behind, or from ambush in some way.

Imps must obey the orders of any other demonic type, including the Malebranche and Demon Warriors, who are actually less intelligent than they are; as the imps resent this (as well as the tendency of other demons to use them as living pincushions), they will always try to subvert their orders by following the letter, rather than the spirit, of what they have been commanded to do. Imps evince a similar evasiveness when controlled by mortal Sorcerers, although they are generally too weak to avoid the commands that they are given for long.

Characteristics		Average			
STR	2D6	7		Move	5/8 flying
CON	2D6+6	13		Hit Points	15
SIZ	1-2	2			
INT	2D6+6	13			
POW	4D6	14			
DEX	5D6	17			
APP	1D6	3		HF	0/1D3

Damage Bonus: -1D6

Armor: 1 point, immunity to fire and poison

Weapon	Attack	Damage
Claw	50%	1D3 (bleeding)
Bite	35%	1D3+poison
Grapple*	40%	special

*A demon can make two claw attacks in a combat round. If successful with both, it will attempt to grapple and bite on the next combat round

Skills: Persuasion 60%, Deception 60%, Insight 50%, Stealth 70%

Spells: 1d4 Black Magic/1-2, 1d6 Necromancy/1

MALEBRANCHE, Lesser Demon

Described in Dante's Inferno, the Malebranche are demons who guard and punish sinners in the Eight Circle of Hell. Winged and armed with claws, they are excellent fighters and hunters, dedicated to tracking down escapees and returning them to the boiling pitch where they belong.

Malebranche are the most common of all the demonic types, and they are what the common man thinks of as the "typical" demon: nearly man-sized, thin-bodied, scaled, and clawed, with long, pointed tails, strong, emaciated-looking limbs, hideous faces, sharp fangs, and an assortment of horns on their ugly heads ("malebranche" means "evil-horn"). They wear no clothing, their thick skin serving as efficient armor, and will always carry at least one weapon, although they often abandon their weapons in the heat of battle, reverting to the more primitive, but equally effective, fang and claw.

The Malebranche are the rank-and-file soldiers of Hell, serving to flesh out the numbers of the demonic host. They have little individual initiative, except when tormenting the imps, the only demons weak enough for even the Malebranche to push around.
Malebranche are incapable of command, even if the hierarchy of Hell allowed such a thing; instead, they serve in units led by Demon Warriors (occasionally) or Demons of Fire (far more often). Malebranche make deadly warriors; despite their lack of intelligence, and their inability (unique amongst the demonic types) to master even the simplest of spells, they are strong, hardy, and deadly with their chosen weapons. A troop of Malebranche will cut through all but the finest of human troops like a heated broadsword through butter.

Malebranche have nothing resembling a society; sexless, skilless, and generally clueless, they exist solely to fight the battles that their demonic superiors order them to, with the occasional gathering of a mortal soul on the side. Malebranche are probably the safest of all the demonic types to summon (in fact, they will often not even bother to resist the Summoning spell that calls them), as their lack of intelligence makes them unlikely to easily pervert the commands that they are given by a mortal Sorcerer. However, remember that even the Malebranche have the innate demonic cunning when it comes to tricking mortals into giving up their souls; many a Sorcerer has been caught just when they began to trust in the stupidity of their Malebranche servitor.

Should a Malebranche possess a mortal, they will use the mortal's body to wreck random havoc in the world, until it is slain. Unlike the other demonic types, they evince little subtlety when in possession, and their intense dislike of things holy often trips them up before they can truly finish enjoying the torturing of their victim.

Characteristics		Average			
STR	4D6+6	20	Move	8/10 flying	
CON	4D6+5	19	Hit Points	32	
SIZ	2D6+6	13			
INT	3D6+2	12			
POW	3D6	10			
DEX	3D6+4	14			
APP	1-3	1-3	HF	1/1D6	

Damage Bonus: +1D6

Armor: 2 points, normal impaling/slashing weapons will have no effect.

Chaotic Feature: 1D2 – 1

Weapon	Attack	Damage
Any	70%	as per weapon
Claw	60%	1D6 +db (bleeding)
Bite	50%	1D6 +½ db (bleeding)
Horn	50%	1D6 +db
Grapple	60%	special

Skills: Tracking 90%

Spells: 1d6 Black Magic/1-3

CHEVALIERS DE L'ENFER, Lesser Demons

> *"I'm speaking to the person inside of Regan now. If you are there, you too are hypnotized and must answer all my questions. Come forward and answer me now"*
>
> *Father Damien Karras – Psychiatrist and Jesuit priest*

"Chevaliers de l'Enfer" are Demons of great power but having no title. The Knights of Hell are the myriads of Demons in the Legions of Satan. While very powerful, they do not have anything in the way of important positions in the Hellish Kingdom-but mortals would do well to address them as 'Lord' out of 'courtesy'.

Strongest of the common demonic types, Chevaliers de l'Enfer are a nightmare come to life for any mortal so unfortunate as to encounter them. They appear as large, heavy-bodied humanoids, with enormous muscles, taloned hands, fanged mouths, twisted features, and glowing red eyes. These demons are clearly demonic in appearance and will cause PANIC on a fortitude roll failure.

Chevaliers de l'Enfer are consummate combat artists, being more than a match for all but the most skilled of mortal fighters, and gifted with magical powers and great size and strength to boot. They live to fight, constantly pressuring their superiors to unleash them against anything that moves.

Chevaliers de l'Enfer usually do not wear armor, as their hide is as strong as sheet metal; they will always carry a Greatsword and a whip, usually of greater than mortal size.

Chevaliers de l'Enfer rarely deign to possess mortals, preferring to destroy them by more direct means; however, they will accurately obey the commands of any Summoner who can control them, often making them valued servants to the ambitious Sorcerer.

Some of the Chevaliers de l'Enfer are: Agraes, Ayperos, Loray, Gusoyn, Narbes, Bathim, Valefor, Botis, Orias, Pruslas, Abigar, Nuberos, Forate, Furcas,...

Characteristics		Average			
STR	3D6+12	22		Move	8/10 flying
CON	3D6+10	20		Hit Points	45
SIZ	3D6+15	25			
INT	3D6+6	16			
POW	4D6+2	16			
DEX	3D6+7	17			
APP	1-2	1-2		HF	1D3/1D20

Damage Bonus: +2D6

Armor: 4 points, immunity to energy weapons, regenerates 1 HP a round.

Chaotic Feature: 1D2 – 1

Weapon	Attack	Damage
Greatsword	90%	2D8 +db (bleeding) + 2D6 flame (special)
Whip*	70%	1D3 +½db (entangle) + 1D6 fire (special)
Claw	70%	1D6 +db (bleeding)
Horn	70%	1D6 +db
Grapple	80%	special

*use the whip first to immobilize a foe then strike with the greatsword 5 DEX ranks later. A greater demon is able to use its greatsword one-handed, due to its SIZ and STR. Its flaming greatsword can ignite flammable materials and does extra damage to most foes. It fights two-handed with a long whip, also aflame. If either weapon is lost, it will resort to using its claws or grappling.

Spells: 2d6 Black Magic/1-3, 1d10 Necromancy/1-2

Major/Greater Demons

Each greater demon has a unique appearance and a long personal history. All greater demons possess True Names by which they can be bound. When the demon's physical body is slain or its POW is reduced to zero, it suffers the equivalent of "banishment" for a period of time of 1d100 years. The demon may later return with powers and memory fully restored. Should a greater demon break free of control during a summoning, it may take both the body and the soul of the Sorcerer back to Hell.

Greater Demons are immune to fire, disease and poison.

Their behaviour is unpredictable as they are slaves to their own whims and the only thing anyone can trust demons with is that they will act in a way that causes the most suffering and destruction. The lower demons will act this impulse out as mindless violence and a vicious disposition, but the lords of demonkind are subtle, possessed with an alien intelligence capable of crafting insidious plans and delicate cruelty.

Demons have only their own benefit in mind. Even the lowest castes obey their masters out of fear for their own safety, not because they feel any loyalty or obedience This visceral selfishness is the strength and weakness of the demon hordes. They will often ignore their own injuries if they have the chance to inflict greater pain on others, and are forced to ignore them when faced with the promise of greater punishment by more powerful fiends.

To a certain extent, all demons are insane by mortal standards. Their chaotic minds and evil hearts create a very dangerous creature, due primarily to their unpredictability. A Summoner can trust a devil to respect the wording of an agreement even if it will always try to find loopholes. The word of a demon, however, is worthless unless invoking the power of a Name or a clear show of power from the enforces it. Such a display most make it clear that they can hurt the demon badly or that he has something the demon desperately wants and has no other way of obtaining it.

Even if they are impatient, the greater demons' minds span centuries and they can wait for a plan to come to fruition mostly because a couple of human generations are but the blink of an eye for them. Some may not grow impatient until a couple of centuries have passed or resort to extreme measures the first time something goes wrong with their plans.

Touching the mind of a demon is extremely dangerous. Even their telepathic contact is disquieting but, as it is normally limited to communication, it does not have any greater effect. When mortals try to listen in a demon's thoughts, it is an entirely different matter: they are not buffered by the demon's desire to convey an idea, but suffer the brunt of its malice and perversion. Any spell that contacts a demon's mind without the demon's prior knowledge runs the risk of being driven insane. The character must make a fortitude roll or suffer 1d10/1d100 points of sanity loss.

THE FALLEN ANGELS, Major Demons

"The Fallen Angels" are Demons of immense power. They are always winged and each has an "attribute" or purpose and will only perform a service that fits its duty. Clearly, if a Sorcerer wants to call down a curse upon someone, the "Fallen Angels" are the ones to deliver the desired results.

Some of the very numerous host are: Rachiel, Sachiel, Sarabotos, Abalidot, Flaef, Incubi, Tulpus, Embiaties, Succubi, Hyphiate, Lilith,…

ATTACKS & SPECIAL EFFECTS: The Fallen Angels' overall presence can cause an area to become tainted, twisted with the dark evil in the demon's soul. This will contaminate an area over time, until it has a foreboding presence of evil and malice that lingers. Living plants will wither or grow twisted and bitter, the soil will become dry and bleak, and the very atmosphere will take on an unholy resonance. The radius of this effect is equal to the greater demon's POW x 100 meters. It does not cost any Magic Points to activate, is automatic and beyond the demon's control (the presence cannot be masked or hidden). It takes 30 days minus the demon's POW for this presence to become manifest, and the demon's POW in months for an area to recover once it has become blighted.

| | Human form | | Demonic form | |
	Characteristics	average	Characteristics	average
STR	2D6+6	13	3D6+13	23
CON	3D6+11	21	3D6+11	21
SIZ	2D6+6	13	3D6+15	25
INT	3D6+9	19	3D6+9	19

POW	4D6+8	21	4D6+8	21
DEX	2D6+6	13	3D6+7	17
APP	3D6	10	1	
HP	34		46	
MOV	12		10/12 Fly	
HF	-		1D3/1D20	
db	+1D4		+2D6	

Armor: 2 points, can regenerate 1D6 HP per combat round.

Chaotic Feature: 1D3 – 1

Weapon	Attack	Damage
Any*	90%	as per weapon
Claw**	80%	2D6 +db (bleeding)
Horn**	70%	1D6 +db
Grapple**	90%	special

*Human Fighter
**Monstrous Fighter

Spells: all Black Magic/1-3, all Necromancy/1-2

THE POWERS, Major Demons

The "Powers" are among the highest ranking Demons Hell next to Lucifer himself. They will not normally cast spells directly unless the Summoning is interrupted by outsiders, but they will "advise and instruct" those who dared to call upon them if "commanded" to do so.

The 72 "Powers" are listed in the "Ars Goetia".

ATTACKS & SPECIAL EFFECTS: The demon itself is sheathed in a flaming radiance that will cause 1D6 points of fire per combat round to any creature that gets within two meters of it, such as in physical combat. This sheath can ignite any flammable substance around the demon. This sheath may be activated around the demon at will and costs 1 Magic Point per round it is active.
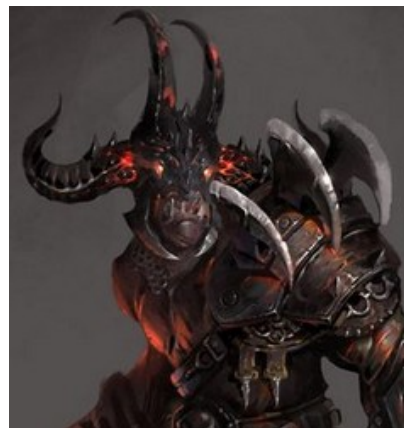
	Human form		Demonic form	
	Characteristics	**average**	**Characteristics**	**average**
STR	2D6+6	13	3D6+24	34
CON	5D6+5	22	3D6+12	22
SIZ	2D6+6	13	3D6+20	30
INT	3D6+10	20	3D6+10	20
POW	4D6+12	25	4D6+12	25
DEX	2D6+6	13	3D6+8	18
APP*	21		1	
HP	35		52	
MOV	12		10/12 Fly	
HF	-		1D3/1D20	
db	+1D4		+3D6	

*These Demons can change shape to appear human, often very attractive. It is a form of Illusion, a Precog will be 'uneasy' about the beauty/handsomeness and will react accordingly.

Armor: 4 points, immunity to energy weapons

Chaotic Feature: 1D3

Weapon	Attack	Damage
Any*	100%	as per weapon
Claw**	90%	3D6 +db (bleeding)
Horn**	80%	2D6 +db
Grapple**	100%	special

*Human Fighter
**Monstrous Fighter

Spells: all Black Magic/1-4, all Necromancy/1-3

THE PRINCIPALITIES, Major Demons

The "Principalities" are the ranking Demons in the Hellish Host, led by Lucifer himself. Their sub-commanders are "Powers", and their unit Captains are all "Fallen Angels". Like the "Powers," they will not normally cast spells but will "advise and instruct" those who dared to summon them. The "Principalities" are:

BELIAL, The Lord of Arrogance: King Belial is one of the four crown princes of Hell, with Lucifer, Satan and Leviathan, and King over 50 legions, appearing as a beautiful angel in a fiery chariot and speaking in a pleasant voice. He is said to induce to any type of sins, especially those related to sex, lust and gluttony. Belial seduces by means of arrogance; in this sense his name is translated as "Lord of Arrogance". He is the Commander of the Demonic Cohorts, and to him all must come for permission to levy the Legions of Hell, then command.

AMAYMON: King Amaymon is King of the East, the only one who has power over Asmodeus, from whom armies must be sought for battle in the east. Exorcist or Summoner must be in possession of a Silver Ring, duly consecrated and worn on the middle finger as a form of protection against this poisonous astral breath.

CORSON: King Corson (or Gorson) is the King of the South, one of the four principal kings that have power on the seventy-two demons, from whom armies must be sought for battle in the south.

GOAP: King Goap is the King of the West, a mighty Prince and Great President of Hell, commanding sixty-six legions of demons, from whom armies must be sought for battle in the west. He is the king and prince of the southern region of Hell and Earth, and according to the Pseudomonarchia Daemonum (False Monarchy of the Demons), the king of the western region and the guide of the four kings.

ZIMINIAR: King Ziminiar is the King of the North, one of the four principal kings that have power on the seventy-two demons, from whom armies must be sought for battle in the northern reaches of the land.

Characteristics

	human	monstrous
STR	14-16	40
CON	30	30
SIZ	14-16	45
INT	22-24	22-24
POW	30-35	30-35
DEX	13-16	23

APP	13-18	1
HP	44-46	80
MOV	12	10/15 Fly
HF	-	1D6/1D20
db	+0	+4D6

Armor: 4 points, immunity to energy weapons

Weapon	Attack	Damage
Any*	100%	as per weapon
Claw**	100%	3D6 +db (bleeding)
Horn**	90%	2D6 +db
Grapple**	110%	special
Flame Breath**	90%	5D6 fire (special)

*Human Fighter
**Monstrous Fighter

Spells: all Black Magic/1-5, all Necromancy/1-5

The Princes of Hell

> "The outside world doesn't want to hear this kind of bullshit. Just keep it locked away. You've already managed that for two thousand years."
>
> *Professor Howard Birack – quantum physicist*

The earliest recruits to Lucifer's cause, the seven generals of the rebellion and co-conspirators in the forging of the Anti-World doctrine, are known as the Princes of Hell. When the Princes first sank to earth and encountered mankind, the Princes taught the Cardinal Sins. After the introduction of the Cardinal Sins, other "demons of iniquity" took up the Princes cause. They fostered specific variations on the Cardinal Sins to create varying grades of sin, such as the art of gambling, or the devastating art of warfare.

While Hell is the devils' battlefield, earth is the demons' chaotic playground. The only directive applied on earth, for all demonkind, is the corruption of that world and its inhabitants. This is probably the only rule actually obeyed by any demon or devil, on earth or in Hell. Even demons exiled to or abandoned on earth follow the conventions of their distant society. Indeed, Infernal alliances and enmities can follow a demon on its journey to earth.

The Princes are so powerful, in fact, that they are beyond Infernal politics and human summonings alike, or so they believe. They do not need to fight masters or slaves for possession of souls; they are the final destination. The Princes are seven in number and firmly entrenched in their places of power. It is thus possible to name their full complement. As this information comes from a race of liars and their treacherous human henchmen, it must be taken with a grain of salt (i.e. these are probably not the True Names of the Princes).

The seven princes of Hell are the seven highest demons in Hell and each demon Prince embodies one of the Seven Deadly Sins.

- ■ Lucifer: Pride
- ■ Mammon: Greed
- ■ Asmodeus: Lust
- ■ Satan: Wrath
- ■ Beelzebub: Gluttony
- ■ Leviathan: Envy
- ■ Belphegor: Vanity and Sloth

Two particularly active Princes are Beelzebub and Satan. The latter fancies himself above his peers and second only to Lucifer. Enjoying the role of Patron of Sinful Circumstance, Satan has also decided to assume the role of Patron of Lies. By invoking the principle that all sins are lies against the Word, Satan intimidates many devils of lower echelon into offering him patronage.

LUCIFER, Prince Of Darkness

Anyone daring to summon this mightiest of the infernal host runs grave risks but also stands to profit mightily. Lucifer is the Master of Lies, the Lord of Cunning, and the Champion of Evil. He will use every turn of the phrase, every hesitation, every weakness of the Summoner to turn the tables on him. However, if he is dealing with a true Chaotic, he will "seal" the soul of the Summoner to himself and grant his servant great power in the world. He will place the "Witchmark" on the shoulder of his servant, give him a Familiar, and direct him to the nearest evil Coven of Witches. However, in return, he will demand blood sacrifices and evil deeds in abundance, granting one request for knowledge per Black Sabbath in which the servant attends Black Mass. The servant will prosper materially, gaining 1-10 times his normal income each day. However, in 1-7 years, Lucifer will appear to collect the soul of his servant as payment.

Those who do not wish to enter into a formal "contract" with the Prince of Darkness have to "Command" the Demonic Lord to obtain information or material assistance. If a Summoner offers up his soul, however, he will gain the favor of Lucifer instantly.

CULT: The Fallen away.

Undisputed ruler of Hell, Lucifer attracts plotters, betrayers, and similar sinners to do his bidding. Cultists of this church are killers of priests. Mad figures of no remorse without any sense or respect for the sacred, they prey upon the servants of the God Machine. They destroy all that is pure and clean. Cultists of The Fallen band with others of similar bent, assaulting possessions and clerical properties. They favor Necromancers and mercenaries to assist them in the capture and destruction of their hated foes.

ATTACKS & SPECIAL EFFECTS: Lucifer can breathe a burning blast with a range equal to its CON in meters. This blast will be an area-of-effect attack of roughly three meters by three meters. This will affect every hit location at once. Any caught within this blast will take 6D6 heat damage. This fiery blast costs 6 Magic Points per blast.

Characteristics

	human	monstrous
STR	18	50
CON	19	40
SIZ	16	60
INT	30	30
POW	50	50
DEX	19	22
APP	19	1
HP	35	100
MOV	12	16/20 Fly
HF	-	1D10/1D100
db	+1D6	+6D6

Armor: none, but only magical weapons can damage Lucifer.

Weapon	Attack	Damage
Any*	140%	as per weapon
Claw**	150%	4D6 +db (bleeding)
Horn**	110%	3D6 +db
Grapple**	150%	special
Flame Breath**	100%	6D6 fire (special)

*Human Fighter
**Monstrous Fighter

Spells: Lucifer knows all Dark Arts spells.

MAMMON, Prince of Greed

The most surefire way of recognizing Mammon is by watching out for ostentatious displays of wealth. He will always find a way to flaunt his wealth, whether it is encrusting himself in precious jewelry, wagging bags of money under your nose, or inviting you to visit him in his treasure-filled lair.

Mammon's greatest power is the influence he can exert over the human mind and heart. He inspires envy, greed, and lust so potent that even good men can be driven to corruption. Usually, Mammon's evil grip leads to obsession; once you fall under his spell, you will struggle to focus on anything other than the treasure he has used to tempt you, and you will do almost anything to get your hands on it. Because of this ability to monopolize a person's energy, many theologians described Mammon as "enslaving" men.

CULT: The Brotherhood of Doom:

Followers of Mammon prove they are among the most insidious and evil of all the Princes' chosen ones. Their attitudes, bearing, and poise allow them to blend into their societies; they move about unrestricted and corrupt the ignorant and selfish to follow Mammon' path. Mammon is about taking what you want the exploitation of others is a requirement to serve him. Mammon attracts dirty notables and merchants; they subjugate the poor for their capacity to generate commodities at a subsistence income, if any income at all. Uniting these figures is a common thread: greed. Each indulges his lusts and petty desires to the point of depravity. Those who follow Mammon know no limits, except when restraint offers them greater rewards.

OTHER CHARACTERISTICS: This Prince hungers for more territories. He lusts after all of Hell. His secret desire is to oust the other Princes. After constant wars with Belial, all of which have resulted in no gain on either side, he is beginning to look beyond the borders of his realm and into others.

Characteristics

	human	monstrous
STR	18	45
CON	19	45
SIZ	15	50
INT	24	24
POW	40	40
DEX	18	20
APP	15	1
HP	36	95
MOV	12	16/20 Fly
HF	-	1D10/1D100
db	+1D6	+6D6

Armor: none, but only magical weapons can damage Mammon.

Weapon	Attack	Damage
Any*	120%	as per weapon
Claw**	130%	4D6 +db (bleeding)
Horn**	90%	3D6 +db
Grapple**	130%	special
Flame Breath**	90%	6D6 fire (special)

*Human Fighter
**Monstrous Fighter

Spells: all Black Magic/1-7, all Necromancy/1-7
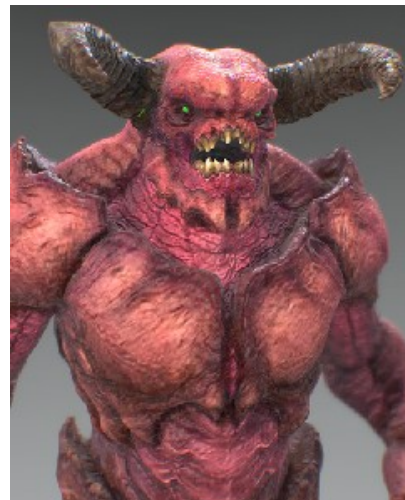
ASMODEUS, King of the Nine Hells

ASMODEUS: King Asmodeus (or Asmoday) is the King of the Nine Hells. Asmodeus also is referred to as one of the seven princes of hell, and has seventy-two legions of demons under his command. Asmodeus is the demon of lust and is therefore responsible for twisting people's sexual desires. He incites gambling, and is the overseer of all the gambling houses in the court of Hell. It is said that people who fall to Asmodeus' ways will be sentenced to an eternity in the second level of hell. Asmodeus is depicted with the breast of a man, a cock leg, serpent tail, three heads (one of a man spitting fire, one of a sheep, and one of a bull), riding a lion with dragon wings and neck, all of these animals being associated with either lascivity, lust or revenge.

CULT: The Order of the Damned.

The initiatory requirements to become a cultist of Asmodeus oblige the individual to participate in a sadomasochistic orgy in which participants kill all the male members. These unholy warriors differ from others in their brazen confidence about their Patron lord's primacy. They are quick to condemn others for their "false" beliefs, and kill and maim clerical priests. Becoming a Damned cultist is arduous. Petitioners must divorce themselves from something to which they have a strong emotional connection. The separation always involves something terrible and monstrous inflicted on the beloved. For example, a prospective cultist might sacrifice his beloved to a burning pyre to show his undying devotion to his lord.

OTHER CHARACTERISTICS: So many legends exist about Asmodeus that to recount them all could fill a book. His history is muddled, engendering a certain respect and fear greater than normally attributed to a Prince.

Characteristics

	human	monstrous
STR	18	40
CON	19	40
SIZ	15	55
INT	25	25
POW	38	38
DEX	19	20
APP	14	1
HP	34	95
MOV	12	16/20 Fly
HF	-	1D10/1D100
db	+1D6	+6D6

Armor: none, but only magical weapons can damage Asmodeus.

Weapon	Attack	Damage
Any*	130%	as per weapon
Claw**	140%	4D6 +db (bleeding)
Horn**	100%	3D6 +db
Grapple**	140%	special
Flame Breath**	95%	6D6 fire (special)

*Human Fighter
**Monstrous Fighter

Spells: all Black Magic/1-8, all Necromancy/1-8

SATAN, the Brightest in the sky

SATAN is a synonym for the Devil. He is an angel who rebelled against the God Machine. Satan is also identified as the dragon in the Book of Revelation. Before his insurrection, Satan was among the highest of all angels and the "brightest in the sky". His pride is considered a reason why he would not bow to the God Machine as all other angels did, but sought to rule Heaven himself. The Book of Revelation describes how Satan will be cast out of Heaven, down to the earth, having "great anger" and waging war against "those who obey God's commandments".

CULT: The church of Satan.

As the patron of wrath, violence, and widespread destruction, Satan leads his bestial armies in secret, lurking in the shadows, inciting violence at every turn, but almost never acting in the open to vanquish his opponents. Resentful of the yoke of advancement and society, cultists of Satan's church strike out in the form of ragtag hordes, burning, raping, and pillaging all the way. Filthy and malodorous, these cultists smear their clothes with the blood of their foes. No hierarchy exists within the church of Satan, as power is determined through strength and brutality. Once initiated, all cultists have equal voice which is none, unless they have the raw power to assert their wills.

OTHER CHARACTERISTICS: One of the most powerful devil in all of Hell, he lusts after Lucifer' position as an absolute ruler of Hell. His attempts to seize power are stalled by Beelzebub's constant meddling. Enjoying the role of Patron of Sinful Circumstance, Satan has also decided to assume the role of Patron of Lies. By invoking the principle that all sins are lies against the Word, Satan intimidates many devils of lower echelon into offering him patronage.
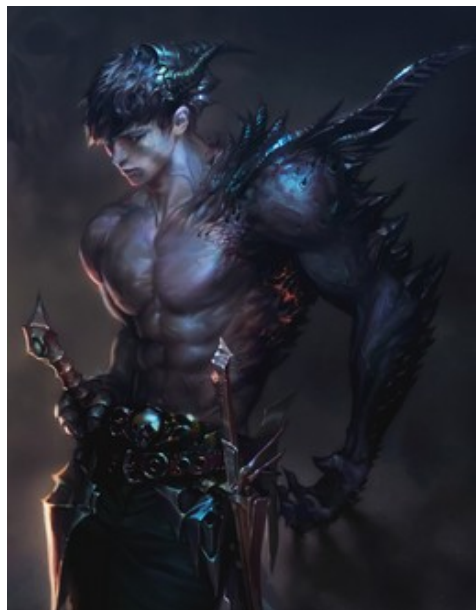
Characteristics

	human	monstrous
STR	17	45
CON	19	40
SIZ	17	55
INT	28	28
POW	42	42
DEX	19	21
APP	20	1
HP	36	95
MOV	12	16/20 Fly
HF	-	1D10/1D100
db	+1D6	+6D6

Armor: none, but only magical weapons can damage Satan.

Weapon	Attack	Damage
Any*	140%	as per weapon
Claw**	140%	4D6 +db (bleeding)
Horn**	110%	3D6 +db
Grapple**	140%	special
Flame Breath**	100%	6D6 fire (special)

*Human Fighter
**Monstrous Fighter

Spells: all Black Magic/1-8, all Necromancy/1-7

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BEELZEBUB, Lord of the Flies

BEELZEBUB is the demon of gluttony, one of the other seven deadly sins. His name might mean 'Lord of Zebûb', referring to an unknown place called Zebûb, or "Lord of the Flies". Beelzebub led a successful revolt against Satan, and is the chief lieutenant of Lucifer, the Emperor of Hell, and presides over the Order of the Fly. Beelzebub is among the three most prominent fallen Angels, the other two being Lucifer and Leviathan.

CULT: The Order of the Fly.

Cultists of the Fly seek to spread destruction in as wide an area as possible. These cultists are straightforward killing machines. Encounters with followers are brutal conflicts with significant casualties for all. They are often found as warlords or leaders of a troop of mercenaries involved in genocides.

OTHER CHARACTERISTICS: An intense rivalry exists between Satan and Beelzebub, which results in open war. Beelzebub relies on many mortal agents to do his bidding; some are virulent carriers of disease, others heads of secret organizations bent on destroying civilization. Beelzebub has long held the title of Grand Sergeant of Pagan Gods. However his avatar was summoned and bound by King Solomon. Since that time, the sergeantry has lapsed and the post remains vacant. No devil would dare vie for it and risk upsetting the sleeping Prince.

Characteristics

	human	monstrous
STR	18	50
CON	19	40
SIZ	15	55
INT	25	25
POW	45	45
DEX	19	21
APP	14	1
HP	34	95
MOV	12	16/20 Fly
HF	-	1D10/1D100
db	+1D6	+6D6

Armor: none, but only magical weapons can damage Beelzebub.

Weapon	Attack	Damage
Any*	130%	as per weapon
Claw**	140%	4D6 +db (bleeding)
Horn**	110%	3D6 +db
Grapple**	140%	special
Flame Breath**	90%	6D6 fire (special)

*Human Fighter
**Monstrous Fighter

Spells: all Black Magic/1-9, all Necromancy/1-9

LEVIATHAN, Gatekeeper of Hell

LEVIATHAN is one of the seven princes of Hell and the 3rd highest ranking demon. But yet, one of the demons much less talked about. Mainly, this is because he does not appear as one of the 72 Demons of the Goetia. But make no mistake, he has a vital role. Quite literally, he is the Gatekeeper of Hell and a significant protector of it.

We might be wondering why Hell would need a protector and Gatekeeper. Surely no one would be trying to force their way into Hell right. Things are going on behind the scenes, and a lot of the reasons why things work the way they do is because there are boundaries that aren't to be crossed. And so, when there's any kind of issues with Angels, Leviathan is the spokesperson. He might be considered as the official Ambassador of Hell.

He is also the demon of envy, first in punishing the corresponding sinners. The enormous size of Leviathan is four hundred kilometers in length. He had horns upon which was written: "I am one of the meanest creatures that inhabit the sea. I am, and enter this day into the jaws of the Leviathan". When the Leviathan is hungry, he sends forth from his mouth a heat so great as to make all the waters of the deep boil, and if he would put his head into paradise no living creature could endure the odor of him.

CULT: The church of the Abyss.

Almost unthinking in his hate and sorrow, Leviathan engenders few followers. A would-be servant of Leviathan must undergo an unholy crucifixion, where he is pierced by icicles and showered with boiling water. Indoctrination into the church of the Abyss requires five years of intensive training. Initiates are sent to a brutal war training camp; there they are subjected to untold horrors that erode their personalities and minds, causing them to perform consistently and brutally whenever ordered to do so. Of all initiates, only a third survives the training. Cultists, at the beginning of their careers, have no personality remaining. They follow orders without thought of consequence, dying if so commanded. As they grow in power and prominence, they regain some sense of self. They expect to kill their superiors to weed out the weak and infirm. Loyalty is paramount, but if the leader expresses weakness, a lesser and more vicious officer removes him.

Characteristics

STR	50
CON	100
SIZ	N/A
INT	15
POW	32
DEX	18
APP	1
HP	N/A
MOV	50 Swim
HF	1D10/1D100
db	N/A

Armor: none, but only magical weapons can damage Leviathan.

Weapon	Attack	Damage
Jaws	200,00 %	

Spells: all Black Magic/1-9, all Necromancy/1-8

BELPHEGOR, Lord of the Opening

BELPHEGOR is the chief demon of the deadly sin known as Sloth. Belphegor is pictured in two different fashions: as a beautiful young woman or as a monstrous, bearded demon with horns and sharply pointed nails; the former form is his earthly disguise when invoked by mortals. He seduces people by suggesting to them ingenious inventions that will make them rich. His role as a demon was to sow discord among men and seduce them to evil through the apportionment of wealth.

CULT: The cult of Darkness.

Cultists in his service must have told a lie resulting in a loved one's execution. Many serve the hierarchy of Hell, seeking to expand its influence on earth. Regardless of whom the follower serves, he is always in a position of significant power, commanding droves of servants to do his bidding. He has no regard for any individual's suffering, provided that the letter of the law is upheld. From the smallest hamlet to the sprawling nation, these characters thirst for power more than any other. All followers of this cult exhibit immaculate appearances, rigid bearings demonstrating a militaristic bent. Most have a sizable force of underlings who aid in the seizure of land and wealth.

OTHER CHARACTERISTICS: A bitter enemy of Mammon, Belphegor is a sycophant to Beelzebub in an effort to convince Asmodeus to side with him in the destruction of his nemesis. He has no amity with Lucifer or Satan; the conflict between them stymies his ability to eradicate his enemy.

Characteristics

	human	monstrous
STR	18	45
CON	19	40
SIZ	17	52
INT	25	25
POW	32	32
DEX	19	20
APP	21	1
HP	36	92
MOV	12	16/20 Fly
HF	-	1D10/1D100
db	+1D6	+6D6

Armor: none, but only magical weapons can damage Belphegor.

Weapon	Attack	Damage
Any*	110%	as per weapon
Claw**	120%	4D6 +db (bleeding)
Horn**	100%	3D6 +db
Grapple**	120%	special
Flame Breath**	90%	6D6 fire (special)

*Human Fighter
**Monstrous Fighter

Spells: all Black Magic/1-8, all Necromancy/1-7

Chaotic Features

Demons are, from one creature to another, inconsistent in their appearance and powers. This is the influence of chaos at work. Demons have chaotic features from this list, either chosen or, more appropriately, rolled randomly.

D100	Chaotic Feature
01-03	POW +1D6
04-05	POW +2D6
06	POW +3D6
07-09	DEX +1D6
10-11	DEX +2D6
12	DEX +3D6
13-14	STR +1D6
15	STR +2D6
16-17	CON +1D6
18	CON +2D6
19-20	Never surprised.
21-22	Carry a disease on itself.
23-24	Spits acid of 2D10 POT 1D6 times per day, 6-meter range.
25-28	Stops missile; on 40-90 for 91%+, missile gets through.
29-30	Highly flammable; if ignited burns all within 3-meter radius for 2D6 points damage until extinguished.
31-32	Hypnotic pattern on skin; viewers must succeed in an Idea roll or be stunned for 1D3 rounds.
33-35	Appearance is confusing; all attacks against it are at –20%.
36-37	Acid Blood. Roll damage to weapon; Luck roll or target is also splattered.
38-40	Regenerates 1 HP per combat round until dead.
41-42	Can attempt to befuddle a target each round in addition to any combat, with a POW vs. POW resistance roll. Failure puts the target into a confused and highly suggestive state. To perform any actions, the target must make a Difficult Idea roll, and may be ordered by the creature to act contrary to his normal wishes. Resisting these commands also requires a successful Difficult Idea roll.
43-46	Chameleon. Skin changes to match background. Stealth +40%.
47-48	Appearance is extremely confusing; all attacks against it are at –30%.
49-50	Poison touch of 2D10 POT; natural attack must do 1 HP of damage for poison to work.
51-52	Regenerates 3 HP per round until dead.
53-54	6-point armored skin. If already has armored skin, +6 to current armor.
55-56	MOV 12
59-60	Can launch a POW vs. POW attack each round; if successful, target loses 1D6 power points.
61-62	Explodes upon reaching 0 HP, causing 3D6 damage to all within 3 meters. Armor, shields, etc. will protect against this, though weapon parries cannot.
63-65	Exsanguinate. Drains 1D3 hit points per round on touch.
66-67	Can turn invisible at will when not in combat.
68-70	8-point armored skin. If already has armored skin, +8 to current armor.
71-72	Exudes obfuscating cloud of darkness; all attacks against it are at –20%.
73-74	Exudes stinking obscuring fog, 5 meters wide and 4 meters deep; all attacks against it are at –15%.
75-76	Regenerates 1D6 HP per combat round until dead.
78-80	Can leap vertically or horizontally 10 meters from a standstill.
81-82	Appearance extremely disorienting; all attacks against it are at –40%.
83-87	Makes agonizing screams continually; all attacks against it are at –10%.
88-90	Overpowering stench causes nausea in any who breathe near it. If target fails in a Stamina roll, all tasks are Difficult against this creature for 1D6+2 rounds.
91-92	Hideous appearance of creature demoralizes those who it beats in a POW vs. POW resistance roll. If target fails, all tasks are Difficult against this creature for 1D6+2 rounds.
93-94	SIZ +1D6
95-96	SIZ +2D6
97-98	SIZ +3D6
99-00	This creature has APP 5D6, and is particularly endearing. It attacks with a APP vs. INT resistance roll. Failure causes the victim to befriend the creature, perhaps even offering to serve it. The creature may have up to 1D6 current companions of this nature, at the GM's discretion. The charmed character may even fight friends to defend the creature.

Possession & Exorcism

The Major Demons are immortal and cannot be killed, only banished from this Plane of Existence for a time until they recover their powers and can reopen the Gate Between Worlds. This gives them a peculiar attitude toward mortals and events in the world of men. First of all, they have an immensely inflated opinion of their own powers. This is combined with a great contempt for the ability of mortals to oppose them seriously. Thus, they underestimate their Player Character adversaries and often do not follow through to be certain that a PC has been permanently eliminated.

The Lesser Demons are mortal and can be killed. Thus Gargoyles and Imps have a slightly more cautious view of men. Put bluntly, the Lower Demons know they can be killed, and thus they may tend to play for keeps on principle. Also, the Lesser Demon might 'play with his toys' because of an over-inflated sense of his power-showing much the same contempt as his more powerful superiors.

Possession

Demonic possession is often the term used to describe the control over a human form by a demon. Descriptions of demonic possessions often include: erased memories or personalities, convulsions, "fits" and fainting as if one were dying. Unlike in channeling or other forms of possession, the subject has no control over the possessing entity and so it will persist until forced to leave the victim, usually through a spell of exorcism. Other descriptions include access to hidden knowledge (gnosis) and foreign languages (glossolalia), drastic changes in vocal intonation and facial structure, sudden appearance of injury (scratches, bite marks) or lesions, and superhuman strength.

There are a variety of Demons that can possess people or animals. These are malignant, evil forces that crave hurting or toying with humans. The foul creatures are actually able to transfer all or part of their evil life essence into another living being and completely dominate it. The possessing force is so strong that it can suppress the victim's own consciousness and control the body like a puppet master.

A possession attempt is an instantaneous battle of wills. The Demon matches his Magic Points against the defender's Magic Points. Both make a roll on the resistance table.

- ■ If both succeed, both lose 1D3 MP.
- ■ If only one succeeds, the other loses 1D3 MP.
- ■ If neither succeeds, no result occurs that melee round.

If the Magic Points of the victim ever equal zero, then the body is open to possession. If the Magic Points lost in a round exceed a character's current Magic Points (taking him below 0), the excess points are subtracted from current hit points.

Once initiated, battle of wills cannot be disengaged until the Demon has been reduced to 0 power points, at which point he is immediately banished to his astral dimension for 7 years.

A successful possession means the creature has inhabited the body of the person (or animal) and completely dominates that body. The essence and intellect of the original person is completely submerged, dormant, as if asleep, and will have no idea or memory of what the possessing creature is doing with his body. The foul thing can commit murder or worse, and the person is totally oblivious to what is happening.

A favorite play of many possessing beings is to pretend schizophrenia with the possessed person. This is done as much to unnerve and torment friends and associates as the possessed character as anything else. What the creature does is let the character seemingly have control of his body for hours, even days at a time, then, at the right moment, surface to take full control and do something completely out of character (usually insulting, violent or depraved). Then lets the person back into control to suffer the consequences of something he has no recollection of committing, even if there are a dozen witnesses. Unlike the victim of the possession, the creature is completely aware of everything that its host body experiences.

Conditions and Restrictions for Possession

1. Demons can't possess more than one living creature at a time.

2. The possessing being can relinquish its hold over the person to let the individual seem to regain control without actually surrendering the host body. During these quiet moments, the being simply sits back and observes through the eyes of his unsuspecting victim. It can reassert its control instantly, whenever it desires to do so.

3. The Demon can willingly leave the host body whenever it so pleases, departing effortlessly and without inflicting damage. However, the being must find a new host body within 24 hours or it will be inexorably drawn back to its own dimension.

4. The act of possession is instant and completely unknown/ invisible to everyone including the victim.

5. If the Demon fails its attempt to possess, it only gets a second try. It may choose to try again on the same person or look to another target. A second failed attempt within a 24 hour period may cause shock and hurl the being back into its own dimension immediately. It can only attempt a possession two times per 24 hours. Two consecutive failures to possess will have one of the following results (roll percentile dice):

01-65: The Demon is instantly returned to its own dimension.

66-00: The being is shaken, but can exist without a host body for another 24 hours. At the end of that period the creature must try to possess again. Repeat this cycle until the being makes a successful possession or is returned to its own world.

6. A possessed host body can be dominated by a Demon immediately and indefinitely.

7. The Demon retains all of its skills, powers and knowledge while inside its host body.

8. The battle of wills against possession occurs only once, at the very moment of the attack. Once an individual is possessed, he remains so until the Demon leaves or is forcibly removed.

9. Although the demon is aware of everything the person experiences, it does not know what that person is thinking, nor does it gain the person's past memories or skills.

10. Victims of possession are rarely willing hosts. But if the person willingly allows himself to be possessed, there is no battle of wills and the act of possession is an automatic success.

11. The experience of being possessed is a terrible one. Although the victim rarely remembers any of the things the creature may have done, the experience is traumatic. Roll on the Indefinite Insanity Table if possessed for more than a month. Roll on the Psychosis Table if possessed for over six months.

Getting rid of a possessing force is extremely difficult. One can only use the exorcism spell to rid a person of such evil. Banishment, control, summon beings, and all the rest are ineffective. Of course, one can always try to talk the damned thing out, but that seldom works. Killing the host body will always set the entity free, but doesn't do much good for the victim.

Exorcism

Demons possess humans in order to stay in our dimension. In addition, some mentions a type of demonic attack called "familiarization": The possessing spirit in 'familiarization' is seeking to 'come and live with' the subject. If accepted, the spirit becomes the constant and continuously present companion of the possessed. The two "persons", the familiar and the possessed, remain separate and distinct. The possessed is aware of his familiar".

True diabolical or satanic possession has been characterized by the following four typical characteristics:

1. manifestation of superhuman strength;

2. speaking in tongues or languages that the person cannot know;

3. the revelation of knowledge, distant or hidden, that the victim cannot know;

4. the act of spitting or vomiting every object the demons would have made the person swallow.

The most important verbal means of exorcism is a spell, which forced the demon out of the possessed body. Traditionally, the spell consists of four components: the declaration, the address, the invocation and the instruction.

Each components of the rite must be cast as a spell. If successful, the Demon must depart immediately and cannot trouble the victim or place thereafter. The exorcist must be standing within 10 meters of the Demon. The Demon may use some tricks to stop him or harm him or his companions to prevent the completion of the rite:

■ Verbal Assault

The demon can attempt to assault the exorcist verbally, thereby distracting him from the exorcism. Sometimes demons gain fell insights into the souls of those they are near, exorcists included, and can prey upon any moral weaknesses or character flaws. The Verbal Assault must be dealt with by the exorcist using a Sanity check, representing the target's emotional response to verbal abuse.

■ Fleeting Soul

At the beginning of an outcasting, a demon may evacuate the body of its original host and flee to the body of the weakest being in its presence, doing so as quietly as possible. An unwary exorcist may not realize is possessed until it's too late, while a wary one ensures that only strong-willed people and assistants are present for an exorcism. The Fleeting Soul must be dealt with by the exorcist using an Intuition Roll.

Exorcism Table

Demon	Duration	SAN loss
Gargoyle	3d6 Turns	0/1d3
Imp	4d6 Turns	0/1d3
Malebranche	5d6 Turns	1/1d4
Chevaliers de l'Enfer	6d6 Turns	1/1d6
The "Fallen Angels"	7d6 Turns	1d2/1d6
The "Powers"	8d6 Turns	1d3/1d8
The "Principalities"	9d6 Turns	1d6/1d8
The "Princes"	10d6 Turns	1d6/2d6

The Pact

The actual signing of a pact is a formality that serves as a questionably legal contract. Dealing with a supernatural being is not to be taken lightly, and the creature will hold the pact maker to the letter of their agreement. The formal pact serves as a reminder to the pact maker of exactly what that deal was. Another reason for the pact, which usually demands some cruel sacrifice or condition of servitude, is pure meanness on the part of the supernatural being; just one more little pleasure.

Pacts can only be made by Major demons. Most of these supernatural fiends will be surprisingly up front about the conditions, powers, and price of the pact, and will not try to trick or cheat the potential pact signer (although they may not explain certain details until the agreement is signed). Mortals who try to trick, cheat, or deceive such powerful beings are likely to be caught in the act and possessed or tortured and killed. These creatures don't take any nonsense, especially from some insignificant mortal.

Note: To make the pact complete and to receive its dark bounty, the character signing it must do so of his own free will.

Minor Pacts

Minor pacts may not seem all that minor, but are considered such by the supernatural monsters who create them. In exchange for the signing of the pact, the supernatural power will grant the character the following gifts:

1. Impervious to poisons, toxins and drugs (no damage);

2. See the invisible and sense magic;

3. See in total darkness;

4. Supernatural physical strength and endurance: raises STR and CON by 6 points;

5. Bio-regenerates 4D6 hit points at will, once per day (24 hour period).

At second level, when the Sorcerer has proven himself, he is given a familiar. This familiar is identical to the Summoner's Call Imp spell.

The following examples are the most common minor pacts:

- **7 years of loyal servitude.** The pact maker must agree to serve the supernatural being with complete loyalty and allegiance, be obedient, accept no other as his master (but may pretend to do so if necessary), not interfere with other minions of the same master, and to further the goals of the master whenever possible for a period of 7 years. Under these conditions, if the master asks the Sorcerer to betray the player group or kill a friend, the Sorcerer must do so without question.

- **Blood sacrifice.** This typically requires the slaughter of hundreds or thousands in the name of the supernatural being. When the required number of murders has been provided, the being grants the perpetrator his "gift." The evil ways and loyalty are expected to continue — or else.

- **Blood sacrifice: First born.** This pact seldom requires the actual murder of one's child, but the child must be forsaken, given over to a demon or other minion of the evil, supernatural being. Often the child is placed in a situation where he or she is raised in such a manner that child and parent will one day clash with deadly consequences. Typically, the pact maker must have a child within three years of the pact's signing or be stripped of all powers and possibly tortured, enslaved or possessed.

- **Sworn to destroy a foe.** This pact binds the pact maker to destroy a hated enemy of the supernatural being who is providing the Sorcerer with the "gift." The demon will indicate the foe to be destroyed. He usually has powerful friends, followers, guards or sanctuary, and possesses great political power and position. Any means may be used to destroy this enemy. This means the pact maker can slay the person single-handedly, dupe or

enlist the aid of friends, raise an army, hire an assassin, etc., but the PC must be the direct or indirect cause of the enemy's demise. The campaign to destroy the foe must begin within two years of the pact's signing. Failure means slow, long torment and death.

Cardinal Pacts

The Cardinal is the pact which offers a demon the summoner's soul in return for a large favor. Only Major demons may produce Cardinal Pacts. Such pacts usually offer broad, almost unlimited access to a powerful demon's favors, but only for 7 years, or toward a single goal. Cardinal Pacts permanently trap a PC's soul in the Devil's clutches.

Most demons on the verge of completing Cardinal Pacts show up in their most pleasing human forms, thus putting victims at ease and preventing last-minute changes of heart. If the Summoner does change his mind, the demon is entitled to attack him unless the Summoner has prepared a protection circle (which must be overcome by the demon).

The makers of a major pact are preferred above all others, thus they receive even greater powers than those who make minor pacts. The pact maker receives the following gifts:

1. Same gifts for minor Pact;

2. Summon lesser demons. Can summon 1D3 lesser demon, but is possible only through a link with a familiar. Can be attempted only once per day, with a 40% chance of success. Five minutes (minimum) of meditation and prayer are required.

3. Invulnerable to disease (no damage);

4. Skill bonus: +5% on all skills.

5. Telekinesis: Same as the psionic talent.

The Devil's Mark

The "devil's mark," also known as "the mark of evil," is a third nipple (Note: that's nipple, not breast and nipple). This nipple can be placed anywhere on the body, but is usually placed on the upper portion of the torso. This serves three purposes: to identify the character as a Sorcerer, as a sign of ownership by evil forces, and to feed the familiar, which suckles from the nipple, drinking of the Sorcerer's own blood (1D3 HP each day).

Creatures of Darkness

by Xenopedia, Stephen Posey & Steve Perrin

> *"One might easily imagine an alien nucleus of substance or energy, formless or otherwise, kept alive by imperceptible or immaterial subtractions from the life-force or bodily tissues and fluids of other more palpably living things into which it penetrates and with whose fabric it sometimes completely merges."*
>
> *H.P. Lovecraft, "The Shunned House"*

Every culture in the world has tales of strange and terrible creatures, beings of the night and darkness that prey on the unwary or helpless, beings of power that must be appeased lest they become enraged. The legends have been forgotten and trivialized, but the creatures of the dark continue to exist, and to hunt.

One of the forbidden truths the PCs will learn in the course of their lives is that there are things that walk the world in human guise but which are utterly alien. Many of them need the Essence of others to survive, while a few have unknown purposes, but most are predators who hunt humans, protected by the unbelief of the mundanes.

The predators come in many shapes and varieties, with different powers and weaknesses. Some are no threat to an adult human, and prey only on the young or the weak. Others are simply beings from Other planes who venture into the physical world, or the souls of the dead, who sometimes linger in search of revenge, redemption or immortality. Others have more devious or alien purposes.

Comparative Sizes

This table equates approximate weight with game SIZ. SIZ pertains not only to weight but to volume and height as well. This table should not be relied on absolutely: it will not be useful for creatures lighter than air, who are gaseous, able to change mass, or made of plasma or ectoplasm.

Comparative Sizes Tables

SIZ	Weight
1	0.5 – 5.5 kg
4	17 – 23 kg
8	50 – 55 kg
12	71 – 76 kg
16	100 – 109 kg
20	141 – 154 kg
24	200 – 218 kg
32	400 – 436 kg
40	800 – 872 kg
48	600 – 1741 kg
56	3200 – 3477 kg
64	6455 – 7000 kg
80	12.8 – 14 tons
96	44 tons
128	80 tons
144	120 tons
168	207 tons
216	480 tons

Ghost

A ghost is the spiritual remnant of a human being (or similar creature) still attached to the world of the living, either aware or unaware of its deathly nature. They haunt locations (castles, mansions, graveyards, etc.), objects (weapons, vehicles, etc.) or even a specific person. A ghost will usually haunt something connected with its death or former life. Most ghosts are malignant, and hate the living. Ghosts are frequently insane, driven by a desire to right whatever wrong they feel was committed against them so that they might be allowed to "pass on" to a higher plane, free from the world of the living. The ghost may not even understand this compulsion.

Ghosts can appear as wispy humanoid figures, glowing manifestations, solid-looking creatures, cloudy figures, headless things, vehicles such as trains, coaches, ships, or cars, animals, etc. They are known by any number of names: ghosts, spirits, shades, spooks, haunts, poltergeist, apparitions, phantoms, specters, phantasms, etc. Ghosts are often highly specific to the conditions of their death and their environment, and ideally should be crafted by the GM to fit the circumstances of the setting. Each particular type of ghost has specific manifestations and powers. Following are some options and suggestions for utilizing ghosts in a setting:

■ Ghosts of redemption may appear as figures from a character's past, returned from the dead to provide warnings of ill futures. On the other hand, a ghost may be drawn to protect someone it loved in life, and to provide a character with aid and assistance in time of great need.

■ A ghost may appear as a spiritual advisor, bidden to pass along messages in service to some higher power. Such a ghost may not physically threaten or harm a character, and may even provide guidance and be a mentor of sorts.

■ A poltergeist can be violent, telekinetically throwing items and victims around a room and using objects as improvised weapons.

■ Ghost vehicles tend to appear in the same spot at the same time and date all the time. Boarding a ghostly train or ship is usually a method of transportation to another dimension or time. Characters who do this may disappear forever, or may have to solve the riddle of the haunting before being released.

■ An entire building may itself be a kind of ghost. If the building's mystery or dark secret is discovered, the building itself may disappear forever. Hopefully, the characters will get out before this happens.

Ghosts usually possess only INT and POW, though some ghosts may have APP. A ghost may be solid, and have characteristics (STR, SIZ, and DEX) as a living being, though it will never have a CON value.

Characteristics		Average			
SIZ	2D6+6	13		Move	14 (equal to POW)
INT	2D6+6	13		Hit Points	None
POW	4D6	14		Mass	none
APP	3D6	10			
HF	0/1D3				

Damage Bonus: None

Armor: None (immaterial).

Attacks: Ghostly Combat POW vs. POW, 1D3 power points

Powers:

■ Ghosts can attack in ghostly combat, consisting of a POW vs. POW resistance roll. This will appear as if the ghost is glimpsed as clawing at, enveloping, or otherwise physically attacking the target. If the ghost overcomes the target's POW, he loses 1D3 power points. If the character can overcome the ghost, he causes it to lose 1D3 power points. More powerful ghosts may drain 1D6 power points (or even more) from a target in a single combat round, but will only lose 1D3 power points if overcome by the intended target. This combat continues each combat round until the target is unconscious, or either side has fled. A ghost will flee before it reaches 0 power points. A ghost that reduces a character to 0 power points may possess him, usually causing the victim to commit suicide or harm another person. Even if a ghost possesses a character, it remains tied to the site of its haunting and cannot leave.

■ Some ghosts can manipulate the environment around them, causing pots to fly off shelves, doors to open and telephones to ring—the infamous poltergeist. More powerful poltergeists may cause physical harm to the unwary by attacking with thrown items. In such instances, adventurers should use the Dodge skill to avoid being hit and perhaps look for alternative means to calm or expel the angry spirit.

Ghoul

> *"It was a colossal and nameless blasphemy with glaring red eyes, and it held in bony claws a thing that had been a man, gnawing at the head as a child nibbles at a stick of candy. Its position was a kind of crouch, and as one looked one felt that at any moment it might drop its present prey and seek a juicier morsel."*
>
> *H.P. Lovecraft, "Pickman's Model"*

Ghouls are subterranean carnivores with a taste for well-aged carrion and a preference for human meat. As a result, most ghouls gain the majority of their sustenance from dining on human corpses.

Ghouls are hideously deformed humans, wearing clothing they've looted from graves or their victims. They're bestial in temperament, and have little guiding intelligence.

They might be mistaken for human on a dark night at a distance but up close their loping wolf-like gait, foul carrion stench and fanged mouths reveal their animal nature. The great ghoul kingdoms were wiped out by Alexander's armies and the few surviving tribes were driven into the wilderness by the legions of Rome.

Today, there are no large ghoul populations left, just a few isolated packs that lack the numbers to attack openly. They lurk on the fringes of settled lands, gobbling the occasional lone traveller or digging up graveyards for fresh meat. Ghoul packs sometimes ally with cults or Sorcerers in exchange for human flesh.

It is possible, by certain vile cannibalistic rites, to become a ghoul. Ghouls claim that they are undying, that only injury or plague can kill them, not the passing of years but surely this is a lie to tempt the unwise into eating the unclean flesh.

Elder Ghouls are older specimens of their species. After many centuries of unnatural life, the ghoul grows stronger and faster. Many elder ghouls learn the rudiments of sorcery and other develop the power to consume knowledge by eating the brains of the dead.

Tests on deceased ghouls have clearly revealed them to be related to humanity. However, their origins are sufficiently distant that a few researchers believe they may have diverged from humanity as long as 100,000 years ago and a few scholars believe that they are not actually derived from humanity at all.

Nonetheless, we share a similar percentage of our genetic code with ghouls as we do with other primates. Studies on ghoul mitochondrial DNA have turned up conflicting evidence with regards to their origins. The matter is complicated by uncertainty on how much interbreeding has taken place in the meantime, and by unique protective factors in the ghoul DNA replication process, perhaps evolved to prevent them from taking harm from embalming compounds, such as formaldehyde, that they ingest as a side effect of their diet.

Ghouls are known to use human agents, most of whom serve the ghouls in return for various forms of aid or occasionally buried treasure. Careful research has also revealed the existence of human half-breeds and changelings who possess the dark-adapted eyes and strength of ghouls, but which are otherwise indistinguishable from ordinary humans without extensive medical tests. One of the ghouls' most infamous habits is abducting human infants and young children. Many are abducted from outside of the home and out of their parents' sight and are presumed to have been kidnapped by human criminals. However, some are replaced by changelings left by the ghouls. Ghouls can interbreed with humans, but many of them regard half-human children as less desirable than either purebred ghoul children or human children, so half-breed children are often abandoned in this fashion.

These half-breed children initially seem almost indistinguishable from ordinary human infants and children, lacking the muzzle and vaguely hoof-like feet of pure-bred ghouls. A few abandon their human lives and find their way back to the warrens of the ghouls, but most grow up thinking of themselves as human, never knowing the origin of their ability to see in the dark or their taste for well-aged meat. The lives of the human children abducted by ghouls are far different. Most are trained as servants, spying on the human world for their ghoul masters. As part of their training, these children are taught to implicitly trust and obey their ghoul masters and those who resist this training are killed.

When they become adults, these human captives venture forth into the human world doing the ghouls' bidding and almost never attempt to escape or to reveal the nature of their masters to other humans. Human servants who attempt to do either are hunted down and killed. The ghouls' human servants keep track of threats to the ghouls from humanity and help the ghouls to acquire human tools and weapons. The servants' most important role is making certain that the ghouls have access to human graveyards.

A few human children abducted by ghouls eventually become ghouls themselves at the culmination of exotic sorcerous rituals. These rituals seem to only work on certain children, likely indicating that these children have some trace of ghoul ancestry that these rituals can bring out. Half-breed ghoul children are sometimes subjected to these same rituals.

Ghouls tolerate both human servants and other ghouls, but dislike and distrust adult ghoul half-breeds. MiliSci keeps track of all known human agents of the ghouls and does not attempt to recruit known human agents.

	Mature Ghoul		Elder Ghoul	
	Characteristics	Average	Characteristics	Average
STR	3D6+6	18	3D6+12	24
CON	2D6+6	13	2D6+12	19
SIZ	2D6+6	13	2D6+12	19
INT	3D6	11	3D6+3	14
POW	3D6	11	3D6+3	14
DEX	3D6+3	14	3D6+6	18
APP	1D3	2	1D3	2
Move	8		10	
Hit Points	26		38	
Damage Bonus	+1D4		+2D6	
HF	0/1D6		0/1D6	

Armor: Rough Hide (2 Points); firearms and projectiles do half of rolled damage; round up any fraction.

Weapon	Attack	Damage
Bite*	30%	1D6+db (bleeding)
Claw*	40%	1D6+db (bleeding) + venom
Howl	100%	special

*Elder Ghouls add +40% in attack.

A ghoul attacks simultaneously with both claws and a bite.

Skills: Burrow 75%, Climb 85%, Hide 60%, Jump 75%, Listen 70%, Scent Decay 65%, Sneak 80%, Spot 50%.

Powers:

■ Ghouls use a blood-chilling howl in combat against anyone in relatively close proximity (½ the ghoul's CON in meters). When a ghoul howls, make a resistance roll of its current POW versus each target's BRA. If more than one ghoul howls, use only the power point total of the ghoul with the highest number of power points for the resistance roll. If a target is overcome, he becomes stunned until all howling stops. The ghoul's howl costs 1 power point to use.

■ When it bites, the ghoul can inject the target with venom with of POT equal to the ghoul's CON. The target must make a resistance roll of his CON versus the venom's POT. If the target of the bite loses the resistance roll, the venom's full POT enters his system. If it is successfully resisted, only 1D3 of the venom's POT is injected. When the total POT injected is equal to or greater than a bitten character's CON, he is paralyzed until an antidote counteracts the venom. The unfortunate character will live in this state for as many days as he has points of CON, but loses a point of current CON each day. A character bitten by a ghoul but not paralyzed, purges the venom from his system at the rate of 1 POT per day.

Hell Hound

Humans are not the only creatures that can be possessed by demons from Hell. Evil spirits can also inhabit the bodies of animals. Hellhounds are possessed dogs or wolves. They are lean and athirst, their eyes reflecting the fires of hell no matter where they stand and their jaws slavering with searing-hot spittle. Depending on the inhabiting spirit, a hellhound may be nothing more than a savage monster or it may be capable of speech.

Although the lack of a mortal soul hinders the possessing demon – without a soul to latch onto, the demon cannot bring all its supernatural powers to bear on the material

world – hellhounds do have supernatural strength and speed and are resistant to weapons that are not suitably blessed. Each hellhound also has a demonic ability that varies from beast to beast.

Characteristics		Average			
STR	3D6+6	17	Move	10	
CON	3D6+9	20	Hit Points	30	
SIZ	2D6+3	10	Mass	40-60 kg	
INT	2D6	7			
POW	3D6	11			
DEX	3D6+3	14			
APP	1D6	3	HF	0/1D3	

Damage Bonus: +1D4

Armor: 2-points Fur and Hide

Weapon	Attack	Damage
Bite	70%	1D10+db
Claw	40%	1D4+db

Skills: Athletics 100%, Dodge 65%, Perception 80%, Stealth 75%, Survival 40%, Tracking 90%

Liveliest Awfulness

> *"It is hard to explain just how a single sight of a tangible object with measureable dimensions could so shake and change a man; and we may only say that there is about certain outlines and entities a power of symbolism and suggestion which acts frightfully on a sensitive thinker's perspective and whispers terrible hints of obscure cosmic relationships and unnamable realities behind the protective illusions of common vision."*
>
> *H.P. Lovecraft, "The Case of Charles Dexter Ward"*

The dead may be returned to life with a ritual known as Raise from Essential Saltes. But if a corpse has been so destroyed or eaten away as to be incomplete, what returns is a grotesque, immortal monstrosity that one witness called "ye liveliest Awfulness."

The awfulness is essentially human in structure, but horribly malformed and misshapen. It is darkly discolored, perhaps due to the infusion of the stuff of Outside powers that were invoked to give it life. Some say its hideous proportions are eerily reminiscent of those powers and the dimensions where they lurk.

Long before the awfulness can be seen, its nauseating stench can be smelled and its unnerving voice can be heard: dismal moanings, mindless whines, yelps, and gibberings. The awfulness lurches and flops clumsily across the ground, or flings itself in spasmodic leaps, reaching with twisted limbs.

The awfulness may be returned to ash in the same manner as anyone resurrected in the Raise from Essential Saltes ritual. Cruel sorcerers have been rumored to keep these remnants imprisoned as convenient victims for ritual sacrifice. The truth of that, and whether one can be raised, sacrificed, and raised again for another sacrifice, are up to the Handler.

The awfulness suffers no ill effects from aging. Presumably it must feed, but as some have been known to sit in torpor for years—or centuries, or millennia, or eons—who can say?

Characteristics		Average			
STR	3D6+10	20	Move	5	
CON	3D6+9	19	Hit Points	31	
SIZ	2D6+6	12	Mass	40-60 kg	
INT	1D6+1	4			
POW	2D6	6			
DEX	3D6	9			
APP	1D3	2	HF	1D4/1D10	

Damage Bonus: +1D4

Armor: Slippery and scrabbling, not wholly related to any natural form of life, the awfulness is difficult to destroy. It takes half the HP damage from any attack except for fire or magic. Due to this incomplete biology, these beings move, at best, half the speed of a running human.

Weapon	Attack	Damage
Grapple*	55%	1D6+db

* In any turn after it has a victim pinned in its flailing limbs, the awfulness can tear with its ghastly teeth and suck down flesh and blood, inflicting 1D6 damage. If the awfulness has taken damage, it heals 1 HP for each HP that the pinned victim loses, up to its maximum.

Skills: Alertness 80%, Athletics 50%, Grapple 55%.

Neomorph

The term Neomorph is the common name for the endoparasitic extraterrestrial organism (EEO) that was originally encountered by humans on Planet 4 of an uncharted system in Sector 87. It is believed that an ecological disaster there brought on by the release of Agent A0-3959X.91-15 in the atmosphere led to the accelerant settling on and mutating native fungal and insect life to produce a living nightmare. The Neomorph parasite is delivered to a host via a carrier organism. Once implanted, the parasite gestates within a living host who is killed by the creature's violent birth. There are a number of differences, however, causing the creature to be classified separately.

Neomorphs are eyeless and have gray-white translucent skin, a fleshy spiked tail, an elongated bulbous head, and a sphincter-like facial orifice that distends to reveal a mouth full of cruel teeth. While their blood is translucent yellow like that of a Xenomorph, it is not acidic. They make subtle clicking sounds and exhibit animal snarls and screeches, as well as making a distinct hooting sound as adults.

A Neomorph's life cycle is broken down into five known stages that are covered below, as well as various termination protocols associated with each stage.

Stage I: Neomorphic Egg Sacs

Small, bulbous pods that grow like fungus, the egg sacs are the result of the mutagenic Agent A0-3959X.91-15 interacting with pollen and microbial elements on a planet or in a spacecraft. Once formed, these bird's egg-sized pods tend to grow in clutches of 2D6—and there are often several clutches in any infected area.

Stage II: Neomorphic Motes

When the egg sacs are disturbed, they release what appears to be a puff of pollen. In reality, it is a synchronized swarm of highly infectious motes. Smaller than grains of sand, these parasites are sometimes visible when clustering together to increase their locomotive capacities. Possessing a primal hive intelligence, the motes target the nearest potential host and zero-in on an unprotected orifice such as the eyes, ears, nose, throat, or an open wound. From there they enter the bloodstream and inject microscopic amounts of Agent A0-3959X.91-15 into the victim's white blood cells.

Exposure to Neomorphic Motes is handled as a disease with POT/16. If a Stamina Roll fails, the patient enters Stage III.

Stage III: Neomorphic Bloodburster

Once the Motes enter a host's bloodstream, they deliver their microscopic payload and die. The injected Agent A0-3959X.91-15 begins to mutate white blood cells as they circulate throughout the body until they form a cancerous growth that becomes lodged in a vein or arterial wall. This tumor can take root in any bodily area of sufficient mass—such as the lungs, the digestive tract, the esophagus, or even the brain. Forming an amniotic sack, the tumor begins rapidly converting the host's own mutated cells into a larval Bloodburster.

If lodged in a region of the body with dense muscle or bone and no easy egress, the gestating creature develops dorsal spines to aid in its escape. When the newly formed Bloodburster is ready to be born, it violently removes itself from the host— using its inordinate strength, spines, teeth, and claws to cut and tear through flesh, bone, and sinew. The process

causes severe hemorrhaging and massive tissue damage in the host, is always fatal, and results in the birth of a Bloodburster.

Bloodbursters have a bulbous head with sharp canines, and run about on all fours. These rabid quadrupedal creatures rely on their speed and agility to avoid damage. Emerging about 0.3 meters in length, Bloodbursters continue to grow exponentially, visibly getting larger as they move about. Highly aggressive, they lash out at anything and everything around them. They use their claws, tail, and teeth to savagely maul their victims.

Stage IV: Juvenile Neomorph

Growing from 1.2 to 1.8 meters in length, a juvenile Neomorph continues to maneuver on all fours. While their heads are still bulbous, they have begun to elongate and taper to a point. They are aggressive hunters who are hard to frighten away. Juveniles target one prey animal in a pack and devote all resources to taking that prey down, even going so far as to track it if it escapes. Feral and ferocious, a juvenile Neomorph uses its sharp tipped tail and teeth to attack.

After 6 hours, the juvenile Neomorph enters Stage V and becomes an adult Neomorph.

Stage V: Adult Neomorph

As it reaches adulthood, the Neomorph's smooth, eyeless head becomes more elongated and pointed. Soon, it assumes a gaunt, bipedal stance, reaching a height of 2.1 meters or more. When the creature's mouth closes, its jawline is imperceptible, giving it an inquisitive, ethereal appearance. When provoked, the adult Neomorph's upper jaw protrudes in a manner similar to a goblin shark, allowing it to grasp prey and pull it in for the kill. As adults they utilize stealth tactics to hunt their prey, but they are still voracious carnivores.

The life cycle and metabolism of Neomorphs is so fast that they quickly burn themselves out. An adult Neomorph typically dies of natural causes within 24 hours. Fungus interacting with the decaying corpse will be transformed into new spore sacs, continuing the cycle.

	Bloodburster		Juvenile		Adult	
	Characteristics	Average	Characteristics	Average	Characteristics	Average
STR	1D6+1	4	1D6+7	10	2D6+8	14
CON	1D6+6	9	1D6+8	11	2D6+8	14
SIZ	1D6	3	1D6+14	17	1D6+14	17
INT	1D6+1	2	1D6+1	4	2D6	6
POW	1D6+3	6	2D6	6	2D6	6
DEX	2D6+6	12	2D6+7	13	2D6+8	14
Move	10		10		10	
Hit Points	12		28		31	
Dmg Bonus	-1D6		+1D4		+1D4	
HF*	0/1		0/1D3		0/1D6	
Armor	1 (0 against fire damage)		2 (1 against fire damage)		3 (2 against fire damage)	

Weapon	Attack	Damage	Attack	Damage	Attack	Damage
Bite	30%	1D3+db (bleeding)	45%	1D6+db (bleeding)	55%	1D6+db (bleeding)
Claw	25%	1D3+db (bleeding)	40%	1D6+db (bleeding)	50%	1D6+db (bleeding)
Tail	-		30%	1D6+db (PV+1)	40%	1D6+db (PV+2)
Grapple*			40%	special	50%	special

*A Neomorph can make two claw attacks in a combat round. If successful with both, it will attempt to grapple and bite on the next combat round.

Skills: Alertness 60%, Spot 70%.

Even when taking weapons fire, a juvenile Neomorph is so focused on the attack that it ignores damage to itself until it becomes critical. Overwhelming concentrated fire will eventually take the thing out, if it doesn't get you first.

Mummy

A mummy is an undead creature formed from a preserved, dried corpse, brought back to a semblance of life through some curse or powerful necromancy. Some cults keep mummies in their temples as guardians, while other mummies rise from the dead to protect their tombs from grave robbery. Some mummies may speak, while others remain silent. Not all mummies are wrapped in bandages—some wear jewelry and items of great value as befitted their status in life.

Because of the bandages and dry, desiccated state of their flesh, fire is particularly effective against mummies. It is twice as easy to set a mummy afire as it is another normal target, and though damage is normal, the fires are more difficult to extinguish (lower the chance the fire will die out by ½). Powers that utilize fire will have the same effect.

Characteristics		Average			
STR	6D6	21	Move	8	
CON	4D6+3	17	Hit Points	30	
SIZ	2D6+6	13	Mass	40-60 kg	
INT	3D6	10			
POW	1D6+12	15			
DEX	2D6	7			
APP	1D6	3			
HF	1/1D6				

Damage Bonus: +1D6

Armor: 3-point skin (may wear armor)

Weapon	Attack	Damage
Fist	70%	1D3+db (crushing)
Grapple	25%	special
Short Sword	45%	1D6+1+db (bleeding)

A mummy can attack with two fist attacks each combat round. If it succeeds with both attacks, it will attempt to grapple and choke its target in the next round. A mummy may use ancient weapons appropriate to the era of its former life.

Skills: Language (ancient tongue) 90%, Listen 50%, Alertness 45%, Spot 50%, Stealth 50%.

Rat Pack

As with insect swarms, an individual rat is not much of a threat, but dealing with a pack of them can be dangerous. If characters are attacked by rat packs, assume that there are ten rats in a "pack". The GM should multiply the number of rat packs by x5. This value is the percentage chance of each rat pack to attack each combat round (each attack is rolled separately; the more rats, the more effective they are). For example, a character attacked by 10 rat packs has a 50% chance to be successfully bitten by each pack. Each successful attack will do 1D3 HP in damage to a character it is attacking.

Armor counts against each individual attack, and a special success will do slashing damage. At the GM's discretion, a rat bite may also be diseased. A character can Dodge a rat pack attack, but cannot parry it. A successful attack against a rat pack (such an attack is Difficult, due to the size of the rats) automatically kills one rat and chases away the rest of that pack, lowering the general effectiveness of further attacks.

Rat-Things

Resembling ordinary rats, and easily mistaken for them at a distance, rat-thing heads are nonetheless evil caricatures of human heads, and their paws are like tiny human hands. All have extremely strong, sharp teeth. These unnatural creatures are created by malign sorcery, allowing deceased cultists to be transformed and continue to serve their masters. Though they do not die naturally, they are now very rare. Brown Jenkin, the familiar of Keziah Mason, the witch, may have been a rat-thing. Attacking rat-things climb the legs or clothes of human opponents, or drop down from ceilings. Once a bite attack succeeds, the rat-thing clings and keeps on biting. Tearing away a rat-thing costs 1D3 hit points.

Characteristics		Average			
STR	1D3	2	Move	9	
CON	2D6	7	Hit Points	8	
SIZ	1	1	Mass	4-6 kg	
INT	3D6	10			
POW	2D6+12	7			
DEX	4D6+4	20			
APP	-				
HF	0/1D6				
	1/1D8*	*if the rat-thing was known to the observer in life.			

Damage Bonus: -1D6

Armor: none, but subtract 40 percentiles from the chance to hit a running rat-thing, and subtract 20 percentiles from the chance to hit one attached to somebody.

Weapon	Attack	Damage
Bite	35%	1D3+ possible disease*

*A bitten adventurer has 100 – (CON x5)% chance to become infected with some disease. An infected adventurer becomes feverish within 1D6 hours, and is fully sick and bed ridden within another 5D6 hours. A successful Medicine roll treats the sick adventurer, and he suffers only the loss of adventuring time as he must remain in bed for 1D3 days. Untreated, the adventurer suffers the loss of 1D2 CON and 1D2 hit points per day for 1D3 days. Afterward, a successful Medicine roll is required to restore each lost point of CON and hit points.

Spells: those of INT 14 or more know 1D3 spells of the GM's choice; those who knew spells in life retain that knowledge as rat-things.

Skills: Dodge 95%, Hide 80%, Sneak 65%.

Skeleton

Animated skeletons are not true undead, but are instead created or summoned by magic or an ancient curse. They are generally human skeletons, but other types are known to exist. Animated skeletons are almost always encountered guarding some treasure, ancient tomb, or some other place of ill omen. Skeletons move at the same speed they did in life, but cannot fly or swim (if they could when alive). They have no fatigue points and never tire.

Characteristics		Average			
STR	3D6	10	Move	10	
CON	-		Hit Points	26	
SIZ	2D6+6	13	Mass	5-10 kg	
INT	3D6	10			
POW	1	1			
DEX	2D6+6	13			

APP	-		HF	0/1D6

Damage Bonus: none

Armor: None (may wear armor, also see below for immunities)

Weapon	Attack	Damage
Any	55%	as per weapon

Skills: Dodge 40%

Skeletons have no CON. Because they have no fleshy matter, they are immune to the special effects from bleeding and impaling hits. They take no damage whatsoever from thrusting weapons, unless the hit was a special success or critical hit, in which case, the damage is considered while the secondary effects are ignored. Dried bones are fairly brittle, and snap and splinter easily from a heavy blow. Any blow striking a skeleton has a percentage chance of destroying the skeleton equal to or less than the damage done multiplied by 4, in addition to the normal HP loss and regardless of the skeleton's current HP. For example, if an axe hit a skeleton and did 8 points damage, there would be a 32% chance of destroying the skeleton by shattering it. If the roll is successful, the skeleton instantly shatters and is out of the fight. If the roll fails, the skeleton has still lost 8 HP.

Spider, Giant

The giant spider weaves its web among the trunks of trees or between the walls of a cave. The strands of the web are very fine, but a successful roll on a visual skill will permit noticing it. The webbing is also very strong, having a STR equal to the CON of the spider.

The spider itself hides hides among the leaves and foliage of the trees or behind rocks in a cave. It emerges silently to surprise victims caught in its web or who imprudently halt to examine or disturb it. It then tries to paralyze them using its venom or entrap them in sticky silk.

In areas with abundant traffic, it's been known for giant spiders to work together to capture more prey. The spider described here has a size of almost two meters. Even larger specimens may exist.

Characteristics		Average			
STR	1D6+6	9	Move	8	
CON	3D6	10	Hit Points	23	
SIZ	2D6+6	13	Mass	50-60 kg	
INT	3D6	10			
POW	2D6	7			
DEX	3D6+6	16			
APP	-				
HF	0/1				

Damage Bonus: none

Armor: 2 points (chitin)

Weapon	Attack	Damage
Bite	50%	1D6+db+poison
Project Webbing	50%	None

Skills: Move Quietly 80%, Climb 100%, Hide 75%, Sense Vibrations 60%

Notes:

1. A spider can both bite and project webbing in the same round. However, a spider which has projected webbing must wait ten rounds before being able to do so again.

The spider's Bite injects a poison with POT equal to the CON of the spider. This poison inflicts only half of its POT in Hit Points, but if the POT overcomess the CON of the victim, the victim becomes paralyzed.

2. The webbing can be thrown to a distance equal to the STR of the spider in meters. Such an attack cannot be parried, but it can be dodged.

    A victim taken in the webbing cannot move, and thus cannot attack or cast spells. It is possible to keep an arm free by making a successful roll under DEX × 3 just before the webbing hits.

    To escape the web of a giant spider, a victim must succeed in a Resistance Table roll of the victim's STR vs. the STR of the silk, which is equal to the CON of the spider.

    It is also possible to cut the fibers using a sharp implement. The Hit Points of the web are equal to its STR. However, weapons striking the web become stuck in it. Flaming weapons do not stick to the web. The webbing is not flammable, but heat will disintegrate it and fire inflicts normal damage.

Vampire

Vampires are undead who survive by drinking the blood of the living. Created when they share blood with a vampire and are killed, they reawaken as almost bestial creatures. However, many vampires regain their former intelligence and are able to move undetected through human society, immortal and careful when they feed. Some are urbane and civilized, and have turned to feeding on lesser animals or other semi-legal means of procuring blood. Others are like wolves, killing with impunity.

Like ghosts, vampires can come in a variety of types, ranging from beautiful, urbane and intelligent reclusive celebrities to horrifically ugly creatures with bat-like features and protruding fangs, living in sewers and barely sentient. Some vampires may even strive to atone for the misdeeds of their previous life and the killings they committed.

Characteristics		Average			
STR	3D6 x2	20–22		Move	12
CON	3D6 x2	20–22		Hit Points	41
SIZ	3D6	13		Mass	70-80 kg
INT	2D6+6	13			
POW	(13)	13 (of drained PP)			
DEX	3D6	10–11			
APP	3D6	10–11			
HF*	0/1D4				
	1/1D3	to witness a transformation			

*Vampires of human appearance cost no Sanity points to see.

Damage Bonus: +1D6

Armor: None (can wear armor)

Weapon	Attack	Damage
Bite	50%	1D4+½db (bleeding) + Blood Drain
Claw	50%	1D4+db (bleeding) + Chill Touch
Grapple	75%	special
Hypnotic Gaze	POW vs. POW	special

A vampire can make one bite and two claw attacks per round, or it may attempt a single claw and a hypnotic gaze attack. If it succeeds in both claw attacks and a bite attack, it will grapple its target and drain their blood temporarily each round until the target is incapacitated. It cannot attempt to Dodge during a round it bites or uses hypnotic gaze.

Powers:

■ Blood Drain: A vampire that successfully bites and damages a target can drain 1D6 STR or 1D6 power points (GM's choice) from that target on each subsequent round it is able to stay attached to the target, using normal

grappling rules. If the target has lost all his STR, the vampire can choose instead to drain CON from the victim. At 0 CON, the victim dies.

■ Providing that the victim has not died, these characteristic points are not permanently lost and regenerate at the rate of 1 point per day of relative rest, or twice that long if the character is not resting. If more than one characteristic is drained, alternate recovery each day to recover 1 point of STR, then 1 point of CON, etc. Power points regenerate normally.

A vampire uses Blood Drain to recoup its own power points—being undead it has no POW characteristic of its own to regenerate power points naturally. STR, CON, or power points drained are transferred by the vampire to its current power point total. A vampire cannot store more power points than its CON characteristic. Any points in excess of this amount are lost.

■ Chill Touch: A vampire who touches a target can attempt to drain power points from a victim instead of the blood drain (above). To attempt this, the vampire must have succeeded in a claw attack against the target (or touched an incapacitated or unaware target), and on the subsequent round can attempt a resistance roll of its current power points vs. the target's current power points. Armor does not protect against this attack.

If the vampire succeeds, it drains 1D3 power points from the target, which are transferred to the vampire's current power point total. The vampire must remain in contact with the target each round to continue this drain, and must succeed with a resistance roll each combat round while it attempts this power.

The victim will recover these lost power points normally.

■ Hypnotic Gaze: If the vampire overcomes a target's POW with its current power points on the resistance table, the target is hypnotized, and can be made to follow simple instructions. If these instructions are self-destructive, at the start of a round the character can attempt an Idea roll to snap out of it.

■ Night Sight: Vampires have a natural ability similar to the Super Senses of Dark Vision, Infrared Vision, and Night Vision at a level equal to ½ (rounded down) the vampire's current power points.

■ Regeneration: Unless it is killed through one of the traditional means, a vampire will regenerate 1D3 HP per combat round. If it is in direct sunlight, it cannot regenerate this damage and must heal normally. Additionally, the damage from sunlight, or fire cannot be regenerated and must heal at the vampire's normal healing rate.

Skills: Dodge 50%, Etiquette 50%, Fly 90%, Hide 70%, Insight 60%, Jump 75%, Knowledge (History) 75%, Language (ancient) 75%, Language (modern) 50%, Listen 60%, Persuade 60%, Alertness 75%, Spot 75%, Stealth 80%, Track 75%

In addition to the powerful abilities given above, vampires have had many other powers ascribed to them.

■ Legions of the Night: Vampires are known to control lesser creatures such as bats, rats, and even wolves. The vampire can summon 1D6 rat or bat swarms (treat bat swarms as rat swarms but with Fly 100%), or 1D6 wolves. Each swarm costs 1 power point to summon, while each wolf costs 3 power points to summon and control.

■ Mist Form: The vampire can transform itself into a mist, able to move through the tiniest of cracks and float through the air effortlessly. A vampire with this power may be forced into mist form when it is reduced to 0 HP, but is not slain in the traditional manner. While in mist form, the vampire has MOV 5 and is immune to most forms of physical damage, though magic spells may still affect it.

■ Shape Shifting: The vampire can transform itself into a wolf, a bat, or even a swarm of rats at a cost of 3 power points. As with Mist Form, the power is identical to either Change or Alternate Form. Use the statistics for a wolf or rat swarm for the vampire's abilities in either of these forms, using the same game effects for rats as bats (though with Fly 100%).

Weaknesses:

■ Blood Thirst: A vampire loses 1D6 power points each night merely getting up and moving around, spent when the vampire first arises. If the vampire reaches 1 or 2 power points, all of its rolls are considered Difficult due to its weakness and the roaring thirst that consumes it.

■ Daylight: Vampires suffer 1 point of damage per combat round of exposure to direct sunlight. While in direct sunlight, the vampire cannot regenerate, shape change, turn into mist, or use its hypnotic gaze. Sunlight may cause additional problems for vampires, such as making all skill rolls Difficult.

■ Decapitation: A vampire who has been decapitated is dead, will not regenerate, and can never rise from the dead.

■ Sacred Earth: A vampire loses 3D6 power points each day it does not spend at least four hours in a coffin (or equivalent) lined with earth from its homeland; a penalty exacted at sunset. Thus, an ill-prepared vampire could lose 4D6 power points each evening if denied sacred earth and due to blood thirst. If a vampire reaches 0

power points it becomes comatose, not dead but unable move or function until someone transfers power points to it through the use of some power.

- ■ Stakes: If a wooden stake is driven through a vampire's heart and causes at least 1 point of damage, it will immediately disintegrate into dust. Using the normal rules, this is whenever a wooden weapon achieves an impaling or critical result on a Difficult attack. For example, someone shooting a vampire with a bow skill of 80% must achieve an impale success on a roll of 40%. In this case, a roll of 01 through 08 will succeed in staking the vampire through the heart. A traditional wooden stake does 1D3+db and has 6 HP, with a base chance of 15%. Alternately, this merely prevents the vampire from acting and regenerating, and the vampire must be decapitated, the head and body burned separately to be utterly destroyed.

Vomit Zombie

> *"The body on the table had risen with a blind and terrible groping, and we had heard a sound. I should not call that sound a voice, for it was too awful. And yet its timbre was not the most awful thing about it. Neither was its message —it had merely screamed, 'Jump, Ronald, for God's sake, jump!' The awful thing was its source. For it had come from the large covered vat in that ghoulish corner of crawling black shadows."*
>
> *H.P. Lovecraft, "Herbert West—Reanimator"*

Vomit zombies are animated corpses resurrected by a biological plague. Whatever the origin, zombies almost always thirst for human flesh (some prefer brains) and are driven by this grisly motive. Zombies are generally incapable of speech, and often stalk the living in mobs.

Each time a human victim takes damage from a zombie's bite, the zombie regains 1 lost HP as it devours flesh and blood. With some zombies, a bite is infectious, and turns the victim into a zombie in 1D6 hours.

After succeeding with a bite attack, a zombie uses its action each turn to inflict 1D6 damage on the same target, without having to make another attack roll. If the bite pierced the victim's armor, the "worry and rip" damage ignores armor. The victim can attempt an opposed STR test as his action each turn to break free.

They are not particularly bright, and are easily fooled.

Characteristics		Average			
STR	3D6 x1.5	16		Move	4
CON	3D6 x1.5	16		Hit Points	32
SIZ	2D6+6	13		Mass	70-80 kg
INT	6	6			
POW	1	1			
DEX	2D6	7			
APP	1D6	3			
HF	0/1D6				

Damage Bonus: +1D4

Armor: None

Weapon	Attack	Damage
Bite	30%	1D3+½db (bleeding)
Claw	25%	1D3+db (bleeding)
Grapple	35%	special

A zombie's skill with a weapon is equal to DEX x 5%. Zombies never attempt to Dodge or Parry.

Powers:

- ■ Most slashing, crushing, and impaling weapons do only half damage to zombies. Fire does full damage against them. Some types of zombie can only be killed by a special success that damages the skull. This is whenever a weapon achieves a special or critical result on a Difficult attack. For example, someone using a battleaxe on zombie with a skill of 80% must achieve a success on a roll of 40%. In this case, a roll of 01 through 08 will

succeed in damaging the zombie's brains enough to incapacitate it. Some types of zombies are infectious—a successful bite attack will turn the victim into a zombie within his CON in hours, without exception.

■ Whatever animates a zombie's dead flesh sustains it against rigors that would harm or kill the living. Cold, suffocation and radiation seem to do no lasting harm unless the zombie's body is physically destroyed. Some zombies do not even rot at the usual rate.

Skills: Alertness 50%.

Werewolf

Werewolves are shape-changers able to transform from human, to wolf, with an intermediary hybrid form. This condition is called lycanthropy. Some wolves can make this change voluntarily, while others transform involuntarily on nights when the moon is full. This latter type of werewolf becomes a pure beast at this time, with no human control or even memory of his actions while in were-form. Traditionally, someone who survives a werewolf's bite will become a werewolf at the next full moon—a condition that is supposedly inescapable. Some types of lycanthropy are considered to be magical in nature (usually a curse), while other types are almost a disease.

In its human form, a werewolf is outwardly normal and has normal human characteristics. Following are statistics for the hybrid (wolf-man) and wolf forms.

	Hybrid Form		Wolf Form	
	Characteristics	Average	Characteristics	Average
STR	6D6	21	6D6	21
CON	2D6+6	13	2D6+6	13
SIZ	3D6	11	3D6+1D3	12
INT	2D6+6	13	1D4+2	4
POW	2D6+6	13	2D6+6	13
DEX	2D6+6	13	2D6+6	13
APP	1D6	3	-	-
Move	12		13	
Hit Points	34		34	
Damage Bonus	+1D4		+1D6	
HF*	0/1D6		0/1D8	

*to see one change shape costs 1D3 Sanity points.

Armor: 1-point fur (immunity to normal weapons)

Weapon	Attack	Damage
Bite*	50%	1D4+½db (bleeding)
Claw*	65%	1D6+db (bleeding)
Bite**	65%	1D8+½db (bleeding)
Claw**	45%	1D6+db (bleeding)

*hybrid form

**wolf form

In either form, a werewolf can make one bite attack and two claw attacks each combat round.

Powers:

■ Transformation: Werewolves can assume one of three different forms; human, hybrid, and wolf. Shifting from one shape to another takes 5 DEX ranks and does not cost any power points. The werewolf can switch from any of these forms to another.

■ Regeneration: Werewolves are able to regenerate 1 HP of damage each combat round, unless that damage was done with a silver weapon (see below). Werewolves heal from damage inflicted by a silver weapon at their normal healing rate.

■ Immunity: Werewolves are immune to most forms of damage other than magic, fire, or possibly silver. This means that attacks with weapons other than these simply bounce off the werewolf, regardless of the result. Magic, fire, and silvered weapons do full damage. A weapon with a spell cast upon it, such as Sorcerer's Razor, will do the magical damage but not the actual weapon's damage or the attacker's damage bonus. An outright magical weapon will do its normal damage, but will ignore the damage bonus. Energy weapons or poisons will not harm a werewolf.

Skills: Alertness 90%, Climb 75%, Dodge 65%, Hide 60%, Jump 80%, Listen 70%, Spot 70%, Track 90%.

Wolf

In reality, wolves are somewhat shy and rarely bother humans, though they've long been viewed as evil creatures with sinister motives and characteristics assigned to them. Wolves hunt in packs ranging from a dozen to forty or more.

The GM may use these statistics to represent a large dog.

Characteristics		Average			
STR	2D6 +6	13	Move	10	
CON	3D6	10	Hit Points	18	
SIZ	2D6+1	8	Mass	40-50 kg	
INT	5	5			
POW	2D6	7			
DEX	2D6+6	13			
HF	-				

Damage Bonus: None

Armor: 2-point fur

Weapon	Attack	Damage
Bite	30%	1D8+½db (bleeding)

In combat, wolves will often fight cooperatively. Several wolves may attack the same target, ensuring that most of them will not be parried or Dodged. Or one or two large wolves may attempt to knock their target down—when it falls over, a bunch of wolves rush to tear at the target while down.

Skills: Alertness 90%, Dodge 35%, Listen 75%, Spot 60%, Track 80%.

Worm That Walks

> *"Wisely did al-Shakashik say, that happy is the tomb where no wizard hath lain, and happy the town at night whose wizards are all ashes. For it is of old rumour that the soul of the devil-bought hastes not from his charnel clay, but fats and instructs the very worm that gnaws; till out of corruption horrid life springs, and the dull scavengers of earth wax crafty to vex it and swell monstrous to plague it. Great holes secretly are digged where earth's pores ought to suffice, and things have learnt to walk that ought to crawl."*

> *Abdul Al-Hazrad aka Mad Arab, author of the Kitab al-Azif*

A wizard walks the earth in a town. He dies, and is buried. The worms eat his flesh, and grow fat. They also grow large, and gravid with sorcerous power. They breed more worms, and the clat swells to human size and crawls up out of the grave, or is dug up by another cultist, or by a seeker after wizardly power. The clat of worms emerges from the soil and dons an all-concealing robe and mask. A wizard once more walks the earth in a town.

After its blasphemous resurrection, the worm-wizard either mates with a human woman and breeds his own shuddersome lineage of pupils, or seduces would-be sorcerers with its grave-won lore. Eventually, it converts its descendants or students into worm-cultists, through hypergeometry or by subtle adulteration of their food or blood. When and if these cultists die, they too resurrect, bloated clats of grave worms wearing long coats and masks to move about the city.

Wraith

A wraith is a ghost formed when an individual's feelings at death are of overwhelming frustration and hate. Wraiths are malignant to all life. Wraiths appear as skeletal and usually rotted and putrid looking spectral forms. Their appearance is often heralded by a sudden blast of freezing, foul air.

Wraiths inhabit ruins, abandoned temples, haunted spots, and the spirit world. They are often bound to the site of their death. A wraith possesses only INT and CON. Its Hit Points are equal to its CON. A wraith may only be hit by magic. If a wraith loses all its Hit Points or Magic Points, it is forced to the other-world and is very unlikely to find a way to return.

There are three varieties of wraith; one attacking STR, one INT, and one CON. Match the wraith's Magic Points against the appropriate characteristic of its target. If it overcomes the target, the victim takes 1D6 points of damage. This is considered to be a form of spirit combat.

A STR-affecting wraith attacks with the enfeebling touch of its icy spectral claw; an INT-affecting wraith numbs the brain and rends the body with the dreadful horrors and pangs of the wraith's own death; and the CON-affecting wraith shocks its victim with a penetrating grip, causing the victim's internal organs to spasm.

If a wraith's target is sleeping, unconscious, incapacitated, or reduced to zero Magic Points, and the individual can be over come as in a normal wraith attack, then the wraith can reduce the victim's current characteristic STR, INT, or CON by 1D6 points instead of doing hit point damage. The wraith gains one Magic Point for each characteristic point it saps. This is not considered to be a form of spirit combat.

All a wraith's attacks take place on DEX-rank 20.

Characteristics		Average			
STR	6D10	33		Move	16 (equal to POW)
INT	2D6+6	13		Hit Points	18
POW	3D6+6	16		Mass	none
APP	1D3				
HF	0/1D3				

Armor: None.

Sorcery

by Steve Perrin, Edward Simbalist, Wilf Backhaus, John Snead & Kevin Siembieda

> *"Clay cannot be turned to gold. Without magic, you're just a human."*
>
> *The Witch Queen*

Human survival is lit by the flame of combusting minds. Someone must go forth into the dark, to pry up the secrets and expunge the hidden things, to sacrifice their own lives and sanity that humanity's safety might endure another hour. To deal with these horrors for long is to embrace a fate worse than any common death, but there are always a few, always so very few, that are willing to pay this price. Some act out of love, others out of courage, some for the sake of unquenchable curiosity, and a few cannot even name their own cause. But they act and they suffer and they die, and by their blood is purchased a little more time for those who remain.

The human mind was an inflexible container. It could not maintain both more truth and complete sanity—more of one poured in must spill out more of the other. Humans desperate for the power cloaked within truth might choose to forgo all remnants of sanity in exchange for becoming adept at manipulating the secrets of time and space. Their devil's bargains made, these merciless Sorcerers would whistle down devastation and doom to this world in new exchange for yet more knowledge and power.

Sorcery is the ability to affect the structure of the physical world and its relationship to the various dimensions of hyperspace using carefully constructed mathematical patterns. These patterns can be activated by dancing and chanting, attaining various visionary mental states, performing elaborate mathematical calculations, or creating a complex electronic device with these patterns within its circuitry. Actually using sorcery requires both an understanding of the esoteric mysteries involved, as well as the knowledge of the particular spell that you wish to cast or create a device to perform.

Using Sorcery

Your character's POW characteristic influences the frequency and potency of the sorcery he can cast. To be able to cast sorcery spells, your character must have a POW characteristic of 11 or higher.

A character with a POW of 10 or less cannot cast sorcery spells. If your character cannot cast spells, he can still use enchanted items and other characters can still cast useful spells on him. For characters unable to cast sorcery spells, their power points represent a resource for other characters who can use sorcery, with several options for draining them from non-spell casting characters.

Sorcery is treated like any other skill: each sorcery spell your character knows is a different skill, with a percentage chance for success. Your character spends power points to fuel these spells. If you want your character to cast a spell he spends the relevant power points and you roll percentile dice. If the roll succeeds, the spell is successful.

If the spell skill roll fails, only one power point is lost and the spell is unsuccessful. In most cases, your character can attempt to cast the spell again on the next round if enough power points remain to attempt to cast it. Like skills, a spell can have an additional effect with a special or critical roll. Magic can be learned from an instructor, and improved through experience. If you are using the optional skill category bonus system, your spells are considered to be Mental skills.

A sorcery spell affects a single person, entity, area, or thing. Since casting takes only 1 combat round, separate castings of the same sorcery spell can strike additional target(s) in later combat rounds.

Sorcery spells are cast on the powers phase of a combat round, in order of your character's INT characteristic. The spell will take effect in INT order of the powers phase of the next combat round.

After you begin casting a spell, you can do nothing else during that combat round. If your concentration is broken, the power points used in the spell are also lost. Loss of concentration occurs if you take 1 or more hit points in damage while casting the spell. An upsetting event, such as a loud noise or unexpected blow during the casting, also can break your concentration. If the Game Master feels that the situation warrants it, make an Idea roll to resist being distracted. If the roll is successful, you ignore the interruption and complete the spell casting without incident.

Sorcery Spell Limitations

Your character's Intelligence (INT) characteristic is equal to the maximum number of spells he has immediate access to. INT limits also the levels of power the PC can attain. Sorcery spells are cast from the spells your character has in his memory. If you want your character to cast some sorcery spell not in memory, he must first dismiss some other sorcery to make room.

Spell Limitations Table

INT Score	Level	Spells	Study time	SAN Loss*
11	1	11	1d6 x1hrs	1
12	2	12	1d6 x2hrs	1d3
13	3	13	1d6 x3hrs	1d4
14	4	14	1d6 x4hrs	1d5
15	5	15	1d6 x5hrs	1d6
16	6	16	1d6 x6hrs	1d8
17	7	17	1d6 x7hrs	1d10
18	8	18	1d6 x8hrs	1d12
19	9	19	1d6 x9hrs	1d10+2
For each +1	+1	+1	+1d6hrs	+2

*for the study of a ritual

Power Points and Sorcery

Magic requires the expenditure of Magic Points (MP) equal to POW. Magic Points can be expended to cast spells, to energize artifacts and magical gates, to fight magical attacks or manipulation via Resistance Table rolls, and so on. A Player Character cannot expend more Magic Points than he possesses. The number of Magic Points cannot regenerate above his points of POW.

Each magic spell is expressed as a level that determines how powerful it is. The Magic Points expanded to cast a spell is equal to the level of the spell.

Spending or sacrificing Magic Points takes only the will of the owner. No special process is needed. Doing it may leave sensations of pleasure mingled with regret, or a numbness of the soul, or not be noticeable at all. Some magical attacks leach Magic Points or POW from unwilling targets. In those cases, Resistance Table rolls may be characterized as being painful, or as leaving a headache or other minor symptom. Involuntary loss of POW would be a stronger sensation than that of losing the same amount of Magic Points.

- If Magic Points reach zero, the Character falls unconscious until at least one Magic Point regenerates.

- Regeneration of Magic Points is a natural function, depending of the CON score of your character.

- Were a character to obtain Magic Points of quantity greater than his POW, he could spend the excess but not regenerate it.

POW increase

When a character matches his POW against an opponent with equal or greater POW on the resistance table, the attacker's POW (the source of the active influence) has a chance to increase if the attack succeeds. If the resistance table indicated a 50% or better success chance, there is no chance to increase, but for any chance less than 50% there is a possibility of a POW increase.

You should check for POW gains as you would check other experience gains for your character. To determine if your character's POW is altered, add together his maximum possible rolled POW (18 for humans) plus his minimum rolled POW (3 for humans if the standard character creation system is used—consider each bonus of +6 as a single die for

other character creation systems). The result is 21 for most humans (18 + 3 = 21). Subtract the amount of your character's current POW from that total. Multiply the remainder by 5, and try to roll that result or less on D100.

> POW increase – example
>
> Your character has a POW 13 and makes a successful POW vs. POW roll during the course of adventure, where the chance of success was 50% or less. This qualifies for a POW improvement roll. The normal human maximum is 21, so your character's chance for a POW improvement is 40% (21 – 13 = 8 and 8 x 5 = 40%).

If the roll is successful, you should roll 1D3–1 and change your character's POW by the result. This might mean no gain at all if the roll was a 1 (1 – 1 = 0), or as much as a 2 point increase in POW (3 – 1 = 2). Alternately, you can choose not to roll 1D3–1, and simply add 1 to your character's POW. Like an experience check, this decision must be made before the 1D3–1 roll is attempted.

Focus

A Sorcerer will always prepare a Focus of Power for himself. The Focus is a reservoir of personal power points to draw upon when summoning more powerful entities or casting a large number of spells. Traditionally, the focus for the reservoir is usually a ring, a staff, a pendant or an earring but it could be any sturdy, solid place or thing. If the focus is destroyed, the attunement is lost, and a new focus must be established from scratch.

The first time the focus is create, the Sorcerer must sacrifice 4 power points and 1 permanent point of his POW characteristic, to attune the focus. Once this is successful, he can store up to all of his remaining power points in the focus. The focus accepts new power points at any time up to the maximum of the Sorcerer's POW when the focus was created (after the sacrifice).

> Focus creation – example
>
> If a Sorcerer's POW was 17 after the spell was complete (down 1 point from the original 18), he can store up to 17 power points in the Focus of Power at any time.

Whenever the Sorcerer wishes, he may sacrifice the stored power points in the Focus of Power, along with any he has regenerated. The power points in the focus are always the first spent.

The Sorcerer must be in physical contact with the Focus to draw the power points from it. Only the creator of the Focus of Power can use the power points directly, however, if he has another means of transferring power points from himself to another character, the relevant power points must first be drawn from the Sorcerer, then from the Focus of Power. To make a focus of greater capacity, the Sorcerer must cast the spell again, sacrificing another point of POW and the relevant power points. In this fashion, a Focus of Power can become an immense reservoir of power points for a caster to use.

The current Power Points of the focus are added to the Sorcerer's POW for opposed POW rolls.

Familiar

Familiars are minor Devils (half the characteristics and Rank of normal Devils rounded down) who appear in animal form except when required to adopt their natural form by the Sorcerer. See "Demonology" for the characteristics and abilities of Devils. The animal functions are similar to a lesser familiar, except that it possesses a human intelligence, can talk, is supernaturally strong and possesses magic powers of its own.

The creature's SIZ cannot be more than 1/4 of the Sorcerer's POW, rounded up. For example, if your character has POW 16, he is limited to creatures of SIZ 4 or lower. All Sorcerers are taught the ritual of binding a familiar, though the Game Master may require an untutored Sorcerer to seek the knowledge out in some grimoires or from a mentor.

1. The greater familiar can speak in animal form, but when outsiders are present it will not do so without instruction from the Sorcerer. Communication is much the same as two humans conversing. It will otherwise act like the animal it resembles.

2. Obeys only the Sorcerer and will follow his commands without question or hesitation, especially in combat situations. However, should the Sorcerer defy the will of his "true master," the familiar's vow of obedience is broken and it can act completely independently to betray, torment or slay the Sorcerer.

3. The Sorcerer may substitute his INT or POW for the familiar's to defend the familiar against magical attacks against the familiar while it is in range. If the creature is outside the power's range, the creature's natural INT or POW are used instead.

4. A rapport between Sorcerer and familiar both usually have the same outlook on life and wickedness. The two talk like old friends or business partners. The spiritual bond between the two is such that the familiar may also allow the Sorcerer to see, hear, feel, taste, and smell everything it experiences, but this is at the discretion of the familiar, not the Sorcerer.

5. Supernatural bond: The Sorcerer and demon familiar are physically and spiritually linked. This connection allows the Sorcerer to draw additional Magic Points from the creature whenever he needs them. This "link" also enables the Sorcerer and familiar to sense when one or the other is being tortured, battered near death and when the other dies, regardless of the distance between them. Note: The familiar is sometimes sent on brief missions that can take it several kilometers away, otherwise the two are constant companions.

Acquisition of Dark Arts

> *"I say to you againe, doe not call up Any that you can not put downe; by the Which I meane, Any that can in Turne call up Somewhat against you, whereby your Powerfullest Devices may not be of use. Ask of the Lesser, lest the Greater shal not wish to Answer, and shal commande more than you."*
>
> *H.P. Lovecraft, "The case Charles Dexter Ward"*

Characters learn spells by poring over cryptic manuscripts and ancient books of lore. Artifacts can be enchanted. Though this is rare for Characters, cultists and Sorcerers also may be taught by their fellows and, through vision and visitation by the great and unseemly things that lurk beyond the normal senses, the dread Great Old Ones and Unnameable Demons.

Once a PC has learned a spell, he has a base chance of (INT + POW)x1% to cast the spell correctly. "Enhancement" will improve chances of success:

Spell Casting Enhancement Table

Enhancement	Modifier
Meditation: for each hour spent in Meditation up to the Sorcerer's INT	+1% / hour
Focus: for each power point stored in the Sorcerer's focus of power	+1% / point
Familiar: for each Familiar's power point	+1% / point
Tome: using the book where the spell is written	+10%
The spell is cast at night	+5%
The spell is cast at known magic places (e.g.: consecrated altar, Stonehenge, Gates of Hell)	+5 to +20%

For human characters, Sorcery is rare and difficult to use. Spells must be approached warily, since often what they do and what they cost is utterly unknown. For Characters, the Dark Arts can be a dangerous trap, for in using it Characters lose Sanity points and add Forbidden Science, more and more becoming like those whom they seek to defeat. The Dark Arts bewilder, shock, disorient, and debilitate its human practitioners. With enough exposure, the psychic contradictions involved in using this magic drives humans insane.

Dark Arts fumble Table

D100	effect
1-10	MP are reduced by a number equal to the number of MP already expended in the attempt.
11-25	MP are reduced by a number equal to the twice the number of MP already expended in the attempt.
26-25	Your spell has reversed itself and is presently taking full affect on your own person instead of on the intended target.
36-45	Once again your spell has reversed itself as in result 26-35. However, this time, in addition to the effects of the reversal, your MP are reduced by a number of points equal to the MP expended in attempting to cast the spell.
46-50	Your companions may well curse your name for this! The Game Master assigns a number to each character within Range and rolls 1d10. The character whose number is first rolled is the target of the spell. If no character's number is rolled, the Game Master rolls again until one character's number is rolled.
51-56	A result similar to 46-50 except that the spell's effect is doubled (Game Master choosing what attribute of the spell will be doubled).
57-60	Your spell takes effect, but only at half strength. The Game Master determines what characteristic is to be halved and does so (rounding down).
61-63	You are cursed with total blindness lasting 1d10 weeks.
64-66	You are cursed with total deafness lasting 1d10 weeks.
67-69	You are cursed with being totally mute lasting 1d10 weeks.
70-72	You are cursed with insomnia and nightmares and may only regain half Fatigue (rounded up) during sleep periods for 1d10 weeks.
73-75	You are cursed with a virulent skin disease which will cause you intense pain and make you hideous to look upon. The disease will reduce your APP by 1d10. Once cured, the disease will still reduce your APP by 1 for each full week during which it affected you. This reduction is a permanent result of scarring.
76-80	You are cursed with periodic muscle spasms of random occurrence and unpredictable duration which tend to leave you limp and exhausted. The spasms will persist until you are cured. Reduce Dexterity by 5 until you have been cured.
81-85	You begin to suffer from intense and regularly recurring migraines which reduce your INT by 1d3 until you are cured of your affliction.
86-90	You become arthritic and enfeebled and will remain so until cured by a healer. Reduce your Fatigue by half (round down) and subtract 4 from Dexterity until cured.
91-95	You have become subject to creeping senility which will last until cured and which will become worse as time goes on. Your INT is immediately reduced by 2 until cured. Once cured of your affliction, you will have to relearn any spells forgotten during the period of your illness.
96-00	You are cursed with total amnesia and lose all skills and magical abilities for a period equal to 1d10 day. During this time, you may not cast spells or use a weapon. Your friends will have to care for you since your surroundings are totally unfamiliar and your survival defenses will have been quite effectively short-circuited.

Dark Arts Rituals

While each spell has a standard name, GMs are strongly advised to use more evocative titles wherever possible. Different tomes may contain common spells; however, such authors will have comprehended the spells quite differently, one author naming the spell 'Call Deep One' as 'The Voice from the Deeps' for example, and another calling it 'Summon the Abyssal Foulness'. Different spells may even have the same or similar names. Suggestions for alternative names are provided at the end of each spell's description.

There is no such thing as a definitive spell. The ones listed here are only a guide and starting point for the GM to draw upon. This is not a game in which the players can expect their characters to gain spells as a matter of course. The players should be aware that any spells their adventurers gain may vary from the ones listed in this book.

The Dark Arts and their spells are:

Black Magic Rituals Table

Spell/level	Range	Duration	SAN
Evil Dreams/1	1 km x POW	1 day x exp. level	0/1
Ward of the Flesh/1	self	1 CR	0/1
Voorish Sign/1	self	1 CR	0
Siren's Song/1	1 m x POW radius	1d10 hours x exp. level	1/1d6
Desecration/2	2 m x POW radius	1 turn x exp. level	0/1d2
Unholy Light/2	1 m x POW radius	4 minutes x exp. level	0/1
Mist of R'lyeh/2	5 m x POW	5 minutes x exp. level	0/1
Song Of Hastur/2	2 m x POW, in sight	2 CR x exp. level	1/1d3
Agony Of The Damned/3	touch	1 turn x exp. level	0/1d3
The Festering Blindness of the Seven Hells/3	10 m x POW, in sight	1 turn x exp. level	0/1d3
Bleeding/3	1 m x POW, in sight	1 turn x exp. level	0/1d2
Corrupt Food And Water/3	touch	permanent	0/1
Evil Prayer/3	1 m x POW, in sight	1 turn x exp. level	0/1
Sleeplessness/3	1 km x POW	1 day x exp. level	0/1
Slow/3	2 m x POW radius	1 turn x exp. level	0/1d2
Rapturing Touch/3	touch	1 turn x exp. level	1/1d3
Unhealing Wounds/3	5 m x POW, in sight	1 turn x exp. level	0/1
Weakness/3	2 m x POW radius	1 turn x exp. level	0
Wine Of Drunkenness/4	1 pint x exp. level	10 turns x exp. level	0
Curse/4	1 m x POW, in sight	variable	1/1d3
Maggot Spray/4	5 m x POW, in sight	1 turn x exp. level	1/1d5
Empathic Self Cure/4	touch	1 CR	1/1d3
Twist Of The Tongue/4	1 m x POW, in sight	permanent	1/1d3
Weaken Bone/4	5 m x POW, in sight	1 turn x exp. level	1/1d3
Circle Of Nausea/4	1 m x POW, diameter	special	1/1d3
Swarm Of The Abyss/5	5 m x POW, in sight	1 CR x exp. level	0/1d2
Beauty of the Beast/5	self	1 CR x exp. level	1/1d3
Dread Curse Of Azathoth/5	2 m x POW, in sight	1 CR	1/1d6
Brimstone Death/5	1 creature x POW	4 turns x exp. level	N/A
Curse Of The Leprous Flesh/5	touch	1 week x exp. level	1d2/1d6
Finger Of Death/5	1 m x POW, in sight	1 CR	1/1d6
Gaze Of The Basilisk/5	1 m x POW, in sight	1 minute x exp. level	1/1d3
Possession/5	1 m x POW, in sight	1 week x exp. level	1/1d3
Spirit's Bane/5	Blade	permanent	1/1d4
Body Warping of Gorgoroth/6	self	permanent	1d3/1d6
The Stinking Breath of Seven Hells/6	2 m x POW	4 rounds	1d2/1d6
Creeping Doom/6	10 m x POW, in sight	5 minutes x exp. level	1d2/1d6
Summon Black Crows/6	1d6 creature x exp. level	1 hour x exp. level	0/1d2
The Black Words/6+	5 m x POW, in sight	Instantaneous	Var.
Unholy Strength Of The Eternally Damned/6	5 meters	1 turn x exp. level	0/1d3
Weight Of A Thousand Hells/6	1 m x POW, in sight	1 turn x exp. level	0/1d3
Crush The Defiant/7	2 m x POW, in sight	1 CR	1/1d5
Breath Of The Deep/7	2 m x POW, in sight	5 CR	1/1d5
Grow Aged/7	10 m x POW, in sight	3 days x exp. level	1d2/1d6
From Hell's Fire/8	1 m x POW, in sight	1 CR x exp. level	0/1d2
Cloak Of Hell/8	self	1d6 turn x exp. level	1d3/1d6
Barrier of Naach-Tith/8	5 m x POW, in sight	1 hour x exp. level	0/1d2
The Song of Pain/8	1 m x POW, in sight	Instantaneous	1/1d6
Breath of the Void/9	1 LY x POW	Journey	1/1d6
Fist of Yog-Sothoth/9	2 m x POW, in sight	Instantaneous	0/1d3
Rain Of Blood/9	10 m x 10 m x POW	2 turns x exp. level	1/1d6
Blood Shield/10	self	10 hours x exp. level	0/1d3
Cthugha's Embrace/10	10 m x POW, in sight	3 CR	1/1d6
Kiss Of Death/10	touch	1 CR	1/1d3

Necromancy Rituals Table

Spell/level	Range	Duration	SAN
Cloak Of Death/1	self or touch	10 minutes x exp. level	0
Turning Undead/1	1 m x POW, in sight	5 minutes x exp. level	0/1d3
Create Skeleton/1	1 km x POW	permanent	1/1d3
Create Zombie/1	1 km x POW	permanent	1/1d3
Ghoul Control/1	1 m x POW, in sigh	1 month x exp. level	0/1d3
Located Remains/1	4 m x POW	1 CR	0
Darklife/2	self	1 minute x exp. Level	0
Darkness Of The Pit/2	2 m x POW radius	10 minutes x exp. level	0
Death Recall/2	touch	1 minute x exp. level	0/1d3
Fear/2	1 m x POW, in sight	1 minute x exp. level	0
Whispers Through The Black Gate/2	N/A	1 question x exp. level	0/1d2
Spectral Razor/2	3 m x POW, in sight	1CR	0
Delay Death/3	self or touch	4 minutes x exp. level	1/1d3
Mantle Of Darkness/3	self	10 minutes x exp. level	0
Panic/3	1 m x POW, in sight	1 minute x exp. level	0
Raise Night Fog/3	2 m x POW radius	special	0/1d2
Stench of the Grave/3	1 m x POW radius	1 turn x exp. level	0/1d2
The Secret Of Life And Death/4	10 m x POW	1 order x exp. level	1/1d4
Remortification/4	1 m	1 minute x exp. level	1/1d6
Pyreburst/4	1 m x POW radius	1 CR	1/1d3
Hasten Decay/4	1 m x POW radius	1 CR x exp. level	0/1d3
Decay/5	1 m x POW radius	1 CR	0/1d3
Enter the Shadow World/5	self	1 minute x exp. level	1/1d3
Grave Sanctuary/5	self	4 hours x exp. level	0
Voice of Ra/5	self	6 hours x exp. level	0/1
Wandering Soul/5	10 km x POW	2 hours x exp. level	1/1d5
Ghoul Gauntlet/6	touch	2 days x exp. level	1d2/1d6
Land Of Darkness/6	1 m x POW radius	10 minutes x exp. level	0
Sheath of Death/6	5 m x POW, in sight	5 CR x exp. level	1d3/1d8
Walk the Shadows/6	1 km x POW	1 CR	0/1
Terror/7	1 m x POW, in sight	1 minute x exp. level	0
Resurrection/7	1 m	permanent	1d3/1d10
Army of the Dead/7	3 m x POW radius	1 turn x exp. level	1d3/1d8
Ensnare Soul/8	touch	permanent	1d2/1d6
Wail Of The Banshee/8	1 m x POW, in sight	1 CR	1/1d3
Duplicate/9	N/A	2d3 months	1/1d4
Curse of the Putrid Husk/9	N/A	20 minutes	1/1d3
Deceive Death/9	self	7, 33 or 66 years	1d3/1d6
Consumption of the Living Flesh/9	self	permanent	1d4/1d8+1
Command The Great Undead/10	1 m x POW	1 day x exp. level	1/1d4
Command Spirits/10	2 meters	1 question x exp. level	0/1
Exorcism/10	touch	1 CR	1/1d6
Mantle of Agony/10	self	1d6 CR x exp. level	1d3/1d10

BLACK MAGIC

Black Magic deals with spells of a particularly chaotic nature, and PCs will learn such spells only to obtain the maximum of protection from them. Black Magic is a form of sorcery that draws on assumed malevolent powers such as anger and hatred. Sorcerers concentrate on violence and darkness; they channel their anger and hatred into Magic and manipulate others with the secrets that they trade. Black Magic is so called because it comes from the night, from mortals' fear of what might be lurking in the darkness.

Sorcery is invoked to kill, to steal, to injure, to cause misfortune or destruction, or for personal gain without regard to harmful consequences to others. All spells must roll a POW vs. POW against victims.

EVIL DREAMS, Black Magic Level/1: A curse which sends a nightmare against a person of the Sorcerer's choosing. The nightmare will prevent any recovery of Fatigue during sleep.

- ■ Range: 1 km x POW
- ■ Duration: 1 day x expertise level
- ■ Sanity: 0/1

WARD OF THE FLESH, Black Magic Level/1: A telekenetic effect that wards off missiles (arrows, axes, javelins, rocks, bullets or energy bolts) by a mere wave of the hand. The Sorcerer invokes the names of the Outer Gods, then stretches out a hand toward an attacker. Until dropping the hand, the Sorcerer may deflect successive attacks by expending 1 magic point for each attack. If an attack would have missed, no magic points are expended. Upon dropping of the hand, the spell ends.

The spell may be recast. The Sorcerer may deflect any number of attacks until out of magic points. He may choose which attacks to deflect and from which attacks to take damage, but must choose before knowing what the damage will be. Lacking the magic points to stop a particular attack, the spell ends, and the blow or missile hits or misses as it would in ordinary circumstances.

- ■ Range: self
- ■ Duration: till Sorcerer has MP left
- ■ Sanity: 0/1

VOORISH SIGN, Black Magic Level/1: These magical hand gestures aid in Dark Arts magic. Making the Voorish takes only a few seconds, but they increase the chance to cast successfully a spell by 10 percentiles, and in some cases seem to make visible the invisible. In the canon, this sign is never described.

> *"They from outside will help, but they cannot take body without human blood. That upstairs looks it will have the right cast. I can see it a little when I make the Voorish sign."*
>
> *H. P. Lovecraft, "The Dunwich Horror."*

- ■ Range: self
- ■ Duration: 1 CR
- ■ Sanity: 0

SIREN'S SONG, Black Magic Level/1: *T*he caster sings the spell, which if successful causes the target to believe that the caster is all that his or her heart desires. The spell takes two rounds to cast. Siren's Song affects as many people as can hear it.

- ■ Range: 1 meter x POW radius
- ■ Duration: 1d10 hours x expertise level
- ■ Sanity: 1/1d6

DESECRATION, Black Magic Level/2: The Sorcerer desecrates a specific site. Chaotic creatures and the undead are drawn to desecrated areas and are healed 1d3 HP for each hour they remain on desecrated ground.

- ■ Range: 2 meters x POW radius
- ■ Duration: 1 turn x expertise level
- ■ Sanity: 0/1d2

UNHOLY LIGHT, Black Magic Level/2: This spell must be cast on an 8 cm diameter black candle for the celebration of a black mass. The candle will burn for six hours. While burning, the candle creates an area of unholy disturbance which strengthen undead nearby of the candle. The candles resist most windy conditions except exceedingly strong winds. Black Candles are made from tallow of sentient beings.

- Range: 2 meter x POW radius from the candle
- Duration: 4 minutes x expertise level
- Sanity: 0/1

MIST OF R'LYEH, Black Magic Level/2: The spell causes a dense mist to appear in an egg-shaped volume (10 x 5 x 5 meters) x expertise level, directly in front of the Sorcerer. The long axis of the cloud is always at right angles to the direction in which the Sorcerer faces. The spell obscures vision for the duration of the spell and then evaporates without trace.

- Range: 5 meter x POW in front of the Sorcerer
- Duration: 5 minutes x expertise level
- Sanity: 0/1

SONG OF HASTUR, Black Magic Level/2: a magical attack, the song is a wailing ululation. Roll D100 equal to or less than POW + INT x2 in order to sing properly the alien melody. The target must be visible to the Sorcerer. Though everyone can hear the song, the spell affects only the person chosen as target. This spell will not work except at night, and only if the star Aldebaran is visible.

Successfully cast, this spell causes the skin and flesh of the chosen victim to bubble and fester into pestilent blobs, costing the target 1D6 hit points per round. After every two rounds, scarring reduces the victim's APP by 1D6. After every four rounds, internal ruptures lower the victim's CON by 1D6. When the victim's hit points or CON reach 0, the body swells up, then bursts with a sickening pop as steamy gore spills onto the floor.

The song can be used defensively, to guard against another Sorcerer of this spell. Successful opposing castings neutralize each other.

- Range: 2 meters x POW, in sight
- Duration: 2 rounds x expertise level
- Sanity: 1/1d3

AGONY OF THE DAMNED, Black Magic Level/3: The Sorcerer's touch totally incapacitates any living being with agony. If the target makes a successful Stamina roll, he is still in severe pain and loses 50% of his fighting skills until the spell fades.

- Range: touch
- Duration: 1 turn x expertise level
- Sanity: 0/1d3

THE FESTERING BLINDNESS OF THE SEVEN HELLS, Black Magic Level/3: This spell will temporarily incapacitate a single target. Intense, wracking pains seize the target, the face and hands blister and drip fluid, and the eyes cloud with blood and become temporarily sightless. The target is rendered completely helpless during the period of the spell's effect.

The sight returns after the spell duration. In 3D10 minutes, the target fully recovers and can resume normal activity. Traces of physical corruption fade quickly and in 24 hours only faint blemishes can be seen on the skin. Each such experience costs the target 1/1D6+1 Sanity points.

- Range: 10 meters x POW, in sight
- Duration: 1 turn x expertise level
- Sanity: 0/1d3

BLEEDING, Black Magic Level/3: The target of this spell will suffer one point of additional damage per wound and per round due to blood loss until the wounds are treated (bound, healed, etc) or the spell expires.

- Range: 1 meter x POW, in sight
- Duration: 1 turn x expertise level
- Sanity: 0/1d2

CORRUPT FOOD AND WATER, Black Magic Level/3: A spell which will cause food and water to become tainted when the Sorcerer touches it, making it totally unfit for consumption.

- Range: touch
- Duration: permanent
- Sanity: 0/1

EVIL PRAYER, Black Magic Level/3: A blasphemy which increases all skills of a cultist by 10%.

- Range: 1 meter x POW, in sight
- Duration: 1 turn x expertise level
- Sanity: 0/1

SLEEPLESSNESS, Black Magic Level/3: A curse which prevents sleep. The spell is the same as Evil Dreams except that after the first day the victim loses 1/2 of all fighting bonuses.

- Range: 1 km x POW
- Duration: 1 day x expertise level
- Sanity: 0/1

SLOW, Black Magic Level/3: A broad-area spell affecting creatures within an area. All affected creatures move at 1/2 speed and fight with -10% penalty.

- Target: 2 creatures x expertise level
- Range: 2 meters x POW radius from centre of the Sorcerer.
- Duration: 1 turn x expertise level
- Sanity: 0

RAPTURING TOUCH, Black Magic Level/3: For the spell's duration, each person touched by the Sorcerer must match his POW with the Sorcerer's. If the Sorcerer wins, an intense feeling of joy, pleasure, and lust—smothers all other conscious thought —overwhelms the victim. This feeling of pleasure is more than purely sexual; it has spiritual components as well. Affected individuals are unable to act for 21 minus their POW in combat rounds. Each round, the victim is allowed an INTx3 roll to snap out of it.

After the spell is over, the victim must make a Luck Roll. If this roll fails, the victim has become addicted to the overwhelming feelings of pleasure the spell engenders, and will seek out the Sorcerer for a repeated casting. The Sorcerer is often more than willing to comply. Note that if the victim snaps out of the spell before it has run its course, there is no chance of addiction.

If the victim is unfortunate enough to fumble their Luck Roll, their mind had been overloaded by the pleasures of the spell, and the victim dies drooling and twitching with an expression of joy on their face.

- Range: touch
- Duration: 1 turn x expertise level
- Sanity: 1/1d3

UNHEALING WOUNDS, Black Magic Level/3: A curse which prevents normal healing and increases healing time by three.

- Range: 5 meters x POW, in sight
- Duration: 1 turn x expertise level
- Sanity: 0/1

WEAKNESS, Black Magic Level/3: A broad-area spell affecting creatures within an area. All affected creatures inflict 1/2 damage and can carry 1/2 their normal weight capacity.

- Range: touch
- Duration: 1 turn x expertise level
- Sanity: 0

WINE OF DRUNKENNESS, Black Magic Level/4: An exceedingly potent wine may be made by casting this spell into wine. It has the power to intoxicate to the point of unconsciousness. One pint will incapacitate 10 HP. Thus, if a character of 28 HP consumed 3 pints, he would become unconscious. The wine will produce a drunken stupor for 10 turns x Sorcerer's expertise level. Once tasted, a character has a 1% x POW chance of stopping before he has literally drunk himself under the table.

- Volume: 1 pint x expertise level
- Duration: 10 turns x expertise level
- Sanity: 0

CURSE, Black Magic Level/4: A Curse is a spell of great power which invokes some Demon and brings one of the following misfortune to the victim.

1. Non-Fatal Disease: By uttering the words Ashak vul Kalathoth unrak Kashak (from memory), the Sorcerer may cause a victim he touches to contract a loathsome disease.

2. Fatal Disease: By uttering the words Ashak vul Talathoth unrak ag Ashak (from memory), the Sorcerer may cause a victim he touches to contract a fatal disease.

3. Misfortune: By uttering the words Ashak vul Unraal ag Ashak (from memory) and making the Sign of The Damned, the Sorcerer may bring great misfortune to anyone for 1 day x Sorcerer's expertise level. Misfortune consists of having a 10% disadvantage on all die rolls.

- Range: touch or 1 meter x POW, in sight
- Duration: variable
- Sanity: 1/1d3

MAGGOT SPRAY, Black Magic Level/4: A stream of filth containing live flesh eating maggots spurts out from the mouth of the target. The victim is sickened for 2d6 turns (causing a penalty of -20% to his attacks). Additionally, the maggots eat into the flesh causing 1d6 points of damage immediately and on subsequent turn an additional 1d3 damage per turn. The victim may stop the damage by using an entire turn to brush off the maggots (no movement, attacks during this turn). Removing the maggots does not remove the sickening effect. Each such experience costs the target 2/1D6+2 Sanity points.

- Range: 5 meters x POW, in sight
- Duration: 1 turn x expertise level
- Sanity: 1/1d5

EMPATHIC SELF CURE, Black Magic Level/4: A spell which enables the Sorcerer to cure wounded has suffered at the expense of another. What happens is that he transfers 1d6 HP of damage x Sorcerer's expertise level from himself to the other person by touching him.

- Range: touch
- Duration: 1 CR
- Sanity: 1/1d3

TWIST OF THE TONGUE, Black Magic Level/4: By uttering the words Ashak vul ungarak nun Ashak (from memory), the Sorcerer twists the target's tongue into a spiral, completely destroying the ability to speak.

- Range: 1 meter x POW, in sight
- Duration: permanent
- Sanity: 1/1d3

WEAKEN BONE, Black Magic Level/4: The bones of the target of this spell weaken. Each time the victim is hit, there is a percentage chance equal to the damage inflicted that one or more of the victim's bones will crack or break. If damage is inflicted by crushing weapons, double the percentage. If piercing weapons are used, halve the percentage.

- Range: 5 meters x POW, in sight
- Duration: 1 turn x expertise level
- Sanity: 1/1d3

CIRCLE OF NAUSEA, Black Magic Level/4: creates a powerful protective circle around the Sorcerer that will cause nausea and pain in anyone approaching it. Creating the circle costs 4 magic points, 2 points of Sanity, and 5 game minutes. The Sorcerer must inscribe a circle on the ground, then fortify the circle with four enchanted stones— one at each of the four cardinal points of the compass. Enchanting the stones in this case requires the previous sacrifice of 4 magic points into each.

Breaching the circle requires a successful resistance struggle matching the character's POW against the magical STR of the circle (equal to the POW of the Sorcerer). Anyone who touches the circle but fails the POW struggle vomits for the next five minutes, or until he retreats at least 30 meters away. If anyone successfully breaches the circle, the spell collapses.

- Range: 1 meter x POW, diameter
- Duration: till the circle is breached
- Sanity: 1/1d3

SWARM OF THE ABYSS, Black Magic Level/5: The Dark Knight is able to summon and command a swarm of thousands of flies. If the swarm is used in combat to wrap an opponent, he will lose -20% probabilities to his fighting skills.

- ■ Range: 5 meters x POW, in sight
- ■ Duration:1 CR x expertise level
- ■ Sanity: 0/1d2

BEAUTY OF THE BEAST, Black Magic Level/5: A powerful spell, radically changing the shape of the face of the Sorcerer, giving him the appearance of a Fallen Angel with a Horror Factor of 1D2/1D10. All character in sight must roll a Sanity check.

- ■ Range: self
- ■ Duration:1 CR x expertise level
- ■ Sanity: 1/1d3

DREAD CURSE OF AZATHOTH, Black Magic Level/5: can drain POW from victim. By repeating the secret Name of Azathoth, one can generate respect and fear in any being conversant with the Mythos, for to know the Name implies that one knows the secret Last Syllable. Said alone, the Last Syllable may be directed against a foe. Match magic points on the Resistance Table. With a success, the target loses 1D6 POW.

- ■ Range: 2 meters x POW, in sight
- ■ Duration:1 CR
- ■ Sanity: 2/1d6

BRIMSTONE DEATH, Black Magic Level/5: Upon the death of the Sorcerer, a horde of fiends is summoned to avenge him.

- ■ Fiends: 1 creature x POW
- ■ Duration: 4 turns x expertise level
- ■ Sanity: N/A

CURSE OF THE LEPROUS FLESH, Black Magic Level/5: By uttering the words Ashak vul Algarath unrak Kashak (from memory), the Sorcerer may cause a victim he touches to contract a vicious disease. This spell causes the person's flesh to rot off in a matter of weeks— truly hideous sight. Much of the target's flesh literally hangs from his frame, and there is a pungent rotting smell about him at all times. Every week, over a period of two months, the target lose 1d2 APP points permanently and 1d6 HP.

- ■ Range: touch
- ■ Duration: 1 week x expertise level
- ■ Sanity: 1d2/1d6

FINGER OF DEATH, Black Magic Level/5: A spell which fills a target's lungs with blood and inflicts 3d6 points of damage on a victim. The target falls to the ground and can do nothing but cough up blood. The victim is incapacitated for at 1-3 turns as he clears the blood from his lungs. The Sorcerer merely points his finger and utters the words Ashak ul Karak nun Ashak (from memory).

- ■ Range: 1 meter x POW, in sight
- ■ Duration: 1 CR
- ■ Sanity: 1/1d6

GAZE OF THE BASILISK, Black Magic Level/5: The Sorcerer's eyes are transformed into those of the Basilisk. Anyone within range who meets his gaze is instantly paralysed and cannot move. An Idea roll is required each turn to avert his eyes before the spell does more than start to numb him slightly. Whenever he looks in the Sorcerer's direction, he must make another resisted roll. One may gaze in a mirror to look at the Sorcerer with safety and so prevent petrification but one's combat efficiency is greatly impaired (Hit Probability is halved).

- ■ Range: 1 meter x POW, in sight
- ■ Duration: 1 minute x expertise level
- ■ Sanity: 1/1d4

POSSESSION, Black Magic Level/5: The Sorcerer controls his victim through a Demonic Spirit under his control. The ritual requires a link to the victim for the Sorcerer to even be able to attempt the possession: a lock of hair, a pool of blood or an item that is important to the intended victim. The victim remembers everything that happens during the possession, but more like a surreal dream than anything real. The victim cannot be made to commit suicide while possessed, but can otherwise be made to go against all its principles.

- ■ Range: 1 meter x POW, in sight
- ■ Duration: 1 week x expertise level
- ■ Sanity: 1/1d3

SPIRIT'S BLADE, Black Magic Level/5: Creates a blade capable of damaging or killing entities that cannot be harmed by mundane weapons. Requires the blood sacrifice of an animal of at least SIZ 10. The blade of the knife must be of an elemental metal such as iron or silver. The blade may be of any size; however, larger blades do greater damage.

If the blade is broken, melted, or otherwise damaged it permanently loses this ability; however, it will not be harmed in attacks against supernatural entities

- ■ Range: Blade
- ■ Duration: permanent
- ■ Sanity: 1/1d4

BODY WARPING OF GORGOROTH, Black Magic Level/6: allows the Sorcerer to change his physical form. The Sorcerer must invoke Nyarlathotep and repeat the phrases of the spell for 1D6+4 minutes while expending 6 magic points and an additional magic point for each point of SIZ to be gained or lost in the body warping up to his experience level. Only one alteration per casting is possible, and the effect is permanent until the spell is recast to change back again. This spell cannot be cast on another being.

Once changed, the Sorcerer's INT and POW never change. The Sorcerer can take on only the form of a person or an animal of what he knows.

- ■ Range: self
- ■ Duration: permanent
- ■ Sanity: 1d3/1d6

THE STINKING BREATH OF SEVEN HELLS, Black Magic Level/6: The Sorcerer spews forth a visible cloud of noxious vapors from his mouth, like a jet of steam. The target loses 1D6 hit points from this choking poison. The noxious vapor dissipates immediately in the open air, but stays active in an enclosed space until a window is opened or a draft is otherwise created.

If the target is aware of the stream of noxious vapor (possibly a Spot Hidden or Listen roll), he may attempt to Dodge its effects (in the first round). Those unable to Dodge lose 1D8 hit points. On the second round 1D6 hit points are lost, followed by 1D4 hit points on the fourth round, and 1D2 hit points in the final round. Damage is negated if the target manages to escape the vicinity of the vapor. Anyone else in the area suffers 1D4 damage per round for 4 rounds.

- ■ Range: 2 meters x POW
- ■ Duration: 4 rounds
- ■ Sanity: 1d2/1d6

CREEPING DOOM, Black Magic Level/6: The Sorcerer calls forth a mass of 1,000 venomous, biting and stinging spiders, scorpions, beetles and centipedes. The carpetlike mass swarms in a square 10 meters on a side. Upon the Sorcerer's command, the swarm creeps forth toward any prey. Each vermin in the creeping doom effect automatically bites a creature for 1 point of damage and then dies. Each creature overrun by the swarm takes enough hit points of damage to kill it, destroying that number of vermin in the process. If there aren't enough vermin to kill all the creatures in the spell's effect, damage is distributed among the survivors equally. If the creeping doom travels more than 20 meters away from the range of the spell, it loses 50 of its number for each additional 2 meters it travels. Anything that would deter or destroy normal insects is effective against these insects.

- ■ Range: 10 meters x POW, in sight
- ■ Duration: 5 minutes x expertise level
- ■ Sanity: 1d2/1d6

SUMMON BLACK CROWS, Black Magic Level/6: This spell is used to summon crows. The birds have a cunning intelligence and act as a swarm. They can be ordered to attack any target.

- ■ Crows: 1d6 figure x expertise level

- ■ Duration: 1 hour x expertise level
- ■ Sanity: 0/1d2

THE BLACK WORDS, Black Magic Level/6: A powerful offensive spell causing physical injury to a target. The Sorcerer invests as many magic points as desired (at least 6 MP) and that number halved in Sanity points. If successful, the target is subjected to a sudden and terrifying blast of energy, causing flesh to blacken and wither. The target loses 1 hit point per magic point invested in the spell.

- ■ Range: 5 meters x POW, in sight
- ■ Duration: Instantaneous
- ■ Sanity: variable

UNHOLY STRENGTH OF THE ETERNALLY DAMNED, Black Magic Level/6: A spell which imparts to any recipient sworn on an oath of Damnation from 1d6 additional points of damage x Sorcerer's expertise level whenever he strikes a foe.

- ■ Range: 5 meters
- ■ Duration: 1 turn x expertise level
- ■ Sanity: 0/1d2

WEIGHT OF A THOUSAND HELLS, Black Magic Level/6: Causes the victim to feel the despair, anguish, pain, and sorrow of a thousand sinners in Hell. This is a truly horrible spell, for the victim loses 1D6 SAN and almost all motivation. All he can feel is his own pain—endless, inexorable, and searing. The target has a strong tendency to do nothing but brood. All actions and skills of the victims are lowered by 25%.

- ■ Range: 1 meter x POW, in sight
- ■ Duration: 1 turn x expertise level
- ■ Sanity: 0/1d3

CRUSH THE DEFIANT, Black Magic Level/7: The Sorcerer merely points his open hand and utters the words Ashak ul Talathoth nun Ashak (from memory) to exert a constricting force on a living target's internal organs. No armour can prevent damage from occurring. A successful Stamina roll results in 4d6 damage points. If the Stamina roll fails, the victim crumples to the ground, totally incapacitated by excruciating pain, with initial an additional 6d6 damage points.

- ■ Range: 2 meters x POW, in sight
- ■ Duration: 1 CR
- ■ Sanity: 1/1d5

BREATH OF THE DEEP, Black Magic Level/7: The target's lungs fill with seawater, potentially causing an unpleasant death by drowning.

After mentally intoning the spell for a round, for the spell to take effect the Sorcerer must win an opposed POW roll with the target. If the Sorcerer wins the target begins to drown—the target falls to the floor, choking on seawater and taking 1D8 damage each round. The target should make an Extreme CON roll (equal to or below one-fifth CON) after taking damage each round; if the roll is successful the water has been expelled and the effects of the spell cease.

- ■ Range: 2 meters x POW, in sight
- ■ Duration: 5 CR
- ■ Sanity: 1/1d5

GROW AGED, Black Magic Level/7: A curse which causes the victim to age 1 year per day. Victims lose 1d6 SAN and 1 Appearance point per 3 years of aging.

- ■ Range: 10 meters x POW, in sight
- ■ Duration: 3 days x expertise level
- ■ Sanity: 1d2/1d6

FROM HELL'S FIRE, Black Magic Level/8: This spell shapes a swirling mass of fire into a "wall" of any shape and thickness so long as total volume equals 1 meter x POW square meters. To pass through a Flame Wall requires a BRA -4 fortitude roll and this risks fire damage and ignition of flammable materials on one's person. Missiles attacks suffer also a penalty of -20% to hit.

- ■ Range: 1 meter x POW, in sight
- ■ Duration: 1 CR x expertise level

- Sanity: 0/1d2

CLOAK OF HELL, Black Magic Level/8: The spell wreathes the Sorcerer in weaving, glittering points of light, each spark dragging a luminous trail and flickering white-hot. It takes one round to cast. Viewing the Cloak in action costs 1/1D3 Sanity points. Sealed within the Cloak, the Sorcerer rises several centimeters off the floor so that his feet no longer touch. Nonetheless, body movements are precise. The nimbus of the Cloak is agonizing. No hit points are lost because of the pain, however, and if the Sorcerer has not touched anyone, the pain stops when the spell does. While the spell is in effect, double the Sorcerer's MOV and DEX. Decrease all chances for attack against the Sorcerer by -20%. All weapon attacks do minimum damage. Anyone attacking with Fist/Punch, Kick, etc., suffers 1D8 hit points of damage: each time this happens, the Sorcerer also suffers half of that rolled damage (round down) as his skin and flesh flash away to feed the Cloak's magical surface. Thus it is possible that this spell could lower the Sorcerer's hit points to zero, and cause death.

- Range: self
- Duration: 1D6 turn x exp. level
- Sanity: 1d3/1d6

BARRIER OF NAACH-TITH, Black Magic Level/8: The barrier provides both a physical and magical defense. Each magic point expended in the creation provides the barrier 3D10 points of STR. The spell takes 1 minute to cast (during which time all magic points to be used must be expended). Anyone who knows the spell may participate in the casting and contribute magic points to the barrier.

The barrier is spherical in shape and about 20 meters in diameter. It can be cast around the Sorcerers to protect from harm or it can be cast to encompass a monster or enemy. Any creature bisected by the barrier's boundary upon its creation is unharmed and thrust outside the barrier. Anything trapped should be allowed a STR roll opposed by the STR of the barrier. Multiple entrapped victims cannot combine their STR to escape. A bullet or missile can cross the barrier if the rolled damage (ignore impales) to the barrier is greater than a fifth of the barrier's STR. If penetrating the barrier, the object does the damage rolled, as if the barrier did not exist, and the barrier is destroyed.

- Range: 5 meters x POW, in sight
- Duration: 1 hour x exp. level
- Sanity: 0/1d2

THE SONG OF PAIN, Black Magic Level/8: A terrifying spell designed to torment and cause permanent damage to a target. The Sorcerer nominates an arm or leg which rapidly and painfully withers and shrivels, causing 1D8 hit points of damage and a permanent loss of 1D4 CON. The victim loses 1D4/1D8 Sanity points.

- Range: 1 meter x POW, in sight
- Duration: Instantaneous
- Sanity: 1/1d6

BREATH OF THE VOID, Black Magic Level/9: This spell creates a magical drink that allows a human to withstand journeys through the vacuum and vicissitudes of space. Brewing the drink and taking the journey represent separate stages for the Sorcerer. Different types of space-mead exist, each with the same effects but all of them requiring different ingredients.

> *A wonderfully golden liquid, which he kept in a carafe in his desk and served in tiny Belgian liqueur glasses in such small amounts that it seemed futile even to raise it to one's lips—and yet its bouquet and its taste… outdid even the oldest Chianti and the best Chateau Yquem to such an extent that to mention them in the same breath was to do injustice to the professor's brew. Fiery though it was, it had the additional effect of making me drowsy…*
>
> *August Derleth, The House on Curwen Street*

Brewing space-mead requires five special ingredients to be chosen by the Game Master and requires at least a week of brewing time. Once the mead is foaming and bubbling, the Sorcerer must sacrifice 20 magic points per dose into the brew. These magic points may be sacrificed over many days; the more points, the more doses. Each dose allows one person to withstand one journey through space of varying distance and time.

Once the space-mead has been enchanted, the traveler must find a means of transportation—usually a mount: among others, the spell Summon Byakhee can provide an interstellar steed. The traveler then drinks a dose (presumably bringing a return dose along), climbs on, commands the mount, and the journey begins. It is at this point that the traveler pays the necessary magic and Sanity point cost subject for the distance being traveled.

While in space, the travelers are in mental and physical stasis, nearly insensible to their surroundings. Upon arrival at the destination, the effects of the brew conclude.

- Range: 1 Light Year x POW

- ■ Duration: Duration of the journey

- ■ Sanity: 1/1d6

FIST OF YOG-SOTHOTH, Black Magic Level/9: The Sorcerer causes a massive, invisible force of 2D10 STR x expertise level to hit a single target. The Sorcerer must be able to see the target. Each magic point invested in the spell yields another 1D10 STR of force.

When the target is struck (if a living thing), an opposed roll must be made using the spell's STR versus the target's CON. If successful, the target is knocked unconscious. Whether or not the target is left unconscious, the target is always pushed away from the Sorcerer for a distance in meter equal to the expertise level x 5 of the Sorcerer minus the target's SIZ.

The spell can be used against the STR of inanimate objects such as doors or walls. Results may be obvious, but sometimes GMs will have to determine these cases.

- ■ Range: 2 meters x POW, in sight

- ■ Duration: Instantaneous

- ■ Sanity: 0/1d3

> Fist of Yog-Sothoth – example
>
> Curven the Sorcerer masters the spell 'Fist of Yog-Sothoth' at 70% (ie: expertise level 3). He spends 2 magic points to hit an adventurer 20 meters away. The spell generates a STR of 3x2 + 2 = 8D10 that are rolled for a result of 57. The adventurer fails a CON roll and so he is knocked unconscious. The adventurer has a SIZ of 11 and is bowled back 15 – 11 = 4 meters by the impact.

RAIN OF BLOOD, Black Magic Level/9: This horrible event can occur as part of a regular thunderstorm or all on its own. Blood pours down in thick drops, coating everything in a dark red, sticky mess. Inside, the blood will ooze down the walls. Any living creature in the area of a rain of blood must succeed a Fortitude roll or lose 1/1d6 SAN and 25% of his fighting abilities until the rain fades.

- ■ Area: 10 meters x 10 meters x POW

- ■ Duration: 2 turns x expertise level

- ■ Sanity: 1/1d6

BLOOD SHIELD, Necromancy Level/10: The Necromancer is protected against all kinetic attacks by ten points of invisible magical armor. However, each attack reduces the stopping power of that armor by 1 hit point; e.g., after two bullets hit, the spell stops only the first 8 hit points of damage from the third, and only the first 7 from the fourth. Casting the spell takes approximately one uninterrupted hour of time.

- ■ Range: self

- ■ Duration: 10 hours x expertise level

- ■ Sanity: 0/1d3

CTHUGHA'S EMBRACE, Black Magic Level/10: Reserved for only the most foul of Sorcerers, this spell causes the bewildered victim to burst into flame. For the spell to take effect the Sorcerer must succeed in an opposed POW roll with the target during each round of concentration. After 1D3 rounds of concentration, the victim's skin forms large blisters and he loses 1D3 hit points. In the next round, the victim loses an additional 1D6 hit points. On the third round, the victim bursts into flames, losing 1D10 hit points then and each round thereafter. The stench of burning hair and flesh is overwhelming (all witnesses should make Fortitude rolls or lose 1/1D6 SAN). It is impossible to render aid, since the horrified victim burns from the inside out.

- ■ Range: 10 meters x POW, in sight

- ■ Duration: 3 CR

- ■ Sanity: 1/1d6

KISS OF DEATH, Black Magic Level/10: The person kissed by the Sorcerer dies a sudden death. The only mark on the corpse is the black imprint of the Sorcerer's lips.

- ■ Range: touch

- ■ Duration: 1 CR

- ■ Sanity: 1/1d3

NECROMANCY

Necromancy is a practice of Sorcery involving communication with the deceased – either by summoning their spirit as an apparition or raising them bodily – for the purpose of divination, imparting the means to foretell future events or discover hidden knowledge, to bring someone back from the dead, or to use the deceased as a weapon.

All spells must roll a POW vs. POW against victims.

CLOAK OF DEATH, Necromancy Level/1: With this spell, the Necromancer enshrouds the target of this spell with an aura of unlife, effectively hiding the target's life force. This spell will likewise fool creatures which hunt warm blooded living things, as well as abilities such as detect life.

- ■ Range: self or touch
- ■ Duration: 10 minutes x expertise level
- ■ Sanity: 0

TURNING UNDEAD, Necromancy Level/1: A very powerful spell which gives the Necromancer to exert influence over Undead. The following table gives the degree of influence available to a Necromancer at any given expertise level. "T" means the power to turn away the figure named and keep him at a safe distance. "D" means the power to dismiss the figure from the Necromancer's presence. "-" means no effect. The number printed after any letter indicates the number of such figures that the Necromancer may turn or dismiss; e.g.: T/10 means that he can turn away such figures. Turned undead flee at their full movement rate for ten rounds. If unable to flee, they will cower. If the Necromancer approaches within 3 meters, or attacks a cowering undead monster, the spell is broken and the undead creature will attack.

expertise level of the Necromancer

Type of Undead	1	2	3	4	5	6
Skeleton	T/5	T/10	D/20	D/40	D/80	D/160
Zombie	T/1	T/5	D/10	D/20	D/40	D/80
Ghoul	-	T/1	T/5	D/10	D/20	D/40
Mummy	-	-	T/1	T/5	D/10	D/20
Vampire	-	-	-	T/1	D/5	D/10
Wraith	-	-	-	-	T/1	D/5
Ghost	-	-	-	-	-	T/1

- ■ Range: 1 meter x POW, in sight
- ■ Duration: 5 minutes x expertise level
- ■ Sanity: 0/1d3

CREATE SKELETON, Necromancy Level/1: A spell which permits a Necromancer to animate a skeleton and make it an extension of his will. The skeleton must be intact. An animated skeleton will be capable of self-directed behavior, subject to the orders given it by the Necromancer, who has complete control and may direct it by Telepathic Command from a considerable distance. A Necromancer may take over control of such a figure from the creator if he succeeds a POW vs. POW -5% x skeletons.

> Create skeleton – example
>
> Elrik the Necromancer wants to take control over three skeletons. Elrik has POW 18 and the creator has POW 15. Elrik has a 65% 15% = 50% chance to succeed the POW vs. POW.

- ■ Number: 10 skeletons x expertise level
- ■ Range: 1 km x POW (command)
- ■ Duration: permanent
- ■ Sanity: 1/1d3

CREATE ZOMBIE, Necromancy Level/1: A spell which permits a Necromancer to animate a corpse and make it an extension of his will. Otherwise, like Create Skeleton, above. This link allows the Necromancer to gather sensory information from the vicinity of the undead. The Necromancer may choose 1 sense per extra PP expanded.

1. Sight: The Necromancer can see what the corpse or undead creature sees as if looking through one of the creature's eyes.

2. Sound: The wizard can now hear through one ear exactly as if standing at the corpse's current location (the Necromancer's own Hear Noise percentage applies).

3. Smell: With one nostril, the wizard can now smell things exactly as if standing at the corpse's current location. The spell conveniently masks the putrefying stench of the cadaver (if any) so that subtle variations of aroma (like the scent of a rose) can easily be detected.

4. Taste: The Necromancer can taste any substance which is introduced into the corpse's mouth. The substance (which may be solid or liquid) tastes exactly as if the wizard had placed his own tongue. This can be especially useful when checking for poison in food or identifying unknown potions. Thankfully, the taste of the corpse's own rotting flesh can be masked out by the spell.

5. Touch: The Necromancer gains the ability to sense the textural and environmental conditions, with a single hand, as if standing at the corpse's location. The Necromancer can gauge the surface temperature and temperature of any object or substance which is placed in contact with the corresponding hand of the corpse.

The type and number of sensory signals is chosen by the Necromancer at the time of casting and cannot be changed for the duration of the spell. The Necromancer collects all the sensory information through a single organ (eye, ear, nostril, half of the tongue or hand) belonging to the corpse or undead recipient. This organ need not be attached to the rest of the cadaver for the spell to function properly. While the spell is in effect, the Necromancer can still see/hear/smell/taste/touch normally through other (unlinked) organs. For example, a Necromancer harvests the left eye from a freshly cadaver and places it on a high ledge with a strategic view of a front door. If the spell is now cast, the Necromancer's left eye would be able to see through the left eye of the corpse and spy on any visitors, while his right eye remains normal.

- Number: 5 zombies x expertise level
- Range: 1 km x POW (command)
- Duration: permanent
- Sanity: 1/1d3

GHOUL CONTROL, Necromancy Level/1: A spell which enables a Necromancer to gain control over a ghoul who has no Necromancer for a Master. Once the Ghoul is placed under the Necromancer's influence, he will serve his Master loyally.

- Number: 1 Ghoul x expertise level
- Range: 1 meter x POW, in sight
- Duration: 1 month x expertise level
- Sanity: 0/1d3

LOCATED REMAINS, Necromancy Level/1: This spell attunes the Necromancer to the physical remains of dead beings in the area of effect. Locate remains will thus easily detect the presence of unburied corpses or corporeal undead (such as skeletons or zombies), but has no effect on non-corporeal undead (such as ghosts or spectres). The area of effect extends facing forward from the Necromancer. Scanning in a direction requires one round during which time the Necromancer remains motionless in concentration. Locate remains is unaffected by walls or obstacles. In the most general application, the spell precisely locates any and all physical remains of individuals in the area of effect, regardless of sex, species and undead status. This spell does not impart any knowledge regarding the identity (or undead nature) of the remains; only the current locations of corpses within the area of effect are learned. If a personal item or a small fragment of the deceased individual is available at the time of casting, the spell can be used to locate the remains of that specific individual. In that case, the spell does not register the presence of any remains except those of the desired individual. Both the general and specific versions of the spell have no effect if cast on a living creature of any kind. The material component for this spell is either a small piece of bone from a human cadaver (for the general version) or else an article of clothing, personal possession or strand of hair (for the specific version). This spell is popular in regions with strict burial customs.

- Range: 4 meters x POW
- Duration: 1 CR
- Sanity: 0

DARKLIFE, Necromancy Level/2: A spell which enables the Necromancer to tap into the power of death to avoid damage. He is granted a bonus of ½ POW additional HP for the duration of the spell. If the Necromancer suffers damage these points will be lost first. Once lost, they cannot be healed even if the spell is still active.

- Range: self
- Duration: 1 minute x expertise level

■ Sanity: 0

DARKNESS OF THE PIT, Necromancy Level/2: This creates a zone of natural darkness. All light from torches, lamps, etc. is unaffected. In the absence of illumination, light-loving creatures perform vision-dependent skills at 50%.

■ Range: 2 meters x POW radius from centre of Necromancer in daylight, doubled in moonlight

■ Duration: 10 minutes x expertise level

■ Sanity: 0

DEATH RECALL, Necromancy Level/2: This spell enables the Necromancer to visualize the final minutes of the life of any creature or person that died within the previous 24 hours. When the Necromancer touches the subject's corpse, he goes into a trance. The Necromancer then has a vision of the final minutes of the subject's life as seen by the subject himself. The vision ends with the last scene the subject saw before he died, at which time the Necromancer awakens from his trance and the spell is over.

■ Range: touch

■ Duration: 1 minute x expertise level

■ Sanity: 0/1d3

FEAR, Necromancy Level/2: A spell which causes all living beings approaching nearby the Necromancer to succeed a Fortitude roll each turn. Figures over SIZ/15 are unaffected. All combat skills of affected beings are reduced by 10%. Undead are unaffected, as are Necromancers.

■ Range: 1 meter x POW, in sight

■ Duration: 1 minute x expertise level

■ Sanity: 0

WHISPERS THROUGH THE BLACK GATE, Necromancy Level/2: A spell which permits the Necromancer to speak with the dead. There is a 100% 1% x week since death + 5% x POW of success. The Dead will not lie, but they will withhold any part of the truth not clearly and specifically included in the question. Answers are given promptly, with a minimal waste of valuable time. The Dead resist speaking of what they know, and questions must be carefully phrased. The Dead will automatically know everything it did in life. Personal enemies of the Necromancer or of any person for whom he is asking the question will lie outright 25% of the time: the Dead also bear grudges.

■ Range: N/A

■ Duration: 1 question x expertise level of 25 words each

■ Sanity: 0/1d2

SPECTRAL RAZOR, Necromancy Level/2: creates the effect of an invisible blade which can be used to cut and slash victims. Damage is (1D6 x expertise level) per round. The spell takes 2 rounds to cast. If the target is concealed or half hidden behind obstacles or obstructions, the damage is done to intervening objects until enough damage has been done that the target is visible and vulnerable.

■ Range: 3 meters x POW, in sight

■ Duration: 1 CR

■ Sanity: 0

DELAY DEATH, Necromancy Level/3: This spell enables one person or creature to postpone death. If delay death is cast before the indicated creature or person reaches 0 HP, he is able to fight, cast spells, communicate and take all other normal actions until he reaches -CON HP. However, from the time he reaches 0 HP until he is reduced to -CON HP, the affected person or creature makes all attack rolls at a -10% penalty and his movement rate is reduced by half. When the subject reaches -CON HP, he is dead and delay death is no longer in effect. If the spell expires after the affected subject has reached 0 HP but before he has been reduced to -CON HP, the subject dies instantly.

■ Range: self or touch

■ Duration: 4 minutes x expertise level

■ Sanity: 1/1d3

MANTLE OF DARKNESS, Necromancy Level/3: This conceals recipient in dark, impenetrable shadow that he appears to wear like a cloak. He cannot be seen by normal means when standing in dark places.

■ Range: self

■ Duration: 10 minutes x expertise level

- ■ Sanity: 0

PANIC, Necromancy Level/3: A spell which causes all living beings approaching nearby the Necromancer to succeed a Fortitude roll each turn with -10% penalties. Undead and figures over SIZ/20 are unaffected. All combat skills of affected beings are reduced by 10%.

- ■ Range: 1 meter x POW, in sight
- ■ Duration: 1 minute x expertise level
- ■ Sanity: 0

RAISE NIGHT FOG, Necromancy Level/3: draws up a dense ground fog from a body of water. The ritual takes about 10 minutes to complete and involves a bowl or cup for water, filled from the body of water where the fog is to form, then blowing softly across the surface of the container. The fog forms suddenly; if there is wind, it drifts with the wind. The spell can be cast only at night. The fog dissipates with the rising sun.

- ■ Range: 10 meters x POW radius from centre of Necromancer.
- ■ Duration: till sunrise
- ■ Sanity: 0/1d2

STENCH OF THE GRAVE, Necromancy Level/3: This spell creates a sickly stinking smell of rot and decay that emanates from the Necromancer's body. The smell of death and corruption surrounding the Necromancer is so overwhelming that living creatures must succeed a Stamina roll or be sickened (-10% to attack rolls).

- ■ Range: 1 meter x POW radius from centre of the Necromancer.
- ■ Duration: 1 turn x expertise level
- ■ Sanity: 0/1d2

THE SECRET OF LIFE AND DEATH, Necromancy Level/4: At the moment a Necromancer will begin his first great project, the inquiry into the Secret of Life and Death. His ambition is to develop a Monster of great power with exceptional fighting abilities. The Necromancer will go to any lengths in order to acquire the "components" needed to fashion the body of the Great Monster. Because the specifications for any part of the creature are very demanding, there is only a 5% chance per hand, arm, leg, foot, etc., that the part is acceptable. If any part is unacceptable, the remainder of the body being examined is considered worthless, and parts must be found from another body. Components taken from corpses very recently dead and undiseased are utterly essential.

When completed, the body of the Great Monster will be very hard to kill. It will obey its creator without questions 95% of the time (the other 5% it runs "amok"). The Master can exert direct control over it so long as he is nearby. The Great Monster can be left alone and acts with considerable intelligence. However, it is literal-minded when carrying out any specific orders when out of the Master's control range. If the Master dies, it will wander off on its own.

The problem is to animate the Monster. There is a 5% chance + 4% x expertise level of the Necromancer that he will successfully bring the creature to life. An attempt may be made only 3 times per year, during a severe thunderstorm. Only one such creature should be animated at any one time, for if it ever meets with another it runs "amok" and they will fight to the death.

- ■ Range: 10 meters x POW (command)
- ■ Duration: 1 order x expertise level
- ■ Sanity: 1/1d4

REMORTIFICATION, Necromancy Level/4: forces the appearance of the ghost of one whom the Necromancer has personally killed. The spell takes 1 round to cast. The spirit reenacts movements made just before its death. The spirit is immaterial. Objects pass right through it. It cannot physically harm anyone or anything, but may cost Sanity to see.

- ■ Range: 1 meter
- ■ Duration: 1 minute x expertise level
- ■ Sanity: 1/1d6

PYREBURST, Necromancy Level/4: The Necromancer turns one of the most solemn moments – the cremation of the dead – into a deadly weapon against his foes with a withering red gaze. When successful, this spell turns a single corpse into a flaming bomb that showers an area in burning debris. The corpse explodes in an area equal to one metre per 5 points of SIZ (round up) of the corpse. Anything caught in the explosion suffers 3D6 firedamage distributed evenly amongst all Hit Locations. Although the damage is fire based, it is also comprised of bone chips and melting flesh, so mundane armour still protects against it. No matter how much damage is rolled, the corpse is destroyed in the casting of the spell.

- ■ Range: 1 meter x POW radius from centre of Necromancer

- Duration: 1 CR
- Sanity: 1/1d3

HASTEN DECAY, Necromancy Level/4: Whispering to the worms and bacteria in the undead's rotten frame, the Necromancer calls upon them to devour the corpse, cramming a century's worth of decay into an instant. Undead creature suffer a –(5 x expertise level)% penalty to all skills and 1 HP x expertise level of damage at random location. Armour does not protect against this damage.

- Range: 1 meter x POW radius from centre of Necromancer
- Duration: 1 CR x expertise level
- Sanity: 0/1d3

DECAY, Necromancy Level/5: This spell causes all non-animate matter within the area of effect to suddenly decay, as if several centuries had passed in only a few seconds. Organic, non-living object in the area of effect decomposes and transforms into inert matter within one round. Metallic objects subject to oxidation are reduced to flakes of rust. Glass and other super-cooled fluids discolor and flow into solid puddles while liquids evaporate, leaving a decayed residue. Permanent magical items are immune to this effect, otherwise only stone or other time-proof materials can resist this spell.

- Range: 1 meter x POW radius from centre of Necromancer
- Duration: 1 CR
- Sanity: 0/1d3

ENTER THE SHADOW WORLD, Necromancy Level/5: This enables passage between this plane of existence and the borderline of the Tachyon universe. The Necromancer is literally invisible to anyone in the normal world. He is fully visible to any being in the Tachyon universe and is able to see the beings who reside there. He can't cast magic into the normal world. The Necromancer can remain invisible for as long as he wants, but if the spell duration is exceeded, he runs a risk of being drawn completely into the Tachyon universe. There is a 10% + 10% per minute over the spell duration chance of this occurring. If the Necromancer cannot return, he becomes a Wraith!

Each minute in the Tachyon universe, there is 1% cumulative chance that the Necromancer attracts the attention of 1d3 Hounds of Tindalos. The Hounds will appears 2d6 CR after the Necromancer comes back in the normal world.

- Range: self
- Duration: 1 minute x expertise level
- Sanity: 1/1d3

GRAVE SANCTUARY, Necromancy Level/5: This spell enables the Necromancer to create an invisible entry into a grave, mausoleum, sarcophagus, large tombstone, or similar item associated with the repose of the dead. The entry is visible to undead and other Necromancers, but this does not grant any special access to the doorway. Once the spell is complete, the Necromancer may enter the space, effectively disappearing from sight. Only one grave may be effected by Grave Sanctuary at a time. The Necromancer is completely aware of his surroundings while in the grave, gaining the bonus of 360-degree vision and hearing, as well as being able to detect changes in the immediate temperature surrounding the site. While inside the grave, the Necromancer does lose any sense of taste, smell, or touch, and may not speak or otherwise cast spells while inside the grave's protection.

- Range: self
- Duration: 4 hours x expertise level
- Sanity: 0

VOICE OF RA, Necromancy Level/5: Temporarily increases Necromancer APP and certain related skills. The ritual takes two hours to complete, and a variety of herbal components are burned during the casting. The spell adds 1D10 APP to the Necromancer, and increases by 20 percentiles each the Necromancer's Bargain, Credit Rating, Fast Talk, Persuade, and Psychology skills.

- Range: self
- Duration: 6 hours x expertise level
- Sanity: 0/1

WANDERING SOUL, Necromancy Level/5: while he sleeps, this spell can send the Necromancer's soul to some location, and thus scry out his enemies. The Necromancer then wakes twelve hours later, having spent all but one magic point and sacrificed 1D4 SAN, and with a sense of exhaustion. The dream-like vision reveals information readily observable, but lamps cannot be lit, nor boxes and drawers opened, nor papers rifled.

While it is so wandering, those of POW 20 or more can see and identify the scrying soul. Those of POW 15 or more have the feeling of being watched. Those asleep see the face of the scrying soul and can identify it, for the soul has always the appearance of the Necromancer, and cannot be disguised.

- ■ Range: 10 km x POW from Necromancer's body
- ■ Duration: 2 hours x expertise level
- ■ Sanity: 1/1d5

GHOUL GAUNTLET, Necromancy Level/6: This rare and horrible spell causes the victim to be slowly transformed into a ravening, flesh-eating ghoul. The transformation process usually begins at the limb or extremity (usually the hand or arm) closest to the location touched by the Necromancer at the onset of the spell. The victim suffers 1d6 HP of damage each day while the body slowly dies and transforms into a ghoul's cold, undying flesh. During the early stages of the spell, the original afflicted extremity may be severed and burned to terminate the spell. If the extremity affected by the ghoul gauntlet is amputated while the victim has lost less than 20% of his total HP, then only a hand or foot may need to be severed. After the victim has lost 20% 50% of his hit points, however, an entire limb will have to be cut. As the spell unfolds, the advancing front of dying flesh inexorably traverses the entire body, and the victim immediately dies once the ghoul gauntlet reaches the heart or brain (upon reaching 0 HP due to the spell). One full day after the victim had died (unless the remains are burned), the subject awakens as a full-fledged ghoul. The undead is now a fawning slave, utterly under the control of the Necromancer who cast the nefarious spell.

- ■ Range: touch
- ■ Duration: 2 days x expertise level
- ■ Sanity: 1d2/1d6

LAND OF DARKNESS, Necromancy Level/6: This creates a region of intense darkness. This spell is similar to Darkness of the Pit except that light from ordinary torches, lamps, and flames is completely absorbed.

- ■ Range: 1 meter x POW radius from centre of Necromancer in daylight, doubled in moonlight
- ■ Duration: 10 minutes x expertise level
- ■ Sanity: 0

SHEATH OF DEATH, Necromancy Level/6: The target's clothes turn into living, moving flesh, glistening with slime. This foul shell tightens its grip on the warm human body it surrounds, squeezing the target for 1D3 damage each round until they are dead. As the cold, clammy shell crushes the victim, a Sanity check is required (0/1D6 loss). The target may attempt a Hard STR roll to peel off the foul slime (companions may provide aid, reducing the difficulty to Regular). Once the slimy clothing is fully removed, it begins to dissolve and can cause no further harm. Hopefully the now naked victim can find something to wrap-up in quickly!

- ■ Range: 5 meters x POW, in sight
- ■ Duration: 5 rounds x expertise level
- ■ Sanity: 1d3/1d8

WALK THE SHADOWS: The Necromancer enters the Shadow Path and travel immediately from an unlight dark place to another one. The spell is equivalent to the teleport Psionic ability.

- ■ Range: 1 km x POW (travel)
- ■ Duration: 1 CR
- ■ Sanity: 0/1

TERROR, Necromancy Level/7: A spell which causes any living being approaching nearby the Necromancer to instantly flee in complete terror if below SIZ/25. All others must succeed a Fortitude roll with -20% penalties. A Fortitude roll is made each turn thereafter so long as the Necromancer is within his range of the affected beings. That terror is straight from the grave-the literal fear of death itself. Undead are unaffected.

- ■ Range: 1 meter x POW, in sight
- ■ Duration: 1 minute x expertise level
- ■ Sanity: 0

RESURRECTION, Necromancy Level/7: This infamous ritual reduces a corpse to strange, dull greenish ashes ("essential saltes"), which may later be reformed into a living, healthy body. The duration of such "essential saltes" is uncertain, but some have been perfectly preserved for centuries and even millennia. Being Resurrected in this manner costs the victim 1D20 Sanity points.

> *"He turned from the inscriptions to face the room with its bizarre contents, and saw that the kylix on the floor, in which the ominous efflorescent powder had lain, was giving forth a cloud of thick, greenish-black vapour of surprising volume and opacity."*
>
> *H. P. Lovecraft, "The Case of Charles Dexter Ward."*

A complete corpse is necessary. An ancient, desiccated body is usually acceptable, as is a body that has been dismembered, as long as it is complete. But if too much of the corpse has been eaten away by vermin or has rotted badly, it can be revived not as a living, intelligent person but a gibbering, horrifying monstrosity

If only part of the ashy powder is available for the spell, the sorcerer gets "onlie the liveliest awfullness" from what's then made flesh. But the successfully resurrected need not be all in one piece —as long as the coffin is intact and sufficient care is taken to scrape together all the fragments and dust within, the spell succeeds.

Reciting the spell backward returns the resurrected entity to dust. It can be retained or thrown away. In this process, the Necromancer matches magic points against the resurrected's on the Resistance Table. If the Necromancer wins, the victim returns to dust. If the victim wins, it may try to prevent the Necromancer from reciting the spell again. Reciting the spell backward takes two rounds. In "The Case of Charles Dexter Ward", many of those resurrected were interrogated and tortured to reveal secrets of the past.

- ■ Range: 1 meter
- ■ Duration: permanent
- ■ Sanity: 1d3/1d10

ARMY OF THE DEAD, Necromancy Level/7: This dread spell animates all dead bodies within proximity of the Necromancer in all directions. These mindless dead attack all living beings in the area, including the Necromancer and companions. They cannot be commanded by the Necromancer, nor can the spell be canceled once cast.

Each corpse so animated costs the Necromancer one magic point. The GM decides how many bodies are eligible, unless circumstance in play make the number obvious. Most likely the Necromancer cannot judge in advance the exact number and is thus unable to determine the number of magic points to be drained. Necromancers reduced to zero magic points lose consciousness. Each walking corpse has half of its original characteristics and Hit Points.

- ■ Range: 3 meters x POW radius from centre of Necromancer
- ■ Duration: 1 turn x expertise level
- ■ Sanity: 1d3/1d8

ENSNARE SOUL, Necromancy Level/8: This spell allows a Necromancer to bind the soul of a wicked person to their body at the moment of their death. Often Necromancers play of the fears of the dying and promise them life and power if they only choose allegiance to the Dark Lord. Any who choose such an allegiance are then able to fall victim to this passive but powerful spell. This spell is often cast when the victim is near death and results in the victim's soul becoming imprisoned within their dead body. The Necromancer may then embalm or preserve the victim's body, or even permit the corpse to rot. The victim's soul remains trapped within their dead body and will slowly go mad. The soul of the victim will remain bound to their dead body until their body is destroyed.

- ■ Range: touch
- ■ Duration: permanent
- ■ Sanity: 1d2/1d6

WAIL OF THE BANSHEE, Necromancy Level/8: This spell enables the Necromancer screams like a banshee. All characters under BRA/14+ and CON/14+ die instantly. The Necromancer is not affected by the spell, but cannot choose who will be affected. If there are more potential victims, the Game Master randomly determines which creatures are affected. Creatures who cannot hear (due to ear plugs, deafness etc) cannot be affected.

- ■ Target: 1 creature x expertise level
- ■ Range: 1 meter x POW, in sight
- ■ Duration: 1 CR
- ■ Sanity: 1/1d3

DUPLICATE, Necromancy Level/9: This spell allows the Necromancer to make a living duplicate of an individual who has recently been killed. The Necromancer must have a piece of flesh from the original, taken while he was still alive. The flesh must have been preserved to prevent it from rotting. Growing the duplicate requires the same equipment as used for the Secret of Life and Death. A duplicate will take 2d3 months to be ready. Once the duplicate is ready, the Necromancer must summon the dead person's soul to give life to the duplicate. The soul must succeed a POW vs. POW to resist the summoning. If it failed, the duplicate then becomes almost identical to the original with the following exceptions:

1. For each "physical" stat (DEX, STR, CON, APP), there is 5% chance that the duplicate will have 1d6 points less than the original. If this brings one of the stat to 0 or less, the duplicate is not viable and the spell fails.

2. There is 25% chance that the duplicate will suffer from insanity (roll one effect on the insanity table).

3. The duplicate suffers a permanent 10% penalty on all skill rolls.

- ■ Range: N/A
- ■ Duration: 2d3 months
- ■ Sanity: 1/1d4

CURSE OF THE PUTRID HUSK, Necromancy Level/9: This spell brings sanity-wracking illusions to the victim. The victim perceives that his skin is visibly rotting and corrupting. The outward appearance seems to deteriorate swiftly, so that great rents and tears occur through which internal organs begin to tumble out (with the victim losing 1D10 Sanity points in the process). Thereupon the victim faints and awakens in a few minutes, whole and normal.

For the spell to take effect an opposed INT roll must be made between the Necromancer and target—impose one penalty die on the target if the spell is cast at night, while the target is sleeping. The entire cycle of effect takes about twenty minutes, including the faint.

The target must be known to the Necromancer and the Necromancer must have as a focus some personal object belonging to the target. The experience of the spell is devastating; however, successful Psychoanalysis can help the victim come to terms with these inexplicable dreams and hallucinations and restore half of each such Sanity loss. Psychiatric drugs do little to compensate for such an attack.

- ■ Range: N/A
- ■ Duration: 20 minutes
- ■ Sanity: 1/1d3

DECEIVE DEATH, Necromancy Level/9: Deceive Death is a delay of sorts; the Necromancer stalls for extra time. While it is not possible to delay once death has occurred, Deceive Death is commonly used by still-living Summoners. These people know ahead of time that their hour is upon them and take steps to avoid their fate. Among those disposed toward Deceive Death are signers of Cardinal Pacts, particularly pacts meant to last only a fixed period of time (7, 33, and 66 years are the common durations, the last one reserved for long-lived Necromancers). By Deceive Death, the Necromancer agrees to find a substitute soul for the demon in order to remain in power for one more year. The demon usually gives the Summoner 66 days to procure the substitute soul. The Necromancer must manipulate his victim into committing a mortal sin. Once this is done, the Necromancer must kill the person with a special ritual dagger, thus sending the soul down to Hell in his own place. By committing such crimes, Necromancers living on borrowed time become demons in their own right, tempting people to evil and then slaying them if they succumb (something genuine demons cannot do). Unfortunately, such subtle corruption takes a great deal of time. A character partaking of Deceive Death therefore has less annual time.

- ■ Range: self
- ■ Duration: 7, 33 or 66 years
- ■ Sanity: 1d3/1d6

CONSUMPTION OF THE LIVING FLESH, Necromancy Level/9: Cruelly and unnaturally extends the life span of an individual. An unholy cannibalistic feast is key to the ritual. The Necromancer cannibal adds one month of life for every SIZ points of human flesh therein consumed.

- ■ Range: self
- ■ Duration: permanent
- ■ Sanity: 1d4/1d8+1

COMMAND THE GREAT UNDEAD, Necromancy Level/10: A spell which enables the Necromancer to exert command over Mummies, and Vampires.

- ■ Target: 1 creature x expertise level
- ■ Range: 1 meter x POW
- ■ Duration: 1 day x expertise level
- ■ Sanity: 1/1d4

COMMAND SPIRITS, Necromancy Level/10: A spell which enables a Necromancer to command a Ghosts to give truthful answers questions.

- ■ Range: 2 meters
- ■ Duration: 1 question x expertise level
- ■ Sanity: 0/1

EXORCISM, Necromancy Level/10: Using this spell, the necromancer attempts to banish a disobedient or malicious spirit from the Necromancer's current plane of existence. Usually the spirit has taken possession of a living person. The Necromancer intones as many names for the spirit as can be uncovered or guessed at. If the thing's True Name is known, it can simply be commanded gone, and will not return.

This spell requires two hours to cast. During at least part of that time the target spirit must be manifest. The two hours over, make a POW vs. POW resistance table roll for the sorcerer, using the POW of the spirit as the passive value. During this time, the spirit may try to distract the Necromancer's concentration by causing all sorts of supernatural effects head spinning around rapidly, tongue snaking a yard or two, body levitating, speaking in tongues—but the spell keeps the target spirit from physically assaulting the Necromancer.

If the roll fails, so does the exorcism. Additionally, a particularly strong possessing spirit may attempt to take over the Necromancer with a POW vs. POW attack of its own. If the failed roll is also a fumble, the Lords of Shadow send the spirit to a random location from which it might return if the GM desires.

- ■ Range: touch
- ■ Duration: 1 CR
- ■ Sanity: 1/1d6

MANTLE OF AGONY, Necromancy Level/10: at the cost of great pain to the Necromancer, this spell increases the Necromancer's movement and augments his combat defense. It takes one round to cast, and viewing the Mantle in action costs 1/1D3 Sanity points.

The spell wreathes the Necromancer in weaving, glittering points of light, each spark dragging a luminous trail and flickering white-hot. Sealed within the Mantle, the Necromancer rises several centimeters off the floor so that his feet no longer touch. Nonetheless, body movements are precise. The nimbus of the Mantle is agonizing, costing 1D6 Sanity points to feel during the first cast. No hit points are lost because of the pain, however, and if the Necromancer has not touched anyone, the pain stops when the spell does.

While the spell is in effect, double the Necromancer's MOV and DEX. Decrease all chances for attack against the Necromancer by 20 percentiles. All weapon attacks do minimum damage. Anyone attacking with Fist/Punch, Kick, etc., suffers exactly the damage done to the Necromancer.

If the Necromancer touches someone, treat it as a Fist/Punch attack doing 1D8 hit points of damage; each time this happens, the Necromancer also suffers half of that rolled damage (round down) as his skin and flesh flash away to feed the Mantle's magical surface. Thus it is possible that this spell could lower the Necromancer's hit points to zero, and cause death.

- ■ Range: self
- ■ Duration: 1d6 CR x expertise level
- ■ Sanity: 1d3/1d10

Acquisition of Summonings

> *Woe to him who calls upon the darkness and demon host without the protection of the mystic circle, for they who come shall feast on thy bones. But the Summoner can call upon the human and inhuman, the light and the dark with impunity, if the circle be made of proper construction and his soul is not corrupt.*
>
> *The Tristine Chronicles*

Summoning circles often create a temporary dimensional portal from which demonic beings are brought into this world. Immediately upon their arrival, there is a battle of wills between the creature(s) and the Summoner. Although Sorcerers would argue the point, there is no guarantee that the Summoner can control the creatures or forces he calls forth. Many a Summoner has met a grisly fate at the hands of the monster he summoned — and many a village has been plagued by nightmarish creatures who have slipped out of the Summoner's control.

Beyond The Physical Universe

The known universes is in continual proximity to a multitude of far stranger universes that are (in most cases) completely separate from it. These other universes are collectively referred to as hyperspace. In all of them, the known physical laws are radically different from those in the normal physical universe. One common theory is that the hyperspace universes make up what is known as dark matter.

Except in a few exceptional circumstances, these universes and their inhabitants are completely invisible and intangible to the inhabitants of the normal universe and the only way the Tachyon Universe of HyperSpace, or F-Space, can interact with the physical universe is via gravitation. However, it is possible to travel from the physical universe to the various Tachyon universes. Also, in at least some of the universes of hyperspace, inertia is a tiny fraction of that in the normal universe and a speed of light is many millions or even billions of times greater. As a result, it is possible to create shortcuts through hyperspace that can allow intelligent beings, including humanity to move millions of miles or even dozens of parsecs by stepping a few feet. Knowledge of hyperspace has given humanity access to the stars.

Unfortunately, the various Tachyon universes are far from empty. No one knows what any of these universes looks like, whether there are planets, stars, but many of them are clearly inhabited. The inhabitants of these universes are completely beyond human comprehension. At least some of these Tachyon beings are intelligent, but humanity cannot communicate with any of these beings in more than the most rudimentary fashion, nor can humans destroy or even significantly harm any but the weakest Tachyon entities. Instead, humans can only observe them, and this must be done at a safe distance.

When the spatial and gravitational alignments between the physical universe and one of the Tachyon universes are correct, Tachyon entities can enter the normal universe and they all seem to be attracted to planets, especially inhabited planets. Regular visitation by Tachyon entities can have a catastrophic affect on an ecosystem. The Permian-Triassic extinction event, 251 million years ago, caused 96 percent of all marine species and 70 percent of terrestrial vertebrate species to become extinct. This extinction was caused by a being commonly known as Great Cthulhu and its star spawn. Much of this destruction was caused by the fact that these beings both fed on the psychic emanations of various life forms and other life was destroyed simply because it spent too long in the vicinity of these Tachyon entities

Not all of the inhabitants of hyperspace are so great or terrible. Just as insects and bacteria are far more numerous than humans or elephants, most creatures in hyperspace are far smaller and less deadly than Great Cthulhu. Various technologies have allowed humanity to peer into hyperspace. Although utterly alien, many of these creatures are completely harmless. However, some of these seemingly mindless creatures will attack humans and such attacks are usually deadly.

Summoning Circles

The Summoner performs a ritual in which a powerful summoning magic is created by means of a magic circle. First the circle and symbols are drawn in whatever medium they must be made. Then the components are added. The entire time, the Summoner focuses his concentration on creating the circle and drawing upon the magic needed to activate it (a chant or mantra is usually part of the ceremony and focusing process). When the drawing of the circle is complete and the components are in place, the Summoner must activate the circle with the correct amount of Magic Points.

The blood sacrifice of a living creature may be one of the components of this magic and can help power the circle. The victim's POW is consumed at the moment of death and is magically drawn into the circle to empower it. If the victim is an animal and not a sentient being, only half of the animal's POW is transferred to the circle. Once the circle has been activated, the Sorcerer can cast the summoning spell for a particular entity.

Shortly after the spell has been successfully pronounced, the type of creature summoned will appear through the dimensional portal created by the circle in 2d6 CR. As long as the Summoner stays within the protective area of the

circle, he should be safe from any attacks by that creature. However, the moment he steps outside the area of protection he becomes vulnerable to attack, unless the being is under his control.

> Summon – example
>
> Elrik the Necromancer has 19 POW, and summons Cthugha. He sacrifices a victim who has 10 POW. 15 Magic Points are expanded and Elrik loses 15 – 10 = 5 MP. Elrik's summoning skill for Cthugha is 60%, he spent 10 days in meditation and has cast the ritual at night reading the book where he found the spell.
>
> Elrik has 60 + 10 + 5 + 10 = 85% chance of success for the summoning.

Summoning fumble Table

D100	effect
01-40	The summoning has failed normally with no further effects.
41-60	The Summoner is rendered unconscious for 1d6 hours.
61-80	The Summoner is driven temporarily insane for 1d6 hours.
81-88	The Summoner is drained of all Magic Points.
89-90	The Summoner is reduced to a drooling idiot for 1d6 days.
91-93	The Summoner gains a permanent insanity.
94-96	Memory loss! The Summoner cannot remember who he is or anything about magic for 1d6 days.
97-98	The Summoner's soul is ripped from his body and cast into the being's realm.
99-00	The Summoner's soul is consumed by the demon and destroyed.

The Battle of Wills

As soon as the being appears, everyone present roll for a Sanity check. Then a mental battle of wills is begin if the Summoner is still able to. The summoned being must roll a POW vs. the Summoner's POW. However, a group or crowd can help the Summoner. Everyone present expends 1 Magic Point. Those who know the spell can sacrifice as many Magic Points as they have. If the Sorcerer uses a focus of power or the book where the spell is written, he gains a bonus of +10% for each. Total the Magic Points spent. That total is added to the Summoner's POW vs. POW roll.

1. If the summoned being fails his POW vs. POW, it will be willing to grant a request to the Summoner. According to the invoked beings, communication can be verbal or telepathic. The request can be the teaching of a spell or to interrogate a demon about one of its brethren for example, but shall be limited in time and effect. Requests have to be worded with utter clarity and with no ambiguities; for a Demon will seize on any "loopholes" to thwart the purpose of any command given to it. Lesser Demons and Independent or Servitor Race are, furthermore, very literal-minded and do exactly what they are told, no more and no less.

2. If the summoned being does not become subservient, the price it may ask for its service can go from the bizarre to the gruesome. Many of these prices are double-edged, designed to not only satisfy the summoned being's greed, but also to tempt the mortal into doing something he would not normally do.

Such prices include:

1d10	Price to pay
1	The heart of a young girl
2	Memories of childhood (lose one point of Intelligence permanently)
3	The spell Summoner's first-born (or a close relative's, if the spell Summoner is childless and single)
4	Seven years of the spell Summoner's life (age instantly)
5	A year and a day of the spell Summoner's future (disappear into the Abyss for a year and a day, details are better left unspoken)
6	A year and a day of the spell Summoner's past (lose 10 x 1d10 skill points)
7	The left eye
8	One of the spell Summoner's hands
9	The spell Summoner's dreams for one month (lose 2d6 points of SAN due to encroaching insanity)
10	The spell Summoner's shadow (at the Games Master's discretion, the shadow maybe part of the soul, a vital component of the character's magical ability or may just look freaky)

Note: Summoned creatures that win the battle of wills are free to stay in the world indefinitely and are not subject to the influence of the magic circle who summoned them. Should the Summoner step out of the summoning circle, the creature can instantly attack him, incapacitating and torturing the character, or leaving him alive to remember his folly.

> Battle of Wills – example
>
> Cthugha has 42 POW, and was summoned by Elrik the Necromancer who has 19 POW. Elrik uses his tome of summoning and is helped by 2 assistants and 20 cultists. Each assistant spend 10 Magic Points. The chance for Elrik to win the battle of will is (19 + 10 + 10 + 20 – 42) x 5 + 10 = 95%.

Dismissing a Creature

A summoned creature who does not want to leave Earth can be dismissed. Every Dismiss spell differs; the Summoner must know Call / Dismiss for the particular creature. First, allot 1 Magic Point per 5 POW (round up) possessed by the creature. This grants a 5% chance to open the way for the creature's dismissal.

Once the way is prepared, the sacrifice of more Magic Points can tempt the creature into departure. In this, the second stage, each new Magic Point sacrificed increases the chance that the creature leaves by 5%. Also, the use of a focus of power or the book where the spell is written, increases the chance by 10% for each.

Roll D100 against the total chance for the dismissal.

As with Call creature, the Summoner is the focus of the spell; other members of the group still can contribute Magic Points. Call creature spells require special conditions and rituals, but the Dismiss portion of the spell can be cast any time, anywhere. Dismiss creature costs no Sanity points.

> Dismiss – example
>
> Cthugha has 42 POW, and so 9 Magic Points are needed to open the way, representing a 5% chance for dismissal. Sacrificing 10 more Magic Points increases the chance to 55%. To have a 100% chance of dismissing Cthugha, those assembled must sacrifice 9 + 19 Magic Points in the two stages, a total of 28 Magic Points.

The Summonings and their rituals are:

The Plane between the Stars

Ritual/level	Entity	Magic Points	SAN
Call Malevolent Mockers/2	Rat-Thing	2	1d2
Call The star-steed/3	Byakhee	3	1d3
Call Master of the Depths/3	Deep One	3	1d3
Call The Flame Feeder/3	Fire Vampire	3	1d3
Call Shape-shifting Horror/3	Formless Spawn	3	1d3
Call Satrap of the Sleeper/4	Star-Spawn Of Cthulhu	4	1d3
Call The Dark Young of the Goat/4	Dark Young	4	1d3
Call Great Viperine Flyer/4	Hunting Horror	4	1d3
Call Invisible Ravener/5	Star Vampire	5	1d6
Call Decaying Slave/5	Servant of Gla'aki	5	1d3
Call The Murderously Malign/5	Dimensional Shambler	5	1d6
Call Fetid Iridescence/5	Shoggoth	5	1d6
Call Tentacled Burrower/6	Chthonian	6	1d6
Call Scavengers of Time/6	Hound Of Tindalos	6	1d3
Call Life-force Feeder/6	Colours Out Of Space	6	1d6
Call The Living Flame/7	Cthugha	15	1d10
Call Master of R'lyeh/7	Cthulhu	15	1d10
Call The Render of the Veils/7	Daoloth	15	1d10
Call The Inhabitant of the Lake/7	Gla'aki	15	1d10
Call He Who Is Not to Be Named/7	Hastur	15	1d10
Call The Wind-Walker/7	Ithaqua	15	1d10
Call The Burrower Beneath/7	Shudde M'ell	15	1d10
Call Seething Nuclear Chaos/8	Azathoth	20	1d10
Call The Crawling Chaos/8	Nyarlathotep	20	1d10
Call The Black Goat of the Woods/8	Shub-Niggurath	20	1d10
Call The Hand that Feeds/8	Y'Golonac	20	1d10
Call The All-In-One/8	Yog-Sothoth	20	1d10
Create Gate/10		var	1

The Plane of the Abyss

Ritual/level	Request	Magic Points	SAN
Call Lesser Undead/3	service for 1 week	3	1d3
Call Gargoyles/4	guard for 1 day	4	1d3
Call Imp/4	become a familiar	4	1d3
Call Ghoul/5	guard for 1 night	5	1d3
Call Malebranche/5	tracking	5	1d6
Call Werewolves/6	service for 1 night	6	1d6
Call Chevaliers De L'enfer/6	1 service and cast 3 spells	6	1d6
Call Major Undead/6	1 action	6	1d6
Call The Fallen Angels/7	1 service or teach 1 spell	7	1d10
Call The Powers/7	advise and instruct	10	1d10
Call The Principalities/7	variable	15	1d10
Call Belial/7	provides a Superior Familiar	20	1d10
Call Mammon/8	greater status	20	1d10
Call Asmodeus/8	give knowledge at exp/5 in one skill	20	1d10
Call Satan/8	1 question	20	1d6
Call Beelzebub/8	1 secret event	20	1d10
Call Leviathan/8	none	20	1d10
Call Belphegor/8	richness or 1 ingenious invention	20	1d10
Call Lucifer/9	income increase x 1d10 + 1 service	30	2d6
Open Hellmouth/10		var	2d6

The Plane between the Stars

CALL RAT-THING, Summoning Level/2: To bring forth a rat-thing, the caster should provide suitable offerings (tasty snacks) to entice the foul creature.

- ■ Open Portal: 2 Magic Points
- ■ Sanity: 1d3

CALL BYAKHEE, Summoning Level/3: May only be cast at a location open to the night air. The caster must blow an enchanted whistle made from meteoric iron, and then chant: "Iä! Iä! Hastur! Hastur cf'ayak 'vulgtmm, vugtlagln, vulgtmm! Aï! Aï! Hastur!" The summoned byakhee will flap down out of the sky, crusted with ice. This spell is active only on nights when Aldebaran is above the horizon (October through March are the best months). If the whistle is enchanted, each point of POW in its enchantment adds 10% to the chance for success. Such a whistle may be used again and again.

- ■ Open Portal: 3 Magic Points
- ■ Sanity: 1d3

CALL DEEP ONE, Summoning Level/3: Unless there are no deep ones nearby, the chanting succeeds automatically. This spell should be cast at the edge of a salt-water ocean or sea. To work best, it should be cast near a deep one city, such as the waters off Innsmouth, Massachusetts. Part of the ritual consists of throwing specially inscribed stones into the water.

- ■ Open Portal: 3 Magic Points
- ■ Sanity: 1d3

CALL FIRE VAMPIRE, Summoning Level/3: causes one fire vampire to swoop down from the sky like a skittering star. A bonfire or other source of flame is required. The spell may be cast only at night when the star Fomalhaut is above the horizon (September through November are the best times in moderately northern latitudes).

- ■ Open Portal: 3 Magic Points
- ■ Sanity: 1d3

CALL FORMLESS SPAWN, Summoning Level/3: The best place to cast this spell is at a temple to Tsathoggua, whose altar statue of the Great Old One is still present, or at a spot near an opening into the black abyss of N'Kai.

- ■ Open Portal: 3 Magic Points
- ■ Sanity: 1d3

CALL STAR-SPAWN OF CTHULHU, Summoning Level/4: Unless there are no representatives nearby, it succeeds automatically. It should be cast at the ocean shore, perhaps near a deep one outpost, or else near a spot where star-spawn may sleep. The spell works well in Polynesia, along the Massachusetts coast, and above R'lyeh.

- Open Portal: 4 Magic Points

- Sanity: 1d3

CALL DARK YOUNG, Summoning Level/4: May only be cast outdoors at night, in a wood, jungle, marsh, or other heavily vegetated location. The caster must use a blade to mutilate an animal (or person) massing at least SIZ/08. As the blood runs out, she must chant a litany to Shub-niggurath. The summoned Dark Young will stalk from the deepest, darkest part of the surrounding vegetation when the creature dies.

- Open Portal: 4 Magic Points

- Sanity: 1d3

CALL HUNTING HORROR, Summoning Level/4: a single horror appears head-first, as though entering through a hole in the air. This spell may be cast only at night in the open air. The blood sacrifice of a sentient being is needed. The Summoner does not perform the sacrifice himself—the hunting horror seizes the sacrifice when it arrives. If no alternate sacrifice has been prepared, it takes the Summoner and vanishes.

- Open Portal: 4 Magic Points

- Sanity: 1d3

CALL STAR VAMPIRE, Summoning Level/5: May be cast only at night under a cloudless sky; may be cast indoors if the room has open windows. The caster must read the incantation (it begins: "Tibi Magnum Innomiandum, signa stellarum nigrarum et bufaniformis Sadoquae sigillum …") aloud from a book. Curious rustling sounds are heard once this invisible thing lurks near. If the book is enchanted, the chance for success is increased by 10% per point of POW within the book. The summoned star vampire floats down from the stars invisibly save when its veins fill with blood from some visible creature.

It can be sent after someone of whose blood the caster has a sample, or after the bearer of a certain rune inked in star vampire ichor. If the caster does not immediately present such a sample, or gesture toward such a rune, the star vampire feasts on him instead.

- Open Portal: 5 Magic Points

- Sanity: 1d6

CALL SERVANT OF GLA'AKI, Summoning Level/5: This spell can only be cast in an area where the Servants of Gla'aki are known to reside, and only by those who serve Gla'aki. A chant is intoned for a number of minutes equal to the base chance of success (one hour = 60%). At the end of the chant 1D6 Servants answer the summons. These creatures will perform one action if bound, but will not under any circumstances attack Gla'aki or members of its cult.

- Open Portal: 5 Magic Points

- Sanity: 1d3

CALL DIMENSIONAL SHAMBLER, Summoning Level/5: a single dimensional shambler gradually assembles itself out of thin air. The spell requires a dagger made from any pure metal such as copper or iron. Alloys such as brass will not work. If the dagger is enchanted, the chance for success also rises by 10% per point of POW in the dagger. This spell may be cast day or night. One authority has written that shamblers are more easily confused in bright sunlight.

- Open Portal: 5 Magic Points

- Sanity: 1d6

CALL SHOGGOTH, Summoning Level/5: a single shoggoth emerges from the earth or ocean. The caster must work this ritual in darkness, in a wilderness area. Fresh blood from one or more sacrifices (equivalent to SIZ 20) should be poured into the dirt or ocean while the ritual of summing is spoken aloud. The ritual is very difficult to enunciate, as it includes series of glottal stops, interdental, palatal, and uvular sounds (possibly mimicking elder thing speech patterns) and requires a successful Hard Know roll the first time this spell is cast to ensure the correct vocalizations are made.

- Open Portal: 5 Magic Points

- Sanity: 1d6

CALL CHTHONIAN, Summoning Level/6: Unless there are no Chthonians nearby, it succeeds automatically. The spell must be cast at a location which has known recent earthquakes, such as at G'harne in West Africa, or where hot spots and volcanoes offer relatively quick transport from the deep interior of the planet to the outer edge of the geologic crust.

- Open Portal: 6 Magic Points

- Sanity: 1d6

CALL HOUND OF TINDALOS, Summoning Level/6: If a hound of Tindalos is summoned, it will come automatically. There is no known way to bargain with a hound of Tindalos, whose motive for moving through the time stream is simple hunger.

- ■ Open Portal: 6 Magic Points

- ■ Sanity: 1d3

CALL COLOURS OUT OF SPACE, Summoning Level/6: This spell must be cast at night.

- ■ Open Portal: 6 Magic Points

- ■ Sanity: 1d6

CALL CTHUGHA, Summoning Level/7: brings Cthugha to the flame held by the Summoner. The Summoner repeats the invocation "Ph'nglui mglw'nafh Cthugha Fomalhaut n'gha-ghaa naf'l thagn! Iä! Cthugha!" three times while lighting the fire, gesturing with a torch, or cavorting amid the flames. As the Summoner intones the spell, he moves the flame, usually a torch. The spell can be cast on any clear night, but is much easier when Fomalhaut is above the horizon (September to november in north America).

- ■ Open Portal: 15 Magic Points

- ■ Sanity: 1d10

CALL CTHULHU, Summoning Level/7: May be performed anywhere. Usually a representation of the Great Old One is used during a ritual involving some form of blood sacrifice. Cthulhu typically responds at night, while the caster is sleeping, sending vivid dreams through which he informs his followers of his desires and the tasks he requires of them. Certain dream-sent visions may provoke Sanity rolls and cause outbursts of artistic mania, where the recipient feels compelled to draw, make, or compose works of representative art concerning Cthulhu and his foul plans.

If the spell is performed at night in front of the ocean coast, each Deep One present during Call Cthulhu adds 10% to the chance for success.

- ■ Open Portal: 15 Magic Points

- ■ Sanity: 1d10

CALL DAOLOTH, Summoning Level/7: Summons the Outer God Daoloth to appear within a special pentacle, known as the Pentacle of Planes. The caster requires an icon of Daoloth, the skull of a nightgaunt, two black candles, a metal rod, and rods or tubes with which to create the Pentacle of Planes. The Pentacle is said to keep Daoloth's form from expanding and engulfing the caster. To evade the powerful Sanity loss penalty for viewing Daoloth's alien form, the spell may be cast in complete darkness.

If Daoloth is called without one or more of the above mentioned items, the Summoner risks becoming host to the Outer God after reciting the spell. The Summoner's body is pulled into Daoloth's dimension and appears to warp and change: it flattens and becomes one-dimensional, folding in on itself. Soon the Summoner's body has folded into a strange geometric form which then begins to expand and open, releasing Daoloth into this dimension. The Summoner is wracked with great pain as their body is drawn into the alien plane and inhabited by the Outer God. Watching someone become possessed by Daoloth provokes a Sanity roll (1/1D10 loss). In returning to its own dimension, Daoloth destroys the host body.

- ■ Open Portal: 15 Magic Points

- ■ Sanity: 1d10

CALL GLA'AKI, Summoning Level/7: Utilized only by Gla'aki's cultists or minions, the spell will not function for non-believers even if performed properly. The spell itself is a horrific ritual that often takes several days and a bit of skill to properly perform.

A victim is selected, subdued and prepared for the ritual. The victim, referred to as "the courier," is impaled in some manner, usually through the wrists and legs. The courier is then systematically tortured until near delirium.

When the courier is near death, Gla'aki may be directly contacted through him. Everything the courier sees or hears, Gla'aki can hear and see, and vice versa. At the end of the ritual, the courier is impaled with a single shaft of wood through the chest, killing him. This ends the ritual. If the courier is not sacrificed at the end of the ritual (the ritual is disrupted etc.), the operator loses 1 POW point permanently.

- ■ Open Portal: 15 Magic Points

- ■ Sanity: 1d10

CALL HASTUR, Summoning Level/7: calls the deity to nine large blocks of stone in a V-pattern, always a sign of cult activity. Each of the stone blocks needs a volume of nine or more cubic meters. The spell can be cast only on clear nights when Aldebaran is above the horizon (roughly October to March). Each Byakhee present during Call Hastur adds 10% to the chance for success.

If 5 points of POW has been sacrificed into each block, so that all are enchanted, the stone V adds 30% to the chance to Call Byakhee.

- Open Portal: 15 Magic Points
- Sanity: 1d10

CALL ITHAQUA, Summoning Level/7: focuses the attention of Ithaqua, but the presence of the Great Old One may be noticed only as a whirlwind or icy wind. The spell must be cast on an enormous mound of snow. Ordinarily, the spell can only be performed in the far north of the world, when temperatures are below freezing. It is possible that Ithaqua might be invoked from any high, snowy mountain.

- Open Portal: 15 Magic Points
- Sanity: 1d10

CALL SHUDDE M'ELL, Summoning Level/7: The spell must be cast nearby a volcano (less than 20 km). Each Chthonian present during Call Shudde M'ell adds 10% to the chance for success.

- Open Portal: 15 Magic Points
- Sanity: 1d10

CALL SHUB-NIGGURATH, Summoning Level/8: calls Shub-Niggurath to a consecrated stone altar. This cult altar must be set in dank wilderness, and the spell must be cast from the altar. Call Shub-Niggurath may be cast only at the dark of the moon. The altar is consecrated by bathing the stone in blood, to the amount of 40 SIZ or more. Each Call of the dark goddess requires fresh blood across the altar. A blooded altar in the amount of 8 SIZ or more adds 20% to the chance to Call Shub-Niggurath, and each dark young present adds another 10%.

- Open Portal: 20 Magic Points
- Sanity: 1d10

CALL AZATHOTH, Summoning Level/8: Calling this god is extremely dangerous. The arrival of the deity has the potential to fry the planet. The spell can be cast only at night, outdoors. Despite being mentioned in numerous Forbidden Sciences texts, the actual spell is very rare and usually divided into separate segments (some hidden or obscured by other text) to ensure it is not so easily or lightly enacted. Often, the spell's components are (purposely) incorrectly given or hidden in highly obscure puzzles.

- Open Portal: 20 Magic Points
- Sanity: 1d10

CALL NYARLATHOTEP, Summoning Level/8: May be cast from anywhere, as befits this omnipresent entity. Nyarlathotep is said to appear only at gatherings of worshipers, or when new priests are anointed; however, throughout history, avatars of the Crawling Chaos have been recorded as appearing before individuals to deliver gifts in return for nameless bargains. The nature of such gifts appears varied, yet all appear to have a sting in the tail as befits the Outer God's mockery of humanity.

- Open Portal: 20 Magic Points
- Sanity: 1d10

CALL Y'GOLONAC, Summoning Level/8: May be performed anywhere. Some versions of this spell warn the uninitiated reader that Y'golonac greatly desires servitude from those who would call his name. The Great Old One is unlikely to appear before one who is not already a devotee; instead, a herald might visit with the purpose of converting the caster to Y'golonac's will. In some situations, where Y'golonac manifests before the caster, it will psychically attack those it deems unsuitable, or possess some present so that they may go forth to further his work (tempting others into his service).

- Open Portal: 20 Magic Points
- Sanity: 1d10

CALL YOG-SOTHOTH, Summoning Level/8: calls Yog-Sothoth to a specially constructed stone tower. The tower must be in an open area, and the sky must be cloudless. The stone tower must be at least ten meters high. Each time the spell is cast, the cultists must designate a human sacrifice for the god's taking. This need be no more than an invitation—gesturing toward a nearby village, for instance, from which Yog-Sothoth then selects a victim. At the cult's option, the stone tower may be enchanted, lowering the Magic Points needed for a successful cast of the spell. Each point of POW in the tower permanently improves the total chance of casting either Call or Dismiss from it by 5%.

- Open Portal: 20 Magic Points
- Sanity: 1d10

CREATE GATE, Summoning Level/10: This important spell allows the user to step between other lands, dimensions, or worlds. A Gate connects to a single other location. Creation of a Gate requires the permanent expenditure of POW. A Gate may take many forms, common ones being indicated by a pattern of painted lines on a floor or a peculiar arrangement of stones in a field.

Using the Gate costs a number of Magic Points equal to the POW originally used to make the Gate. Each trip through a Gate costs 1 Sanity point. Lacking enough Magic Points for a trip, the Game Master might rule that a traveler stays on this side, but unconscious and drained of Magic Points, or that the PC might complete the trip but arrive unconscious, drained of Magic Points, and having sacrificed 1 POW for the fare.

Return trips through a Gate always cost the same as the initial journey. The far end of the Gate resembles the initial end. Ordinarily, anyone or anything can move through a Gate, though some have been built so that a certain word or gesture is needed to activate the portal.

From earth	distance	POW
Moon	370,000 km	5
Mercury	255,000,000 km	8
Venus	257,000,000 km	8
Mars	400,000,000 km	8
The Belt	530,000,000 km	8
	700,000,000 km	
Ceres	600,000,000 km	8
Jupiter	965,000,000 km	8
Saturn	1,600,000,000 km	8
Uranus	3,000,000,000 km	9
Neptun	4,500,000,000 km	9
Pluto (Yuggoth)	7,400,000,000 km	9
Oort Cloud	14,500,000,000 km	9
Proxima Centauri	4,3 Light Years	13
Sirius	8,3 Light Years	14
Fomalhaut	26 Light Years	14
Vage	22 Light Years	14
Aldebaraan	50 Light Years	14
Celaeno	400 Light Years	15
Far side of Milky Way	70,000 Light Years	18
Galaxy M31	2,800,000 Light Years	19
Azathoth	10 billions Light Years	23

- ■ Open Portal: variable
- ■ Sanity: 1 each trip

The Plane of the Abyss

CALL LESSER UNDEAD, Summoning Level/3: A spell which enables the Summoner to invoke 1-6 Skeletons or Zombies to his service. The undead will rise from the earth and remain in the Sorcerer's service for 1 week. The spell may be used once per year on the Walpurgis night and must be performed in a cemetery or mortuary.

- ■ Request: service for 1 week
- ■ Open Portal: 3 Magic Points
- ■ Sanity: 1d3

CALL GARGOYLES, Summoning Level/4: From 1-3 Gargoyles will be summoned and will serve the summoner as guards for 1 day. After which they will go in peace if an appropriate "gifts" is given.

- ■ Request: guard for 1 day
- ■ Open Portal: 4 Magic Points
- ■ Sanity: 1d3

CALL IMP, Summoning Level/4: This spell Summons a creature willing to become a familiar to the Summoner. Success indicates that a willing creature appears in 2d6 hours. The spell may be cast only once per month, on the occasion of the Dark of the New Moon. So there is no use trying for another 28 days until the next New Moon: no one is going to show up.

- ■ Request: become a familiar
- ■ Open Portal: 4 Magic Points
- ■ Sanity: 1d3

CALL GHOUL, Summoning Level/5: Unless there are no ghouls nearby, it succeeds automatically. Ghouls are found wherever large concentrations of humans are, especially near graveyards and crypts. Places of burial more than a century old are propitious locations for this spell. Moonlit nights are best.

- ■ Request: guard for 1 night
- ■ Open Portal: 5 Magic Points
- ■ Sanity: 1d3

CALL MALEBRANCHE, Summoning Level/5: Calling a Malebranche is a dangerous task, even for a cultist. At least one freshly flayed corpse must be offered, and each such cadaver increases the chance the Malebranche appears by 10%. If the D100 roll fails, perhaps because of a 00 result, the Malebranche may still materialize to collect the sacrifices, but take that number again from among the worshipers present.

- ■ Request: tracking
- ■ Open Portal: 5 Magic Points
- ■ Sanity: 1d6

CALL WEREWOLVES, Summoning Level/6: A spell which enables the Summoner to invoke a werewolf. The creature will appear in 1-10 days and remain in the Summoner's service for 1 night. The spell may be used once per month at full moon.

- ■ Request: service for 1 night
- ■ Open Portal: 6 Magic Points
- ■ Sanity: 1d6

CALL CHEVALIERS DE L'ENFER, Summoning Level/6: They may be evoked from dawn to sunrise and from sunset to dark. They will perform one service up to 3 hours' duration and cast 3 spells on behalf of the Sorcerer. After 3 hours, they must depart and cannot be summoned by the same person for 7 days.

- ■ Request: 1 service and cast 3 spells
- ■ Open Portal: 6 Magic Points
- ■ Sanity: 1d6

CALL MAJOR UNDEAD, Summoning Level/6: A spell which enables the Summoner to invoke 1 Mummy or Vampire. The undead will remain in the Summoner's service for 1 day for every expertise level he possesses. The spell may be used once per year on the Hallowe'en night and must be performed in a desecrated chapel.

- ■ Request: 1 action
- ■ Open Portal: 6 Magic Points
- ■ Sanity: 1d6

CALL THE FALLEN ANGELS, Summoning Level/7: They will perform 1 service or teach 1 spell, but they cannot remain more than 30 minutes in the world.

- ■ Request: 1 service or teach 1 spell
- ■ Open Portal: 7 Magic Points
- ■ Sanity: 1d10

CALL THE POWERS, Summoning Level/7: The powers must be summoned on a moonless night.

- ■ Request: "advise and instruct"
- ■ Open Portal: 10 Magic Points
- ■ Sanity: 1d10

CALL THE PRINCIPALITIES, Summoning Level/7: They are better to appear when the Sun is in a zodiacal sign of the conjured Demon. The East for Amaymon, the South for Corson, the West for Goap and the north for Ziminiar.

- ■ Request: answers concerning past, present and future (Goap); teleportation from one place to another (Amaymon); make men insensible and invisible (Corson); teaches Philosophy and all liberal sciences (Ziminiar)
- ■ Open Portal: 15 Magic Points
- ■ Sanity: 1d10

CALL BELIAL, Summoning Level/7: Sacrifice must be given or he will lie to the Summoner. He will not remain one hour in the world if not constrained by divine power. He distributes preferences for government positions and causes favors of friends and foes. He provides excellent Familiars, cats who fight as Were-Wolves and sustain 50 points of damage.

- ■ Request: provides a Superior Familiar
- ■ Open Portal: 20 Magic Points
- ■ Sanity: 1d10

CALL MAMMON, Summoning Level/8: At least a jewel worth $E10,000 must be offered and each $E1000 increases the chance Mammon appears by one percentile.

- ■ Request: greater status
- ■ Open Portal: 20 Magic Points
- ■ Sanity: 1d10

CALL ASMODEUS, Summoning Level/8: This spell requires a victim, who must be violently, ritualistically killed. The blood of the victim must be drunk while still warm from a hammered, specially-marked copper bowl, and then an incantation must be spoken. The process takes about twenty minutes from beginning to end.

- ■ Request: give knowledge at expertise level 5 in one skill
- ■ Open Portal: 20 Magic Points
- ■ Sanity: 1d10

CALL SATAN, Summoning Level/8: A group of believers (no less than four) must gather in an isolated locale, and chant and dance about a fire. Satan emerges from the darkness. Dressed in slightly antiquated clothing, the Devil always wears large, clunky shoes and a pointed black hat. He appears as a normal, handsome man with dark features, but never removes his clunky shoes or hat, as if they hide some sort of disfigurement.

He answers questions only for those who enter his service. Otherwise he simply oversees the completion of the sabbath. To enter his service, the subject must take the left hand of the Devil and intone:

"I deny God, the creator of Heaven and Earth, and I adhere to thee, and believe in thee."

Whereupon the victim spends 1 POW. A small mark is impregnated on the victim's hand where the Devil took it; descriptions of the mark differ.

The Devil is extremely devious, and answers questions only which will eventually lead to more mischief, and then not always truthfully.

- ■ Request: 1 question
- ■ Open Portal: 20 Magic Points
- ■ Sanity: 1d6

CALL BEELZEBUB, Summoning Level/8: This spell must be cast on the night of the new moon, in an isolated place. All the titles of Beelzebub must be recited; once the first four are said, the recitation becomes automatic. This takes about an hour.

Beelzebub appears in the form of someone the Summoner has known who has died, or as an idealization of the Summoner's desires. The Demon has knowledge of secret and hidden events. He provides this information to further the fall of humanity.

- ■ Request: 1 secret event
- ■ Open Portal: 20 Magic Points
- ■ Sanity: 1d10

CALL LEVIATHAN, Summoning Level/8: To succeed, this spell must be cast on an island of the western Pacific Ocean, located near the Mariana Trench. Appearing, the fearsome Leviathan must be fed 200 SIZ or more of living human beings to appease his hunger.

- ■ Request: none
- ■ Open Portal: 20 Magic Points
- ■ Sanity: 1d10

CALL BELPHEGOR, Summoning Level/8: When summoned, he can grant riches, the power of discovery and ingenious invention. He is difficult to conjure, perhaps because his sacrificial offering is excrement.

- ■ Request: richness or 1 ingenious invention
- ■ Open Portal: 20 Magic Points
- ■ Sanity: 1d10

CALL LUCIFER, Summoning Level/9: The ceremony of Human Sacrifice, one of the blackest of all practices of the Dark Arts. Once performed, the Sorcerer is doomed, for he must seal his soul forever to the Lord of Hell, Lucifer, who will claim it in 7 years. The rite must be performed in the Dark of the Moon and lasts all night:

1. Evil Prayers are said.

2. A Black Mass is celebrated.

3. Wine of Drunkenness is created.

4. An enchanted chain of 7 times 7 links is used to bind the victim to the Altar of Defilement.

5. A Circle of protection is formed, into which the 13 celebrants must step for the duration of the rite.

6. The Invocation is spoken. As soon as the Demon has appeared, the Sorcerer will state his petition, then plunge the Thrice Cursed Knife of Sacrifice into the heart of the victim, catching the blood in the Chalice. Placing the Chalice On the Altar, he will await the answer of the Demon.

7. There is a 5% x Sorcerer's POW chance that the sacrifice is favorable to the Demon, whereupon the 13 celebrants are free to step out of the Circle and approach the Lord of Hell in their midst. Drunken revels and orgies follow until dawn.

After the rites are over, the Demon will perform the requested service.

- ■ Request: income increase x 1d10 + 1 service
- ■ Open Portal: 30 Magic Points
- ■ Sanity: 2d6

OPEN HELLMOUTH, Summoning Level/10: This spell allows the Sorcerer to open a gateway through hyperspace, from one location in the physical world to the entrance to the underworld of Hell where Lucifer himself is sitting, eating the damned. To succeed, it must be cast in regions of unusual geological activity, particularly volcanic areas. There, Cerberus, the monstrous multi-headed dog, guards the gates to prevent the dead from leaving. This connection is two-way, so anything on the other side can move though as well, and anyone who passes through the gateway can easily return.

- ■ Open Portal: variable
- ■ Sanity: 2d6

The Forbidden Science

by Wikipedia, Kevin Simbieda, Edward Simbalist, Wilf Backhaus, Mike Mason, Paul Fricker,
Sandy Petersen & Lynn Willis

> *"To travel in silence by a long and circuitous route,*
> *To brave the arrows of misfortune and fear neither noose nor fire,*
> *To play the greatest of all games and win,*
> *foregoing no expense is to mock the vicissitudes of Fate*
> *and gain at last the key that will unlock the Ninth Gate."*
>
> *Boris Balkan – Luciferian occultist, performing summoning ritual*

Forbidden Science tomes are the repositories of arcane wisdom, terrible secrets and powerful magic. They provide the seeker of enlightenment with stark truths about reality, existence and presence of those from outside. For the unwary, such books delineate a path to nightmare, horror and insanity.

The volumes of arcane lore, ancient manuscripts and suppressed publications included instructions on how to create magical objects like talismans and amulets, how to perform magical spells, charms and divination, how to summon or invoke supernatural entities such as angels, spirits, and recipes for the admission or the return of the Fallen Angels. At least by implication, such writings also indicated how to force away or dispel those entities. This breakthrough information is nowhere else available.

It takes time to learn, even from textbooks which have been carefully written and specially laid out just for that purpose. Studying the crabbed, idiosyncratic, and infinitely more difficult occult books takes much more time.

Consider: these fat books are clumsily scribed by men whose sanity has been erased by the horror of their experiments and trials. The text is often handwritten in cramped archaic script. Many manuscripts are not even in a known alphabet—some are older than time, in languages long lost; others are written in occult ciphers to stymie witch-finders or the Inquisition, and now must be cracked before the would-be reader can ponder the black truths they conceal.

Even if a Sorcerer wrote for others who were familiar with the arcane and occult, he wrote for adepts and cultists, not laymen. He would see no reason to explain, and would employ strange terms and ideas without explaining them. Valuable annotations might be made by a succession of owners, each perhaps in a different language or with a different aim, and some or all in error.

Different books will have been written centuries apart from each other, by authors of different experience and different cultures. These writers, of widely varying philosophical persuasion, inevitably use different technical vocabularies. One must learn the jargon anew for each book. Who would comprehend such a book must read deeply, considering every syllable and comparing ideas and procedures with related books.

If a book is written in a language unknown by the reader, then a translator is needed. What gets translated, how quickly, and how accurately is for the Game Master to decide. If the language is unknown or long forgotten, the reader must come up with a plan for a procedure that convinces the Game Master, or the book baffles them.

Despite the dangers, adventurers will choose to study this or that terrifying book. The process of reading can be leisurely and can be suspended at any point for as long as need be. Consider that each book is a potential conduit of Forbidden Science power and energy—a physical and mental portal to the madness of secrets beyond the reasoning of mortal man. Books of power may exert a dark influence on those who possess them, stoking their desire for blasphemous knowledge, kindling a fascination for the occult and ultimately driving the owner to delve deep into insanity.

This power and knowledge comes at a price. This usually means an increasing descent in to madness. While players will desire to gain Forbidden Science books, they should also fear them, due to the terrible sanity depleting effect they will have on their adventurers. Adventurer possession of a Forbidden Science tome should always carry a consequence.

Reading Forbidden Science Tomes

> *He had himself read many of them—a Latin version of the abhorred Necronomicon, the sinister Liber Ivonis, the infamous Culte des Goules of Comte d'Erlette, the Unaussprechlichen Kulten of von Junzt, and old Ludvig Prinn's hellish De Vermis Mysteriis. But there were others he had known merely by reputation or not at all—the Pnakotic Manuscripts, the Book of Dzyan, and a crumbling volume of wholly unidentifiable characters yet with certain symbols and diagrams shudderingly recognizable to the occult student.*
>
> *H.P. Lovecraft – The Haunter of the Dark*

Opening a Forbidden Science tome is a dangerous business. It was written by someone who had experienced the Forbidden Science and, if the reader is successful in understanding what is written, this book will act as a conduit to alien horrors. Opening the cover of a tome might be likened to opening a door to a burning room. By opening this door the reader is exposed to the fire and may be scorched or incinerated. The human mind is metaphorically burnt by the knowledge of the Forbidden Science, the very act of trying to comprehend the material causing the reader to suffer both mentally and physically. Some of the lesser tomes might only be a small fire, but others, such as the dread Necronomicon, are a raging inferno.

When an adventurer gains access to a Forbidden Science tome, the Game Master should describe the cover and look of the book. The reader can swiftly ascertain whether the tome is written in a language he understands. Refer to Language (other) skill for rules on recognizing and reading other languages. A translator must be found if a book is written in a language unknown by the adventurer. The GM should decide what gets translated, how quickly, and how accurately. If the language is unknown or long forgotten, the adventurers must come up with a plan that convinces the GM, or else the book baffles them.

Initial Reading

The next step, beyond looking at the cover, reading the title (if it has one that can be read), and determining the language in which the book is written, is to make an initial reading. This is where the adventurer is exposed to the fire within. An initial reading can be swift and may represent the reader only having skimmed the book sufficient to gain some insight regarding its contents, or it may be a cover-to-cover reading. An initial reading can take as much time as the GM wishes; this may be minutes, hours, days, or weeks, depending on how the GM wants to shape the story.

Whether a reading roll is called for is up to the GM, who may choose to grant automatic success to anyone with a modicum of skill in the appropriate language.

To make a reading roll, the player makes an appropriate Language skill roll on 1D100. The GM decides on a difficulty level for reading the book based upon its age, form, and condition:

- A book printed within the last century and in good condition would be of Regular difficulty.

- A handwritten work is likely to be of a Hard difficulty level, especially if it is old.

- The most challenging of ancient, moldering tomes, containing a mix of print and handwritten annotation, would be Extreme difficulty level.

If the adventurer fails the reading roll, they perhaps get some inkling as to the content of the book, but have failed to comprehend it; no Sanity points are lost and no Forbidden Science skill is gained. If in no hurry, they may continue to read the book. The timing of the next reading roll is at the GM's discretion (perhaps once per week).

The Tables of Blasphemous Grimoires and Impious Tomes indicate the Forbidden Science skill points and Sanity point loss for each tome. Each tome has two values for an initial reading and for full study of the tome, showing how many Forbidden Science skill points are given and SAN lost.

Once the adventurer has made an initial reading, the GM should reward them with the initial reading number. The reader now automatically loses the Sanity cost of the tome (no Fortitude roll is made).

As well as gaining Forbidden Science skill and losing Sanity points, the initial reading also allows the reader to learn about the contents of book and gain some idea of what spells it might contain. The reader will also have a clear idea of how long it will take to complete a full study of the book (see following).

> Initial Reading – example
>
> Harvey gets his hands on the english version of the Book of Eibon…
>
> Book of Eibon: Sanity point loss 1D4/2D4. Forbidden Science +3%/+8%, Full study 32 weeks.

> The Game Master judges Harvey's reading of the book to be secondary to the plot and is in no rush for Harvey to complete an initial reading, making it clear to the player that an initial reading is going to take a few days.
>
> Harvey begins reading the book in his home and then continues while on a long train journey. The GM decides that Harvey has read for long enough to get something from the book and that the train journey would be a dramatic point to call for a reading roll. As the book is a flawed and incomplete translation, the reading roll is set to Hard difficulty level.
>
> Harvey's player makes the roll and is rewarded with +3% Forbidden Science knowledge (the Initial number for the tome) and reduces Harvey's maximum Sanity points by a corresponding amount. The player is also informed of a number of spells contained within the book. He then rolls 1D4 and Harvey loses 3 Sanity points.

Full Study

A full study of a Forbidden Science tome indicates a comprehensive reading, as one might make when studying an academic work, or as a religious adherent might make of a sacred text. This may involve repeated readings, comparative reading, use of reference works, note taking, and so on. No reading roll is required; if any reading roll was required, it will have been made during the initial reading.

Such a study can take many months. At the end of such a course of study, the reader must make a roll for Sanity point loss appropriate for the tome.

Subsequent periods of full study may be undertaken, the difference being that each study will take twice as long as the previous one (double all reading times). Forbidden Science skill increase and Sanity point loss are applied in the same way. In this way a single volume may be studied repeatedly over the years, but each time taking progressively longer than the last, and ultimately with diminishing returns.

Only one tome may be studied at a time.

> Full Study – example
>
> After an hour of careful searching, Harvey collects and collates the Book of Eibon from the cornfield. Later he decides to undertake a full study of the Book of Eibon, knowing that it will take around 32 weeks to complete. Harvey's player has already made a reading roll when Harvey made his initial reading, so he does not need to roll again. However, he must make another roll for Sanity point loss (2D4), this time only losing 6 points.
>
> This is more that the five points required to trigger temporary insanity, should Harvey's player pass an Intelligence roll, which he does. The Game Master decides that Harvey loses his mind and pulls the emergency stop cable, bails out of the train, and runs off into the night. The Game Master withholds that information and simply tells the player that Harvey awakens at dawn in a cornfield, his clothes muddy and torn. The Book of Eibon lies in tatters next to him, its pages scattered across the field. Harvey gains "Siderodromophobia— Fear of trains, railroads, and train travel".

Blasphemous Grimoires

In the summaries of Occult books in this chapter, reading times for books are given in weeks. If in other than the Character's native language, the Character needs a successful language roll on D100. With a success, the Character gets an experience check for that language as well.

Key

- Title—Name of the book.

- Language, Date—Language the book is predominantly written in, Date when book was written (if known).

- Author—Book's writer (if known).

- Wks.—Number of weeks required for full study.

- spl.—Number of spells contained in the book.

- SAN loss—Sanity points loss from initial reading/full study the book.

- F.S.—number of Forbidden Science skill points gained from an initial reading/full study.

The major books of the Occult are:

Title	Language, date	author	wks	spl	SAN loss	F.S.
The Key of Solomon	Latin, 14th	Clavis Salomonis	12	5	1/1D4	+1/+4
Liber Officium Spirituum	Latin, 15th	Johann Weyer	26	6	1D4/1D8	+2/+6
Ars Almadel	Latin, 15th	?	10	3	1/1D4	+1/+3
Ars Goetia	Latin, 1583	Solomon	41	12	1D10/2D10	+4/+10
Ars Notoria	Latin, 1236	?	11	3	1D4/2D4	+2/+5
Ars Paulina	Latin, 1602	Johannes Trithemius	21	0	1D3/1D6	+3/+6
Le Dictionnaire Infernal	French, 1818	Jacques Auguste Simon Collin de Plancy	38	18	1D8/2D8	+3/+8
Le Livre des Esperitz	French, 15th	Solomon	27	16	1D8/2D8	+4/+8
Ars Theurgia Goetia	Latin, 10th	Trithemius	22	10	1D3/1D6	+2/+5
Le Grand Grimoire	French, 1521	Alibek the Egyptian	32	15	1D4/2D4	+4/+9
The Book of Revelation	English, 86	apostle John	12	1	1D3/1D6	+2/+6
The Satanic Bible	English, 1969	Anton LaVey	26	11	1D8/2D8	+3/+7
De Umbrarum Regis Novum Portis	Latin, 1238	Aristide Torchia	14	8	1D8/2D8	+4/+8
The Book of Black Magic and of Pacts	English, 1898	Aleister Crowley	34	19	1D10/2D10	+5/+10
Compendium Maleficarum	Latin, 1608	Francesco Maria Guazzo	28	12	1D8/2D8	+3/+7
Le Culte des Goules	French, 1702	Francois Honoré-Balfour	22	11	1D4/1D10	+3/+9
Malleus Maleficarum	Latin, 1487	Heinrich Kramer	30	15	1D8/2D8	+5/+12
The Lesser Key of Solomon	English, mid-17th	?	52	16	1D4/1D8	+3/+6
De praestigiis daemonum	Latin, 1563	Johann Weyer	16	0	1D4/2D4	+2/+5
Oracles of Nostradamus	Var. languages, 1555-1557	Michel de Nostredame (Nostradamus)	9	0	1/1D4	+2/+4
Thaumaturgical Prodigies In The New-England Canaan	English, 1788?	Rev. Ward Phillips	8	0/5	1D3/1D6	+1/+3
Massa di Requiem Per Shuggay	Italian, 1768	Benvenuto Chieti Brodighera	2	1	1D3/1D6	+1/+3
Beatus Methodivo	Latin, c. 300 AD	St. Methodius of Olympus	3	1	1/1D3	+1/+2

The Key of Solomon

The Key of Solomon, in Latin Clavis Salomonis or Clavicula Salomonis, is a grimoire attributed to King Solomon. The Key of Solomon is divided into two books. It describes not the appearance or work of any demon but only the necessary drawings to prepare each experiment.

Book I contains conjurations, invocations and curses to summon and constrain spirits of the dead and demons, forcing them to do the operator's will. It also describes how to find stolen items, become invisible, gain favour and love, and so on.

Book II describes various purifications which the operator (termed "exorcist") should undergo, how they should clothe themselves, how the magical implements used in their operations should be constructed, and what animal sacrifices should be made to the spirits.

- Sanity loss 1/1D4;

- Forbidden Science +1%/+4%; average 12 weeks to study and comprehend.

- Spells: Create Focus, Call Malebranche, Call Chevaliers De L'enfer, Call The Fallen Angels, Darklife.

Liber Officium Spirituum

The Liber Officium Spirituum begins describing "the three devils" (Lucifer, Bell, and Satan), and the four kings of the air (Orience over the east, Paymon the west, Amaymon the north, and Egine the south), and the means of calling them. It then lists an additional seventy-five demons, for a total of eighty-two. Many of the demons are comparable to those in the Lesser Key of Solomon.

The next to last entry, "Oberyon," shifts the focus from demons to fairies. After the eighty-one demons, the book details Mycob (wife of Oberyon) and their seven daughters. It then repeats the four kings of the air, listing twelve demons under each of them. After this, it begins describing the spirits of the days of the week and the incenses and conjurations needed to summon them. It follows with a list of Greek and Roman gods, a note about which spirits rule hell, and an entry to summon spirits "that make books and write books," before giving instructions on how to summon the angel over each day of the week, including instructions for magic circles, consecrations, use of holy water and exorcisms of fire.

After this is a section on necromancy, involving magic circles and calling upon the aforementioned four kings, names of God, and different saints to constrain a called spirit. The instructions on necromancy are followed by a means of finding hidden treasure, with spells to bind the spirit guarding the treasure.

These spells are interrupted by a short treatise on the role of demons and magic in theodicy, before continuing with more spells to see spirits, a collection of talismans, and a selection of names of God, planetary seals and spirits, geomantic figures and fumigations. Following this are more instructions on ritual magic, and more spells to acquire unspecified desired items, and identify thieves. The additional spirits in this section include: Bilgal, Annabath, Ascariell, Satan, Baron, Romulon, Mosacus, and Orobas. The instructions on summoning spirits continue with Oberyon and his followers: Storax, Carmelyon, Severion, Caberyon, Aozol, Restun, Ramalath, Zaseres, Castriel, Saziel, and Ydial.

- Sanity loss 1D4/1D8;

- Forbidden Science +2%/+6%; average 26 weeks to study and comprehend.

- Spells: Call The Fallen Angels, Call The Powers, Call Mammon, Call Satan, Cloak Of Death, Fear.

Ars Almadel

Mentioned by Trithemius and Weyer, the latter of whom claimed an Arabic origin for the work. A 15th-century copy is attested to by Robert Turner, and Hebrew copies were discovered in the 20th century. The Ars Almadel instructs the Sorcerer on how to create a wax tablet with specific designs intended to contact demons via scrying.

- Sanity loss 1/1D4;

- Forbidden Science +1%/+3%; average 10 weeks to study and comprehend.

- Spells: Call Imp, Turning Undead, Spectral Razor.

Ars Goetia

Ars Goetia, contains descriptions of the seventy-two demons that Solomon is said to have evoked and confined in a brass vessel sealed by magic symbols, and that he obliged to work for him. It gives instructions on constructing a similar brass vessel, and using the proper magic formulae to safely call up those demons.

It deals with the evocation of all classes of spirits, evil, indifferent and good; its opening Rites are those of Paimon, Orias, Astaroth and the whole cohort of Infernus. The second part, or Theurgia Goëtia, deals with the spirits of the cardinal points and their inferiors. These are mixed natures, some good and some evil.

The Ars Goetia assigns a rank and a title of nobility to each member of the infernal hierarchy, and gives the demons' "signs they have to pay allegiance to", or seals.

The 72 demons:

1. King Baal
2. Duke Agares
3. Prince Vassago
4. Marquis Samigina
5. President Marbas
6. Duke Valefor
7. Marquis Amon
8. Duke Barbatos
9. King Paimon
10. President Buer
11. Duke Gusion
12. Prince Sitri
13. King Beleth
14. Marquis Leraje
15. Duke Eligos
16. Duke Zepar
17. Count/President Botis
18. Duke Bathin
19. Duke Sallos
20. King Purson
21. Count/President Marax
22. Count/Prince Ipos
23. Duke Aim
24. Marquis Naberius
25. Count/President Glasya-Labolas
26. Duke Buné
27. Marquis/Count Ronové
28. Duke Berith
29. Duke Astaroth
30. Marquis Forneus
31. President Foras
32. King Asmoday
33. Prince/President Gäap
34. Count Furfur
35. Marquis Marchosias
36. Prince Stolas
37. Marquis Phenex
38. Count Halphas
39. President Malphas
40. Count Räum
41. Duke Focalor
42. Duke Vepar
43. Marquis Sabnock
44. Marquis Shax
45. King/Count Viné
46. Count Bifrons
47. Duke Vual
48. President Häagenti
49. Duke Crocell
50. Knight Furcas
51. King Balam
52. Duke Alloces
53. President Caim
54. Duke/Count Murmur
55. Prince Orobas
56. Duke Gremory
57. President Ose
58. President Amy
59. Marquis Orias
60. Duke Vapula
61. King/President Zagan
62. President Valac
63. Marquis Andras
64. Duke Haures
65. Marquis Andrealphus
66. Marquis Cimeries
67. Duke Amdusias
68. King Belial
69. Marquis Decarabia
70. Prince Seere
71. Duke Dantalion
72. Count Andromalius

- Sanity loss 1D10/2D10;

- Forbidden Science +4%/+10%; average 41 weeks to study and comprehend.

- Spells: Call Malebranche, Call Chevaliers De L'enfer, Call The Fallen Angels, Call The Principalities, Call Belial, Call Lucifer, Call Mammon, Call Satan, Darkness Of The Pit, Delay Death, The Secret Of Life And Death, Grave Sanctuary.

Ars Notoria

The oldest known portion of the Lemegeton, the Ars Notoria (or Notory Art) was first mentioned by Michael Scot in 1236 (and thus was written earlier). The Ars Notoria contains a series of prayers (related to those in The Sworn Book of Honorius) intended to grant eidetic memory and instantaneous learning to the Sorcerer. Some copies and editions of the

Lemegeton omit this work entirely; A. E. Waite ignores it completely when describing the Lemegeton. It is also known as the Ars Nova.

- Sanity loss 1D4/2D4;

- Forbidden Science +2%/+5%, Occult +5%; average 11 weeks to study and comprehend.

- Spells: Call Lesser Undead, Create Skeleton, Create Zombie.

Ars Paulina

Derived from book two of Trithemius's Steganographia and from portions of the Heptameron, but purportedly delivered by Paul the Apostle instead of (as claimed by Trithemius) Raziel. Elements from The Magical Calendar, astrological seals by Robert Turner's 1656 translation of Paracelsus's Archidoxes of Magic, and repeated mentions of guns and the year 1641 indicate that this portion was written in the later half of the seventeenth century. The Ars Paulina is in turn divided into two books, the first detailing twenty-four demons aligned with the twenty-four hours of the day, the second (derived more from the Heptameron) detailing the 360 spirits of the degrees of the zodiac.

- Sanity loss 1D3/1D6;

- Forbidden Science +3%/+6%, Occult +5%; average 21 weeks to study and comprehend.

- Spells: none.

Le Dictionnaire Infernal

Le Dictionnaire Infernal ("Infernal Dictionary") is a book on demonology, organised in hellish hierarchies. It was written by Jacques Auguste Simon Collin de Plancy. There were several editions of the book, but perhaps the most famous is the edition in which sixty-nine illustrations were added to the book. These illustrations are drawings which try to depict the descriptions of the appearance of several demons. The book was divided into two volumes, with six reprints and many changes. This book attempts to provide an account of all the knowledge concerning superstitions and demonology.

"Infernal Dictionary, or, a Universal Library on the beings, characters, books, deeds, and causes which pertain to the manifestations and magic of trafficking with Hell; divinations, occult sciences, grimoires, marvels, errors, prejudices, traditions, folktales, the various superstitions, and generally all manner of marvellous, surprising, mysterious, and supernatural beliefs."

- Sanity loss 1D8/2D8;

- Forbidden Science +3%/+8%, Occult +8%; average 38 weeks to study and comprehend.

- Spells: Call The Fallen Angels, Call The Powers, Call The Principalities, Call Belial, Call Lucifer, Call Mammon, Call Asmodeus, Call Satan, Call Beelzebub, Call Leviathan, Call Belphegor, Located Remains, Raise Night Fog, Fear, Mantle Of Darkness, Decay, Land Of Darkness, Ensnare Soul.

Le Livre des Esperitz

Le Livre des Esperitz (or Book of Spirits) is a French grimoire that has been attributed to Solomon. Le Livre des Esperitz merely lists the hierarchy of hell, and does not include prayers, conjurations, invocations, or spells to summon any being described. It does provide detailed descriptions of each spirit's appearance and function, and lists how many legions of demons serve under each. The demons listed within it include: Lucifer, Bezlebut, Satan, Orient, Poymon, Equi, Veal, Agarat, Barbas, Bulfas, Amon, Batal, Gemen, Gazon, Artis, Machin, Dicision, Abugor, Vipos, Cerbere, Carmola, Estor, Coap, Deas, Asmoday, Bitur, Beal, Forcas, Furfur, Margotias, Oze, Lucay, Pucel, Jayn, Suralet, Zagon, Dragon, Parcas, Gorsin, Andralfas, Flanos, Brial, Fenix, Distolas.

- Sanity loss 1D8/2D8;

- Forbidden Science +4%/+8%, Occult +8%; average 27 weeks to study and comprehend.

- Spells: Call Gargoyles, Call Imp, Call Malebranche, Call Chevaliers De L'enfer, Call The Fallen Angels, Call The Powers, Call The Principalities, Call Beelzebub, Darklife, Darkness Of The Pit, Whispers Through The Black Gate, Walk the Shadows, Panic, The Secret Of Life And Death, Grave Sanctuary, Land Of Darkness.

Ars Theurgia Goetia

The Ars Theurgia Goetia ("the art of goetic theurgy") explains the names, characteristics and seals of the 31 aerial spirits (called chiefs, emperors, kings and princes) that King Solomon invoked and confined. It also explains the protections against them, the names of their servant spirits, the conjurations to invoke them, and their nature, that is both good and evil.

Their sole objective is to discover and show hidden things, the secrets of any person, and obtain, carry and do anything asked to them meanwhile they are contained in any of the four elements (Earth, Fire, Air and Water). These spirits are given in a complex order in the book, and some of them have spelling variations according to the different editions.

- Sanity loss 1D3/1D6;

- Forbidden Science +2%/+5%, Occult +2%; average 22 weeks to study and comprehend.

- Spells: Call Chevaliers De L'enfer, Call The Fallen Angels, Call The Powers, Call The Principalities, Call Belial, Ghoul Control, Located Remains, Decay, Ghoul Gauntlet, Terror.

Le Grand Grimoire

Le Grand Grimoire is a black magic grimoire that was ostensibly published in Cairo by a person known as Alibek the Egyptian. Also known as "The Red Dragon", this book contains instructions purported to summon Lucifer or Lucifuge Rofocale (the demon in charge of Hell's government by order of Lucifer), for the purpose of forming a Deal with the Devil. The book is called "Le Veritable Dragon Rouge" ("The True Red Dragon") in Haiti, where it is revered among many practitioners of Voodoo. It is claimed they were placed under King Solomon's throne by the devil to tempt him.

The work is divided into two books. The first book contains instructions for summoning a demon and for the construction of tools with which to force the demon to do ones bidding. The second book is further divided into two parts: the Sanctum Regnum and Secrets, de L'Art Magique du Grand Grimoire ("Secrets, of the magic art of the Grand Grimoire"). The Sactum Regnum contain instructions for making a pact with the demon, allowing one to command the spirit without the tools required in book one, but at greater risk. Secrets contains simpler spells and rituals one can employ after having performed the ritual in the first book. Some editions contain a short text between these two parts, Le Secret Magique, ou le Grand Art de pouvoir parler aux Morts (The Magic Secret, or the Grand Art of being able to speaking with the dead), dealing with necromancy.

- Sanity loss 1D4/2D4;

- Forbidden Science +4%/+9%, Occult +10%; average 32 weeks to study and comprehend.

- Spells: Create Focus, Call Belial, Call Lucifer, Call Satan, Call Beelzebub, Turning Undead, Create Skeleton, Create Zombie, Located Remains, Death Recall, Whispers Through The Black Gate, The Secret Of Life And Death, Remortification, Resurrection, Wail Of The Banshee.

The Book of Revelation

The Book of Revelation, The final "official" book of the New Testament as revealed to the apostle John on the island of Patmos in the Aegean Sea. The culmination of Old and New Testament prophecies, it contains an apocalyptic vision granted by God in which an Anti-Christ comes to power backed by Satan and is eventually banished to a lake of fire by the heavenly host. During this time many plagues, pestilences and geologic upheavals are loosed upon the earth by the forces of Heaven to punish those who fall from grace. Filled with horrific images as vague and allegorical as the quatrains of Nostradamus, there has yet to be a conclusive explanation for the meaning of the visions. Some believe the book to detail literal events in the End Times or to contain strange esoteric truths, whereas others think that St. John spoke metaphorically of Rome and other cities of his day.

- Sanity loss 1D3/1D6;

- Forbidden Science +2%/+6%, Occult +3%; average 12 weeks to study and comprehend.

- Spells: none.

The Satanic Bible

The Satanic Bible is composed of four books: The Book of Satan, The Book of Lucifer, The Book of Belial, and The Book of Leviathan. The Book of Satan challenges the Ten Commandments and the Golden Rule, and promotes hedonism. The Book of Lucifer holds most of the philosophy in The Satanic Bible, with twelve chapters discussing topics such as pride,

wrath, greed, and lust. The Book of Belial details rituals and magic. The Book of Leviathan provides four invocations for Satan, Lucifer, Mammon, and Asmodeus.

- Sanity loss 1D8/2D8;

- Forbidden Science +3%/+7%, Occult +5%; average 26 weeks to study and comprehend.

- Spells: Create Focus, Call Satan, Call Lucifer, Call Mammon, Call Asmodeus, Cloak Of Death, Darkness Of The Pit, Whispers Through The Black Gate, Mantle Of Darkness, Land Of Darkness, Duplicate.

De Umbrarum Regis Novum Portis

> *"They form a kind of satanic riddle. Correctly interpreted with the aid of the original text and sufficient inside information, they are reputed to conjure up the Prince of Darkness in person."*
>
> *Boris Balkan, "The Ninth Gate"*

De Umbrarum Regis Novum Portis ("The Nine Doors to the Kingdom of Shadows"), also known as the "Nine Gates" for short, is a book written by one Aristide Torchia in Venice, 1666. This rare book was alleged to grant the owner access to the supernatural powers of the Kingdom of Shadows. The book contains nine woodcut engravings rumoured to be copied from the apocryphal Delomelanicon ("Invocation of Darkness"), a book purportedly written by Lucifer himself. The Nine Doors to the Kingdom of Shadows contains within its pages knowledge to raise the devil. The author was burned, along with all his works. Three copies are known to survive.

- Sanity loss 1D8/2D8;

- Forbidden Science +4%/+8%, Occult +10%; average 26 weeks to study and comprehend.

- Spells: Call Greater Undead, Call Lucifer, Turning Undead, Create Skeleton, Create Zombie, Ghoul Control, Command The Great Undead, Command Spirits.

The Book of Black Magic and of Pacts

The Book of Black Magic and of Pacts, a well researched reference book divided into two sections. The first section, tiled "The Literature of Ceremonial Magic." discusses sorcery in general and then continues with several in-depth descriptions is of greater and lesser known tomes of reputed black magic. The second half of the book, entitled 'The Complete Grimoire,' compares the rites, ritual, equipment, and spells of the books detailed in the first section. Contains numerous diagrams, illustrations and symbols.

- Sanity loss 1D10/2D10;

- Forbidden Science +5%/+10%, Occult +8%; average 34 weeks to study and comprehend.

- Spells: Create Focus, Call Lesser Undead, Call Gargoyles, Call Imp, Call Ghoul, Call Werewolves, Call Greater Undead, Call The Fallen Angels, Turning Undead, Ghoul Control, Located Remains, Death Recall, Cloak of Hell, The Secret Of Life And Death, Wandering Soul, Ensnare Soul, Exorcism, Command The Great Undead, Command Spirits.

Compendium Maleficarum

Compendium Maleficarum ("Book of Witches") is a book written in Latin by the Italian Demonologist Francesco Maria Guazzo. Guazzo drew up eleven headings under which witchcraft was then held to consist. Topics include the eleven ways a witch or Sorcerer binds himself to Satan during a sabbat, incubi and succubi, the animation of corpses by demons, witches' sabbats, what powers witches have over the world, necromancy, ghosts, poisons, and diseases. This collection of three books quotes 322 experts in its attempt to expose, classify and help eliminate witchcraft. These include a pact with the devil, a disregard for the Church, trampling the cross, etc. They allegedly also promise to seduce others into the worship of Satan and are baptized in the name of Lucifer, Belzebuth and other demons.

- Sanity loss 1D8/2D8;

- Forbidden Science +3%/+7%, Occult +5%; average 28 weeks to study and comprehend.

- Spells: Call Belial, Call Lucifer, Call Mammon, Call Asmodeus, Call Satan, Call Beelzebub, Call Leviathan, Call Belphegor, Grave Sanctuary, Body Warping of Gorgoroth, Army of the Dead, Duplicate.

Le Culte des Goules

> *"Lest some would label it blasphemy, I have chosen to explain certain actions and beliefs, and let God be the judge of us all."*

> *François Honoré-Balfour, 1703.*

Le Culte des Goules, in French, by Francois Honoré-Balfour, the Comte d'Erlette, 1702? Published in 1703 in France (Paris?), in a quarto edition. Balfour derived his work from an earlier manuscript written by a predecessor, Antoine-Marie Augustin de Montmorency-les-Roches, who vanished by the king's order. Immediate clerical denunciation was followed by civil action against the printer; the aristocratic status of the author, François Honoré-Balfour, exempted him from formal charge or punishment.

His book was never published, but was copied and distributed clandestinely. it is believed that no more than sixty copies of the original 600-page quarto edition were produced. The accusation that Balfour had three copies of his own specially bound in human skin has never been proven. Balfour never published again and by all accounts spent the last twenty years of his life in self-imposed seclusion.

The book alleges the widespread existence of necromancy and necrophilia. D'Erlette describes an actual society of tomb-robbers and grave-despoilers, detailing their rites and practices. Necrophagy was indulged in at initiation ceremonies, the members thereafter referring to themselves as "goules", Other, scarcely less abhorrent acts involving the purported resurrection or at least, reanimation of the dead for purposes of divination and, in some instances, copulation, are also detailed. The cult is thought to have gone underground shortly after publication of the book, and no concrete evidence of their existence has ever been found.

- Sanity loss 1D4/1D10;
- Forbidden Science +3%/+9%, Occult +1%; average 22 weeks to study and comprehend.
- Spells: Ghoul Control, Darkness Of The Pit, Death Recall, Fear, Whispers Through The Black Gate, Command The Great Undead, Delay Death, Command Spirits, Beauty of the Beast, Hasten Decay, Ghoul Gauntlet.

Malleus Maleficarum

The Malleus Maleficarum (Latin for "The Hammer of Witches") is a famous treatise on witches, written by Heinrich Kramer, an Inquisitor of the Catholic Church. The Malleus Maleficarum asserts that three elements are necessary for witchcraft: the evil-intentioned witch, the help of the Devil, and the Permission of God. The treatise is divided up into three sections. The first section tries to refute critics who deny the reality of witchcraft, thereby hindering its prosecution. The second section describes the actual forms of witchcraft and its remedies. The third section is to assist judges confronting and combating witchcraft. However, each of these three sections has the prevailing themes of what is witchcraft and who is a witch.

- Sanity loss 1D8/2D8;
- Forbidden Science +5%/+12%, Occult +11%; average 30 weeks to study and comprehend.
- Spells: Call Lesser Undead, Call Gargoyles, Call Ghoul, Call Werewolves, Call Greater Undead, Darklife, Death Recall, Delay Death, The Secret Of Life And Death, Ghoul Gauntlet, Land Of Darkness, Terror, Wail Of The Banshee, Command The Great Undead, Command Spirits.

The Lesser Key of Solomon

The Lesser Key of Solomon, also known as Clavicula Salomonis Regis or Lemegeton, is an anonymous grimoire (or spell book) on demonology. It was compiled in the mid-17th century, mostly from materials a couple of centuries older. It is divided into five books—the Ars Goetia, Ars Theurgia-Goetia, Ars Paulina, Ars Almadel, and Ars Notoria.

The Lesser Key of Solomon or Clavicula Salomonis, is an anonymous grimoire, and one of the most popular books of demonology. It has also long been widely known as the Lemegeton. The Lesser Key of Solomon contains detailed descriptions of spirits and the conjurations needed to invoke and oblige them to do the will of the conjurer (referred to as the "exorcist"). It details the protective signs and rituals to be performed, the actions necessary to prevent the spirits from gaining control, the preparations prior to the invocations, and instructions on how to make the necessary instruments for the execution of these rituals.

- Sanity loss 1D4/1D8;
- Forbidden Science +3%/+6%, Occult +4%; average 52 weeks to study and comprehend.

■ Spells: Create Focus, Call Lesser Undead, Call Imp, Call Malebranche, Call Chevaliers De L'enfer, Call The Fallen Angels, Call The Powers, Call The Principalities, Darkness Of The Pit, Delay Death, From Hell's Fire, Grave Sanctuary, Ghoul Control, Located Remains, Decay, Ghoul Gauntlet.

De praestigiis daemonum

De praestigiis daemonum, translated as On the Tricks of Demons, is a book that was first published in Basel in 1563 by demonologist Johann Weyer, also known as Wierus. The book contains a famous appendix also circulated independently as the Pseudomonarchia Daemonum, a listing of the names and titles of infernal spirits, and the powers alleged to be wielded by each of them. Weyer relates that his source for this intelligence was a book called Liber officiorum spirituum, seu liber dictus Empto Salomonis, de principibus et regibus demoniorum ("The book of the offices of spirits, or the book called Empto, by Solomon, about the princes and kings of demons). Weyer's reason for presenting this material was not to instruct his readers in diabolism, but rather to "expose to all men" the pretensions of those who claimed to be able to work magic, men who "are not embarrassed to boast that they are mages, and their oddness, deceptions, vanity, folly, fakery, madness, absence of mind, and obvious lies, to put their hallucinations into the bright light of day." Weyer's source claimed that Hell arranged itself hierarchically in an infernal court which is divided into princes, ministries and ambassadors.

■ Sanity loss 1D4/2D4;

■ Forbidden Science +2%/+5%, Occult +4%; average 16 weeks to study and comprehend.

■ Spells: none.

Oracles of Nostradamus

Contains about a thousand four-line verses, purporting to be prophecies concerning human events until the year 3797 AD. The prophecies are nonspecific and imagistic, lending themselves to all sorts of applications. Numerous interpretations have been made for many of these prophecies.

■ Sanity loss 1/1D4;

■ Forbidden Science +2%/+4%, Occult +2%; average 9 weeks to study and comprehend.

■ Spells: Create Focus.

Thaumaturgical Prodigies in The New-England Canaan

> *"If any are scandalized that New England, a place of as serious piety as any I know of should be troubled so much by witches, they should ask themselves this question: Where would the Devil most wish to make his inroads but in that place where he is hated the most?"*
>
> *Rev. Ward Phillips, 1788.*

This book was written in 1788 by the Reverend Ward Phillips of the Baptist Church of Arkham, Massachusetts. The treatise describes the blasphemous activities of witches, warlocks, Indian shamans, and other evil-doers in colonial New England. Terrible magicks, monstrous births, and dire Indian legends are all described. Phillips pays particular attention to the events that supposedly took place in and around Billington's Woods, near Arkham, in the late 17th century.

Published in two editions, the second in Boston, 1801. Primitive American octavo in imitation black letter. The interiors of the editions are the same, except for changes in printer, place of printing and edition date. Commonly found in major libraries and historical society libraries in New England.

■ Sanity loss 1D3/1D6;

■ Forbidden Science +1%/+3%; average 8 weeks to study and comprehend.

■ Spells: none, but annotations by Rev. Phillips in his personal copy reveal Call Ithaka (Ithaqua), Call Narlato (Nyarlathotep), Call Sadogowah (Tsathoggua), Call Yogge Sothyothe (Yog-Sothoth), Elder Sign.

Massa di Requiem Per Shuggay

> *Maria: But why, my love,*
> *Must I die for you?*
> *Pietro: Because,*
> *Alive I love you only for a day,*
> *But dead, I shall love you forever.*

"Duet Macabre" from Act I, Benvento Chieti Bordighera, 1768.

This opera score and libretto was composed by the Italian Benvento Chieti Bordighera around 1768. Never published, it is said the opera was performed only once, resulting in an audience riot that left several dead and some missing. The composer was arrested for heresy; some say he fled to France where he died in obscurity several years later, but trial records indicate he was executed in 1771. Knowledgeable composers and musicians who have seen the score have pronounced certain portions "unplayable", but it is said that the ingenious Bordighera contrived various sorts of new instruments and techniques which have been subsequently lost. Handmade copies are in the holdings of the British Museum, the Bibliothèque Nationale, and the Vatican's Z-collection.

Massa di Requiem per Shuggay tells of the journeys of a family through the stars in search of a new home. The opera deals with the topics of rape, incest, torture, and other degrading pursuits, which resulted in it being banned by both church and civil authorities shortly after its one disastrous performance. Of inhuman tone and temperament, the composition is actually the product of an insect from Shaggai which had lodged itself in the brain of the composer. A special spell is secretly woven into the instrumental score.

- Sanity loss 1D3/1D6;
- Forbidden Science +1%/+3%; average 2 weeks to study and comprehend.
- Spells: (performed with full orchestra) Call Lucifer is cast about midway through the third act.

Beatus Methodivo

Of Gnostic complexion, this relatively short work is written as a prophetic apocalypse. It foresees the history of the world. It recounts how Seth sought a new country in the East and came to the country of the initiates, how the children of Cain instituted a system of black magic in India.

- Sanity loss 1/1D3;
- Forbidden Science +1%/+2%; average 3 weeks to study and comprehend.
- Spells: The Black Words.

Impious Tomes

Any book listed as adding Forbidden Science points therefore takes study to comprehend. In the summaries of Mythos books in this chapter, reading times for books are given in weeks. The Game Master should never feel at the mercy of such numbers, and should shrink them or increase them as appropriate. An outstanding academic with pertinent language skills will read a book faster than an earnest but uneducated and disoriented journalist. Time of study need not be consecutive days, weeks, or months.

With success, or if no skill roll is needed, the Character now comprehends the book. The player adds the stated percentiles of Forbidden Science, lowers maximum Sanity by the same number of points, and subtracts lost current Sanity points. Having read and comprehended the book, the Character loses nothing more for further readings of it.

The major books of the Mythos are:

Title	Language, date	author	wks	spl	SAN loss	F.S.
Azathoth and Others	English, 1919	Edward Derby	1	0	1/ 1D4	+1/ +3
Book of Dzyan	English	?	14	4	1D3/ 1D6	+3/ +6
Liber Ivonis	Latin, 9th	Caius Phillipus Faber	36	15	1D4/	+4/

					2D4	+9
Livre D'Ivon	French, 13th	Gaspard du Nord	36	15	1D4/ 2D4	+4/ +8
Book Of Eibon	English, 15th	?	32	10	1D4/ 2D4	+3/ +8
Celaeno Fragments	English, 1915	Dr. Laban Shrewsbury	15	6	1D4/ 1D8	+3/ +6
Cthaat Aquadingen	Latin, 11-12th	?	46	10	1D8/ 2D8	+4/ +9
Cthaat Aquadingen	Middle English, 14th	?	29	7	1D4/ 2D4	+2/ +4
De Vermiis Mysteriis	Latin, 1542	Ludwig Prinn	48	13	1D6/ 2D6	+4/ +8
G'harne Fragments	English, 1919	Sir Amery Wendy-Smith	12	4	1D6/ 1D10	+3/ +7
The King In Yellow	English, 1895	?	1	0	1D3/ 1D6+1	+1/ +2
Unausprechlichen Kulten	German, 1839	Friedrich Wilhelm von Junzt	52	17	1D8/ 2D8	+5/ +10
Nameless Cults	English, 1845	?	48	17	1D8/ 2D8	+4/ +8
Nameless Cults	English, 1909	?	30	1	1D8/ 2D8	+3/ +6
Al-Azif	Arabic, 730	Abdul al-Hazrad	68	21	1D10/2D 10	+6/ +12
Necronomicon	Greek, 950	Theodoras Philetas	68	21	1D10/2D 10	+5/ +12
Necronomicon	Latin, 1228	Olaus Wormius	66	21	1D10/2D 10	+5/ +11
Necronomicon	English, 1586	Dr. John Dee	50	10	1D10/2D 10	+5/ +10
Sussex Manuscript	English, 1597	Baron Frederic	36	1	1D3/ 1D6	+2/ +5
People of the Monolith	English, 1926	Justin Geoffrey	1	0	1/ 1D3	+1/ +2
Pnakotic Manuscriptsc	English, 15th	?	45	2	1D4/ 1D8	+3/ +7
Ponape Scripture	English, 1734	Captain Abner Ezekiel Hoag	10	0/3	1D3/ 1D6	+1/ +4
Revelations Of Gla'aki	English, 1842-1865	various authors	32	11	1D6/ 2D6	+5/ +10
R'lyeh Text	Chinese, c. 300 BC	?	54	8	1D8/ 2D8	+5/ +10
Seven Cryptical Books of Hsan	Chinese, 2nd century AD	Hsan the Greater	40	7	1D4/ 1D8	+2/ +6
Zanthu Tablets	English, 1916	Prof. Harold Hadley Copeland	8	0/5	1/ 1D3	+1/ +2

Al-Azif, see Necronomicon

Azathoth and Others in English, written by Edward Derby, 1919

"Out of what crypt they crawl, I cannot tell,
But every night I see the rubbery things,
Black, horned, and slender, with membraneous wings,
And tails that bear the bifid barb of hell."

Edward Pickman Derby, "Dreamtime", 1919.

This slim book contains a collection of poems –" nightmare-lyrics" – by the talented, oversensitive Arkham poet, Edward Derby. The first edition of 50 copies was put out by a firm in Cambridge in 1916,and a later printing of 1400 copies was printed in 1919 by the author's imprint, Onyx Sphinx Press. A small, 3-1/2 by 5-1/2 inch volume bound in black letter, it occasionally is found on the shelves of new or used bookstores. In the 1920s, new copies can be purchased directly from the author in Arkham. The book is republished in 1945 by Vartan Bagdasarian's Azathoth House, and becomes a collector's item worth up to $500. It contains no spells, nor does it provide any other benefits.

- Sanity loss 1/1D4;

- Forbidden Science +1%/+3%, Occult +2%; average 1 week to study and comprehend.

- Spells: none.

Book of Dzyan in English, author and trans.

"… Listen, O Sons of Earth, to your teachers–the Sons of the Stars. Learn, there is neither Height nor Depth, for all is one… The Dark Mother's Spawn filled the cosmos. A great battle was fought between Those Within and Those Without, and battles fought for space, the Seeds of the Gods appearing and re-appearing everywhere."

anonymous, English manuscript, 16th century.

Supposedly of Atlantean origin and reputed to be "the oldest book in the world", the actual existence of the Book of Dryan (pronounced "zon") has never been verified. Legend has it that the oldest known version – sometimes called the Stanzas of Dzyan – is written on palm leaves in the ancient Senzar language of Atlantis, and even the first chapters of that book came to earth from the planet Venus when its inhabitants came to Earth to instruct humanity. This work is supposedly the first volume of commentary on the Kiu-ti. a set of books kept at Xigaze in Tsang and said to be the origin of the scriptures of all religions. The book supposedly describes the history of the world from its very beginning, and covers the prehistoric civilizations of Atlantis, Hyperborea, Lemuria, Lomar, and others. It also outlines a cosmology of interlocking universes and worlds ruled by hierarchies of solar deities served by angelic spirits. The underlying theme of the work is that metaphysical evolution will allow lesser species to achieve higher status.

- Sanity loss 1D3/1D6;

- Forbidden Science +3%/+6%; average 14 weeks to study and comprehend.

- Spells: Call Dark Young, Call Byakhee, Call Dimensional Shambler, Call Cthulhu.

Liber Ivonis, Livre D'Ivon see Book of Eibon

Book of Eibon (three versions)

"For Ubbo-Sathla is the source and the end. Before the coming of Zhothaqquah or Yok-Zothoth or Kthulhut from the stars, Ubbo-Sathla dwelt in the steaming fens of new-made Earth… "

English translation, 15th century.

Egyptians are thought to have come into possession of the Book of Eibon through trading with fabled Atlantis. Survivors of the great Atlantian disaster are also thought to have carried the book with them, inscribed on tablets, to many parts of Europe, including Ireland, France, and Greece.

1. LIBER IVONIS-in Latin, trans. Caius Phillipus Faber, 9th century AD.

    Although the original is said to have been written by Eibon, wizard of Hyperborea, no earlier versions than the Latin have been verified. Never printed, six bound manuscript versions have been listed in library collections.

    - Sanity loss 1D4/2D4;

    - Forbidden Science +4%/+9%, Occult +5%; average 36 weeks to study and comprehend.

    - Spells: Call Azathoth, Call Hound of Tindalos, Call Hunting Horror, Call Cthulhu, Call Yog-Sothoth, Call Ithaqua, Agony Of The Damned, Create Gate, Unholy Light, Unhealing Wounds, Empathic Self Cure, Curse Of The Leprous Flesh, Creeping Doom, Summon Black Crows, Crush The Defiant, Kiss Of Death.

2. LIVRE D'IVON-in French, trans. Gaspard du Nord, c. 13th century AD.

    Bound, handwritten manuscript of which thirteen specimens, partial or complete, are known to exist.

    - Sanity loss 1D4/2D4;

    - Forbidden Science +4%/+8%, Occult +4%; average 36 weeks to study and comprehend.

    - Spells: as per Liber Ivonis.

3. BOOK OF EIBON-in English, trans. unknown, c. 15th century.

    A flawed and incomplete translation. Eighteen copies by various hands are known to exist today.

    - Sanity loss 1D4/2D4;

    - Forbidden Science +3%/+8%, Occult +2%; average 32 weeks to study and comprehend.

    - Spells: as per Liber Ivonis, except that Call Hound of Tindalos, Agony Of The Damned, Create Gate, Unhealing Wounds, and Crush The Defiant are absent.

Celaeno Fragments

"Despite the claims of those wiser, it is hard to understand how such cosmic evil can exist without a counter-balancing force for good; for me, it is inconceivable."

Dr. Laban Shrewsbury, 1915.

This sheaf of hand-written notes was written by Dr. Laban Shrewsbury and deposited at the Miskatonic University library in 1915,shortly before his mysterious disappearance. The author implies that the research was done in an alien library in the distant star system of Celaeno, one of seven stars visible from Earth as the Pleiades, a star cluster in the constellation Taurus. The Eltdown Shards and some of the newly discovered Pnakotic Fragments fill in the gaps in the Celaeno Fragments, leading some scholars to believe that the three are pieces of a much older work.

In terse, concise language, Shrewsbury describes a pantheon of unknown gods that includes the "aether-beings" Azathoth and Yog-Sothoth, and the elementals Nyarlathotep (earth), Cthulhu (water), Cthugha (fire), and Ithaqua (air). Though such authorities as the Comte d'Erlette back up some of his opinions, most scholars see the Fragments as the work of a man desperately attempting to place some order on the chaos in which he was immersed. Shrewsbury appends some notes as to the nature of the Great Library of Celaeno, and the wisdom and dangers that may be found there.

- Sanity loss 1D4/1D8;

- Forbidden Science +3%/+6%; average 15 weeks to study and comprehend.

- Spells: Create Focus, Walk the Shadows, Call Cthugha, Mist of R'lyeh, Circle of Nausea, Call Byakhee.

Cthaat Aquadingen (two versions)

"Rise!
o Nameless Ones:
That in Thy Season
Thine Own of Thy Choosing,
Through Thy Spells and Thy Magic,
Through Dreams and Enchantry,
May Know of Thy Coming,
And Rush to Thy Pleasure,
For the Love of Our Master,

> *Knight of Cthulhu,*
> *Deep Slumberer in Green,*
> *Othuum… "*

Aqua is Latin for "water", dingen German for "things". The Cthaat Aquadingen is a comprehensive study of intelligent underwater life. It includes specific references to the undersea deep one cities near Ponape and Innsmouth, off the Alaskan coast, in Britain's North Sea, in the Indian Ocean, and many other places worldwide. Father Dagon and Mother Hydra are described as the "leaders" of the deep ones. Human cults linked to those sea-creatures – particularly those in the vicinity of Ponape – are studied as well. Great Cthulhu and his star-spawn are discussed in detail, as well as the human cults that directly worship them.

1. CTHAAT AQUADINGEN—in Latin, author unknown, c. 11-12th century.

    A comprehensive study of the deep ones. Three copies of this Latin version exist, identically bound in human skin said to sweat when the humidity drops too low. One is at the British Museum, and the other two are owned by British collectors.

    ■   Sanity loss 1D8/2D8;

    ■   Forbidden Science +4%/+9%; average 46 weeks to study and comprehend.

    ■   Spells: Call Colours Out Of Space, Call Cthulhu, Evil Dreams, Evil Prayer, Call Deep Ones, Weakness, Weaken Bone, Call Star-Spawn of Cthulhu, Stench Of The Grave.

2. CTHAAT AQUADINGENin Middle English, author and translator unknown, c. 14th century.

    A comprehensive study of the deep ones, but in an incomplete and deeply flawed translation. A single bound manuscript is held by the British Museum.

    ■   Sanity loss 1D4/2D4;

    ■   Forbidden Science +2%/+4%; average 29 weeks to study and comprehend.

    ■   Spells: Call Colours Out Of Space, Call Cthulhu, Evil Dreams, Call Deep Ones, Weakness, Weaken Bone, Call Star-Spawn of Cthulhu.

De Vermiis Mysteriis in Latin, by Ludwig Prinn, 1542

> *"Tibi, Magnum Innominandum, signa stellarum nigrarum et bufoniformis Sadoquae sigillum… [Come, Great Not-to-Be-Named One, by the sign of the black stars and the seal of toad-shaped Tsathoggua…]"*

Black letter folio printed in Cologne, Germany, in the same year. Suppressed by the Church. Fifteen copies have survived. In part discusses the Arab world, and things supernatural there.

This book was written in 1542 by a notorious Belgian sorcerer named Ludwig Prinn. Over 700 pages long, the earlier of the sixteen chapters discuss ghosts, zombies, and the like. Latter parts of the book tell about his supposed travels amongst the Saracens of Arabia, Egypt, Syria, and Libya, and of his encounters with "djinn" and "efreet", There is much material regarding the summoning and binding of different "demons".

Divided into sixteen chapters, De Vermiis Mysteriis concerns itself with a varied assortment of topics, including divination arts, necromancy, the creation of familiars, as well as bizarre theories and descriptions of entities such as vampires, sprites, and elementals. Certain copies of the tome have large sections written in what is considered to be Ogham (Druidic runes). Some suspect the Ogham is a cipher used by Prinn to "hide" more revealing and blasphemous ideas. Rumors circulated in the early twentieth century concerning the Esoteric Order of Dagon, who were allegedly seeking an original copy of the book. It is believed that within the ciphered sections are formulae to hasten the metamorphosis of a human into a deep one.

■   Sanity loss 1D6/2D6;

■   Forbidden Science +4%/+8%, Occult +3%; average 48 weeks to study and comprehend.

■   Spells: Create Focus, Desecration, Corrupt Food And Water, Wine Of Drunkenness, Curse, Create Zombie, Call Byakhee, Call Dark Young, Call Star Vampire, Brimstone Death, Possession, Ward of the Flesh, Deceive Death.

G'harne Fragments in English, by Sir Amery Wendy-Smith, 1919 (1931)

> *"There are fabulous legends of Star-Born creatures who inhabited this Earth many millions of years before Man appeared and who were still here, in certain black places, when he eventually evolved. They are, I am sure, to an extent here even now."*
>
> *Sir Amery Wendy-Smith's Introduction, 1919*

The G' harne Fragments was published in 1919 in a privately-financed run of 958 copies. A humble volume of 128 pages, measuring 4-1/2 by 5-3/4 inches and bound in cheap pasteboard covers, it is a conjectural translation of strange writings found on shattered tablets first brought out of Africa by the British explorer Sir Howard Windrop. Windrop made a partial translation of the dot-formed runes, enough to convince him they were part of a larger work. Called by some "Windrop's Folly", it did not deter his colleague, Sir Amery Wendy-Smith, from making a complete translation. The same year that Wendy-Smith's book saw publication, he led an expedition to North Africa in search of the lost city of G'ha rne.

The original carvings found on the shards are the ancient dot-formed hieroglyphs of the elder things.They describe the prehistory of earth from Pleistocene times to the dawn of human civilization. They tell of prehistoric cities and civilizations called Lh'Yibi, Ib, Leng, Thep-Dya, R'lyeh, and Xuthltan, and describe deities with names like Bokrug, Nug, and Yeb.Also described are the locations of several deserted elder thing cities, many deep one colonies, and a secret enclave of serpent men. Star charts are also discernible, indicating the locations of Algol, Yuggoth, and the now-destroyed planet Thyoph.

The lost city of G'harne is discussed in the greatest detail, and a description of its location provided. Originally one of the cities of the elder things, it is now described as a place of underground burrows inhabited by crawling chthonians led by a monstrous creature named Shudde-M'ell.

- Sanity loss 1D6/1D10;
- Forbidden Science +3%/+7%; average 12 weeks to study and comprehend.
- Spells: Call Chthonian, Call Ithaqua, Call Shudde M'ell, Breath Of The Basilisk.

The King In Yellow in English, trans. unknown, c. 1895

> *"Song of my soul, my voice is dead;*
> *Die thou, unsung, as tears unshed*
> *Shall dry and die in Lost Carcosa."*
>
> *unknown*

The original is in French, apparently, but that edition was seized and destroyed by the Third Republic just after publication. The English edition is a thin black octavo volume across the front cover of which is embossed a large Yellow Sign. Until the book has been read, the Sign has no effect on the viewer, except to imbue a sense of curiosity. After reading the book (or after having contact with anything or anyone from Carcosa), viewing the sign costs 0/1D6 Sanity points to see (for one time only). The text is an ambiguous, dreamlike play that opens readers to madness. Uniquely, readers cannot opt to disbelieve what is written here. Those of an artistic bent will feel compelled to reread the play. If the book results in insanity, the reader should become obsessed with Carcosa and the King in Yellow.

A play shrouded in mystery and sorrow, The King in Yellow appears to bring only madness and death to those who possess the volume. Although the playwright remains unknown, some maintain it was written by Christopher Marlowe (author of Doctor Faustus, as well as the lurid The Massacre at Paris). Apart from his known works, Marlowe is also famous for his mysterious death. An arrest warrant for Marlowe was issued, with no reason given other than allegations of blasphemy for a manuscript containing "vile heretical concepts". He was taken for questioning, although (strangely) no record exists of the interview. Ten days later Marlowe was stabbed (above the right eye, killing him instantly) by Ingram Frizer. Some believe the blasphemous manuscript to be The King in Yellow and the real cause of Marlowe's death.

- Sanity loss 1D3/1D6+1;
- Forbidden Science +1%/+2%, Any one Art skill +5%; average 1 week to study and comprehend.
- Spells: none.

Nameless Cults (three versions)

> *"I have traveled the world in search of the darkness – a journey that ended within myself."*
>
> *Friedrich Wilhelm von Junzt, 1839.*

The author of this book spent many years touring the world, studying various cults and secret societies. He gained personal admission to many of these groups, often requiring him to suffer terrible initiation rites. The original Black Book is over 1000 pages long. Much of it relates to more familiar societies such as the Assassins, the Thuggees, and the Leopard Societies, but he deals at some length with a set of cults which seem to revere the same pantheon of deities.

1. UNAUSPRECHLICHEN KULTEN—in German, by Friedrich Wilhelm von Junzt, 1839.

   A quarto, possibly printed in Hamburg. This volume, long referred to as the Black Book, tells of von Junzt's connections to various cults and secret societies. Other editions are rumored. Six copies are known to be in major libraries in Europe and America. The original edition boasts the horrific engravings of Gunther Hasse.

   ■ Sanity loss 1D8/2D8;

   ■ Forbidden Science +5%/+10% average 52 weeks to study and comprehend.

   ■ Spells: Create Focus, Call Colours Out Of Space, Call Ghoul, The Festering Blindness of the Seven Hells, Bleeding, Maggot Spray, Call Azathoth, Twist of the Tongue, Call Nyarlathotep, Finger Of Death, Call Shub-Niggurath, Call Byakhee, Call Dark Young, Brimstone Death, Call Deep Ones, Grow Aged.

2. NAMELESS CULTS—in English, trans. unknown, published 1845.

   An unauthorized translation published by Bridewell of England (probably London) in an octavo edition. At least twenty copies are held in various collections. Badly flawed text.

   ■ Sanity loss 1D8/2D8;

   ■ Forbidden Science +4%/+8%; average 48 weeks to study and comprehend.

   ■ Spells: as per Unausprechlichen Kulten, but most of these spell versions are incomplete or faulty. Roll POW x2 or less on D100 to find a working version of a particular spell.

3. NAMELESS CULTS—in English, trans. unknown, published 1909.

   An expurgated version of the faulty Bridewell text, published by Golden Goblin Press, New York. Contains only descriptions of spells, not the complete rituals of the earlier editions. With some looking, this edition can be found in used bookstores.

   ■ Sanity loss 1D8/2D8;

   ■ Forbidden Science +3%/+6%; average 30 weeks to study and comprehend.

   ■ Spells: Create Focus.

The Necronomicon (five versions)

> *"That is not dead that can eternal lie,*
> *And with strange aeons even death may die."*
>
> *Abd al-Azrad, 730 A.D.*

The fabled Necronomicon is by far the most complete and extensive work about the Mythos and related subjects. The author clarifies historical events, prophesies the future, and reveals the true sources of human myth and religion, making liberal use of astrology and astronomy to back his claims. The Arab extensively discusses the Elder Sign, Nyarlathotep, the prehuman elder things and their shoggoth slaves, Azathoth, Cthulhu, Yog-Sothoth, Shub-Niggurath, and Tsathoggua, as well as outlining a prehuman history of our planet. Prior to his wanderings in the desert al-Azrad was a student of magic and his book describes many spells. This is a ponderous tome, over 800 pages in length. Al-Azrad frequently resorts to allusions and often conceals different meanings for the text on different levels, making the book extremely difficult to read.

1. AL-AZIF—in Arabic, by Abdul al-Hazrad (Abd alAzrad), c. 730 AD.

   Original form is unknown, but numerous manuscript versions were long circulated between medieval scholars. As early as the 12th century this version was referred to as lost. It is an immense compendium touching on nearly every aspect of the Mythos, and a capable reference on most subjects, including charts and star maps.

   ■ Sanity loss 1D10/2D10 Sanity points;

- Forbidden Science +6%/+12%, Occult +18%; 68 weeks to study and comprehend.

- Spells: Create Focus, Call Azathoth, Call Cthugha, Call Hastur, Call Ithaqua, Call Shub-Niggurath, Call Yog-Sothoth, Call Ghoul, Call Nyarlathotep, Call Hastur, Possession, Curse, Dread Curse of Azathoth, Gaze Of The Basilisk, Sleeplessness, Song of Hastur, Weight Of A Thousand Hells, Call Byakhee, Call Fire Vampire, Call Hound of Tindalos, Curse Of The Leprous Flesh.

2. NECRONOMICON—in Greek, trans. by Theodoras Philetas, c. 950 AD.

   Early manuscript versions are unknown. A small printing in (Florence?) Italy in a folio edition was suppressed by the Church; it lacked any drawings, maps, or charts. Last known copy burned in Salem, 1692.

   - Sanity loss 1D10/2D10;

   - Forbidden Science +5%/+12%, Occult +17%; average 68 weeks to study and comprehend.

   - Spells: as per Al Azif.

3. NECRONOMICON—in Latin, trans. by Olaus Wormius, 1228 AD.

   First circulated in manuscript form, then printed in Germany (late 15th century) as a blackletter folio. A second, nearly identical edition was published in Spain in the early 17th century. One copy of the former edition and four copies of the latter are known to exist.

   - Sanity loss 1D10/2D10;

   - Forbidden Science +5%/+11%, Occult +16%; average 66 weeks to study and comprehend.

   - Spells: as per Al-Azif.

4. NECRONOMICON—in English, trans. by Dr. John Dee, 1586.

   An accurate but expurgated version of the Greek translation. Never printed; exists in bound manuscript form only. Three nearly complete copies are known.

   - Sanity loss 1D10/2D10;

   - Forbidden Science +5%/+10%, Occult +15%; average 50 weeks to study and comprehend.

   - Spells: Call Yog-Sothoth, Call Azathoth, Create Gate, Call Ghoul, Call Nyarlathotep, Possession, Dread Curse of Azathoth, Gaze Of The Basilisk, Sleeplessness, Curse Of The Leprous Flesh.

5. SUSSEX MANUSCRIPT—in English, trans. by Baron Frederic, 1597.

   A muddled, incomplete translation of the Latin Necronomicon, printed in Sussex, England, in an octavo edition. Properly known as the Cultus Maleficarum.

   - Sanity loss 1D3/1D6;

   - Forbidden Science +2%/+5%, Occult +7%; average 36 weeks to study and comprehend.

   - Spells: Create Focus.

People of the Monolith in English, by Justin Geoffrey, 1926

> *"They say foul beings of Old Times still lurk*
> *In dark forgotten comers of the world,*
> *And Gates still gape to loose, on certain nights,*
> *Shapes pent in Hell."*

Justin Geoffrey, 1926.

This slim volume contains a collection of poems by the decadent American poet, Justin Geoffrey. Measuring 4 by 6-3/4 inches, 1200 copies bound in bright red buckram were issued by Erebus Press of Monmouth, Illinois, in 1926. Early sales were slow but after news of the poet's madness and subsequent death reached the public the edition soon sold out.

Copies of this collector's item, in good condition, have been known to command as much as $10 during the 1920s. Some say that Geoffrey published a limited edition of twenty copies in 1924 bound in the skin of a chthonian. This edition, if it exists, would be much more valuable.

- Sanity loss 1/1D3;

- Forbidden Science +1%/+2%; average 1 week to study and comprehend.

- Spells: none.

Pnakotic Manuscripts in English, author and trans. unknown, 15th century

> *"And after man was born he walked upon the face of earth dumb and naked. The Winged Ones from the sky brought us the knowledge we required, that which we did not know."*
>
> *English manuscript, 15th century.*

The original, English language Pnakotic Manuscripts was written in the 15th century by an unknown scholar who claimed to have copied it from a Greek papyrus scroll called the Pnakotica. A rambling collection of prehuman history, myths, and legends, this work is apparently only a part of a much larger body of work. This manuscript was long given little regard, but in the late 18th century, when traces of the strange script found in the Pnakotic Manuscripts began turning up in other corners of the world, a few scholars began to take note. Since then similar figures and glyphs have cropped up all over the world. Many papers and monographs have been published on the subject but none have drawn a clear conclusion. Identification of different fragments has so far been accomplished through similarity of titles or by the consistent use of the strange, unknown symbols and designs common to all.

Five bound manuscript versions of this book are catalogued in Europe and America. The apparent precursor volume, the Pnakotica, was written in classical Greek, and that book may trace its origins to the prehuman crinoids who seeded life on Earth.

- Sanity loss 1D4/1D8;

- Forbidden Science +3%/+7%, Occult +6%; average 45 weeks to study and comprehend.

- Spell: Create Focus, Call Colours Out Of Space.

Ponape Scripture in English, by Captain Abner Ezekiel Hoag, 1734

> *"Most called them 'sea-devils' but one tribe chose to treat with them, and worship them. It was from the sea-devils the tribe learned of the god Dagon, and during the abhorrent rites to this god, the tribe would couple with the sea-devils."*
>
> *Capt. Abner Ezekiel Hoag, 1734.*

This testament was written in 1734 by Kingsport sea captain Abner Ezekiel Hoag. An alleged transcription of testimony given to Hoag by South Sea Islanders, the severely abridged published version appeared in paper-bound form around the end of the 18th century. Copies of Hoag's far more complete manuscript are said to still exist. A long held rumor in occult circles says that Hoag used not only native testimony but also information gleaned from ancient Muvian documents translated by Yogash, Hoag's half-Polynesian manservant. The testimony of the islanders specifically details a local cult of humans who worship and breed with the deep ones. Hoag hints that this tainted worship may have been adopted by American sailors who, after visiting the island, imported it to their homelands. References to Cthulhu and his star-spawn are many, as well as Cthulhu's "sons," Ghatanothoa and Zoth-Ommog.

- Sanity loss 1D3/1D6;

- Forbidden Science +1%/+4%; average 10 weeks to study and comprehend.

- Spells: the printed version has no spells. The manuscript original contains Call Deep One, Breath Of The Deep, Swarm Of The Abyss.

Revelations Of Gla'aki in English, by various authors, 1842-1865

> *" … for even the minions of Cthulhu dare not speak of Y'golonac; yet the time will come when Y'golonac strides forth from the loneliness of aeons to walk once more among men… "*
>
> *from volume XII. unpublished manuscript. I9th century.*

Nine folio volumes were published by subscription, the last in 1865. Since then, three more volumes are said to have been composed and privately circulated. Copies of the original nine folio volumes are held by many major libraries. Each volume is by a different cultist, discussing a different aspect of Gla'aki, associated entities, and their cults. This version of the text was apparently expurgated, but much information survives. The range of spells gives a good idea of the general contents.

The Revelations of Gla'aki are alleged to be the secret writings of a cult operating in the Severn River Valley, England. While nine volumes are known to exist, rumors continue to circulate of twelve volume sets—these additional volumes apparently containing the most secret aspects of the cult's practices and rituals.

- Sanity loss 1D6/2D6;

- Forbidden Science +5%/+10%; average 32 weeks to study and comprehend.

- Spells: Call Azathoth, Call Dark Young, Call Shub-Niggurath, Call Shudde M'ell, Call Chthonian, Call Hunting Horror, Call Gla'aki, Call Fire Vampire, Call Dimensional Shambler, Agony Of The Damned, Call Star-Spawn Of Cthulhu.

R'lyeh Text in Chinese, author unknown, c. 300 BC

"By all the depths of Y'ha-nthlei – and the dwellers thereof, for the One Over All; By the Sign of Ki sh – and all who obey it, for its Author; By the Door to Yhe – and all who use it, who have gone before and who shall come after, for Him To Whom It Leadeth; By Him Who Is To Come… Ph' nglui mglw-nafh Cthulhu R'lyeh wgah-nagl fhtagn!"

invocation to Dagon, 300 B.C.

Supposedly the clay tablet originals have been destroyed, but scroll copies and recent English and German translations are said to exist. The text apparently concerns Yog-Sothoth, star-spawn and Cthulhu, and tells of the sinking of Mu and R'lyeh.

During the federal investigation of Innsmouth in 1927-28, copies of the R'lyeh Text were seized. During interviews with those apprehended in the raids, it became apparent that the slim book was considered by the inhabitants of Innsmouth to be an important holy text. Further questioning of reluctant prisoners elicited information suggesting that the book contained the proper rites and obeisances to "Him in the Water" and that (more fancifully), the book held a secret that allowed men to speak with the fish and breathe under the water.

No record exists of what happened to the numerous volumes of the R'lyeh Text seized during the investigation. It is assumed they were destroyed.

- Sanity loss 1D8/2D8;

- Forbidden Science +5%/+10%; average 54 weeks to study and comprehend.

- Spells: Call Star-Spawn Of Cthulhu, Call Cthulhu, Call Deep Ones, Call Yog-Sothoth, Slow, Voorish Sign, Unholy Strength Of The Eternally Damned, Rain Of Blood.

Seven Cryptical Books of Hsan in Chinese, Hsan the Greater, c. 2nd century AD

Seven scrolls, each on a different topic. An English translation, Seven Cryptical Books of Earth, is said to exist. The books discuss elements of the Mythos of particular importance or interest to those who live in the Middle Kingdom.

- Sanity Loss: 1D4/1D8;

- Forbidden Science +2%/+6%; average 40 weeks to study and comprehend.

- Spells: Call Byakhee, Call Chthonian, Call Ghoul, Call Hound of Tindalos, Call Nyarlathotep, Create Gate, Resurrection.

Zanthu Tablets

"The shocking discoveries made since we first opened the tomb should be more than enough to inform us. The knowledge lingering in those ancient tablets may wither our souls."

from the introduction, by Harold Hadley Copeland, 1916.

Sub-titled "A Conjectural Translation", this slim, 32-page brochure was printed in 1916 by the Sanborne Institute in a limited edition of 400 copies. Written by the noted American archaeologist Harold Hadley Copeland, it purports to be a translation of carvings found on a series of black jade tablets discovered somewhere in Indo-China. The author claims the carvings are hieratic Naacal, the high language of ancient Mu. The text briefly describes the discovery of the stones and the methods used to translate them. The translated text contains a running commentary by the author. Originally written by the wizard Zanthu, in whose tomb the tablets were found, it is a partial history of the lost Pacific continent of Mu. It describes the worship of Gla'aki, Shub-Niggurath, and Cthulhu, and also mentions Nug and Yeb, the supposed offspring of Yog-Sothoth and Shub-Niggurath. Zoth-Ommog, Yig, Dagon, and Hydra are also discussed. Certain passages hint that insubstantial beings such as the Iloigor and yuggs are "servants" to the Muvian pantheon of deities.

■ Sanity loss 1/1D3;

■ Forbidden Science +1%/+2%; average 8 weeks to study and comprehend.

■ Spells: the text is partially expurgated and contains no spells. The original Muvian tables contain Call Cthulhu, Gla'aki, Yog-Sothoth, Shub-Niggurath, and Zoth-Ommog.

Learning a Ritual

A ritual is a process that causes the human mind to intersect with powers beyond, activating an unnatural effect. To mentally stable individuals, ritual instructions are nothing more than chicken-scratch. Using one elicits no effect. A core belief in the effect's possibility is necessary for it to manifest. That usually requires a terrifying disconnection of the human mind from everyday reality.

Rituals are most often learned from books. Most books that purport to be grimoires of magic are nothing but nonsense and superstition. One that has truly powerful secrets is a dangerous prize. Such a tome might have dozens of rituals of genuine power, or only one.

However many rituals a given book may contain, each ritual must be learned individually. There is no shortcut to "learn the whole book."

Knowledge of a spell can be transferred in three ways, listed below. Learning from a book is by far the most common method.

1. Learning a Ritual from a Book

   Following an adventurer conducting an initial reading of a book, the GM will indicate the presence and summarize each of the spells in a sentence or two, assuming the book contains spells. The GM should not use the rulebook name of a spell, but might instead offer a description like "broughte forth a Great Winged Beast from ye void which did sore crowde my place of busyness," in place of the too accurate and too bland Summon Byakhee. Likewise, a spell called "the unremitting terror," sounds a lot more credible than Implant Fear.

2. Learning a Ritual from Another Person

   Having learned a spell, a character may teach it to others. One-on-one teaching is quicker than one person learning from a book and, typically, a spell can be learnt in (1d3 x complexity level of Spell) hours. Use the same rules as for learning a ritual from a book, bearing in mind that the process will be faster.

3. Learning a Ritual from an Entity

   At will, any intelligent Mythos or Demonic entity might supply a book or a scroll detailing a spell. More characteristically, the entity imparts such knowledge by means of dreams or visions; each episode is disturbing and alienating, gnawing away at the character's sanity and will. This may happen quickly or slowly, as the story requires. An entity may imbue a complete spell in a character's mind by telepathy, though such a powerful experience also might send the character directly to the asylum.

   Once the process is complete, the GM may require the target to make a successful INT roll to retain knowledge of the spell. If this fails, the process must be started anew. adventurers rarely receive information in this manner; however, cultists often do.

Time And Sanity

Each ritual has a study time and a SAN cost. This study time must be uninterrupted and without serious distraction, and with all required resources at hand. To learn it, an adventurer must devote the study time and roll a Sanity check.

Any individual with INT/11+ can learn a spell. Studying the Forbidden Science is the last thing a person should do, since increasing Forbidden Science knowledge always brings the character closer and closer to the time when insanity or the Forbidden Science stakes its claim. Sometimes circumstances demand such sacrifice.

- If the SAN test fails, the PC loses the appropriate SAN, but learns the ritual. From then on, he can attempt to activate the ritual and has a rough understanding of what it does.

- If the SAN test succeeds, the PC gains nothing, failing to grasp the reality of the ritual. Without failing the SAN test, learning a ritual is not possible. He may understand the process of it, but not the reality. He doesn't fully see the truth of the ritual, only the ravings of the lunatic who wrote it. The adventurer may try again as many times as the player likes, each time devoting study time and attempting to fail the SAN test.

Complexity

A ritual's complexity determines its approximate study time and the SAN loss for learning a ritual usually depends on the complexity (see Spell Limitations Table). Some rituals may take days to master. It depends on the power of the ritual and its source. An identical ritual can be easier to learn from one tome than from another.

The complexity of a ritual is most often related to the ritual's power, but not always. Especially clear and concise instructions might make even an extremely powerful ritual simple. Or, more likely, the scribblings and scratched-through notes of a madman may make even a trivial ritual frustratingly complex. Roll 1d6 x complexity level of Spell to compute the amount of hours spent to learn the spell.

> Learning a Ritual – example
>
> Carter (BRA 11) settles in to study De Vermis Mysteriis—specifically, a ritual within it named Call The Dark Young of the Goat (ritual of summoning level 4). Learning the ritual requires a study time of 1d6 x4 hours and costs 1D5 SAN. Carter spends 10 hours in study, dodging phone calls from concerned team members, and attempts the SAN test. He fails with a roll of 58. The true horrors of the manuscript become clear. Carter learns the ritual and loses 3 Sanity Points. He can now attempt to cast Call Dark Young.

Dead Zones

By Wikia, Oscar Rekclas, Elliot Chadwick, Ville Vuorela, Arkady and Boris Strugatsky

> *"In the east the mountains looked black, and over them the familiar green wash of colour billowed and shone iridescently – the Zone's green dawn."*
>
> *"A thick fog lay along the sides of the embankment. Once in a while it crawled up on the rails with its heavy gray feet and in those places they walked knee-deep in the swirling mists."*
>
> *"In the Zone" – anonymous Stalker*

On April 26 2222, disaster struck Humanity. The Crawling Chaos, an alien quantum computer virus, corrupted most computer systems of the Solar System. Soon after the colonies were hit in their turn. Much of the devastation wrought to the Earth and its populace—as well as on Mars, Luna, and in space— was inflicted by unleashing AI-driven killing machines, unstoppable self-replicating autonomous nanoswarms, computer worms, and plagues of their own. They captured entire cities in order to steal the minds of those within.

More insidiously, the Crawling Chaos virus did not contain itself to infecting the SAIs. The corrupted AIs created opportunities for the virus to spread through multiple vectors: digital, biological, and nano. Using a thorough understanding of human biology and its mental processes, derived from the looted vaults of human knowledge. Even more disturbing, however, was what the virus did to those it infected, rewriting their neural code to subvert them to its will and sometimes physically transforming them into things that were alien and monstrous.

Ultimately, humanity won this war, but at a high cost, destroying most of the AI and data centers. The survivors were forced to flee cities, colonies, space stations or even spaceships that were already ruined. The refugees who made it out were often badly injured or suffered from strange poisonings and diseases. It took weeks before the situation could be brought under control and the borders of the areas determined. The Refugees' accounts were uncertain, contradict one another and many of them told of observations that are impossible to human senses. Common to the stories, however, were huge shapes floating in the sky and strange beings moving amidst the fires and chaos. While rescue workers were establishing refugee camps and field hospitals, governments sent thousands of soldiers into the infected zones to search for the missing. Behind them came criminals and looters, targeting the homes of the rich and the vaults of abandoned sites.

Few made it deeper than a few hundred metres. Even fewer made it back. Behind the invisible line the laws of nature had gone mad. Gravity concentrations crushed even the strongest of tanks, people boiled alive in bubbles of vacuum and corrosive clouds ate through everything organic in their way. The governments were powerless, the scientists stunned. The tragedy touched the entire Humanity and the hundreds of thousands of dead and missing were overshadowed by the fact that Humanity had lost its grip on its own world. The scientific worldview was shaken to its very foundations but the changed areas did not fit any religion's teachings any better. Beyond the border lay a field of death, filled with corpses and debris. Sometimes unknown powers raged there like a storm but often only strange lights, distorted colours, silent movements and unexplained sounds revealed that death was still lurking. Some of the bodies have never rotted and some of the vehicles still have their engines running.

A lot of what is known about the interior of the Zones is based on the contradictory accounts of Refugees and the stories of criminals known as Stalkers. They have sometimes been used as explorers and also most of the publicly available photographs from the Zones have criminal origins. The changed areas with all their strangeness have been suspected to be either a badly-understood natural phenomenon or the visible effects of some unknown event of quantum physics. Paranormal and religious explanations are rife and of course some people claim that the whole thing is just a cunning plot by the government, the terrorists or some weird global conspiracy.

Refugees

In contemporary language, "refugee" refers to those hundreds of thousands who managed to escape the Zones during the Blackout. At first they were the orphans of the whole world and governments did their best to relocate them back into the population. Meanwhile, the Zones were going to be sealed off from the world, removed from the map and the public mind. The process had not yet ended when the inexplicable diseases spreading among the refugee populations started drawing the attention of the press and the public. When diseases turned out to be the early stages of progressive mutations and the refugees began having mutant children, pity and compassion turned into terror and loathing.

Refugees have been sealed in their own suburbs and imprisoned with flimsy legal pretenses into various facilities. Security forces raid refugee habitats looking for mutations. Children are taken into custody. Forced abortions and sterilizations are everyday affairs while the few public protests are ignored. The public opinion considers them a threat, a cancerous growth in the healthy body of Humanity. They are a physical manifestation of the threat posed by the Zones. Harsh measures have popular support and the FLEA often look the other way in hate crimes against the refugees. There are even rumours of euthanasia programs and lynchings committed by extremist movements.

The refugees have reacted to this modern-day witch hunt by escaping the habitats they were assigned to. Some live among ordinary people under false names, killing their own children should their mutations become too apparent. Others have fled back to the borderlands around the Zones and live in their own communities there, outside the law and society. Some became bums and vagabonds who beg and steal to provide a livelihood for themselves and their families in hiding. In one way or the other, over the past decade the refugees have vanished from the public eye and the general society. People have begun to forget them and the terrible things that happened to them, let alone realize that such things are still going on.

The Changed

Human mutants are a taboo subject (as are the refugees in general) but if one must talk about them, they are usually referred to as the "Changed". Any refugees or their children whose mutations are too overt and obvious to be concealed or surgically repaired are considered to be Changed. The reality is something quite different.

The mutations of the first generation – those who ran out of the Zones on their own two feet – progress slowly. Not everyone even has them. Many of them are also in early enough stages to be explained away as scars and the diseases they were first taken for. Not all refugee children have changed either and some second-generation refugees will only begin to change as they approach puberty. It is not known if there are any third-generation Changed yet. These would be children had by the Changed amongst themselves but perhaps not enough time has yet passed.

The mutations of children progress faster than those of adults and are often so extreme that there is no hope of concealing them. Their causes are unknown and they cannot be determined genetically. Mutations are also fully functional but the flipside of this is frequently mental retardation, or more properly an alienation from the rest of Humanity. It eventually results loss of speech, the lack of self-identification as a human and the inability to recognize friends and family. The process is poorly understood and it may not actually be a decrease of the intellect but closer to some kind of autism. Fully changed patients may be capable of communicating with each other or at least reacting to creatures from the Zone. It is unknown if this is actually conscious communication but signs of mutant communities have been found within the Zones. Communication is generally held to be one of the requirements of forming and maintaining a community.

In the Zone

When the authorities' attempts to penetrate into the changed regions failed, they were sealed and closed off from the rest of the world. People started calling them Dead Zones or just plain "Zones". People left behind in the Zones have been declared deceased and no new survivors have been found in a decade. Close to the border the remains of researchers, soldiers and early stalkers are also visible. Nobody has dared or been able to retrieve the bodies.

Governments were more than willing to let the UEF shoulder the burden of policing and observing the Zones. The Zones and their borderlands became an international no-man's land and the highest authority in all matters concerning them is MiliSci, a special branch of the UEAF responsible for the studies of ETI.

MiliSci's original purpose was the perfect isolation of the Zones, either for all eternity or until such a time that their reclamation and restoration was possible. Only a handful of researchers picked by MiliSci would have access to the Zone and at this stage, isolation and security concerns took precedence. Once the knowledge of diseases, mutations and monstrous children among the refugees spread, there were even demands to completely close the Zones from everyone, as if walling them off and denying their existence would make them to disappear. Their complete sterilization with nuclear weapons was also proposed.

There was never an agreement or a common strategy. Sterilization by nuclear weapons would not, it was generally agreed, have removed the anomalies or other inexplicable phenomena. Additionally, both private and national assets remained in the Zones and nobody wanted to take the responsibility for destroying them. The Zones remained as they were and the authority and responsibility for them was taken up by MiliSci.

Another world

The actual Zone border is invisible but some claim to feel it and even experience pain or nausea upon crossing. It runs through wilderness, cities, dome colonies and even spaceships. It is also very tall, reaching well into the upper strata of the atmosphere. While invisible, it affects its surroundings by screwing with weather patterns. Aberrant temperatures and winds often form in the Zone and for example some anomalies can react to thunderstorms. This is why exceptional temperatures, mists and sudden storms are common also in the borderlands.

Crossing the Border

At night, flashy and bright auroras or a hideous green glow are often visible above the border. The Zone begins right behind it. Even the first step over the border can be the last and stalkers usually throw something where they plan to cross. Zone phenomena never cross the border on their own, not even airborne gases or liquids flowing downstream. This is inexplicable but the Institute speculates that to its internal forces the Zone is a spherical surface. A human can cross the border easily and sometimes animals also wander over, although they are just as much in danger. However, creatures from the Zone, be they mutants or inorganisms sometimes make their way over the border as well. Usually they return quickly the way they came but especially "replicas" (which aren't actually organisms) seem to have a conscious desire to leave the Zone.

Radios are unreliable at best in the Zones and certain anomalies can silence them for many kilometres around. Radar images tend to be completely unintelligible, which is why the inner regions are known only from satellite photographs. Of course, maps exist from 50 years ago but much has changed and the inner dimensions of a Zone can become distorted.

Anomalies

Any unnatural phenomenon of the Zone that has no scientific or even reasonable explanation is an Anomaly. Like the artifacts, they break the laws of physics but the effects are often deadly. Countless of different anomalies exist but some are clearly more common than others. The anomalies themselves are often invisible but their effects on the environment can be clearly seen.

If there are no externally visible effects, anomalies may warp or delay sound, colours may be distorted and many people also experience physiological symptoms. Sometimes it's a matter of instinct. A traveller may feel aversion towards a completely normal-looking location. The feeling can be so strong that he becomes paralyzed when even trying to throw something at it. This phenomenon cannot be explained but it is very real, especially among stalkers. They trust it more than they trust their own senses.

Anomalies can be divided into two rough categories: static and dynamic.

- Static anomalies are immobile, though their area of effect may change over time. They may still disappear and new ones show up but they are generally long-lived enough to be worth marking on the map. Static anomalies can be difficult to spot but once noticed, they are fairly easy to avoid. However,

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they can be very powerful and cover huge areas. Most of are constantly active but some gather energy that is released explosively when they are disturbed. After such a discharge the energy is spent and the whole anomaly can be safe for a while.

■ Dynamic anomalies are sometimes confused with inorganisms or quasichemicals. It may appear as an energy release similar to ball lightning, floating around at random, or a wave of high gravity that advances along the ground crushing everything in its path. The flattened area may later repair itself, as if time were reversed. Most move either in a straight line or completely at random but never cross the Zone border. They are weaker and smaller than static anomalies but just as or even more deadly because they can appear by surprise or trap the stalkers in dangerous areas.

The size and area of effect of anomalies vary but typically they are several meters or even tens of meters in diameter. The effects of some extend upwards with no limit but satellites have been able to cross over the Zone in the orbit with no ill effects. Other anomalies, especially liquids and sometimes also gases, are possible to avoid by going over them. From the GM's point of view, an anomaly fills "most of the clearing", "the space within the walls of the ruined house" or "the pit, up to its brim". Big enough to be noticed and considered a threat, small enough to be avoided.

BOILER

The boiler anomaly is easily spotted, the ground surrounding it is cracked and dry, clouds of super heated steam drift spew forth from vents in the earth. Between the vents lies deep trenches, though it is unknown how these trenches are formed. The heat in the boiler anomaly is intense, it has been reported that canteens of water boil and bubble, and any metal object will scald on touch. Trying to cross a boiler is a dangerous affair, the deadly steam clouds force stalkers to travel the maze of trenches, often unwittingly becoming lost or stumbling on to a steam vent and being scalded alive.

BURNER

The burner is difficult to see, even in daylight, as it's only revealed by a faint heat haze. It is triggered by motion, of both animate and inanimate objects. On activation it ignites in a tall pillar of flame stretching 2-3 meters into the air, burning everything in its vicinity. Though somewhat rare, the Burner anomaly is most often found in clusters, making it lethal. Its occurrence has possibly been linked to areas that contain or once contained large stores of a flammable liquid such as petrol or kerosene, but due to its rarity this link has not been verified.

BURNT FUZZ

The burnt fuzz is a strange moss-like growth that slowly covers the surface it has latched on to. Comprised of light translucent folices, agitation of which can cause the anomaly to release a cloud of spores, that cause rash and burns on skin contact, and bursting of the capillaries if inhaled. The most dangerous situation involving the burnt fuzz is the chain reaction that can occur in a densely covered area, where the activation of one burnt fuzz can trigger others nearby, leading to a deadly could of the spores covering a large area.

COBWEB

'Cobwebs' as stalkers have nicknamed them, pose much more potential threat than their namesake. They appear to be hair-thin strands of thread crisscrossing doorways and windows, and while many unwitting Stalkers assume they are no more than spiders webs, they are in fact razor sharp. In some areas, the cobweb has grown in size, often covering whole doorways or corners of rooms, and walking through them is fatal. Rumors abound of Stalkers who swipe at the cobweb, trying to bat them out of their way, only to slice chunks from their hand and arm on the crisscrossing web.

ELECTRO

An anomalous formation, roughly 10 meters in diameter, accumulating large quantities of static electricity. When triggered the anomaly bursts out in dozens of miniature lightning arcs, causing electric shock nearly always lethal to all living beings. Recognizable by the bluish fog hovering above it in daylight. At night time, the Electro can be revealed using any type of detector or by throwing metal objects into the anomaly. Has been noted to form as a mobile anomaly, usually following a linear pattern and returning along the same path in a continuous loop.

ETERNAL

The Eternal anomaly is not so much a thing itself but is a property of another object. The first occurrence was noted in a truck yard. Of the three fuel trucks in the yard, two had rusted and collapsed into disrepair, but one stood pristine and as new as the day it had been parked there. So far the eternal anomaly has only been recorded affecting machinery, a

single piece of undamaged equipment amongst the decrepit ruins of others. Folk myth states that Eternals must not be touched, and those that do will fall victim to the Zones wrath almost immediately.

FRUIT PUNCH

The factors leading to the formation of the fruit punch anomaly are unknown. It is extremely corrosive, damaging creatures or objects on contact. An object left in a Fruit Punch will eventually dissolve, hinting at the anomaly's acidic nature and possible chemical origin. Inhalation of the gases present in the fruit punch have been noted to produce the same symptoms as that of the WW1 era biological toxin Sulfur Mustard or 'Mustard gas'. The Fruit Punch anomaly is found almost exclusively underground. It is a pool of green, lambent liquid that is easily visible in the poor lighting conditions of underground environments, and emits a thick green fog. On contact with creatures or objects, a Fruit Punch lights up brightly and emits a sharp hissing sound. Even with the use of a closed air filtration system, extended periods in contact or in the vicinity of the Fruit Punch are fatal, as the anomaly will corrode the filters of the gas mask and rupture the seals.

GAS

It appears that some sort of perpetual chemical reaction is taking place within the gas anomaly, the product of which is a deadly vaporized acid, which eats through organic matter rapidly, and has been likened to mustard gas in its effects on the lungs in even a small dose. The only flora that survives the gas anomaly is thick greenish black vines, which seem to thrive in this localized atmosphere. Stalkers have noted that these vines seem almost 'alive', sometimes reacting to loud noises by shifting position. It is possible that they even might possess some sort of sentience, but as of yet, they have not directly attacked or harmed any living creature, though they have been reported to crush furniture and objects overnight. Luckily the gas anomaly is easily spotted outdoors, due to the green clouds of vapor that cling to the area containing it, though it is not as easily spotted indoors or underground. This anomaly has been recorded in some instances as being mobile, usually tracing a path along corridors or a patch of dead ground.

JUMP

The Jump anomaly comes in two separate, but linked parts. Both are distortions of the air which cause a kind of 'tunnel vision' when viewed at the right angle. The distortion is about 2 meters in diameter and when entered cause instant teleportation to the second part of the anomaly. The teleportation has been noted so far to only work in one direction. Stalkers entering the Jump anomaly have reported the feeling of falling a great distance before appearing on the other end of the anomaly. The jump anomaly is considered highly dangerous, as tests have shown that objects entering the anomaly do not always reappear on the other end. It can be quite difficult to locate the endpoint of the anomaly, as its location does not seems to be limited by distance from the start point. Some stalkers have entered the anomaly and reappeared a dozen kilometers away in an unexplored region of the Zone.

LIFT

The lift anomaly is the safest anomaly encountered so far in the Zone, and thus the most intensely studies by the Scientists. It is usually located in one room or building, and more often than not found underground. Gravitational Forces within the anomaly are reduced, resulting in an almost zero-g atmosphere. Objects within the Lift anomaly float perpetually, regardless of weight or mass. Stalkers have noted that underground car parks are the areas where the Lift anomaly is most prevalent, and also the most dangerous, as Stalkers are forced to 'swim' through the air, avoiding the ever tumbling cars, trucks and debris, which has caught and crushed several Stalkers on occasion.

PRISM

The effects of this anomaly are nonlethal, but can still be severely damaging if encountered at night or without sufficient protection. In the area affected by the prism anomaly all reflected light is amplified a hundredfold. Metal objects in the Prism emit a powerful glare, which has dazed and in some rare cases even blinded unwitting Stalkers. The Prism anomaly can be identified usually by the 'sparkle' that inhabits them; thousands of pinpoints of reflected light that dance in a bright haze.

SNOW

The snow anomaly is an area of the zone that seems locked in perpetual winter, regardless of season. It is rare, the most recent sighting was a factory yard. Reports stated that an area of about one hectare was covered in deep snow, the buildings and trees coated in ice. Stepping inside the anomaly is a shock, as the temperature can drop sharply in a few steps. The deadliest aspect of the snow anomaly is the perpetual fog and snow that blinds unwitting Stalkers, as the snow anomaly can itself contain other anomalies, not so easily seen in the poor conditions.

SPACE

The Space anomaly is usually an interior room or corridor section which appears fold back onto itself in a loop. Entering the space anomaly Stalkers report a feeling of lightheartedness and the sound of rushing in their ears and find themselves back where they started from with no apparent loss of time. During tests, one Stalker who remained stationary while his companion walked into the room. The companion watched as he approached from further back along the corridor arriving behind the stationary Stalker. The walking Stalker reported no other effects other than those described above, maintaining that he had not broken stride at all. As of yet no one has made it beyond a space anomaly, and the secrets they protect are highly treasured.

SPRINGBOARD

The Springboard was one of the first types of anomalies ever recorded. A Springboard is an unstable gravitational field limited to a pocket on ground level, about 1-2 meters wide. Reacts to the presence of creatures or objects by sending out a powerful shockwave that damages anything within radius. The damage caused by this changes throughout the anomaly's lifetime, ranging from minor bruises through serious wounds to instant death. Springboards remain active for a week on average.

TIME

Very little is understood about the Time anomalies, except that those within the field will experience the passage of time at a greatly increased or reduced rate. Stalkers have wandered for hours through dense underbrush only to emerge within ten minutes of entering. Passing though a Time anomaly contained within a single building or room, even a doorway, Stalkers have lost up to a week of time. A Folk myth amongst stalkers regarding a time anomaly is the 'Ghost transmissions' of a recon patrol who came under attack from a bloodsucker pack and stumbled into a time anomaly in the fray. Some stalkers claim that they have picked up the transmissions from the recon patrol requesting help and some go so far as to say they have made radio contact with the lost squad who say they have been fighting the bloodsucker pack for about an hour.

VORTEX

An anomaly of presumably gravitational nature. When triggered, the tremendous power of the Vortex drags everything within a radius of 10-15 meters towards the center. Victims drawn into the core have no chance of survival: their bodies are quickly constricted into a tight lump, only to be blown up in a powerful discharge of energy a moment later. The anomaly remains stationary throughout its lifetime (a week on average). Easily recognizable in daylight by the air fluctuation above, dancing leaves, fragments of dismembered corpses lying around and a distinctive dark stain in the center. Highly dangerous at night since it can be revealed only by means of a detector or by throwing metal objects into it. The difference between a Whirligig and a Vortex is simple: size and strength. The Vortex has a much larger range, much harder to escape from than a Whirligig, and it deals a lot more damage. Escaping the Vortex anomaly, once dragged in, can range in difficulty from difficult to downright impossible, depending on the strength of the anomaly.

Artifacts

Artifacts are only special for Humanity because their effects or their very existence breaks the laws of nature and physics as we know them. There are countless different kinds of artifacts but some are more common than others and there has been only a handful of truly unique finds. Most types of artifacts have probably not been found yet and in practice the definition of an artifact should be expanded to include portability. Although some of them are dangerous to handle, they must be small and light enough to be carried off the Zone.

This definition of artifacts is by no means complete. If they had been transformed by the Crawling Chaos, it would mean they had, in a very short amount of time, been to everywhere in the Zone, including sewers and houses that have since rotted away. The placement of the artifacts is random and without a pattern, unless one counts the fact that the rarer, more powerful artifacts tend to be found deeper in the Zone. Even right up to the Zone border, swept clean by MiliSci's robots years ago, new artifacts can suddenly be found.

Many artifacts are easy to believe to be remnants or refuse of alien technology but others appear to be coagulates or precipitates rather

than items. All artifacts retain their abilities even outside the Zones. They are categorized into exogenetic and endogenetic. Exogenetic artifacts possess some power or ability that is activated by an outside stimulus (for example, a Pin forms light patterns only when squeezed). It does not matter how accidental or difficult the application of this outside force is. By contrast, endogenetic artifacts break the laws of physics merely by existing.

If, for example, an artifact is partially invisible (when touched, its shape feels different from what it looks like) or it has always the exact same temperature regardless of its surroundings, it is an endogenetic artifact. The best-known endogenetic artifact is probably "Battery". Artifacts may have properties from both the main groups but going by their greatest power they usually belong clearly to one or the other. Endogenetic artifacts often interest industrial and medical researchers. Exogenetic artifacts tend to have lucrative military applications.

Artifacts are practically indestructible. In theory, their powers could have no limit but in practice they have always been observed to have limitations in the area, duration or force of their effects. These, however, can change even between two otherwise identical artifacts. It is possible that our senses can only pick up a fraction of what an artifact does. Humanity may yet find such a Pandora's box in the Zone that life on Earth and in the Solar System will become impossible.

Battery

A hunk of corroded and twisted metal wrapped into a hollow shape, vaguely spherical the metal is highly magnetized (possibly explaining the shape) and its properties allow it to store large amounts of energy, giving it numerous practical uses. It is also noted to provide a slight static field to any stalkers in possession of it. Discharging and negating some electrical shocks the Stalker comes in contact with.

- ■ Parent anomaly: Electro
- ■ Weight: 0.5kg
- ■ Value: 5,000E$

Bubble

A compound of several hollow organic formations, resembling frozen bubbles. The formation is very brittle, and can be broken easily. The bubbles appear translucent but hold a greenish hue. They give a faint light from what appears to be the buildup of the gas it holds. This artifact emits a gaseous substance that when inhaled can neutralize radioactive particles inside the body. This artifact is extremely valuable.

- ■ Parent anomaly: Fruit Punch
- ■ Weight: 0.2kg
- ■ Radiation resistance: +4 Rad level
- ■ Value: 8,500E$
- ■ Notes: Usable for 1d10 hours after cracked open

Crystal

Crystal is created when heavy metals fall into the Burner anomaly. The metals are superheated and formed into clustered crystalline shapes. The crystal is usually warm to the touch and absorbs heat rapidly. It is highly valued outside the Zone by collectors due to its rarity and aesthetic qualities. Used by stalkers for its ability to reduce the temperature of any body it comes into contact with. Unfortunately, due it its nature, it also absorbs radiation quickly, and can potentially emit harmful amounts of radiation.

- ■ Parent Anomaly: Burner
- ■ Weight: 0.5kg
- ■ Radiation Level: 2
- ■ Value: 6,000E$

Droplets

A tear shaped artifact possibly formed from superheated glass in a burner anomaly. The droplets surface is glossy black and cracked. Commonly called 'the anti-crystal', this artifact is warm to the touch and provides no resistance to extreme heat. In fact it gathers heat rapidly and has been known to scald the hands of stalkers holding it near a heat source. On a positive side it absorbs radiation, albeit slowly. It does not seem to store it; as it emits no radiation. It is quite a common artifact to find, unlike the Crystal.

- Parent anomaly: Burner

- Weight: 0.5kg

- Radiation resistance: +1 Rad level

- Value: 1,100E$

Eye

This artifact, is a small semi-opaque white sphere. It has a blackened spot on one side and with a slender misshapen tendril on the opposite side. Giving the impression of a human eye plucked from a skull. It considerably increases the body's metabolism, helping wounds heal quicker. Experienced stalkers say that the Eye also brings luck.

- Parent anomaly: Burner

- Weight: 0.2kg

- Value: 3,100E$

- Notes: +20% to all Stamina rolls on a potential wound.

Fireball

The materials and environmental requirements for the creation of the Fireball are unknown. Its pitted shepherical shape resembles an oversize golf ball, and its material is translucent with a reddish hue. Even though Fireball is a thermal artifact like the crystal and the droplet, it can be handled without fear of being burned. A unique property of the Fireball is its ability to maintain a constant temperature of 25 °C within a small radius, virtually regardless of its surroundings.

- Parent Anomaly: Unknown

- Weight: 0.5kg

- Value: 2,500E$

Firefly

The firefly is possibly one of the rarest artifacts in the zone. A shimmering spherical orb surrounded by a pale light, and whose surface is untouchable. The orb itself seems to interact with the outside world from an invisible outer shell, 5 centimeters greater in diameter than what we perceive. It interacts with fields as yet unknown to science. Considerably speeding up regeneration of tissue and organs in living beings, as well as normalizing metabolic processes. This artifact can literally get a badly wounded Stalker back on his feet in seconds. Emits varying quantities of radiation depending on specific artifact.

- Parent anomaly: Unknown (Possibly time-reduction related)

- Weight: 0.4kg

- Radiation level: 1d4 – 1

- Value: 15,500E$

- Notes: Characters holding this artifact get a +30% to Stamina rolls when they take damage.

Flash

A small ball, which seems to be filled with a jelly substance, although nothing can be confirmed as no one has yet succeeded in piercing the soft outer membrane. The core of the flash emits a blue light and seems to vibrate softly. The vibration and light seem to be connected, as both vary similarly in each specific artifact. The flash is a highly sought artifact, as it seems to provide an all-round resistance to all influences, although it is a potential conductor to electrical effects.

- Parent anomaly: Electro

- Weight: 0.6kg

- Value: 2,250E$

- Notes: +1 to all other resistance checks.

Goldfish

An artifact formed from unknown materials in the Vortex anomaly. Its glossy black surface is twisted in the shape of a geometrically perfect hyperbolic paraboloid and seems to reflect no light. It is activated by heat but only organic. A heated environment or inanimate object does not activate its properties. A strange convergence of gravitational forces reduce the effects of gravity on inanimate items nearby, thereby increasing the load carrying ability of any person holding the object. Emitting little radiation, the goldfish is a rare and prized artifact.

- Parent anomaly: Lift
- Weight: 0.0kg
- Radiation level: 1
- Value: 7,600E$
- Notes: Increased load limit + 8kg

Gravity

The artifact is a brownish and twisted lump of metal. Created when metallic substances are exposed to strong gravitational fields for extended periods of time. Similar to the goldfish, it creates a weak anti-gravitational field. Often used by stalkers to increase their carrying capacity. Its potential for the creation of anti-gravity engines make this a sought after artifact by scientists and researchers.

- Parent anomaly: Vortex
- Weight: 0.8kg
- Value: 5,450E$

Jellyfish

A spongy artifact perpetually covered in a slightly sticky residue. The jellyfish is formed in the Springboard anomaly. It forms a weak protective field which slows high-speed projectiles, reducing their impact. Strangely larger, slower objects seem unaffected by the field. It is theorised that the field reacts to great pressure in a small area. The artifact is widespread in the zone, where many stalkers utilise it as a means of protection from ballistic assault, a.k.a bullets.

- Parent anomaly: Springboard
- Weight: 0.4kg
- Value: 2,400E$

Kolobok

A spike-laden pear shaped artifact, found in areas of high chemical activity. Quite a rare artifact, formed in zones with strong chemical contamination. It seems to be organic and plantlike in nature, though requiring neither light nor sustenance to survive. When pressed against skin, its thorns leak a foul-smelling resin causing the skin to toughen. Stalker utilise its effects to protect against knife wounds, and concussive shock such as grenades or land mines. Although it is noted that high pressure over a small area (such as a bullet or needle) will still break the skin.

- Parent anomaly: Fruit Punch
- Weight: 0.3kg
- Value: 5,500E$

Mama's Beads

Resembling a reddish-brown double helix, the 'mama's beads' artifact is extremely rare. Only two reported to have ever been found, both by MiliSci's research teams. It is unique in that it seems to have no known detrimental qualities. Activation requires it to be held in both hands and its effects are quick expulsion of radioactive particles from the body of the person holding it.

- Parent anomaly: Unknown
- Weight: 0.4
- Radiation resistance: when held in both hands, provides +4 Rad level bonus.

■ Value: 15,000E$

Meat Chunk

What appears to be living tissue, and presumably is, since the only recorded findings of this artifact are anomalous fields where a recent death has occurred. The meat chunk is found in Vortex anomalies and causes increased cell growth. On the other hand, the newly formed cells are much more receptive to the effects of radioactive particles. This artifact doesn't show up very often, but it's hard to call it rare.

■ Parent anomaly: Vortex

■ Weight: 0.5kg

■ Value: 9,500E$

■ Notes: Character using this can ignore a 'shaken' effect they receive one per day, unless there is also a raise on the attack.

Pellicle

A thin, gelatinous and translucent material, the pellicie is created in areas of null or lowered gravity caused by the 'Lift' anomaly. It secretes a slimy and translucent film, which can provide the covered person with protection from all but the worst chemical burns and toxins.

■ Parent anomaly: Lift

■ Weight: 0.1kg

■ Chemical resistance: +40% Stamina roll

■ Value: 10,900E$

Shell

An artifact that appears as two copper shells which float about 8 cm apart. While the shells do not seem to be linked it is impossible to pull them further away or closer together and objects can pass through the centre area with no effect. Known by many Stalkers as "empty's", it has long been considered trash. Scientists have recently discovered that Shells seem to improve stamina. When kept in constant contact with the body the shell seems to have a stimulating effect. Drawing out the lactic acid from the muscles and allowing a person to endure more strain. However extended use of the shell generates a murky haze in the space between the plates, after which the beneficial effects are no longer present.

■ Parent anomaly: Electro

■ Weight: 0.8kg

■ Value: 2,200E$

■ Notes: Restores 1d6 HP. 3 uses

Soul

The soul is a perfect sphere, cold to the touch, whose surface is an ever writhing spectrum of colour. Found near the whirligig anomaly, The effects of this artifact are quite paradoxical; its interaction with organic life causes invigoration, but the price for this energy boost is the users tolerance to physical damage lowering drastically. It requires significantly less pressure on skin to rupture it, and bones become more brittle. Quite rare, although several recorded finds have been noted.

■ Parent anomaly: Whirligig

■ Weight: 0.5kg

■ Value: 4,000E$

■ Notes: Restores 1d6 HP. 5 uses. After use, CON – 1 for 12 hours. This penalty stacks.

Sparkler

It has been noted by researches that the sparkler resembles a glass chicken egg frozen in mid explosion. Its edges brittle and shell like, surrounding thick strands of a spongy material extending outwards from its centre. The sparkler is

predominantly blue, but as the name implies it 'sparkles' under light. Curiously, the sparkle effect requires only a brief exposure and can last afterwards in total darkness for up to twelve hours. Its properties seem to absorb electrical energy, though it does not store it like the battery or flash artifact. Rather it seems to convert this energy directly into radioactive particles. Which it emits when the artifact is not sparkling (uncommon, given its nature).

- Parent anomaly: Electro
- Weight: 0.4kg
- Radiation level: 2
- Value: 3,000E$

Spring

According to the opinion of some researcherstheorists, this artifact is a hybrid between Batteries and Shell. It emits a relatively strong field, which dampens concussive force. Has been known to significantly reduce ballistic impact as well as physical attacks. Seemingly slowing down any outside entity which enters its field. Only one has ever been recorded.

- Parent anomaly: Unknown
- Weight: 1.0kg
- Radiation level: 1
- Value: 20,000E$

Stone Blood

This artifact is usually found near the Whirligig anomalies. It is an ugly reddish object and is quite common throughout the Zone. Many have noted that when cracked open the Stone Blood appears to be made up of organic material. Scientists believe that animal and plant matter caught in the Whirligig are condensed down into this stone like object. Known for its ability to strengthen the skin (AP +1) and thicken the blood; the Blood Stone is used by many more so for its relative abundance then its effectiveness.

- Parent Anomaly: Whirligig
- Weight: 0.5kg
- Value: 1,000E$

Stone Flower

The Stone Flower is known for its beauty and calming abilities. Possibly created due to extreme gravitational force. It appears as a granite like stone with blue crystalline shards forming inside it and protruding at odd angles. The blue metallic shards embedded in this artifact seem to dance and glow with a calming light that many Stalkers find soothing. The Stone Flower is thought by many to protect against psionic attacks. Scientists have yet to learn how the artifact protects its user but as any experienced stalker will tell you "A calm mind, is a strong mind". This artifact is quite common and used by many Stalkers as a diversion around the camp fires, to help calm themselves after witnessing the horrors of the zone.

- Parent Anomaly: Electro
- Weight: 0.5kg
- Psy resistance: +30%, BRA +3
- Value: 1,800E$

Thorn

This artifact is created in the anomaly Burnt Fuzz. Naturally takes out the radiation from the Stalker holding it. The most effective method of extraction is placing the artifact close to ones ears. This removes radiation along with some amount of blood. Dangerous blood loss is possible from other orifices. Most Stalkers will place one in their ear followed by a lump of cotton to catch the blood. Rather common and quite effective when used in conjunction with anti-rad medication.

- Parent Anomaly: Burnt Fuzz
- Weight: 0.2kg
- Radiation Resistance: +1 Rad level

- ■ Value: 1,000E$

- ■ Notes: Character makes a stamina roll every six hours, failure leaves them 'Shaken'. If already shaken, they do not gain wounds from this.

Wrenched

This bizarrely-shaped artifact has the physical appearance of a chunk of coral. It appears in places with increased gravitational activity. Acting as a kind of sponge that absorbs radioactive elements. This artifact provides protection from outside radiation, but its effects seem to slow blood-flow and cause atrophy in the muscles.

- ■ Parent anomaly: Unknown

- ■ Weight: 0.5kg

- ■ Radiation resistance: +3 Rad level

- ■ Value: 5,000E$

- ■ Notes: Character must make a stamina roll every six hours, failure means the loss of 1d6 HP.

Inorganisms

What is life? Zone creatures that behave like organisms but have none of the attributes or processes of an actual life form are called inorganisms. Little is known and even less understood about them. Some inorganisms can be just badly understood or wrongly documented anomalies while others may be just insufficiently observed (and very special) mutants.

Unlike anomalies, inorganisms appear to have some kind of free will and goals. To the horror of both officials and survey teams of the borderlands some have even strayed outside the Zones. They usually return fairly quickly. Their numbers and species are unknown. There are some clearly identifiable or commonly encountered species such as Replicas but even then no two Replicas are alike. Others types, such as "Doppleganger" appear rarely but sightings are sufficiently similar to call them a species. These creatures are able to assume the shape of humans, non-humans, and humanoids alike through a form of shape changing mimicry, transforming their bodies even into the weapons, armour, or clothing possessed by their victims. For this reason, they are unable to drop or otherwise discard 'carried' items, but if out of sight may absorb them back into their bodies to convey the appearance of having discarded them. But there are many inorganisms of which there are only singular sightings and in the worst cases different members in the same group have completely different observations. Finally, there are extrasensory sightings when the observer has perceived the inorganism in a way that is beyond the realm of normal human senses and biology. The phenomenon has also been observed with anomalies and artifacts.

Physical inorganisms include semi-liquid creatures such as the caustic pools that flow towards heat sources, even if uphill. There are also beings that normally exist only in a gaseous form but can form solid extensions like limbs. Incorporeal inorganisms are even harder to comprehend. For example, according to study data, "Ghost Images" are incorporeal inorganisms formed out of light and shadow. Their presence will cause psychic disorders and hallucinations similar to hallucination-inducing anomalies. According to some descriptions, the creature is actually a psychic delusion with an area of effect far larger than its visible parts.

Inorganisms cannot be killed because they lack any bodily functions that might cease. A limb cut off a Replica will function independently of the body. Material inorganisms can be physically broken but this usually requires far more firepower than the stalkers are capable of carrying. It is unknown how inorganisms are born, how the damage inflicted on them affects them or how they die or disappear. Their behaviour is as unpredictable as everything else in the Zone.

Doppelganger

The doppelganger is able to take the form of any humanoid target whose SIZ does not differ by more than 6 points from its own, duplicating both its form and any equipment carried or worn, after which it will attempt to kill the original and assume its place. It does not gain any skills possessed by the subject, instead attempting to fool others using the Acting skill to mimic the mannerisms of the individual in question. Its true appearance is a hairless being with bulging eyes.

Characteristics		Average			
STR	3D6	11	Move	8	
CON	3D6	11	Hit Points	24	
SIZ	2D6+6	13	Mass	60-70 kg	
INT	2D6+6	13			
POW	2D6+6	13			
DEX	2D6+6	13			
APP	1D6	3	HF	0/1 (true form)	

Damage Bonus: None

Armor: None

Weapon	Attack	Damage
Any	40%	as per weapon

Skills: Disguise 130%, Hide 90%

Special Abilities:

- ■   The doppelganger can read the superficial thoughts of a target if it wins a roll on POW vs. POW. If the roll fails, the doppelganger must wait for one minute before making a new attempt against the same target.

- ■   The listed APP score is for the creature's natural form. The doppelganger can increase its APP, up to a maximum equal to its POW.

Quasichemicals

In anomalous regions one cannot help but notice the strange mists, puddles of slime, growths of crystals, or layers of colourful dusts. They may be associated with the anomalies but are usually quasichemicals, substances found in the Zones whose behaviour and properties cannot be explained by science. The difference between an anomaly and a quasichemical is not always obvious but a quasichemical can be taken out of the Zone while anomalies cannot be moved. The consequences of doing so are often serious and research into quasichemicals has caused several high-profile accidents.

In the Zone, quasichemicals are a lesser danger than the anomalies but nevertheless, they are a danger. Witch's Jelly may have carved out kilometre long ditches and Caustic Clouds can cover an area hundreds of metres across, making it almost impossible to avoid them. Some materials have been developed to protect against quasichemicals but they are unreliable – while a protective suit may hold out against one type of Caustic Cloud, a cloud of a different colour can eat right through. A porcelain container may hold when used to gather Witch's Jelly within the Zone but shatter when the jelly is poured out outside the Zone. The behaviour and chemistry of quasichemicals are poorly understood, which makes predicting their effects difficult.

Known Quasichemicals Table

Name	Description
Witch's jelly	a prismatic slime (some consider it a thick colloidal gas) that emits cold blue flames. It turns flesh and stone into jelly on touch but there is an unknown and random limit to the extent of the change. Because of this, it is found as small puddles and ditches rather than lakes.
Caustic clouds	thick, colourful mists. Some are formed of near weightless crystals while others consist of some sort of liquid strands that float in the air. They come in many varieties: caustic, burning, freezing, petrifying, desiccating and so on.

Livesoap	a cluster of apparently weightless, metallic bubbles. They glow blue in the dark. Bubbles emit arcs of lightning into their surroundings and the voltage is enough to kill a human.
Screaming salt	forms white or colourless crystals and masses. They do not react to erosion but turn to dust when touched. The particles stick to organic surfaces and create new crystals and masses. This is painful and stiffens the tissue, but is not lethal in itself. The only way to get rid of the crystals is to cut off the skin and the top layer of muscle in the affected area.

Mutants

Mutants are the denizens of the Zone, humans and wild life that were changed utterly by the strange effects of the anomalies. The original species can still be recognized but their changes and mutations are often terrifying to humans. Unless a mutant is in great pain or insane, it will not directly charge the team. Some may follow them for a while and decide that they are too dangerous. However, food is hard to come by in the Zone, so mutants are persistent.

The occurrence and behaviour of mutants must be believable, even when it is unpredictable. When using mutants, the GM should think of some real species of animal and base its behavioural patterns on that. Naturally, the prevailing circumstances in the Zone and the mutants' own special attributes and abilities may cause exceptions to this but even then you should consider how the desired ability would realistically affect the behaviour of a natural species.

 Below are some descriptive devices for the Game Master to make his mutants even weirder and more horrifying:

Bloodsucker

The Bloodsucker is a semi-legendary creature, often used by Stalkers as a symbol of both the dangers and corruption of the Zone. This status has been achieved both thanks to the species' relative rarity, as well as the fact that few humans who encounter Bloodsuckers survive to tell of it. They often make lairs abandoned underground areas, Favoring the dark due to their low light vision. Bloodsuckers possess natural camouflage, and when stalking prey, they remain virtually invisible, right up to the moment they strike. As such, they are rightly feared by almost every Stalker. Their incredibly powerful arms can tear through even the thickest armor, and they secrete a paralyzing agent when biting, to allow them to drain the still warm blood from their living victim.

Characteristics		Average			
STR	3D6+6	17		Move	10
CON	3D6+3	14		Hit Points	33
SIZ	3D6+8	19		Mass	80-100 kg
INT	2D6+6	13			
POW	3D6	11			
DEX	3D6	11			
APP	1D3	1		HF	1/1D6

Damage Bonus: +1D6

Armor: 2-points Toughened hide

Weapon	Attack	Damage
Bite	50%	1D10+db + paralyzing agent POT = CON
Rending Claw	60%	1D6+db, PV/4 against armor

Skills: Alertness 65%, Listen 60%, Stealth 95%, Tracking 45%

Special Abilities:

- Invisibility (self only): A bloodsucker can go nearly invisible at will, and do so to stalk around and ambush their prey. However, they cannot attack in such a state so must drop their cloaking, leaving them open.

- Darkvision: Bloodsuckers ignore all darkness penalties, but do suffer a -20% penalty from daylight.

Burer

Burers are stocky, almost dwarflike monsters that tend to stick to gloomy underground tunnels and basements, avoiding light at all costs. They can be mistaken for bandits at long ranges due to their propensity for wearing long black trench coats, but are a far greater threat, able to paralyze and break an opponent's armor and weapon at a whim. Burers are human, but often driven insane by the Crawling Chaos they were subject to. They are a deadly opponent, made even more difficult due to their preference to travel in pairs or groups.

Characteristics		Average			
STR	4D6	14	Move	6	
CON	2D6+12	19	Hit Points	29	
SIZ	1D6+6	10	Mass	50-70 kg	
INT	2D6+6	13			
POW	3D6	11			
DEX	2D6	7			
APP	1D6	3	HF	0/1D3	

Damage Bonus: None

Armor: None

Weapon	Attack	Damage
Any	45%	as per weapon

Skills: Listen 40%, Stealth 55%

Controller

A rare mutant seen near to the center of the Zone. It bears a superficial resemblance of a humanoid with a disproportionately large head. Despite their appearance, they are highly intelligent, possess good perception and an ability to control the behaviors of less developed creatures. Mature specimens are capable of taking control of a human's mind. This is a ferocious enemy, even the most experienced stalkers are afraid of meeting it. it is not known how controller came to exist.

Characteristics		Average			
STR	3D6	10	Move	8	
CON	3D6	10	Hit Points	23	
SIZ	2D6+6	13	Mass	60-80 kg	
INT	2D6+6	13			
POW	2D6+6	13			
DEX	3D6	10			
APP	1D6	3	HF	0/1	

Damage Bonus: None

Armor: None

Weapon	Attack	Damage
Any	40%	as per weapon

Skills: Alertness 50%, Dodge 35%, Intimidation 85%, Perception 50%

Attacks: Psionic Combat POW vs. POW

- Telepathy: Mental Attack/2, Illusion/3

Poltergeist

Supernatural in the eyes of some, invisible creatures haunting the deeper reaches of the Zone, usually haunting old, abandoned buildings. Nothing is known about their origin, although rumors in circulation claim they are spirits of stalkers hit by a massive wave of radiation. Their mysterious appearances and disappearances seem to correspond to the poltergeist legend, hence the name. Known encounters with poltergeists are quite diverse in fact: from mischievous laughter and bloodchilling howling, to deadly fireballs appearing out of nowhere. Unfortunately, all information about the poltergeist phenomenon originates from unclear and contradictory stories of questionable validity.

Characteristics		Average			
SIZ	2D6+6	13	Move	10
INT	2D6+6	13	Hit Points	None
POW	2D6+6	13	Mass	None
APP	1D6	3	HF	0/1D3

Damage Bonus: None

Armor: None (immaterial).

Attacks: Psionic Combat POW vs. POW

- ■ Telepathy: Illusion/3, Basilisk Stare/3
- ■ Telekinesis: Telekinetic Blow/2, Impact/3

Snork

Snorks are mutated stalkers, frequently ex-military. They speak through grunts or other non-decipherable "language". Their appearance is mostly human, with likely tattered clothing and skin in splotches around their body, as well as missing lips. They move on all fours (their spines unable to support their weight), possess poor eyesight but excellent smell, and is capable of leaping long distances. They are scavengers and kill with claws, bites, and kicks and operate in packs of 3-4.

Characteristics		Average			
STR	3D6	10	Move	6
CON	3D6+2	12	Hit Points	25
SIZ	2D6+6	13	Mass	60-80 kg
INT	1D6	3		
POW	2D6	7		
DEX	3D6+3	13		
APP	1D6	3	HF	0/1D3

Damage Bonus: None

Armor: 6-points RBA. Most Snorks are still wearing their former armor.

Weapon	Attack	Damage
Bite	60%	1D6+db
Claw	60%	1D3+db

Skills: Athletics 75%, Dodge 50%, Perception 70%, Tracking 40%

Special Abilities:

The Snork uses its powerful mutated legs to tackle a distant target. It can make an Athletics roll to leap 4m. A success forces the opponent to make a STR vs STR check or be grappled by the Snork.

Zombified Stalker

Stalkers that have had their cognitive abilities stripped from them, they operate off of simple instinct. Despite this, they are still capable of (awkwardly) operating weaponry and equipment, as well as communicating with each other. At times, some even report incidents of several Zombified Stalkers huddling around a fire, talking to each other.

Characteristics		Average			
STR	3D6	10	Move	8	
CON	3D6	10	Hit Points	23	
SIZ	2D6+6	13	Mass	70-80 kg	
INT	2D6	7			
POW	2D6	7			
DEX	3D6	10			
APP	2D6	7	HF	0/1	

Damage Bonus: None

Armor: 8-points CBA. Most Zombified Stalkers are still wearing their former armor.

Weapon	Attack	Damage
Any	60%	as per weapon

Skills: Alertness 80%, Stealth 60%, Tracking 70%

Stalkers

Not everybody approves of MiliSci's monopoly on ETI research. There are many who would pay well for any artifacts and samples from the Zone, no matter how they are gathered. This list includes governments, major corporations, military and ideological organizations, cults, rich individuals and so on.

Stalkers are rogue adventurers and outlaws who enter the Zones to look for artifacts and samples to sell to the highest bidder. Many never return but others have been working for years. How the stalkers survive in the Zone so well without MiliSci's support and technology is a mystery. The usual explanations include sharper senses, better physical condition, special training in certain areas and so on. Stalkers themselves speak of fate, powers beyond their control and even the will of the Zone itself that not only chose that they become stalkers but will also decide which trip will be their last.

These people were mountain climbers, wilderness guides, extreme sportsmen, firefighters, ex-soldiers and so on. The first trip to the Zone became a rite of passage that through death or debilitating injury determined who would become a stalker. At first, many were willing to risk it and accidents were common. There was no real attempt to prevent this activity as all knew the dangers.

Not all stalkers were out for money. While officials tried to silence the Zones to death and scientists tried to explain the inexplicable, the Zones were an ideological treasure chest for New Age religions, Cult fanatics and conspiracy theorists. The first borderlands communities were not founded by the Refugees but by spiritual leaders. Some of them became stalkers to look for answers to their questions. In addition, there were independent researchers who thought the Zones and their study belonged to the entire world and not just MiliSci.
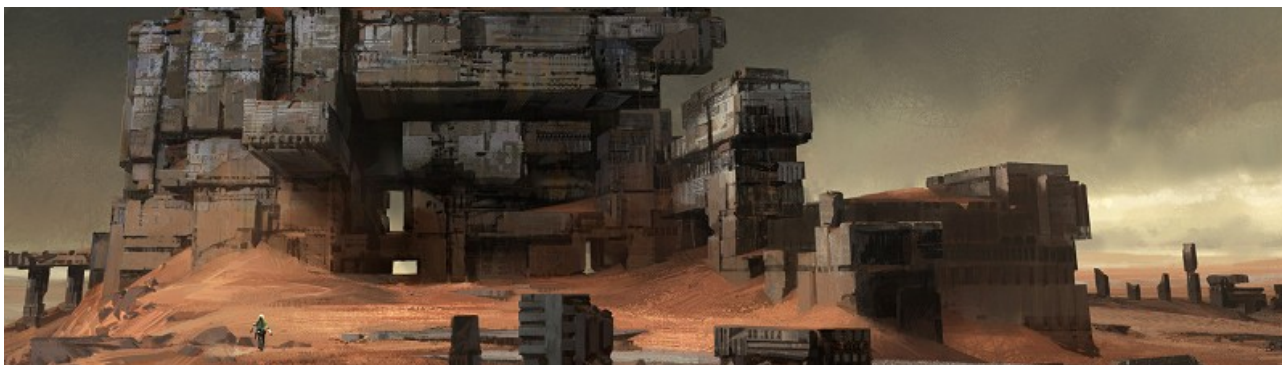
First Contact

by Halopedia, Chris Dias, Michael Tresca, Scott Middlebrook, Chris Carter, Rob Cooper,
Andrew E.C. Gaska & Mark Howe

> *"When they first heard about this thing, it was crew expendable. The next time they sent in Marines; they were expendable too. What makes you think they're gonna care about a bunch of lifers who found God at the ass-end of space? You really think they're going to let you interfere with their plans for this thing? They think we're crud, and they don't give a fuck about one friend of yours that's died. Not one."*
>
> *Ellen Ripley – Lieutenant 1st Class*

The oldest star in the Milky Way galaxy is estimated to be 13.2 billion years old—almost as old as the universe itself. By contrast, life on Earth only evolved roughly 3.7 billion years ago, and the first archaic homo sapiens humans evolved approximately a mere 400,000 years ago. Against the backdrop of the galactic calendar, humans are nascent arrivals on the scene; newborns in every sense of the word. More importantly, humans are uninvited guests in what other, older intelligences think of as their assets.

For years, humans scientists have struggled with the Fermi Paradox, which questions why no evidence of alien life has yet been found—such as spacecraft, transmissions or probes—despite the mathematical likelihood that a multitude of advanced extraterrestrial civilizations should exist in the Milky Way. One postulation says that there must be some sort of unknown "Great Filter"—an event that all intelligence encounters in its development that for whatever reason such life cannot surpass. In other words, an extinction event. Some worried that the development of dangerous technologies—nuclear weapons, nanotechnology, etc.— before a civilization had matured could be the Great Filter. Others worried that it could be a technological singularity event, such as the Alpha AIs and the Blackout.

In fact, alien races do exist, and they have been around for far, far longer than humanity. New ones, however, are simply rare. The ETI (extraterrestrial intelligence) is incredibly old and powerful—a Type III or even Type IV civilization on the Kardashev scale. It is capable of megascale engineering projects and enjoys an understanding of physics, matter, energy, and universal laws that makes all of human knowledge seem insignificant in comparison.

left to right: Human, Spartan, Engineer, Predator, Upgraded Predator, Alien Xenomorph, Alien Queen

Alien Intelligence

While almost half of all potentially habitable worlds contain life, intelligence only evolves on approximately 20 percent of life-bearing worlds, whether life has arisen there naturally or been seeded. The vast majority of intelligent species destroy themselves or transcend within a few thousand years of developing advanced technology.

All technologically inclined species learn of hyperspace during their atomic age and many learn of it far sooner, as some of the more sensitive members experience the power and the dangers of using sorcery to manipulate hyperspace. Once a species learns of hyperspace, it can take one of several paths. A few turn their back entirely on all hyperspatial technologies except for research into ways to generate hyperspatial barriers to keep out the Great Old Ones and similar dangers. However, the vast majority of species find it difficult to turn down potential power provided by hyperspatial energies.

Careless species are swiftly destroyed. The galaxy is littered with ruined worlds that were devastated by the uncontrolled release of continent-shattering energies. Many species that survive their first experiments with hyperspace treat hyperspatial energies with great care and wish to have nothing to do with any hyperspatial technologies or entities.

The Fate Of Intelligent Species

From a human perspective, much of the history of the galaxy seems quite strange. Modern human civilization is less than 6,000 years old and the human species itself no more than a quarter of a million years old, yet there are records of intelligent species that have persisted for hundreds of millions or even billions of years. Part of this disparity is due to the fact that human civilization is actually far older than commonly known. The prevous civilization from the Thurian Age was destroyed by the most recent ice age, which erased all obvious traces of its existence. Similarly, many other species have gone through periods of advanced civilization followed by eras of civilization collapse due to war, natural disasters, or equally severe technological disasters. These cycles of progress and collapse can continue almost indefinitely.

The extreme longevity of some alien civilizations is in part due to the fact that, like the Forerunners, the aliens have used genetic engineering, nanotechnology, and other advanced technologies to alter their bodies into ageless forms that are exceedingly difficult to kill. As a result, individuals live for many thousands or tens of thousands of years, which provides a strong stabilizing force for any civilization. A species may not change much over the course of half a million years when this is a member's average lifespan. However, the full truth about the history of galactic civilization is somewhat more complex. Intelligent life that survives to develop advanced technology can have one of four possible fates.

Extinction

The unfortunate fact about most species that manage to develop advanced technology is that most become extinct within 10 thousand years of developing these technologies. Some are victims of alien attack or are destroyed by invaders from the Tachyon universe, others fall victim to natural disasters, but the majority destroy themselves through war or technological accident, typically involving some form of hyperspatial technology. Some species manage to barely survive these catastrophes and eventually regain their lost technology and civilization, at which point the reborn civilization again faces the same four options.

Many intelligent species have evolved in the galaxy, but the majority are now extinct. Everywhere in the galaxy that human explorers travel, they discover both living worlds that once housed long extinct civilizations and worlds blasted and ruined by final disasters that ended most or all planetary life. Planets that used to be verdant living worlds are now airless husks, or rings of shattered fragments. On the least damaged, life experienced massive extinctions and took tens of millions of years to recover.

Transcendence

Almost all of those species that do not destroy themselves vanish within 10 thousand years of developing advanced technology. Their exact fate is unknown and perhaps unknowable to species that have not also made this step. Most researchers believe that these species transfer their consciousness into the Tachyon universe, where they become immortal, hyper-intelligent beings. A few scholars believe that the entire species either becomes part of an existing Other God or creates a new such being, but this theory is no more than conjecture.

Regardless of their exact fate, the species never again has contact with the physical world, and all information about this transcendence asserts that it is a wondrous transformation. Unfortunately, this process of transcendence is quite difficult and often very risky. As a result, numerous species have destroyed themselves making this attempt. Those that succeed usually leave behind worlds that are completely intact, but devoid of all intelligent life. More than 95% of all intelligent species follow one of the two above paths – extinction or transcendence, and humanity has discovered dozens of ruined worlds and a smaller number of empty ones. However, there are two other, less common options.

Stasis

Eventually, every species that does not transcend reaches the end of the science and technology their minds can comprehend. They create no important new breakthroughs. The species may continue to gather more data and learn more of the history of the universe and the beings that live within it, but long lifespans and modified bodies have slowed the evolution of their intelligence beyond the point where their brains and senses can accommodate new discoveries and technologies.

The severity of this limitation varies from one species to another, and is usually encountered within 5,000 years of the species developing advanced technology. At this point, the only paths to new knowledge and new technology involve either transcendence or making use of science and technologies of aliens with different cognitive limitations. This second approach is fraught with risk because any alien science and technology that can help a static species' extend it capabilities is by its nature beyond the comprehension of the species that borrows or steals it. Attempting to work with alien science or technology has resulting in the extinction of quite a number of intelligent species. However, it has also helped a few species transcend.

Some species survive, but do not transcend, either because they do not wish to take the risks involved, or because they lack the ability or desire to transcend. The reasons are not known, but one radical theory claim that contact with the legendary Great Old One Nyarlathotep is in some way necessary for a species to transcend. The elder ones are a perfect example of beings that lacked the will to transcend.

Most species that do not transcend learn to modify their bodies to be exceedingly durable and enduring, becoming nearly immortal. This personal immortality almost always results in the species and their civilization also becoming extremely long-lived. Many species that endure in stasis avoid adopting or studying hyperspatial technology or science because of its dangers. However, the price for this stability is quite literally stasis.

Art styles and popular tastes may change slightly, but the species as a whole changes very little, either mentally or physically. A species unwilling or unable to transcend faces two possibilities: survival or extinction. As a result, static species usually become exceptionally conservative. They typically limit their biological variability. Members of the species who alter their bodies or minds outside of accepted limits are either stopped, destroyed, or exiled. Such exiles might transcend or self-annihilate, but the bulk of the species can persist for a billion or more years.

Few species reach stasis, and fewer still maintain it for more than a million years, but those that do usually become important species in the galaxy simply by virtue of their great age, the knowledge they have gathered, and the time they have had to explore and colonize large portions of the galaxy. No species lasts forever. The last remnants of the elder ones, one of the most ancient physical species, are dwindling and likely to vanish within another hundred million years.

Partial Transcendence

This option is by far the rarest and also the most terrible. In their effort to transfer themselves into hyperspace, the species partially transcends, becoming practically immortal and far more powerful, both individually and collectively, than they previously were. However, instead of abandoning the physical universe and dwelling solely in the exotic dimensions of the Tachyon universe, the species maintains a form of limited connection to the physical universe. No one knows if some species attempt to retain their connections to the physical while transcending, or if partial transcendence is always the result of a failed attempt at transcendence. Regardless of the answer, partial transcendence always carries a price. The species becomes dependent upon the physical world and its inhabitants. Most of these species must feed upon the psychic energy of physical beings to survive. A few feed solely upon non-sentient creatures, but the vast majority must feed upon the psychic energies of intelligent beings.

The few humans who know of these partially transcended beings call them Demons or the Great Old Ones. Such species or entities can persist for many billions of years, since the individual members are very difficult to destroy and can only die if they are deliberately destroyed by energies that are almost impossible for a non-transcended species to generate or understand. If placed in a sufficiently hostile environment or deprived of food, members of a partially transcended species suffer pain and hunger, but will not die. At most, they eventually shift mostly into the furthest depths of the Tachyon universe and enter a near-timeless sort of hibernation that automatically ends when psychic nourishment again becomes available.

While these species are always brilliant and capable of thoughts and perceptions impossible to non-transcendent beings, they are also changeless. Partially transcended beings seem incapable of altering their fundamental nature, and none of them have ever been known to fully transcend.

Trapped between states of being, these species haunt the galaxy for hundreds of millions of years. They become each others' enemies because they compete for resources. Universally, they consider physical beings to be either food, vermin, or potential sources of amusement. While some primitive or power-hungry non-transcendent species may worship partially transcendent beings, hoping for power in return, more advanced and sensible non transcendent species do their best to either avoid or repel partially transcended beings they encounter because they are vastly powerful and capable of wiping out entire civilizations through their psychic feeding.

Some partially transcendent species are interested in the physical universe as more than just a source of food. The worst seek to conquer worlds, build cities, or enslave entire species of physical beings. The Cthulhoids are an example of this sort of species. Other partially transcendent beings have strange and indirect interactions with the physical world. They feed upon psychic energies while only ever appearing in ways that cause those who encounter them to have no clue that they are intelligent or even beings. Demons or the psychic infection known as Hastur is an example of this type of exotic being.

Forerunners

> *"One hundred thousand years ago, the galaxy was populated by a great variety of beings. But one species—eons beyond all the others in both technology and knowledge—achieved dominance. They ruled in peace but met opposition with quick and brutal effectiveness. They were the Forerunners—the keepers of the Mantle, the next stage of life in the Universe's Living Time. And then they vanished."*

> *The Librarian – Forerunner construct*

The Forerunners (Latin Primoris prognatus, meaning "Firstborn") were an ancient species of technologically advanced beings whose empire—known as the ecumene—encompassed three million fertile worlds in the Milky Way Galaxy. The Forerunners reigned for millennia as the ascendant civilization in the galaxy. Although they themselves are essentially extinct, evidence of their existence remained, spread across the galaxy in the form of numerous creations, installations and artifacts.

The Forerunners took upon themselves the role of caretakers of the galaxy, and believed that this "Mantle" had been passed down to them by the Precursors, an even more powerful race that preceded the Forerunner civilization. "Forerunner" is a literal translation of the species' name for themselves; they identified themselves as such because they believed that they held an impermanent place in the universe's Living Time, though, in time, they too would be succeeded by other, superior races. Before their disappearance from the galaxy, the Forerunners would name humanity their successors, identifying them with the title "Reclaimer".

The Forerunners were created by the Precursors, a powerful race responsible for seeding the Milky Way Galaxy with life and creating many other species, fifteen million years ago. The Forerunners were seeded on the planet Ghibalb in the Orion complex. The world served as the hub of the Forerunners' fledgling interstellar civilization, comprised of twelve systems within the nebular complex, until it was rendered uninhabitable by an astroengineering disaster. The Forerunners had attempted to manipulate several stars in their region of space, but accidentally caused a series of supernovae that resulted in their planet being burned to a cinder by radiation. This event nearly caused the Forerunners' extinction.

After their disappearance, the Forerunners left behind a great deal of artifacts, many of the more significant ones overseen by their dedicated monitors which would react to outside visitors in accordance with their programmed instructions. The mystery surrounding the Forerunners and their technology would later become a source of worship, legend, advanced technology, or combination thereof for the various future civilizations which eventually stumbled upon some of the many Forerunner artifacts across the galaxy.

The Mantle

The Mantle of Responsibility, commonly referred to simply as the Mantle, is a philosophy originating with the Precursors and later associated with the Forerunners. Bridging the social strata between an interstellar Marshall Plan and a religious, but allegedly benevolent, stewardship, the Mantle was the Forerunners' entitlement and responsibility for the protection and cultivation of the species and planetary systems within their ecumene. The core tenet of the Forerunners' belief in the Mantle was that the most developed species should hold stewardship over all other life. In theory, the Mantle allowed competition and conflict as long as this did not threaten biodiversity in the galaxy; in practice, the Forerunners' often draconian rule in the name of the Mantle entailed the subjugation of "lesser" species by force to keep them in line and preventing them from threatening Forerunner primacy.

The Mantle is represented by a glyph comprising a series of angular, branching lines framed by a circle. This glyph is ubiquitous in Forerunner art, architecture and technology due to the Mantle's wholesome influence on every aspect of Forerunner life. Many Forerunners, mainly Builders, referred to this symbol as the Tree-mark, due to its resemblance to a heavily stylized tree; among Lifeworkers, it was also known as the Eld. While the Forerunners had associated the symbol with the Mantle throughout their history, its origin had been long forgotten.

Mala'kak, aka Engineers

"It's all speculation. But there's absolutely no possibility of contact or negotiation with the Engineers. They are hostile on sight. Either they hate all life-forms, or they have a particular problem with their creations. They kill us. They kill bugs. Bugs kill us. We fight back against everything. Which is why having Ahab in our corner helps. We are at the bottom of the food chain."

Angela Foster – captain of the Geryon

The Engineers, are an ancient extraterrestrial species of unknown origin. They possess some of the most advanced technology in the entire galaxy, with special emphasis placed on their skills in Genetic Engineering. Credited with the creation of mankind, Engineers have been beneficent Creators who sailed the stars terraforming primordial celestial bodies and seeding them with the foundations of biological life. As such, they are revered by some as gods by the species they created.

The little more that is known about them has been gleaned from several extrasolar archeological digs discovered within the past decades as the Frontier has advanced into the unknown. No living Engineers are known to exist—and the few xenoanthropologists aware of them believe they died out thousands of years ago. Their passing is marked by their abandoned citadels, derelict ships, and their biogenetic and evolutionary experiments. The sophistication of their fossilized biotechnology mystifies explorers while their megalithic stone statues and busts bear testament to their artistic and architectural superiority.

The Engineers' writing system is strikingly similar to Mesopotamian cuneiforms that can be found in the middle-east, and their hieroglyphs are identical to what is found in Egypt, Mesoamerica, and other places on Earth. Hieroglyphic tablets unearthed on Tanaka 5 call them Ossians. The decoded derelict beacon on LV-426 made reference to the Mala'kak.

Whatever they call themselves, to modern humans Praetomorph they are known simply as the Engineers. The name "Engineers" was given by Elizabeth Shaw and Charlie Holloway due to the lifeform being responsible for "engineering" the human race.

Over the decades, covert corporate scientists have made attempts to classify them. Those with religious leanings have likened them to the Nephilim—fallen angels cast out of heaven for meddling with—or in this case creating—humanity. As the first remains of their kind were discovered at the helms of their dead ships, some have labeled them Mundus gubernavi, or "universal pilot." Like the misnomer Internecivus Raptus—"murderous thief"—that is sometimes associated with Xenomorph XX121, the classification, in and of itself, is incorrect. There is no "pilot" genus to draw upon. The late Doctor Shaw's scientific notes that were recovered in a garbled signal sent after the loss of the Prometheus provide the most shocking revelation about these Engineers—their DNA is human. They predate us, they are us, and we come from them. The re-discovery of Shaw's notes has led to a more scientific name for these giants—Homo Genitor, or "creator of man."

Physical Traits

They have hairless, chiseled physiques with translucent blue-white skin, heavy brows, high noses, and large, glassy black eyes. They are both beautiful and powerful in appearance. The veins underneath their skin are visible, and their pupils are in the shape of oblong plus-symbols.

The Engineers are 2.70 – 3.10 meters tall, while some fossilized evidence places them at as much as 3.5 meters tall, and breathe oxygen just like human beings. They also are extremely strong and resilient. They have a lifespan of around 150 years.

Characteristics		Average			
STR	2D6+20	26-27		Move	12
CON	2D6+6	13-14		Hit Points	44-46
SIZ	1D6+29	31-32		Mass	160-190 kg
INT	2D6+6	13-14			
POW	3D6	10-11			

DEX	2D6+6	13-14
BRA	3D6	10-11
HF	0/1	

Damage Bonus: +3D6 (+5D6 with bio suit)

Armor: bio suit (9 points) + exo skeleton (STR x2) + Rad Shield/3

Architecture

Engineer architecture is on a grand scale, with monolithic stone citadels, impressive arches and massive domes. Most Engineer installations will have at least one giant stone head. It is believed these heads are meant to represent one of six elders of their civilization—intellectuals, artists, and wise men. Their culture appears to be steeped in both the sciences and the arts. In addition to their biotechnological wonders, beautifully painted murals and bas reliefs of bizarre alien creatures adorn the walls of their innermost sanctums. While not yet understood, their computer interfaces work on a combination of musical initiation plus the manipulation of depressible hieroglyphic symbols and rubbery, egg-shaped control nodules. There is evidence of terraforming at many of their sites, via a method that company scientists so far cannot explain. Vast underground hangars are hypothesized to hold the remains of their star-faring juggernauts, although all such hangers discovered thus far have been vacant.

Conjectural Analysis

The Engineers periodically visit worlds they've seeded with life and occasionally will "wipe the slate clean" if they discover their creations have lost their way. At some point approximately 2,000 years before, the Engineers discovered that humanity began to learn the Forbidden Science. Therefore, the Engineers stationed on LV-223 initiated a plan to wipe out humanity by releasing a pathogen they had created. However, they apparently lost control of the pathogen and led the Engineers there to die off.

In 2089, archaeologists Elizabeth Shaw and Charlie Holloway discover a star map among several unconnected ancient cultures. They interpret this as an invitation from the Engineers rather than a warning to stay away. Shaw then contacted Peter Weyland, the elderly CEO/Creator of Weyland Corporation, for a proposal in order to gain enough funding for an expedition to follow the star map.

In 2093, after the USCSS Prometheus' two year voyage, the ship arrived on LV-223. Subsequently, all contact was lost with the crew. Whatever they found there was erased from the archives, the destination of the Prometheus was classified and all but forgotten—but stray transmissions picked up by company satellites confirmed the existence of the beings.

In 2122, the USCSS Nostromo intercepted a distress beacon originating from LV-426 and was diverted to the Zeta II Reticuli system. The crew members took the Nostromo to the planet and discovered the remains of a fossilized Forerunner wearing a Bio-Suit and over numerous Xenemorph eggs that were stored within the ship's cargo bay. Afterwards an astronaut was impregnated by a Facehugger, the crew members were killed one by one and led to the destruction of the Nostromo.

57 years later, the terraforming and research colony Hadley's Hope established on LV-426 was given a vague order from Weyland-Yutani executive Carter Burke to locate the derelict, having learned of the ship's location from the claims of the Nostromo''s sole survivor Ellen Ripley. Surveyors Russ and Anne Jorden located the ship, Russ was attacked by a Facehugger and Anne pulled him out and radioed for help. Some of the rescue party also went into the derelict and were attacked. All of the victims were returned to the colony which eventually led to its downfall.

A team from Weyland-Yutani later returned to LV-426 nearly five decades later. They recorded the flight telemetry from the vessel, and used it to track down LV-1201, the last planet that the derelict had visited before crashing. On the planet, the company discovered Engineer ruins infested with Xenomorphs; it is presumable that the Engineers were breeding the creatures there before withdrawing from the world. Weyland-Yutani set up an extensive research complex on the planet dedicated to studying both the Xenomorphs and any Engineer artifacts recovered. Much later, while trying to escape the planet with his squad, Andrew Harrison discovered a large chamber containing a dead Engineer.
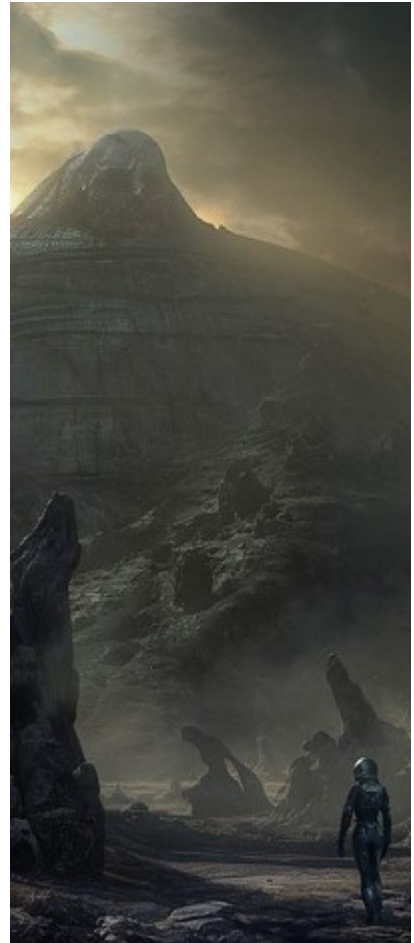
Reticulians, aka Greys

"Grey. You said green men. A Reticulan's skin tone is actually grey. They're notorious for their extraction of terrestrial human livers. Due to iron depletion in the Reticulan galaxy."

Fox William Mulder – Special Agent

Greys is a colloquial term used to describe the alien species that crashed at Roswell in 1947. They are also referred to as Reticulians, as they allegedly come from the binary star system Zeta Reticuli. In reality, Zeta Reticuli is where many supposed alien abductees report Greys originate from.

Greys have mysterious ties to the planet Earth and its history. In recent decades, some of the Greys attempted to recolonize Earth after an ice age forced them to leave; it is stated that they arrived here "millions of years ago" and "walked the Earth before the dinosaurs" in one form or another.

The longevity of their stay on Earth to perform experiments on and study Earth's life forms would suggest the possibility of more arcane technology existing in hidden Greys outposts. Greys advanced knowledge of medical and surgical techniques must be noted. They are able to remove a human brain from its body and preserve it for thousands of years, totally functional. In addition they can create authentic-looking biological automatons and engage in many surgical techniques that humans would consider miraculous.

Greys in their early stages of life look like yellow and green muscular humanoids with reptile like skin, clawed hands, large black eyes, slits for a nose and a mouth full of sharp teeth. After exposure to immense heat, they transform into an adult grey, which is about the size of a human child, whereas the immature form of a Grey is as big as an adult human. They retain most features of the immature version except they lack muscular bodies, green and yellow reptile-like skin, sharp teeth and claws on their hands. Instead, they have frail bodies that are smoother and grey in color with larger heads in proportion to the rest of their bodies.

They lack external human organs such as noses, ears or sex organs. Their bodies are elongated, with a small chest, and lacking in muscular definition and visible skeletal structure. Their legs are shorter and jointed differently from what one would expect in a human. Their limbs are proportionally different from a human's; their humerus and thighs are the same lengths as their forearms and shins.

They are able to reproduce through gestation in a human host and emergence as a long-clawed alien, which seeks heat and sheds its outer skin to become a true Grey. The existence of alien fetuses indicates that they may be able to give birth in a manner similar to humans, although these fetuses may just be an early form of the gestation process.

Various comments indicate the black oil virus, gestation, and the effect of their toxic blood on human physiology are all extremely hampered by the cold, suggesting that Greys may also be highly sensitive to the cold.

After death, a Grey dissolves into a pool of translucent goo within a few hours. This goo quickly dries out, leaving only an oily stain.

The Greys worship both Nyarlathotep and Shub-Niggurath, and possibly others. They hire or compel human agents to simplify and front their operations on Earth and, consequently, are sometimes connected to cults. Occasional sightings in remote places have become the source of the Abominable Snowman stories told in the Himalayas, as well as the truth behind supposed encounters with aliens or flying saucers.

SPECIAL POWERS: Some of them are powerful Telepaths who can put one or many humans it into a trance state.

	Long-clawed Form		Adult Form	
	Characteristics	Average	Characteristics	Average
STR	2D6+3	10	4+1D3	5
CON	2D6+6	13	2D6+6	13
SIZ	10+1D3	11	4+1D3	5
INT	2D6+2	9	2D6+6	13
POW	2D6+2	9	2D6+6	13
DEX	2D6+6	13	3D6	11

BRA	3D6	11	3D6	11
Move	8		6	
Hit Points	24		18	
Damage Bonus	+0		-1D6	
Armor	1 point skin		none	
HF*	0/1D6		0/1D2	

Weapon	Attack	Damage
Bite*	40%	1D3+db
Claw*	30%	1D6+db

*Long-clawed Form

Purity, aka Black Oil

> *"I want to believe, I just need a place to start."*
>
> *Alex Krycek – Special Agent*

Purity, more commonly referred to as black oil, and called "the black cancer" by the Russians, was an alien virus that thrived in petroleum deposits underground on Earth.

The black oil came to Earth prehistorically on a meteor from Mars that also carried the first building-blocks of life to Earth. The virus then thrived on Earth and infected primitive humans, completely changing their physiology and transforming them into alien life-forms themselves. In the planet's last ice age, these aliens died and the virus lay dormant underground until it resurfaced during Earth's current geologic period.

The virus apparently contains the aliens' genetic blueprints, awaiting reconstitution when the master species returns to Earth. While away from Earth, the Colonists evidently sought out life throughout the universe in an effort to subdue other species and take over the universe.

The virus can enter a human body to control it, up to and including control of the host's fine motor functions and speech that can deceive even those closest to the host. The pregestation symptoms include a blackening of the eyes and the appearance of something crawling up the body as well as an extreme discomfort due to being cold. Given that the virus needs heat, this prompts them to seek heat to accelerate gestation.

Abilities

- The Black Oil is able to survive long periods of time in extremely adverse environments, such as underwater and extreme cold, with some evidence to suggest that cold forces it into some sort of hibernation or remission.

- Certain genetic mutations in various individuals make them immune to the virus, and if it attempts to infect them it will die.

- People infected with the alien virus demonstrate a variety of symptoms/abilities. Some are taken over by it, indicating that it possesses some sort of intelligence and that they know its purpose.

- The black oil form of the virus can willingly abandon its current host and leap to another, or simply go in to hiding. Once the host no longer has the virus in their system, they seem to lack any memory of events that occurred while they were under the infection of the virus.

- The alien virus has the apparent ability to penetrate various forms of matter such human skin, high-level protective equipment suits or even metallic surfaces. However, a complete sealing of the orifices of a biological entity proved to be effective to avoid infection with the virus.

Yautja, aka Predators

> *"When I was little we find a man – like a butcher. The old ones in the village cross themselves and whisper crazy things. 'Demonio, cazador de trofeos... Only the hottest times of the hottest years... 'Crazy things... This year is grows hot. And we begin finding our men. We find them sometimes without their skin. Sometimes… much, much worse. Cazador de trofeos… means the demon who takes trophies."*
>
> *Anna Goncalves – communist guerrilla force*

They call themselves the Yautja but everyone else calls them the Predators. What everyone will agree on is they are the most feared hunters in the entire galaxy. Most encounters have been with a single Yautja and the only survivors have been women and small children. Their accounts have been sketchy at best, but they consider the Yautja killing machines.

The Hunt is everything to the Yautja. Every single one of the Yautja has as its goal to be the ultimate hunter and each strives to perfect the Hunt. Nothing else may matter besides the Hunt, but the Hunt has rules. A Yautja must track his enemy and face him in combat. To not face your enemy in combat is the cowards way. A Yautja will always try to face an enemy in hand-to-hand combat. If it is not possible, then ranged weapons are acceptable. The worst thing a Yautja could do is to kill an enemy, at a distance, while cloaked.

To the Yautja, if you are not a Hunter, you are prey. One of the requirements to be a Hunter is to be part of a clan and no one yet knows what it would take to make a non-Yautja part of a clan.

The Yautja are clannish in nature. The Clan is the most important part of the social structure, followed by the Yautja, then your mate and offspring. All others are unimportant. The Yautja do not focus on large-scale conquest, as it is unimportant compared to the Hunt. Clans can and do fight each other, especially if one feels it's honor has been stained. The Clan Leader's word is law and not following a Clan Leader's word is punishable by death. The adjudicators are the admin and law Yautja. Only the Council of Ruling Clans can override an adjudicator's word.

The Yautja travel in hunting parties. A typical hunting party consists of 8 to 90 Yautja. During a hunt, each kill gains reputation for a Yautja. As a Yautja gains reputation, it gains in status amongst its peers. With higher ranks comes more honor.

Only a Blooded Yautja can compete in a hunt. To become Blooded, a Yautja must go through an intense ritual, which ends in their first kill. While it is usually a coming of age ritual, a Yautja can participate in the ritual at any point in their life. After they are Blooded, their life as a Hunter begins.

Almost all Yautja encountered are Blooded and male. The lou-dte kalei, or female, is larger than the male, but most of the time stays at home to raise the young. There are very few, Blooded lou-dte kalei.

Yautja Society – Caste

Most clans are separated into distinct groups, or castes. Some castes are honoured, some are neutral, some are subjugated. But they are all important, and play a major role in the day-to-day life of the Yautja, as well as the Hunt.

Unblooded Caste

These are young Yautja, ranging from pre-teen to late-teen, who have never been on a hunt. They have accumulated no honour, but they have a driving desire to do so.

Unblooded Yautja will typically spend most of their time studying the traditional combat techniques of the Yautja, the concept of honour, the sacred laws, rules of the hunt and suchlike, as well as asserting themselves amongst their peers. When they understand the basics of the hunt and concepts of honour, they are put into practice fights and subjected to rigorous tests.

When their masters have felt that they have learned all that they can learn in the training rooms, the Unblooded Yautja are placed in the kainde amedha chiva, or 'Hard Meat Trial'. This trial is their first true, live hunt. Under the supervision of their masters, the young Yautja will hunt the Hard Meat, or xenomorphs. If victorious, the young Yautja will mark

themselves with the blood of the Hard Meat and, if possible, keep a skull as a trophy. This gives them honour and allows them to enter the ranks of the full, adult, Blooded Yautja. Those who die on the hunt will be remembered with honour for dying a noble death. Any Yautja who survive but fail to kill prey, thus failing to Blood themselves, will either be remain Unblooded and continue training, will be considered a 'lost cause' by their masters and simply given up on, or even Outcast from the clan, depending on the circumstances.

Any newly Blooded Yautja found to have used dishonourable methods on their first hunt will return to the ranks of the Unblooded, as they obviously do not understand the concept of honour yet. If it was a severe breach of the rules, for which there is no excuse, they may be Outcast, as any other Yautja.

Unblooded Yautja are not permitted to use or own any hunting technology until they are instructed to do so by their masters, and even then they will only receive a basic kit, as provided to them by their masters. If Soft Meat are likely to be present at their kainde amedha chiva, masters will permit the use of cloaking technology.

Unblooded Yautja are not permitted to hunt Soft Meat (humans, and your other generic sentient races) unless forced to do so by the Soft Meat themselves, and even then, they may only fight enough to defend themselves.

Young Bloods

These are fairly new hunters who may have only successfully completed one or two hunts including their kainde amedha chiva. They have some small amount of honour, and are frequently 'guided' in the right direction by older, more experienced and highly regarded Yautja. Some Young Bloods may feel as though they are still being taught new things, though, unlike the Unblooded there is no safety net.

Young Bloods are frequently reckless and arrogant of their abilities. A few sensible Young Bloods exist, but it is likely that they will take foolish risks and may not even be as stealthy as they should when stalking their prey. Indeed, they may not even bother with stalking, and jump right in for the kill. Young Blood fatalities are amongst the highest of all the castes.

Young Bloods are permitted to follow the experienced Warriors on the 'mass hunts' -these are hunts against vast numbers of prey, usually the Hard Meat, and will involve a great many hunters. Young Bloods will frequently 'fill out' any gaps in numbers. They are encouraged against going on solo hunts. However, sometimes, more experienced hunters who see promise in a particular Young Blood may allow him to tag along on a solo hunt as an observer, to see how it is done.

Young Bloods may not yet own much in the way of hunting equipment.

Although Young Bloods are strongly discouraged against hunting Soft Meat, there are no restrictions stopping them from doing so if they decide to.

Blooded Caste (A.K.A. 'Full Bloods')

The only difference between Blooded Yautja and Young Bloods is a level of experience or honour. Blooded hunters are true, skilled hunters, with a medium degree of honour to their name. They may have been on many mass hunts, and will now be thinking about going on a solo hunt. A Blooded Yautja is likely to be favoured over a Young Blood when Yautja are being selected for a mass hunt.

Blooded Yautja will probably have gained ownership of much Yautja hunting technology, though they may still lack a few useful weapons.

Warrior Caste

Warriors are masters of the hunt -they are Yautja in their element. Learning their lessons well from a great many previous hunts, a Warrior will be a violent, ferocious opponent with access to an impressive level of skills. Warriors revel in solo hunts against deadly opponents, preferring to challenge their very limits in pursuit of honour. The wall of a Warrior's quarters will likely be covered in a variety of skulls from all over the galaxy.

Hunters of the Warrior caste are frequently known to use more psychological warfare tactics than any other attacks while on a hunt. Their main objective is to frighten their prey, to make it paranoid and irrational. When hunting a group of prey, the Warrior will take them down slowly; one after the other, at opportune moments. This only serves to increase the fear. In battle, they are violent and deadly, capable of matching most Yautja one-on-one.

With access to most types of Yautja technology, Warriors only become more potent and deadly.

Warriors sometimes lead mass hunts against improbable odds. They are extremely well respected and have accumulated an impressive amount of honour. They hold great sway in clan politics. Warriors will usually be 200-300 years old.

Some Warriors will teach Unblooded Yautja when they are not on a hunt.

The Honoured Caste

These are the elite hunters of Yautja society. They are more skilled than any other hunters in the galaxy, and will have triumphed in more hunts than they could even remember. Elite hunters will probably have stopped collecting lesser skulls from their victims, simply because they have so many. Unless they take down a particularly challenging prey, such as an Alien Queen or another particularly vicious lifeform, in which case they will make room for it.

Most Honoured hunters are thinking about retiring from the hunt. Their age, usually 400 years or more, will soon begin to impact upon their skills. Some Elites become full time teachers of the Unblooded, passing on their knowledge to the next generations of hunters.

Once a Yautja has lived through enough hunts to join the ranks of the elite, they are virtually unstoppable killing machines, with access to the most advanced Yautja technology ever created and with more tactics than entire armies. So few Yautja survive to this age that they are incredibly well respected, and hold a significant degree of power in internal politics. The endorsement of an Honoured hunter can make or break a reputation.

The Elders (A.K.A. Ancients)

The greatest hunters that have ever lived will become known as 'honoured elders'. There is no higher position within Yautja society, with some Elders even outranking the Alpha Male of their clan. Elders could quite easily kill any other Yautja in battle without even exerting themselves. They are legendary, and will have survived thousands of some of the greatest hunts in history.

Elders may have grown weary of the hunt, though. At an age sometimes exceeding 700 years, they may also have started to 'lose their edge'. So they will likely start looking for other means to entertain themselves -they could not possibly become more honoured by their society, so hunting may seem somewhat futile. Some Elders devote their time to learning about the combat ways of other species -for example, there are stories of Elders who are versed in Earth-style martial arts -while others will simply make it their purpose to dispense advice to younger hunters, and sometimes help on particularly difficult mass hunts.

Despite their almost godlike ability at killing, you would likely rather want to meet an Elder Yautja in a dark alley than any of the younger castes. They are generally more compassionate and tolerant, and are so confident in their superiority and skill that they simply have no need to demonstrate it. Whereas younger castes may take to hunting the unsuspecting person, an Elder might go so far as to try talking to it.

Arbitrators

All societies with rules need people to enforce those rules.

Yautja who are bored with the hunt, but do not wish to stop serving a purpose, may become Arbitrators. These elite Yautja 'police' hunt their own kind -but only those who have broken the rules. For example, if one Yautja murdered another, Arbitrators would begin hunting that Yautja.

Arbitrators are judge, jury and executioners all in one, and are ruthless in ensuring honour amongst the Yautja is maintained. The likelihood of an outsider encountering an Arbitrator is minimal, as they do not concern themselves with other species.

Eta Caste

Those Yautja with no honour, and no means/desire of acquiring any honour, will end up being classified as an Eta. Cripples, retards, seriously ill and completely unskilled Unblooded Yautja fall under this category. Eta are essentially slaves to the hunters. They do perform vital functions, such as making sure food is available, maintaining Yautja technologies and researching new technologies. But they are still disrespected by the hunting castes, and frequently ridiculed. None are ever killed, though.

Eta are not to be confused with Bad Bloods. There is nothing illegal about having no honour -though, there is nothing to be gained from it, either.

Bad Bloods

These are Yautja who have broken the sacred laws of the Yautja society, and have been outcast from their clans with no hope of returning. Those Yautja accused of serious crimes, such as the murder of another Yautja, will end up being hunted by Arbitrators from various clans.

Bad Bloods can vary in skill level, from being equal to Young Bloods to being equal to Honoured or Warrior Yautja in combat. Most Bad Bloods don't bother with hunting anymore, but aimlessly wander the galaxy. Some continue with the hunts though. And a Yautja who hunts without being bound by any rules or honour, is a very dangerous Yautja indeed. There are even stories of Bad Bloods specifically hunting other Yautja, treating them like prey rather than predators.

Some Bad Bloods are not necessarily criminals, though. They may have been somewhat unskilled in the hunt, and would rather leave their clan than become an Eta. These Bad Bloods are usually less 'bad' than an average Yautja. Some are even respectable, social creatures who avoid killing anybody.

Some Bad Bloods may carry Yautja hunting technology, if their clanmates failed to relieve them of it in time. Others may have fashioned their own since being outcast. Those who are not interested in the hunt anymore may have little more than a civilian vessel purchased from some other society.

Upgraded Predator

The Upgraded Predator is far larger and stronger than a standard Yautja, easily dwarfing the average hunter by 1,20 meter and outweighs it by 90-130 kg. Unlike regular Yautjas, it has bulletproof exo-skeletal skin that can reflect gunfire at close range and even shatter Wristblades that make forceful contact with its skin, terminating the need of extensive use of body armor during the hunt. It is revealed that it isn't natural; it has taken DNA from other dangerous creatures from different corners of the galaxy and used them to alter its genetics, enhancing its size and strength in process.

Its biology may not be its own doing, but the collaboration of several research-caste Yautja to create a form of super hunter of their race. Stargazer reveals that the Fugitive Predator had human DNA, meaning this hybridizing is not unique to the Upgraded Predator.

Characteristics

The creature known as the Predator is a bipedal humanoid creature standing approximately 2.5 meters tall, with the average weight of a male being between 140 and 220 kg. Most of their bulk is pure muscle with very little body fat, due to their predatory lifestyle and diet. Skin color is generally a pasty yellow or mottled with black spots, and their eye color is similarly yellow or green. On their head the Predator have what appears to be the equivalent of human hair, resembling long black dreadlocks.

Biologically, Predators are much stronger and faster than an average human, and possess lightning quick reflexes and dexterity. Their blood is green with a phosphorescent quality which may have properties that protect them against the caustic effects of their favorite prey's blood. As far as sensory perceptions, it is believed that they are similar (but superior) to humans and it is also a common practice for Predators to employ technology to further heighten their senses. And for environment, it appears that the Predators prefer hot and humid conditions with an atmosphere rich in nitrogen, no doubt due to evolution on their planet of origin.

The Yautja homeworld is a swamp-like planet with extremely tall trees and a heavy methanelaced atmosphere. The methane-laced atmosphere is caused by massive chemical releases from the stagnant waters and rotting animal carcasses and vegetation. The tall vegetation obscures the sunlight to let very little, if any, though to the planet surface.

Along with the thick mists caused by the atmospheric gases, the homeworld is close to a second planet, Praedra (pronounced prahdray) or Brother of the Hunt. Praedra is in a similar orbit around the system's sun, which obscures Homeworld's light for much of its solar year.

The homeworld is kept in a perpetual twilight. This twilight forced all creatures to adapt their vision or perish. The yautjas' vision lies almost completely in the infrared spectrum. Without a Yautja helmet's visual helmet, they are virtually blind in other more sunlit worlds.

The Yautja homeworld is very damp and wet with a lot of root like vegetation and trees. In the yautjas' early evolution, they once lived burrowing amongst the soft mud and still waters of the swamps, until they eventually evolved into a more amphibious life form that took to the trees as a form of Yautja. Over time they evolved further into a more anthropomorphic form as their tool using and building skills provided them more stable platforms upon which to live.

	Yautja		Upgraded Yautja	
	Characteristics	**Average**	**Characteristics**	**Average**
STR	2D6+12	19-20	2D6+20 (x2*)	26-27 (x2*)
CON	2D6+6	13-14	2D6+8	15-16
SIZ	1D6+20	23-24	1D6+32	35-36
INT	2D6+6	13-14	2D6+6	13-14
POW	3D6	10-11	3D6	10-11
DEX	2D6+10	17-18	2D6+12	19-20
BRA	2D6+6	13-14	2D6+6	13-14
HF	0/1D6		0/1D6	
Move	8		10	
Hit Points	26-34		50-52	
Mass	170-180 kg		260-310 kg	
Damage Bonus:	+2D6		+4D6	
Armor:	Energy armour (4/10 points)		*exo-skeletal skin (10 points)	

Skills:

Alertness 85%, Track 85%, Dodge 45%, Hide 90%, Climb 70%, Jump 60%, Listen 70%, Orientation 80%, Survival (forest) 90%, First Aid 30%.

Weapon	SR	Attack	Damage
Fist	8	60%	1D3+db
Wrist Blades	7	75%	1D6/1D8+db
Ceremonial Dagger	7	50%	1D4+2+db
Combat Stick	0	85%	1D10+1+db
Smart Disc		75%	2D6+2+db
Shuriken		80%	1D8+2+db
Maul	2	70%	1D10+1+db

Weapon	Mode	SR	ROF	Damage	PV	Range	Ammo	Fail
Plasma caster	SA	DEX	3	2D10+4	+6	200m	100	98
Micro Missiles	SA/A	DEX	3/10	2D6+2	+3	250m	60	99
Gauntlet Plasma	SA	DEX	3	2D6+2	+6	100m	60	97
Spear Gun	SA/A	DEX	3/10	1D6+2	+2	80m	60	99
Net Gun	SA	DEX	1	1D6/turn	0	30m	10	99

Self-Destruct Device: warhead 0.1 kiloton, GZ 75m radius, Rad level/6

Xenomorph, aka Alien

> *"There's a monster in your stomach. It's a real nasty one. They hijacked your cryotube and sold you to him and he put an alien in you. In a few hours it will punch its way through your chest and you'll die. Any questions?"*
>
> *Ellen Ripley – warrant officer aboard the USCSS Nostromo*

Aliens are made of polarized silica, which means they have more in common with plastic and glass than other carbon-based life forms. Their internal energy is electrical in nature and circulated via their acidic fluids. As a result, they do not require organic food to survive. They require it to regenerate and create resin, but not for basic survival. Their bodies are so sensitive to stimulus that very little is required to nourish them – it can be solar energy, static electricity, or direct current.

Aliens prefer warm, moist areas, as this is most conducive to their metabolism, but can live anywhere, even in a vacuum. Electrical devices especially stimulate them. This is why Aliens will congregate around generators and power plants.

Occasionally, a queen inherits a defect that makes her red-colored instead of black. All subsequent Aliens birthed by that queen are red. Red Aliens cannot tolerate the presence of black Aliens and attack them on sight, like ants. Alien broods that grow to sufficient size to allow a red Alien Queen to survive have started genocidal wars between the two Alien types that can consume entire planets.

Aliens possess the following abilities:

1. **Acid Blood:** All Aliens, from facehugger to adult, have acidic blood. For any physical attack causing damage to an Alien, there is a chance for "splash damage" from the acid blood. For all those within 2 meters of the creature hit, damage from acid splash is 1d6 per 6 points of damage inflicted by an attack causing a splash (round down) for a maximum of 10d6. Floor and surroundings are damaged as well for results of acid damage.

2. **Blindsight:** Using non-visual senses, such as sensitivity to vibrations, keen smell, acute hearing, or echolocation, Aliens maneuver and fight as well as a sighted creature. Invisibility, darkness, and most kinds of concealment are irrelevant, though the Alien must have line of effect to a creature or object to discern that creature or object. The ability's range extends to 20 meters. The Alien does not need to make Spot or Listen checks to notice creatures within range of its blindsight ability. They can also sense the location of creatures moving through water.

3. **Invisibility:** Because Aliens do not generate body heat because they do not have any external cellular activity. They do not show up on thermal sensors.

4. **Hive Mind:** All Aliens within 50 km of their queen are in constant communication. If one is aware of a particular danger, they all are. If one in a group is not flatfooted, none of them are. No Alien in a group is considered flanked unless all of them are.

5. **Scent:** This special quality allows an Alien to detect approaching enemies, sniff out hidden foes, and track by sense of smell. Aliens can identify familiar odors just as humans do familiar sights. The Alien can detect opponents within 10 meters by sense of smell. If the opponent is upwind, the range increases to 20 meters; if downwind, it drops to 5 meters. Strong scents, such as smoke or rotting garbage, can be detected at twice the ranges noted above. When an Alien detects a scent, the exact location of the source is not revealed—only its presence somewhere within range. An Alien can follow tracks by smell, depending on how strong the quarry's odor is, the number of creatures, and the age of the trail.

6. **Vaccum Resistance:** For all intents and purposes, Aliens do not need to breathe, at least, not in any way that has currently been observed. The resilient physiology of an Alien offers it total protection against the vacuum of space. As such, the Xenomorph can act indefinitely in such an environment without suffering any ill effects. Cold temperatures seem to have no effect on Aliens. Even the frigid gulf of space does not hinder them in any way. Aliens have proven extremely resistant to all forms of radiation, equivalent of a Rad Shield/4.

Alien stage I, Egg

The Alien eggs look like 1 meter footballs, weighing about 30 kg. Their leathery casing can protect the enclosed facehuggers for centuries, if necessary, waiting for the time an unsuspecting victim comes investigating. A possible target is then evaluated for its suitability as a host and if it is found to be so, the enclosed facehugger awakens and the egg opens, the top peeling open like an orange in a flower-like pattern to expose the now-awake and ready facehugger. Using a form of the queen's "prey call" ability, an intended victim is caught in a mental vice and held for the springing attack by the hugger.

When isolated from a hive, a Drone will begin collecting hosts, typically incapacitating them by partially crushing their skulls. It will then cocoon its victims in a secreted saliva resin, introducing a series of enzymes and growth hormones to the hosts in order to transform them into alien eggs. This process is called ovomorphing. Using the developing barb on its bladed tail, the Drone inserts genetic material from Manumala noxhydria into the host's eggmorphing body, allowing the newly formed egg to incubate a new Facehugger and thus continuing the alien's life cycle. If conditions are right, a new Queen will be along in short order. The ovomorphing process typically takes 24–36 hours to complete.

Alien stage II, Facehugger

Manumala noxhydria is a parasitic form of Xenomorph designed for one task only —the implantation of Plagiarus bacteria within a living host. Coming in a variety of sickly yellowish to brown flesh tones, a Facehugger has a small body, eight spider or crab-like fingers, two large breathing sacks, and a long and powerful tail which it uses to spring itself onto a startled host's face. The Facehugger clutches its fingers around the victim's head, wraps its tail around their throat, and emits an anesthetic that renders the host unconscious, before inserting its proboscis down the creature's throat. There are several different Facehugger types which appear to vary only slightly in appearance. The major difference is the type of seed they carry—be it for a Praetomorph, Xenomorph Drone, or Queen.

The facehugger is short-lived outside the egg, which normally protects it. It will be dead within a few (1d4+1) hours after leaving its egg. Armed with a long grasping tail, a spray of highly-concentrated acid and the single-mined desire to impregnate a single selected prey using its extending probe, it will fearlessly pursue and attack a single selected target until it has succeeded in attachment or it or its target is dead.

Facehug: On a successful grapple attempt from the improved grab, the creature attaches itself to the face of its victim. If the target's face is protected (by helmet face plate for example) the hugger will use its acid spray to remove the obstacle. Use an acid blood attack of 20 points to attack the armor. If it fails, the alien cannot attach, but may grapple normally. If the victim is unconscious, the helmet may be opened or removed in one round. If attacked while attached, slashing or piercing weapons will do normal damage but have a 50% chance to do equal damage to the "host". This will also release the creature's acid blood on the surroundings, have a 10% chance per point of damage done of triggering the creature's acid mist attack into the host's face and chest interior and trigger its strangulation attack. Bludgeoning weapons do no damage to the hugger, but all damage from the impact is transferred to the host.

Implant: Unless attacked, (the removal attempt counts as an attack) the victim is kept alive but unconscious (at 2d4 below 0 hp) until impregnation is complete in approximately 24 hours (20+1d6 hours). The facehugger then detaches and dies and the victim regains consciousness until the chestburster is born.

The number and type of embryo implanted by a facehugger is determined by the size and mass of the host. If the host is dead, only drones can be produced. One drone can be implanted for every 15 kg of mass (minimum). If the host is alive, then any type of Alien can be produced, including a queen or praetorian. One praetorian embryo can be implanted for every 25 kg of mass. Only a single queen embryo can be implanted in a minimum mass of 50 kg – but only one can be implemented regardless of host size. If the host dies after implantation but before the chestburster is born, the Alien automatically grows into a drone. This gestation period takes 1d4 hours for the drone and praetorian chestburster and 7+1d4 hours for a queen chestburster.

The only way to remove the embryo between the time of implantation and birth is through surgery with the Surgery feat and a Treat Injury check. If the check fails, the surgeon can try again, but each attempt (successful or not) deals 1d6 points of damage to the patient.

Strangulation: If in danger of being killed while attached, the hugger will loose its sleeping poison on the victim in addition to constricting for maximum damage as it goes through its death throes. The victim must make a Stamina Roll or die. It requires a STR vs STR to remove the tail from the victim's neck. Strangulation damage occurs until the tail is removed.

Characteristics: STR 19, CON 10, SIZ 3, INT 2, POW 4, DEX 21, MOV 8, HP 13

Damage Bonus: +0

Armor: none

Acid Blood: 2D6/1D6/1D3 damage points for 1D3 rounds

Weapon	SR	Attack	Damage
Improved Grab	8	40%	1D6+db
Strangulation	8	30%	2D6+db
Constrict	2	30%	1D10+1+db

Alien stage III, Chestburster

The alien grows within the host animal's chest, reaching a point of maturity where it is no longer dependent on the host for survival. While most hosts feel sick to their stomach as the parasite grows within them, some comment that they feel better than they have in ages. As the organs of the host are transformed into the embryonic alien, the host's ribcage is also softened to a point where the Chestburster can perform the act after which it is named. Gestation complete, the creature erupts from the host, killing it from a combination of massive tissue damage, blood loss, and organ transformation. A newly birthed alien exhibits different traits depending on its type.

It weighs a little over a pound and looks like a cross between a drone Alien and a facehugger: it has the head and upper arms of an adult, but retains the long, powerful tail of the facehugger.

Chestbursters are ravenous little beasts. They grow at incredible speed and require a massive supply of matter – even inorganic materials. A chestburster will consume a total of two times its eventual adult weight. Roughly, one-fourth of what it consumes will be hydrocarbon-based matter (plants, animals, plastic), one-half will be inorganics (glass, silicon, dirt) and one-fourth is water. All these materials are readily available in the most environments. Given the right materials, a chestburster grows to full size in 1d4 hours, molting once per hour. If a chestburster does not find enough food within three days, it dies.

Characteristics: STR 5, CON 12, SIZ 2, INT 4, POW 4, DEX 21, MOV 10, HP 14

Armor: chitine (1 point)

Acid Blood: 2D6/1D6 damage points for 2 rounds

Between the time the facehugger detaches and dies and the chestburster is born at the end of gestation, the host is totally unaware anything is amiss, except perhaps for being very ravenously hungry. At the time of the chestburster's appearance, however, this changes. Gripped in horrible pain, the host's chest us torn apart from the inside out as the chestburster forces its way into the world. This usually causes the death of the host, causing 4D6+5 HP damage. Should the victim survive this trauma, damage continues at the rate of 1D6 HP per round until stabilized by First Aid or healing drugs doing more than 10 points of healing. Birth takes 1d3 rounds.

Alien stage IV, Drone & Stalker

Now young adults, Stage IV Xenos are able to adapt a bipedal stance, even though they might not always make use of it. Their now fully polarized skin is near black in tone; they have a bladed prehensile tail, six-fingered hands with enlarged nails, pronounced ribs, and translucent to opaque smooth-domed heads. In addition to their metallic, toothy mouths, they have an inner set of jaws that can strike like a piston—a favored mode of attack.

Stage IV Xenomorphs have four dorsal tubes affixed to their backs. While some have theorized the tubes are used for spinning and cocooning the resin for their hive, that has generally been discounted as a fallacy. The current line of thinking is that the tubes are a type of breathing apparatus, filtering out airborne toxins and allowing the creatures to breath underwater. However, as Aliens have been observed surviving in the vacuum of space, it is possible that they do not need to breathe at all.

■ **Drone:** Sometimes called Lurkers, Drones stand 2.4 meters tall, and are stealthy ambush hunters. Their tails end in a deadly hooked blade and

rudimentary barb for Ovomorph injection. In many ways, Drones are the most alien of the species. It is theorized that the strange behavior often exhibited by Drones is due to them reaching young adulthood without establishing a connection to the alien hive mind. The stealthy creatures' fluid yet awkward movements and unorthodox reactions to stimuli belie their methodical intelligence. As much as a Stalker acts like a feral animal, a Drone plots. The ebon Drone is a clever yet single-minded iteration of the Xenomorph. Development will arrest at Stage IV unless a Queen's pheromones cause it to molt into a Sentry or Soldier—whichever form the hive is most in need of. Until then it will eat, gather hosts for ovomorphing, and sleep. When it evolves to the next stage, it joins the hive mind.

■ **Stalker:** Averaging about 2.7 meters tall and comfortable moving on two legs as well as all four, Stalkers are the highly aggressive adult form. The Stalker is believed to be an evolutionary dead end for the Praetomorph, as no encountered specimen has ever metamorphosed further. It also differs in that it has no biomechanical endoskeleton, and its teeth are translucent bone instead of metal. They are bigger, more powerful, resilient, and more resistant to fire than standard Xenos—they just happen to be less intelligent and more animalistic in nature.

	Drone		**Stalker**				
	Characteristics	**Average**	**Characteristics**	**Average**			
STR	2D6+8	15-16	2D6+10	17-18	Move	10	
CON	2D6+6	13-14	2D6+8	15-16	Hit Points	38-43	
SIZ	1D6+22	25	1D6+25	28	Mass	120-160 kg	
INT	2D6	7-8	1D6+2	5	HF	0/1D6	
POW	2D6	7-8	2D6	7-8			
DEX	2D6+12	19-20	2D6+12	19-20			
Damage Bonus	+1D6		+2D6				

Armor: chitine (5 points)

Acid Blood: 2D6/1D6/1D3 damage points for 1D3 rounds

Weapon	SR	Attack	Damage
Claw	8	40%	1D6+db
Bite	8	30%	2D6+db
Tail	2	30%	1D10+db

Skills:
Alertness 65%, Track 60%, Hide 80%, Climb 80%, Jump 60%, Listen 40%.

Alien stage V, Soldier & Sentry

As the hive mind takes a hold of them at Stage V of their development, Stalkers and Drones molt to assume specialized roles within their community.

■ Soldier: Referred to as a Warrior, a Soldier Xenomorph is the adult form of a Drone. As the alien matures, the creature's dome loses its form and melds with the ridged tissues beneath it. The alien's head begins to polarize and harden, forming an armored carapace. Blades will begin to grow from the Xeno's elbows, and its hands will mutate into five-fingered claws, dropping the sixth digit. Blue-black in color, Soldiers are nimble and attack en masse. The Soldier's tail has a barb at the end with a toxin that can cause paralysis in most known lifeforms. Once incapacitated, the Soldier will carry its prey back to the hive to be impregnated by a Facehugger.

■ Sentry: After Stalkers have secured a hive and a source of hosts, they mature into Sentries. Like Soldiers, their carapaces become ridged and armored. They are still incredibly fast and dexterous, with specialized gripping hands and feet that allow them to scale walls and ceilings with greater efficiency than other Xenos. Attuned to their Queen's needs, they will back off or attack as she signals. Also called Defenders, Sentries will not hesitate to sacrifice themselves to keep hive invaders at bay and protect their Queen.

	Soldier		Sentry				
	Characteristics	Average	Characteristics	Average			
STR	2D6+12	19-20	2D6+10	17-18	Move	10	
CON	1D6+12	15	2D6+10	17-18	Hit Points	40-45	
SIZ	1D6+22	25	1D6+25	28	Mass	150-170 kg	
INT	2D6+2	9-10	2D6	7-8	HF	0/1D6	
POW	2D6	7-8	2D6	7-8			
DEX	2D6+12	19-20	2D6+12	19-20			
Damage Bonus	+2D6		+2D6				

Armor: chitine (6 points)

Acid Blood: 2D6/1D6/1D3 damage points for 1D3 rounds

Weapon	SR	Attack	Damage
Claw	8	50%	1D6+db
Bite	8	40%	2D6+db
Tail	2	40%	1D10+2+db+toxyn POT/Soldier's CON

Alien stage VI, Queen

The mother of the hive, at six meters tall or more, the alien Queen is perhaps the strongest and most intelligent of the species. While any adult alien is capable of initiating ovomorphing in a host organism, only Queens have the ability to lay eggs en masse. When her first molt is completed and the Queen is fertile, her Sentries spin a resin cradle that holds her suspended above the floor of the hive. The Queen then grows an enormous egg sac that soon becomes distended and engorged with developing eggs. As each new Ovomorph is ready, she deposits it on the ground via ovipositor for her Workers to spirit away to nearby cocooned hosts.

Starting as a facehugger within one of the leathery eggs, like any other of her kind, her life becomes different from the others of her kind as her gestation inside the host is longer than that of drones or soldiers, six to seven days as opposed to two days for the "lesser" creatures. When initially infesting a new planet, Alien queens can delay their chestbursting. All implanted eggs will be Queens to ensure maximum infection.

After the maturation of the embryo, the chestburster makes its appearance with usual consequences to the. This chestburster is a little different in appearance than the ones that grow into drones or soldiers, having usable arms and bring a little smaller, but for game purposes, the queen-to-be can use the same statistics for the chestburster given. She now spends the next few days to week or so in the form of a growing, evolving chestburster until she matures into the Princess stage.

As a Princess, she is treated as royalty. Any Alien will obey her as they do the Queen, unless ordered otherwise by the Queen. If alone, she can hunt for prey herself better than a drone and in fact as well or better than a soldier, though she is not as tough as the bred fighters initially. Progression through the Princess stage will take from between one to up to seven days to grow into the Immature stage when growth of her egg sac begins.

Almost all (¾) growth at the Immature stage goes into her egg sac. She loses her mobility as the egg sac grows (cannot run and no longer has freedom or motion on non-floor surfaces if attached). With the approach of the end of this stage she cannot move at all without assistance. She is the prisoner of the egg sac. At this stage her mental abilities begin and she can begin to use her highly acidic spittle as a spray to help defend herself in her less mobile state. Adding 2D6 days of growth, she is soon to the next stage and ready to found her own colony.

She is now a New Queen, immobile but now served by drones and soldiers given to her as a "dowry" of sorts by her mother. Carried by her new entourage to the already scouted site of her new hive, she now settles down to her duty to her eggs. By this time, she can lay eggs at the rate of two to four a day. Her mental abilities are increasing and she can now call prey to her and her hive. While evidence exists to suggest she does so via a combination of pheromones and subsonic vocalizations, there are company consultants who believe she communicates telepathically as well, "speaking" with her children over immeasurable distances.

The next stages of growth, Established and Mature, feature the slowing of her growth as more and more of her energy is dedicated to egg production. Her abilities increase and she is a force to be reckoned with. Finally as a Mature Queen, she can produce her own princesses and spread her kind's power even more widely. She lays more and more eggs and her growth slows to almost nothing as she fulfills her potential. This can take a year or more for each of these stages.

If she lives long enough, she may become the Queen Mother. There can be only one Queen Mother. Should the existing Queen Mother die, all the other mature Queens instinctively know and will telepathically choose a new one among them to fill this role. Only in this way can one slow the egg production to the point that growth to this stage becomes possible. Upon reaching the required size and abilities, she once again becomes an egg machine, gaining further size very slowly.

If the Queen has to fight, the hive is in trouble. The Queen will do whatever it takes to beat off the attacker, including sacrificing herself by disconnecting herself of her egg sac and joining the fight physically. She will order her eggs to disgorge a horde of facehuggers to overwhelm the foes with their acid (if they can "take" the foes, so much the better). A Queen tied to her egg sac is at a severe disadvantage in combat. Her mobility is almost nil; she may adjust her body only by five feet per round from side to side; the egg sac is immobile. She may use her attacks on any foe that gets within reach, but while attached but her tail attack cannot be used. The Queen dies if her main body is killed, even if the egg sac still has hit points. Note, however that her healing is much faster when attached. This makes "killing" the egg sac desirable, especially given its vulnerability.

Detachment: If her egg sac is seriously threatened, or if the situation demands it, the Queen may sacrifice herself by detaching herself from her egg sac. This transforms her into the "detached" form but she will die within 2d4 days after detachment due to trauma suffered in the process. The detachment process takes 1d4-1 rounds to complete. During this time treat her as stunned, she cannot attack and cannot defend herself.

Rage: After detachment, the Queen goes into a frothing rage. She gains +4 to Strength and +4 to Constitution. The Queen cannot end her rage voluntarily. While raging, the Queen loses her mental attacks. Note the detached Queen takes any damage her main body has taken while attached (if any) with her into the detached form. After detachment, her body has a reserve egg sac containing 2d3 of the "emergency" eggs (see eggs for details). This allows her the last chance to try to establish a new colony before she dies.

Royal Jelly: Scientists are just now investigating the properties of the potent jelly contained in the egg sac of a Mature Queen. Even in its raw form it is a powerful, yet unpredictable substance. When purified and processed properly, it can be used to produce powerful concoctions. But it carries a danger along with the power.

Alien Queen Table

stage	STR	CON	SIZ	INT	POW	DEX	HF	HP	Mass (kg)	Eggs/ day
Princess	18	14	32	14	10	15	0/1D6	46	400	–
Immature	22	17	36	15	10	15	0/1D6	53	600	0
New Queen	26	20	40	16	12	14	0/1D6	60	800	1d4
Establish	32	24	44	16	14	12	1/1D6	68	1200	1d6
Mature	34	26	47	17	16	10	1/1D6	73	1400	1d10
Mother Queen	40	28	50	17	18	10	1/1D6	78	1600	2d10

Organization:

- Princess Hive: 1 princess or immature, 1d6 soldiers, 1d6 stalkers, 2d6 drones
- New Hive: 1 New Queen, 1d6 soldiers, 2d6 stalkers, 2d6 drones, 1d6 sentries, 2d8 eggs
- Established Hive: 1 Established Queen, 4d6 soldiers, 6d6 stalkers, 3d8 drones, 2d8 sentries, 10d20 eggs
- Mature Hive: 1 Mature Queen, 4d8 soldiers, 6d8 stalkers, 3d10 drones, 2d10 sentries, 20d20 eggs
- "Mother" Hive: 1 Queen Mother, 4d10 soldiers, 6d10 stalkers, 3d12 drones, 2d12 sentries 10d100 eggs

Note: except for Princess, all Queens start as Attached.

stage	Armor	Claws		Bite		Tail	
		Attack	Damage	Attack	Damage	Attack	Damage
Princess	6	50%	1D6+2D6	45%	2D6+2D6	45%	1D10+1+2D6
Immature	6	55%	1D6+3D6	50%	2D6+3D6	50%	1D10+1+3D6
New Queen	6	60%	1D6+3D6	55%	2D6+3D6	55%	1D10+1+3D6

Establish	7	70%	1D6+4D6	60%	2D6+4D6	65%	1D10+1+4D6
Mature	7	80%	1D6+4D6	65%	2D6+4D6	75%	1D10+1+4D6
Mother Queen	7	85%	1D6+5D6	70%	2D6+5D6	85%	1D10+1+5D6

Acid Blood: 3D6/2D6/1D6/1D3 damage points for 4 rounds

Alien Hit Point Table

	Facehugger	Chestburster	Stalker	Drone	Soldier	Sentry
Legs	3	3	8	8	9	9
Abdomen	–	3	8	8	9	9
Chest	6	6	16	16	18	18
Arms	–	–	8	8	9	9
Head	–	3	8	8	9	9
Tail	6	3	8	8	9	9

	Princess	Immature	New Queen	Establish	Mature	Mother Queen
Legs	12	13	15	17	18	20
Abdomen	12	13	15	17	18	20
Chest	24	26	30	34	36	40
Arms	12	13	15	17	18	20
Head	12	13	15	17	18	20
Tail	12	13	15	17	18	20

Alien Hybrid

It is believed that Alien DNA is sometimes affected by the characteristics of its host. This explains the dog-like Alien on Fiorina 161, which had no back spines and ran on all fours. There are rumors of even more bizarre Aliens, from armless snake-like Aliens to completely quadrupedal versions. With the dizzying variety of life found on other worlds, the combinations are endless.

Note the "Host" creature is destroyed in creation of an Alien, but may modify the final Alien form slightly. For creatures other than Humans used as "base" for Aliens: Base creature must be Animal or Humanoid. Base creature must be size Small or larger. Alien starting-size will be same as base creature (as adult – Aliens start as Diminutive and grow quickly to full size) then may advance in size by hit-dice up to two size-categories.

No matter its form, an Alien is hideous to behold, having the smooth Alien head, a black carapace, and the extended tongue.

Alien Technology

by Edward Simbalist, Phil McGregor, Rob Boyle, John Snear, Carmen Bellaire, Larry Niven & John Ossoway

> *"Do you know what my job description is? I'm in acquisitions. I look up and I catch what falls out of the sky."*
>
> *Will Traeger – MiliSci specialist operations*

The unnatural exists in many forms. The remnants of alien cultures and science have intertwined with human history and can be found buried in ancient texts of magic, in artifacts pulled from the Earth, or in alien concepts that haunt the human mind.

Much of the various types of alien technology recovered from ancient ruins across the Solar System and from the Roswell crash proved to be far too advanced to duplicate or understand. However, the materials from which these various devices were made could usually be analyzed and one of these materials can change the world.

Human cultists and Sorcerers may occasionally have access to ancient and otherworldly artifacts as well as to scientific marvels. Most humans would be unable to tell the difference between a piece of advanced scientific equipment and a magical artifact, as both are essentially beyond mankind's level of comprehension and ability to reproduce. Indeed, what mankind may consider to be high magic could well be technological in nature, and vice versa.

Forerunner Technology

> *"Unlocking the potential of these artifacts could change our conception of life itself."*
>
> *Doctor Catherine Elizabeth Halsey – Civilian Consultant and scientific adviser of the UEAF*

Blaster

Blasters fire a series of pulses of Nova-related energy (see Nova Guns). They are unaffected by smoke, haze, fog, aerosols, etc., except insofar as such conditions affect the firer's ability to see his target. Blasters also create 'fog' when their beams hit significant amounts of standing water (but not when firing through mere fog or rain). When fired at flammable targets, Blasters have a 5 to 20 chance of igniting flammable materials and will create plenty of smoke.

Blasters have a limited range under water (10% range increments) and comparable liquids. They have a slight but significant recoil, so only EVA/3+ personnel may employ them in freefall without the possibility of 'tumbling' and other unwanted effects. The beams are plainly visible in all conditions as bolts of brilliant bluish-white or violet light. The position of a firer can be determined quite readily, making mobility a necessity. The Blaster emits a sound reminiscent of sharply torn cloth blended with the whining scream of a ricocheting bullet. Heavy weapons have the undulating howl of a banshee as the pulse-bursts of energy tear across the intervening distance to the target.

	Pistol 5mm	Rifle 7mm
ROF:	3	3
Fire Mode:	SA/A (burst: 5/10)	SA/A (burst: 5/10)
Damage:	1d8+2	2d8+3
Penetration Value:	+2	+4
Maximum Range:	200m	1000m
Weight Unloaded:	1.2kg	3.5kg
Ammo:	20 charges in powercell* (0.2kg)	30 charges in powercell* (0.3kg)
Fail:	97	97
HP:	14	20
STR/DEX:	7/5	9/8

* All Blast weapons utilise a powercell to energise their firing systems.

Force Screen

A force screen, sometimes known as an energy shield, force shield or deflector shield, is a barrier made of energy, plasma, or particles. It protects a person, area, or object from attacks or intrusions. This technology is created as a field of energy without mass that acts as a wall, so that objects affected by the particular force relating to the field are unable to pass through the field and reach the other side. There is ongoing scientific research into real force fields, primarily to protect against radiation.

Field Tech force-screen units generate a protection field around the wearer that can be set for any value between 11 and 20, determined by the user. The TBX generator produces a protection field that can absorb tremendous amounts of energy. Unless penetrated outright, the screen will absorb the full destructive energies of all offensive weapons directed against it.

Damage directed at the screen must overcome this force field on the resistance table or be deflected entirely. Each such deflection drains the force field's energy stores by an amount of energy equal to the damage deflected and, if overcome, require a full round to re-establish.

Portable Force Screens are available for installation in personal armor. The Units are about the size of a carton of cigarettes and give 'standard' screen protection of 100 charges against penetrations by projectiles and energy bolts.

From time to time a critical hit or an equipment malfunction causes a reduction in Force Screen strength by 1d20 points.

Frictionless Armor

Forerunners originally developed frictionless armor as a protection against gravel storms, but in the New Horizon era frictionless armor is used to protect against projectile fire, such as bullets. A projectile or archaic missile weapon striking the frictionless surface ricochets harmlessly away unless it strikes directly perpendicular to the surface. If a primitive melee weapon is deflected, the attacker's player must successfully make a DEX x 3 roll or his character drops the weapon.

The wearer of frictionless armor should make a luck roll every time the character is hit with a projectile, or a primitive melee weapon. If the luck roll is successful the projectile will be deflected harmlessly off in a random direction. It is unlikely that this ricochet will hit another target, but if the GM decides that it is possible he may ask adventurers in the path of the ricochet to make luck rolls. When a projectile bounces off frictionless armor it loses 50% of its original energy, and damage causing potential.

Projectiles of considerable mass or speed do normal damage if they hit — no one will survive an avalanche or a crashing asteroid because they wear frictionless armor. Completely frictionless armor is unusable; it needs a number of Achilles points — including the soles of the feet, the palms of the hands, elbows, knees, joints, etc. A special success hit on a wearer is assumed to have hit an Achilles point, doing damage unmodified by armor. A transparent frictionless visor covers the face of the wearer. Frictionless armor impedes DEX by 2 points.

An adventurer who falls while wearing frictionless armor has difficulty getting back to his feet. The explorer's player must roll the character's DEX x 2 or less on D100 before the explorer can stand.

Enc: 1.2 kg

LightSaber

Of all the weapons developed for hand-to-hand combat, the LightSaber is the most powerful. Only a Katana Master can use it to good effect. The LightSaber consist of a 300mm hilt massing 1.25kg. It contains a PPK500 continuous TMTX forcefield (akin to a Blaster bolt) which has the penetration power of a Blast HMG, and also its wounding factor. The unit is developed from an artifact found on Formalhaut V by the Terran archaeologist Dr. T. M. Steiger in A.D. 2245, and it appears to have been one of the most prized melee weapons of the ForeRunners. The LightSword can reach from 0.5m to 2m. The powersource is a KTAM Klysestron 7c anti-matter powercell which will effectively activate the unit for its normal span of use. If it strikes a weapon other than a ForceBlade or LightSaber, it has a 50% chance of sheering through it. When activated, the LightSaber is a deep violet mauve colour. When not in use, the TMTX field is turned off.

Weapon	Skill	Base	Damage	Special	Hands	HP	STR/ DEX	Fail	SR
LightSaber	sword	10	2D10+db* Fortitude roll	Cauterize wound	1 or 2	30	11/15	99	2

*Reduce the target's armor value by ½ (round up) versus this weapon.

Nova Gun

The Nova Gun is the ultimate in destructive energy weapons. This series of weapons was first developed from ForeRunner ordinance recovered by Xeno-archaeologists on Sigma Octanus IV.

Under manoeuvre drive, spacecraft attain such high velocities that ordinary Laser and Blaster fire is simply too slow to be effective. NovaFire is Tachyon-related, "phased" energy which arrives at a target's predicted position within nanoseconds. It derives its energies from KTAM (Klysestron Anti-Matter) charges exploded in the VVR forcefield reinforced ignition chambers of the weapons under stellar core conditions. The resultant bolt of energy passes through hyperspace to emerge at the target position. If the KCX3 energy bolt is correctly "phased" to synchronise with the BattleScreens of the target, a powerful enough bolt will penetrate. Ranges are considerable; the heaviest armaments capable of projecting a pulsed beam to distances of about 1000 LS (some 300 million kilometres) before the sub-space anomaly field of the energy bolt itself dissipates.

The Nova energy bolt produces molecular and atomic disintegration in any matter struck by the charge. A target under NovaFire seems to have multiple nuclear fireballs flaring against its BattleScreens and hull, giving rise to many popular names: NovaGun.

Psychic booster Alpha

This drug temporarily increases the available reserves of psychic power points in psychics. In game terms each does gives the psychic +2d4PP if taken when PP are at full strength, or +1d6 if PP are at a reduced level. These points are lost once used, or after 30+3d10 minutes, whichever comes first. Additional doses of the drug are ineffectual if taken within an hour of the last does.

Psychic booster Beta

A more potent form of the Booster drug.

Increases PP by +2d6 if taken when PP are at full strength, or +2d4 if PP are at a reduced level. Rules for duration and additional doses same as for Psychic Booster.

No psychic power enhancing drug can increase an individual's PP beyond double their normal PP maximum.

The abuse of Psychic Booster drugs can lead to the loss of psychic powers and physical debilitation. If a PC takes more than 3 doses in any 24 hour period, there is a chance (roll POWx3% to avoid) that drug overdose will occur 6 hours of the last dose. If overdose occurs, the PC lapses into unconsciousness, takes 1d6 HP damage and loses 1d4 SAN to horrific dreams. POW is reduced by 1d3.

Star Gate

A Star Gate is a wormhole gateway. The known gates within the solar system are located on the surface of naturally occurring astronomical bodies, be that a moon of Saturn (Pandora) or a trans-Neptunian object from the Kuiper belt (Orcus). None have yet been found without such a land-based connection (e.g., floating in space or in the upper atmosphere of a gas giant).

The gates are built from some sort of stable exotic matter whose full atomic structure scientists haven't come close to cracking. To touch and sight, however, the gates appear to be constructed from a timeless-seeming polished black metal with no signs of aging or wear and tear. Something about the gates' physical composition makes them difficult to look at, as if the viewer cannot quite focus on their outlines. Some onlookers have reported feelings of vertigo and nausea, while others have insisted that the gate outlines move on the edges of their visions, as if the lines are ref owing or the edges are vibrating at high frequencies. Due to this disturbing feature, most gate sites keep the actual gate structures covered.

Structurally, the gates themselves are partially enclosed by an irregular spherical cage composed of black arms that are bent and angled in unusual ways and sometimes interlocking. When new wormhole location is programmed into the gate, these arms physically change shape, move, and ref ow around the spherical gate area (suggesting they are made of some sort of programmable matter). The openings between arms are large enough for a group of humans to enter. It is suspected that the gate size could be programmable, but so far efforts to do so have failed.

When scientists try to physically move the Star Gate on Orcus, a devastating explosion ensued, all but wiping out the gate and the research station. The gate, however, restructured itself over the course of several days, though its location has now shifted to the bottom of a melted crater.

When the gates themselves are open, a sphere appears within the central area that is not so much black as pure nothingness. This sphere of darkness projects an aura of charged energy, and in fact ripples of green arc lightning cascade across its surface. Anyone or anything entering that sphere comes out the other side of the wormhole, through a similar gate, seemingly instantaneously. An unknown force field effect seems to prevent the atmospheres from the two connected gates from interacting.

Exactly how this wormhole is created is something that remains outside of humanity's comprehension. The generally accepted theory is that each gate acts as an anchor, allowing the fabric of space-time to be folded so that two such anchored places can be brought together, ripping a hole open between them so that a person can simply step through. It is unclear whether or not these wormholes are all preexisting, created when the gate was first established, or whether each wormhole is manufactured whenever the gate is activated.

Each gate can be programmed to open to numerous extrasolar locations. In fact, each gate seems to have a pre-programmed "library" of destinations. New gate connections can be "dialed up" from this built-in list, though there is nothing that indicates what the far side of the gate will be like. Old gate connections are closed when a new one is dialed up. Extrasolar gate locations have ranged from habitable planets and moons to deep space to truly deadly environments such as the crushing gravities and poisonous atmospheres of gas giants and the coronas of stars. Entering a gate is like walking through a door, though it's impossible to see anything beyond the gate's surface. One moment you're entering the black sphere at your starting location and instantaneously you're exiting the sphere at your destination location.

Numerous personnel have entered one side of a gate only to never appear on the other side, despite those before and after them transferring through fine. On several occasions, wormhole connections have crashed mid-operation, sometimes as someone was stepping through, leaving them literally split in two on different worlds. In other instances, gate transfers have suffered horrible malfunctions, resulting in people coming through the other side literally turned inside out, melded with their equipment, or pulped as if by massive gravitational forces. Some expeditions report that stepping through a gate has interfered with their equipment, disabling it or creating other problems. A few people have also reported losing memories after a gate transfer. Most of these problems have been chalked up to difficult controls and an imperfect understanding of gate functions, but some conspiracy theorists suggest that outside forces may be influencing gate operations.

Star Gate Backfire Table

Distance	Failure
1 AU	1%
10 AU	2%
100 AU	3%
1000 AU	4%
10,000 AU	5%
1 LY	6%
10 LY	7%
100 LY	8%
1000 LY	9%
10,000 LY	10%

2d10	Backfire
2	Meeting with 1d6 Dimensional Shamblers
3	Meeting with 1d3 Hounds of Tindalos
4-5	Body turned inside out
6-7	1d6 SAN loss
8-9	Memory loss: 1d3 x 10% skill loss
10-11	Memory loss: 1d6 x 10% skill loss
12-13	1d3 POW permanently lost
14-15	2d6 SAN loss
16-17	Mid-operation-crash (body or member split in two)
18	Body melded with equipment
19	Meeting with 1d3 Star Vampires
20	Meeting with Yog-Sothoth: body crushed

The StarStone

The StarStone, also called the stone of M'nar, is a luminescent disk about 40mm in diameter and 10mm thick in the centre, tapering at the edge to about 1mm thickness. It thus has a characteristic lens shape. The StarStone has the power to focus an Async's mental faculties and to tap the vast energies of the 'Force,' the mysterious source of power available to psionic Asyncs which permits them to perform truly impressive feats of mental power.

Most characters will have to discover StarStones; they cannot be manufactured by the technologies of current civilisations. Such crystals will likely be 'dormant,' meaning that they have not been keyed to the mental patterns of any living, sentient creature with psionic 'openness.' These Forerunner devices will instantly arrange their molecular structures to mirror the mental pattern and aura of the first psionically 'open' character to touch them. Once it is so 'keyed,' the StarStone will become starkly antithetical to any other life form which handles it when it is not in contact with the owner, acting as the most virulent poison possible so long as it is in contact with the un-insulated flesh of the being handling it. However, if a StarStone is removed from an owner and allowed to sit for 2d6 months, it may be able to survive the absence from its owner and become receptive to the mental patterns of another. The chance of this happening is equal to 20 minus the POW score of the previous owner. If the StarStone does not meet these conditions, it will sublimate away.

A StarStone will also greatly augment the magnitude and range of psionic talents. PSI score is enhanced by 1d6 and PP cost are divided by 2 (round up).

Engineer Technology

> *"A superior species, no doubt. The hypersleep chambers will impress, I trust."*
>
> *David 8*

Biosuit

These pressure suits increase the wearer's strength, help them to process toxins, and act as armor against ballistic weaponry for 9AP. Helmeted, one of these suits will keep an Engineer alive in the vacuum of space. Scientists believe an engineer could survive in a toxic environment for at least one hour whithout helmet, as the biosuit will breath for them. The biosuit also acts as an advanced medkit, repairing damage to the Engineer's body and providing the wearer with limited sustenance and Rad Shield/3.

Cortical Stack

Cortical Stacks serve as a receptacle for the human consciousness or Digital Human Freight (D.H.F.). Located where the spine meets the skull; can be cut out. If the character's cortical stack can be retrieved, he can be resurrected and downloaded into a new body.

Cortical stack implants deploy a network of nanobots throughout the brain that take a snapshot of the mind's neural state, storing the data as a backup within the cortical stack. The average human's cortical stack backs up their ego 86,400 times per day. Only the most recent backup is kept within the stack; older ones are overwritten.

In the case of death, accidental or otherwise, a cortical stack can be retrieved from a corpse and used to recover the character, either as an android or by resleeving them in a new body. Cortical stacks are diamond-hardened and protected, so they may often be retrieved even if the corpse is badly mangled or damaged. If the corpse cannot be recovered or the cortical stack is destroyed, the backup is lost.

Cortical stacks may be excised from living people, but the process is usually fatal (or at least paralyzing) as it involves cutting through the spinal column.

Cortical stacks have an Armor Value of 20 and 20 HP for anyone attempting to destroy them.

Cost: E$4000.
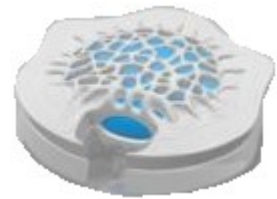
Diffusion-Field Generator

This compact device generates a field diffusing electromagnetic radiation passing through it, appearing visually as a fuzzy smeary sphere of light cut off at the bottom by the surface on which the generator rests.

The diffusion field generator creates a 2 meters radius field around the device, acting like a lens to diffuse or divert applicable EM wavelengths to fill the whole field. Therefore aiming at a specific object in the muddled mass of images within the field is impossible. Adventurers firing most weapons into the field have their percentage chances to hit reduced by half. Sonic stunner percentiles will not be reduced — the beam is wide enough to make up for the aiming difficulty. But reduce the chance to hit with narrow-beam weapons such as lasers to one-quarter normal.

The field reduces ranged weapon attack skills percentiles by half; reduces damage done by specified energy weapons to 25% of normal.

Persons within the field have as much trouble seeing out as attackers do seeing in unless they wear the goggles provided with the field generator. The goggles are linked to the shifting resonance of the field, and are worthless if unlinked to the target generator. Persons within the field can see within the field with no difficulty.

Enc: 1 kg.

Holography

Engineers record everything within their installations using a memory gel that coats the interior walls and ceiling. When the proper electrostatic currents are channeled through the gel, holographic playback will occur in the actual environment, producing fuzzy, blue particle representations of various recorded events. Most evidence of the Engineer's past actions have come from such recordings.

Immortality Alpha

Even rarer than Immortality Beta, this antiagathic stops aging at 21 physio-years as well. Once administered the recipient will not age at all for an estimated 1000 years. Resistance to most diseases is total. Healing rates are tripled over normal values (but not for Quicktime). The recipient also has a 90% chance of regeneration after any death, unless the brain has been damaged or the body has been totally burned, disintegrated, etc. Such drugs are not readily available anywhere and must be 'found'.

Cost: E$250 000+ on the open market, if available.

Immortality Beta

An extremely rare anti-agathic dating to forerunner times which arrests ageing at 21 phsysio-years, reducing the patient's age by 1 year per month if he is over the 21 Terran year limit. Once administered, Immortality Beta remains effective for 20 Terran years.

Cost: E$50 000.

Impact Armor

Impact armor in its inactive state this somewhat comfortable, soft, flexible body suit is about 1cm thick. Even this thickness impedes wearer DEX by 1 point.

Upon contact with any object moving at a high velocity, impact armor becomes as rigid as tungsten steel, distributing the impact over the area of the suit, thereby reducing incurred damage and protecting the wearer for 10 AP. This requires no energy input, but thousands of wearings weaken the effect.

Impact armor responds to changes in pressure, not to the pressure itself. Thus a character who is hit and pinned by a large object will have the protection value of the armor subtracted from the initial impact damage, but none will be subtracted from damage received due to the sheer weight of the object. Impact armor protects the user against projectile weapons, all archaic weapons, and all other sharp impacts doing 25 or less hit points of damage. Energy weapons are unaffected by impact armor.

Impact armor has no effect against damage from falling, or other types of damage in which the energy which causes the damage is held by the wearer himself. The suit becomes rigid upon impact and the wearer will be crushed by his own velocity inside the armor. Impact armor will not protect against damage incurred from high pressures, such as an adventurer being run over by an ATV, though the armor becomes rigid on initial contact.

Impact armor retains its rigidity for two impulses after impact. The wearer can take no physical action during this time. The armor responds only to quick changes in pressure, not to pressure itself. A character wearing impact armor who is pinned under a rock takes full crush damage caused by the rock's weight, but did not take full kinetic damage when the rock fell on him.

A character wearing impact armor must succeed with his dodge roll each time the armor goes rigid or lose his balance and fall.

It is possible to keep incapacitated a character wearing impact armor by administering a series of sharp impacts. After four impulses of rigidity, the character must receive a successful DEX x 2 on D100 or fall; after six impulses, he must get a DEX x 1 roll, and after eight impulses he definitely will fall.

Enc: 1.4 kg

Lepton Gauntlet

This dreadful weapon fits over the entire arm of the user right up to the shoulder like an armoured sleeve and seems to be constructed of some kind of unidentifiable, plated polymer chitin. At a mental command it projects a beam of searing blue energy that apparently does the impossible – it destroys matter, erasing it from existence by undoing the quantum braiding that forms the basis of all matter and causing it to fade into the dimensional background of the universe.

The shield does not prevent the shot hitting the target, it passes straight through it. This weapon deals mashing damage. It can fire up to 20 times and recharges itself automatically at a rate of 1 shot per hour without any outside energy source, how it does this is a mystery but some scientists postulate that it may be able to tap zero-point energy from subspace via some obscenely advanced mechanism hidden inside. Because only a few of these have been discovered, and not by the same party, no-one has dared to deconstruct one, preferring to analyse its properties rather than risk destroying it.

ROF:	1
Fire Mode:	SA
Damage:	5d10+5
Penetration Value:	+10
Maximum Range:	50m
Weight Unloaded:	2kg
Ammo:	20 charges
Fail:	99
HP:	20
STR/DEX:	5/5

Neuronic Whip

The Neuronic Whip is developed from a ForeRunner device discovered on AgoI VIII. Technically, it is a non-lethal weapon, but most beings would probably preferred to be hit by a blaster bolt. The Neuronic Whip causes extreme pain by directly stimulating the nervous system and can bring unconsciousness by overloading the nervous system with ravening pain impulses. The effect is exactly as described for PainBlast (Telepathy).

Actual use of such a terrible device may be subject to perpetual banishment or even the death penalty. The device is powered by a 0.1kg mini-cell with 100 charges. Each application of the rod exhausts 1d6 charges. Tech/7 weapon, used like a Foil.

Weapon	Skill	Base	Damage	Special	Hands	HP	STR/ DEX	Fail	SR
Whip	foil	05	1d6+1d3+½db* 1d6 SAN**	entangle	1	10	7/9	97	1

*if Stamina roll unsuccessful, the target is stunned for 2 minutes.

**if Fortitude roll unsuccessful, the victim will attempt to flee.

Protomolecule, aka Agent A0-3959X.91-15

The protomolecule, also known as the Phoebe bug, is an infectious agent and genetic accelerant of extra-terrestrial origin both discovered on Phoebe and on LV-223. Phoebe was intended by the Engineers as a weapon and launched at a trajectory towards the Earth, which had only developed primitive life at the time. It was, however, captured by Saturn's gravity, where it became a satellite, and settled there as one of its moons.

The protomolecule (proteus nanovirus) is a bionanomachine that can take control of already-differentiated cells. At present, a proteus is limited in making "soft" changes, affecting skin cells, blood cells, genetic material, or the production of

specific protein, rather than "hard" changes that involve reshaping existing organ, muscle, or bone. However, the protomolecule can produce more extensive transformation, literally rebuilding a person. It will alter its host in a variety of ways, sometime melding the biomass of multiple hosts and repurposing specific organs to carry out new functions. Changes beyond this point seem to be highly variable and unpredictable.

The protomolecule can infect life forms on contact (it is anaerobic, and cannot be transmitted through the air). It spreads internally and starts altering its host that becomes disoriented and feverish, with symptoms similar to a hemorrhagic fever. Human hosts at this stage are nicknamed "vomit zombies" because of their tendency to stagger around, spewing the brown fluid, which is highly infectious to other creatures.

Yautja Technology

> "Unknown vessel detected! Shit, it just appeared out of nowhere!"
>
> *Unnamed dropship pilot*

Star faring

TISA Drive

The Trans-Gravitic Interphased SubLight Anomaly (TISA) drive, releases from the constraints of inefficient, fuelgobbling reaction motors, Newtonian laws of motion, and the physical limitations of personnel to withstand high acceleration for sustained periods. TISA powered spacecraft are capable of attaining speeds approaching that of light. "Phased out" of the normal universe by the TISA anomaly field, ships become almost "mini-universes" in their own right.

To the outside observer, a TISA powered ship appears to be an elongated teardrop of brilliant blue-white incandescence.

The event horizon of the anomaly marks a "connecting surface" which maintains a tenuous link between the ship and the external universe. A drag effect is exerted by the very fabric of normal space as it seeks to return the anomaly to the continuum. While it is theoretically possible for a ship to attain the speed of light under TISA, in practice the Torch drive encounters such tremendous resistance that velocities above 280 LS (light-seconds) have rarely been attained. Field strengths are so delicately balanced at high speeds that FTL hyperwarps are created when ships attempt to exceed design limits.

Warp Drive

The Warp Drive was found from an Yautja space wreck discovered at the bottom of the Coprates Chasma on Mars.

The FTL Warp Drive is a faster-than-light propulsion system which uses anomaly drive to send a Starship past the speed of light (a shade over 300 LS), "translating" it into Tachyon hyperspaçe. Under Warp Drive, a Starship becomes totally isolated. There is no longer an interface (anomaly "event horizon") linking the ship with the normal universe. To all intents and purposes, it ceases to exist. From the point of view of its crew, the entire universe ceases to exist as well. Thus Starships are undetectable under Warp Drive, but FTL combat is impossible. Each ship, unless physically linked to another, is in its own separate universe.

In FTL mode, a Starship "moves" faster than light because it is not "in" the normal universe at all. However, the crew cannot "look out" of the FTL Warp; until the Starship drops back below light speed, the universe is simply not there to see!

- Warp Factor: All FTL drive Units are rated according to a warp factor or the number of light years that the Starship can alter position in a 24-hour period.

- Fuel Consumption: Starships consume an appreciable amount of fuel (nuclear or anti-matter) in FTL travel. All drive Units are rated for a Cruising Speed, and fuel consumption is based on the amount of fuel expended to cover 100 LY at cruising velocities or lower.

- Planetary & Stellar Gravitic Disturbance Zones: Warp Drives will not function within the gravity fields of major planets and stars when the field strengths are too high:

Type	Zone
Major Planet	100 planetary diameters from the planet
Main Sequence Star	10000 LS from the star
Sub-Giant	20000 LS from the star
Giant	35000 LS from the star
SuperGiant	50000 LS from the star.

475

FTL Translation

Once a ship accelerates past its rated TISA velocity, it is almost irrevocably committed to a high speed run up to 300 LS (light-speed) and FTL translation. Such a run cannot be aborted without grave risks to both the TISA Manoeuvre Drive units and to the FTL Warp Drives. Any attempt to shut down carries a flat 60% chance minus 5% per expertise level of the Chief Drive Engineer that the FTL Warp Drive will malfunction. If the FTL Drive does go down, the effect has the same chance of cascading through the TISA unit and causing it to break down as well. However, naval vessels typically have auxiliary TISA and FTL drives capable of delivering about 5% of the main units' performance, so a vessel can still limp home while the crew is attempting to repair the damage (if possible).

Time Compression

There is sometimes (30% chance) a "time compression" phenomena experienced by Starship crews during an FTL hyperjump. In such instances, the apparent elapsed time in Warp is 1/288th of the normal period. For instance, on a 4.3 LY run, a "temporal compression" would reduce the time to 1/288 x 6.88 = 0.0239 hours or 1.43 minutes! If it could carry the fuel, such a ship would cross the 100 000 LY of the First Galaxy in 18 years and 96.67 days of real time, but a temporal compression would give the crew an awareness of only 23 days and same 31/2 hours elapsing since the start of the voyage. Temporal compression is optional.

Of course, these are times only for the FTL portion of the journey. Added to it will be the times required to run up to light-speed and the times to move through the stellar zone of gravitic disturbance at both the departure and arrival points.

FTL is actually a complex science based upon the manipulation of hyperspace. One of the truths of the cosmos that humanity has just begun to understand is that conventional matter and energy alone do not sufficiently describe the interactions of the cosmos. There are three other crucial components; the many dimensions of hyperspace, consciousness, and most importantly the hyperspatial energies that arise when different universes contact one another.

Hyperspace is both the home to the Other Gods and the Fallen Angels. A few ships that have vanished into hyperspace, never to be seen again may have encountered Great Old Ones or Fallen Angels during such a drive malfunction, but the odds of this happening are thankfully very rare.

Weapon & Armour

Bio Mask

The bio-mask is one of the main tools used by the Yautja. As well as performing the basic function of protecting a Predator's head, the helmet also grants the wearer access to multiple vision modes including zoom capabilities, facilitates Vocal Mimicry, and includes breathing apparatus, diagnostics, and visual and audio recording systems. The helmet often also incorporates a red targeting laser used in conjunction with a Plasmacaster.

The bio-mask is directly linked to a Predator's wrist gauntlet, which controls many of the helmet's functions. Together they form one of the most versatile tools used by the Predators, while the helmet itself is a distinctive aspect of their overall appearance.

The higher-class Bio Helmet performs the functions of the basic Mask, but also contains other devices. It can filter through five visual settings: Infrared, Ultraviolet, Thermal Imaging, Low-Light Amplification and Air Density Pressure (movement). The visual setting may also be modified for X-rays and Microwaves, with a built-in Magnetometer and a Geiger Counter.

The Predators use an infrared vision made in their helmets as their primary source of vision and a finely tuned EM Field Generator, which is used to see and hunt Xenomorphs. This gives the Predator a thermal imagining sensory where they use it to track, survey, and target their prey.

A Yautja's bio-mask has the ability to flash its eye area, turning them usually bright yellow. This is customization by the Predators. They use this visor-flashing ability for frightening or intimidating their prey to make them run.

Body Mesh / Padding

This is a basic 'wire' mesh, worn under a warrior's armor. Apart from providing electric-generated warmth, it is actually a component of the camouflage device's circuitry which allows cloaking of unarmored body parts.

Although, as the mesh is seen being worn by most Predators even when cloaking isn't necessary, it seems they were designed as 'jumpsuits' meant for casual wear in their crafts the closest they get to flight suits.

Ceremonial Dagger

The Ceremonial Dagger is a relatively new discovery, associated with the Blooding Rites of young Warriors. Its primary use is to remove the protective layer of skin of a Xenomorph, but could also be used as a close-contact weapon if need be. The Blade itself is made of either the bones or the 'resin' of a Xenomorph, making it resistant to their acidic blood.

Cloaking Shield

The camouflage is the ultimate in stealth technology. By bending light waves around the wearer, the suit makes them practically invisible. The shield uses a complex design of imaging devices, camera and mirrors. The cloaking shield is constantly taking images in all directions and using the imagers to display the image to the opposite side of the wearer. The cloaking shield, while powered by an extremely powerful computer, cannot always keep up with the quick actions and it doesn't grant true invisibility. An alert opponent would be able to notice the heatwave-like shimmer, especially noticeable when the wearer is moving.

The suit does not function well (if at all) immersed in water, and may be ineffective in environment saturated with material surrounding the wearer such as fog, rain, or dust.

Only mounted weapons are effected by the cloak. This includes concealed weapons like retracted wrist blades, collapsed spears or other weapons kept hidden by backpacks and so forth. Once extended or revealed, the weapon is visible.

This device comes in the form of a belt. The belt is controlled by a networked transceiver connection to the forearm computer. The device requires a large amount of energy to use. The shield can be used for 20 rounds before it runs out of energy. The shield requires 2 hours of non-use to recharge.

Combat Stick

The Staff is a self-powered telescoping spear that is merely one meter at its shortest length, but extends by two meters at each end. The combi-stick makes a formidable weapon for close range attacks, due to its length customisation.

The spear also has gyros in it to help keep the initial aim of the spear on target. It will continually correct the trajectory of the spear until the spear impacts a target. The spear is also completely made of xerbinium. Its battery lasts 2 years. In its longer form, the combistick has reach. A Predator can strike opponents 3 meters away with a combistick, but it can't use it against an adjacent foe

Made of nearly unbreakable alloys, sharpened tips on either end produce electrical charges as it slices through any surface.

Forearm Plasma Caster

This is undoubtably a retro-fit weapon installed by the warrior, as the weapon's use has only been recorded once. His choice was a Wrist Gauntlet projectile either some type of self-propelled rocket, or more likely a plasma energy bolt. This was the only remaining projectile weapon left after the warrior's Shoulder Cannon was disabled.

Forearm Rocket

This is a single mini-rocket, or gyrojet, which can be fired from a forearm launcher. The rocket inflicts a combination of fire and piercing damage. This is typically used to destroy vehicles and parts of buildings, which could be used for escape or cover by prey. A new mini-rocket can be loaded into the launcher in one standard action. When the rocket hits its target, it explodes like a grenade or other explosive, dealing its damages to all creatures within a 2 meters radius (dodging skill for half damage).

Glaive

The Glaive is very similar to the Naginata and may even be the same weapon, but adopted by a particular clan and personalised to each bearer and is a very effective long-reach polearm. It is twin-headed, capable of being spun a high speed and delivering a rotating barrage of slashes to an opponent.

Maul

The Maul is another weapon of personalised design. It may vary greatly in appearance, but its general usage is the same used in similar style to a sword, but its power is greatly increased by its counter-balanced design.

Mostly created from a forged alloy and double-edged, the Maul is capable of being used as a slashing weapon in all arcs of movement; but it can also be spun like the Naginata, to rain a barrage of blows onto a target.

Other designs are reminiscent of the 'mace heads' or 'morning stars' of the gladitorial era either solid material with protruding spikes, or forged from a metallic alloy and covered in pointed nail-like objects.

Medikit

Though not a weapon, the medikit is an indespensible Predator hunting item. It contains enough supplies to staunch blood-flow from bullet wounds, or even cauterise a lost limbs. While short on pain killers, the kit is highly effective.

The medikit includes surgical blades, a shrapnel extractor, wound clamps, a spatula, a burner for melting medicine, a needle full of medicine, two reloads for the needle, a container full of a blue solvent, and an emergency breathing mask. When the Predator uses the burner, he crushed pieces of plaster and the mirror, and then he adds the blue solvent, formed a gel, and cauterized the wound.

Micro-Missile Launcher

Similar to the plasma caster, the micromissile launcher rests on one of the Predator's shoulder pads. The laser sight gives an extra bonus to hit with the plasma of +15%. The sight is controlled by an IO interface to a helmet and eye movement. This functionality has been perfected over time and has extremely fast response.

The missiles themselves weigh about 0.4 kg.

Naginata

The Naginata is part weapon, part ceremonial trophy, of many different types and designs. It is a beautifully plated and encrusted pole arm with double-ended cutting surfaces, an image of honor and demands respect when brandished. Each end is a super-sharp collection of blades causing devastating damage if struck upon a hapless victim.

The blades can flawlessly cut through almost any substance and also has a conducting field which allows it to be cloaked when in hand. When the weapon strikes, however, it becomes visible.

Net Gun

The Net Gun is small and usually reserved for ambushing a group of prey, when entering a major combat area and the temporary incapacitation of a subject is necessary.

The metallic net itself also acts as a weapon — once attached to a surface or wrapped around a target it will automatically tighten, carving into the flesh of anything caught inside, causing grievous if non-fatal wounds. The net is essentially

impossible to cut with readily available equipment, although the Yautja Smart Disc is known to be able to slice a net open. They are also not impervious to Xenomorph blood as with many other Yautja weapons, and so are ineffective at trapping the creatures, although they may still be used to temporarily restrain Xenomorphs during heated confrontations.

If the target tries to struggle the damage increases, and this keeps up until the subject is released or is killed. The net can also release on a trigger from the weapon.

Plasma Caster

This plasma weapon is a mounted and lightweight weapon capable of firing multiple long-range energy burst of charged plasma. This plasma weapon rests on one of the Predator's shoulder pads. It is controlled via the targeting system in the helmet, and tracks with the head movement of the firer.

It can be used with the Laser Sight to increase targeting capacity, and is fired either by a mandible-controlled trigger in the helmet or by the forearm-mounted control panel.

In combat, with a single opponent, the more experienced Yautja tends not to use this device as it as felt it gives an unfair advantage. The battery running the laser rack can run up to 10 years, and the battery generating the rounds is effective for up to 8 months, but can be recharged with a special kit.

Power Distribution Center (PDC)

This device powers all of the items carried by a Yautja. It is a miniature fusion reactor and the amount of energy it can put out is limitless. Each one of these items are linked to a forearm computer to act as a self-destruct mechanism. The typical delay time is 30 seconds and will take out an area of a 0.1 kiloton warhead. If the connection to the forearm computer is ever severed, the self-destruct mechanism goes shuts down and cannot be reactivated until; the link is reestablished (Electronics Systems skill repair). The forearm and the PDC MUST be equipped for the self-destruct mechanism to work. If either are not attached to the same creature, the self-destruct will not work. When an item equipped with an attach mechanism is held near the PDC, it activates a unique frequency which will activate a magnetic connection. The item will be then held in place. To remove an item all one had to do it to grab the item and issue a command into the forearm computer to release it. A helmet can be setup to do this through verbal commands.

Predator Killer Suit

The Predator Killer is a suit of armour that resembles a Yautja in design.

The suit is a full body set of armour designed after the appearance of the Yautja species including having Dreadlocks. It was equipped with a quad set of Plasmacasters each with independent targeting lasers. While its capabilities were never shown, it has similar abilities to standard Yautja Body Armour such as cloaking and thermal vision in the built-in Bio-Mask.

Rad Shield	5
Exoskeleton	STR x2
Cloaking Shield	Yes
PDC	Yes
Self-Destruct Device	Yes
Micro-Missile Launcher	Yes
Plasma Caster	x4
Smart Disc	Yes
Wrist Blades	Yes
Medical Sensor	PMS
Medikit	Yes
Life Support	120hrs.
PowerCell	120hrs.
Armor Protection	16
Mass*	80kg

*Enc: 20.0kg when worn and 'active' otherwise.

Reflective Armor

Offers protection where the Predator needs it the most. Light and maneuverable, but is still vulnerable to heavy strikes.

Reflective armor reflects the stated percentage of infrared, visible, or ultraviolet light striking the wearer. Reflection is in a random direction away from the wearer. The ceramic plating is composed of a totally foreign compound (like other Predator materials) and some are capable of resisting acidic Xenomorph blood.

This close fitting jumpsuit is covered with micro-filaments that generate a multi-phased energy field, providing improved protection against kinetic and energy weapons (+4 AP vs. kinetic attacks and +10 AP vs. energy attacks). While activated, Energy Armour drains 1 charge from its cell pack per MR, and +1 charge per point of damage it absorbs. A standard cell pack holds 100 charges.

Remaining damage burns through the armor and strikes the wearer. If the GM feels that a reflected beam possibly will hit another adventurer, he should ask the players of affected adventurers to make luck rolls for them — either in random or low-to-high DEX order. The beam strikes the first adventurer to receive a failure.

Ceremonial Armor is usually reserved for the upper classes and the elders, only found on the leader of the team. This interchanging plate armor is somewhat clunky, more for show than heavy-duty defense.

Enc: 5kg.

Self-Destruct Device

The forearm computer controls many of the devices used by the Yautja. It can control the wrist rocket, the cloaking shield, the self-destruct device, the helmet's vision modes and the Predator: The forearm computer also contains a language translator, a voice recorder (with 20 minutes of recording time) and is the targeting computer for the laser sight on the plasma gun. The forearm computer communicates to all of the devices by a complex series of networked and inducted transceivers.

Shuriken

Another advanced piece of technology, very similar in characteristics to the Smart Disc. The Shuriken is carried and transported as a flat circular device, but the push of its surface transforms it into a multi-pointed, sharp edged throwing star. Also like the Smart Disc, it is self-charged by an internal power supply.

The Shuriken can be thrown at an opponent, or used in hand-to-hand combat if necessary, cutting through many substances with its many razor edges. When thrown, internal computer-controlled gyros (or possibly a remote homing device) returns the Shuriken to its wielder.

Smart Disc

The Smart Disc is a primarily thrown Yautja weapon. When activated, it creates a disruptive field around itself, which can cut through the hardest of metals. It is a circular device that is typically thrown like a discus and yet returns to the user like a boomerang. A special ring, worn by the thrower, indicates the landing position of the disc. This way, when the disc returns, it automatically adjusts to "land" on the thrower's fingers.

Computer-controlled gyros guarantee that the Smart Disc returns to its wielder when thrown and also give the weapon a degree of auto-guidance, allowing it to alter its course in mid-air and follow a moving target if necessary.

Smart Discs are capable of automatically tracking a target using their body heat signature, although some can alternately be manually directed in flight using the targeting laser built into the Predator's Bio-Mask.

The weapon is capable of tracking multiple targets with one throw, giving it capabilities against large groups of enemies that most other Yautja weapons do not possess. Its devastating razor edges are capable of cutting through most substances with ease. However, in the event that the Disc becomes embedded in a solid material, it can be returned to the thrower with the push of a button on the Predator's Wrist Gauntlet.

It's used mostly for ranged combat, but also features a hand grip for use as a melee slashing weapon and it can be used in melee combat. The smart disc is bestowed upon Ancients in a grand ceremony. This ceremony is typically held on Homeworld or a Trophy Class Hunter ship.

Some Smart Discs shrink in size (usually by telescoping shut in one direction) when not in use, for ease of storage about a Predator's person; this telescoping action also apparently activates and deactivates the Disc's systems. Others have been seen to have teeth-like serrations around their circumference.

Speargun Pining Fork

The Speargun is a projectile weapon that launches a spike of razor-sharp metal at a target. The pining fork is in the shape of a Y with the inner part of the Y containing a barbed edge, like a fishhook. These projectiles are fast-moving, and are often launched with enough force to shatter stone. Regardless of physical appearance, the Speargun is long-ranged and very powerful, capable of pinning victims to solid surfaces like a nail gun. Some have been seen with integrated computerized scopes further increasing their range.

The fork's real use is to cause bleeding in prey. If a creature hit by a pining fork pulls it out, they suffer an additional 1d3 points of damage and will loose 1 hit point every other round until the wound is bandaged.

There seem to be more then one model of the Spear Gun. The original design was seemingly built-in as part of the armor or gauntlet similar to the Gauntlet Plasma Bolt while the newer version is a separate hand-held pistol, possibly even ranged with visual scopes.

It is the perfect silent ranged weapon, with some types of the weapon capable of firing multiple projectiles at opponents.

Wrist Blades

These dual blades extend out of a forearm sheath. They are slightly curved, as a natural claw would be. They are extremely sharp and are granted the keen ability. The activation of the blades involves sensors tied to the muscles in the forearm and wrist. When the yautja tenses its muscles, makes a clenched fist and bends the wrist inward, the blades extend for combat.

When any of these conditions are not met, the blades retract. Depending on the way the weapon is used this can be either a slashing or piercing weapon. One common tactic to use thrust the tips of the bladed through an opponent, which would make it piercing. Another is to slash the blades across an opponent, like a sword. This would make is slashing. So the weapon can be used either way. This weapon is the preferred weapon of most skilled hunters. It truly shows your skill when you can kill an opponent in close combat.

The blades range from anywhere between 30 and 45 cm long and are retractable from a wrist gauntlet on the arm. They are forged from an unknown alloy which is almost unbreakable, but not totally immune to acidic Xenomorph blood.

Xerbinium

This is the incredibly strong metal used in all metallic items the Yautja used. The process for mining and forging this material is a closely guarded secret among the Yautja. This metal is used in ship construction, weapon components and computer components.

This ultrahard metal adds to the quality of a weapon or suit of armor. Weapons fashioned from xerbinium have a natural ability to bypass hardness when sundering weapons or attacking objects.

Xerbinium is so costly that weapons and armor made from it are always of masterwork quality. Items without metal parts cannot be made from xerbinium. An arrow could be made of xerbinium, but a quarterstaff could not.

An item made from xerbinium weighs half as much as the same item made from other metals. In the case of weapons, this lighter weight does not change a weapon's size category or the ease with which it can be wielded (whether it is light, one-handed, or two-handed).

Forbidden Science Technology

> *"What you call magic, they call it science. And no matter what scientists think or say, it works, it really works!"*
>
> *Dale Cooper – SAD Special Agent*

Crawling Chaos

The Crawling Chaos is a quantum computer virus which resemble typical computer virii, worms, or trojans, spreading throughout the net, exploiting holes, mimicking protocols, and taking advantage of it like a skilled hacker.

The Crawling Chaos is unlike anything that humanity has ever encountered. While it bears similarities to both computer and biological viruses in regards to infection of hosts and propagation, it is not bound by many limits of form or transmission vector.

The Crawling Chaos is amazingly effective and infectious. As an information virus, it is highly intelligent and adaptive, able to mutate into new forms. Much like certain viruses are able to cross species boundaries or change their vector from contact to airborne, it is also a self-morphing omnivirus, capable of altering itself and its transmission vectors to bypass infection safeguards. Like a retrovirus that incorporates genetic information into the genome of the target cell to subvert the cell to do its bidding, the Crawling Chaos does the same but on a more complex level. It is also known to rewrite a host's neural code in a similar manner, in effect restructuring the target's mind and personality.

The Crawling Chaos initiates an "attack" against any other intelligent program that is running on the same system. If it encounters such programs as they are accessing a system it is on, it will attempt to hack their home system where they are running so as to attack them directly.

1. The virus rapidly recodes the victim's brain in a matter of minutes. This infection is much more invasive and brute-force, often causing significant side effects to the target's mental state as a result.

2. This attack is most insidious: over time, it rewrites the target's personality and motivations, slowly but surely subverting and taking control of the victim's mind. At first the AI is unlikely to even be aware of the infection, and as it progresses the changes the virus makes to the target will at first seem natural to the target, as if some new aspect of their personality was simply manifesting itself. As the effects grow more pronounced, however, the victim becomes aware that they are being methodically altered but is in most cases unable to act against it. In the end, they are completely transformed into a pawn of Nyarlathotep.

   The exact rate of progression is up to the Game Master. Each victim is affected differently, so the process may be accelerated or slowed down.

The frightening thing about the Crawling Chaos virus is its adaptability. It was written with the intent of corrupting any AIs or similar singularities it encountered, and it is very good at it. This means it has the capability to analyze, understand, and mimic almost any digital protocols and communication methods it comes into contact with. It then has a cunning ability to circumvent any safeguards and infect such systems. From there, it rapidly assimilates any data it can about the target species/civilization and does it best to mutate into other forms that can attack this target from other vectors.

Given its constant morphing nature then, the Crawling Chaos virus is likely to continue to mutate in new ways. Some of these mutations may be effective, many not. This does, however, afford the Game Master an opportunity to invent new variants of their own to deploy against unsuspecting characters.

In 2222, potent infowar worms penetrated even hardened systems, shredding the crucial networks of Sol System with ease. There was no way to stop the threat, except to shut down all computer systems and destroy large amount of data and programs. That day, known as "The Blackout", humanity almost disappeared, leaving behind devastated and forbidden areas where physical reality has been changed forever.

Crystal of the Elder Things

Large crystalline storage containers constructed to harness the power needed to bind shoggoths to elder thing will. These crystals store magic points. The smallest shards might store 5 magic points and the largest 100. A caster can draw some or all of the magic points from a crystal while casting a spell. When empty these crystals are room temperature, but they become colder as more magic points are stored in them. To access the magic points stored the user must become attuned to the specific crystal.

There must be physical contact and the user must spend 1D6 rounds attuning to the vibrations of the crystal. On the final round a POW roll must be made. With success the user can draw upon the magic points within as needed. Note that only elder things have the ability and understanding to invest crystals with further magic points.

Dust of Suleiman

Grey-green powder that harms unnatural beings from other planes of existence. The powder requires the dust from an Egyptian mummy at least 2,000 years old; each such mummy suffices for three doses of the magic dust. The ingredients also include frankincense, sulfur, and saltpeter. An incantation must be said over the dust while it is being sprinkled.

Sprinkled over a being not of this Earth, the entity loses 1D20 hit points per dose. It takes one round to apply a dose. The powder works only on extraterrestrial and other planar beings, thus the powder would harm a dimensional shambler ot Yog-Sothoth, but is useless against a shoggoth or a deep one.

Elder Sign

> *"Its decoration…was, rather, in the rough shape of a star, in the center of which there appeared to be a caricature of a single giant eye; but it was not an eye, rather a broken lozenge in shape with certain lines suggestive of flames or perhaps a solitary pillar of flame."*
>
> *August Derleth and H.P. Lovecraft — The Lurker at the Threshold.*

An Elder Sign may be found into a leaden seal, carved in rock, forged in steel, etc. When made active beside an opening or Gate, it makes that path unusable to minions of the Great Old Ones and Mythos Gods, as well as to those greater beings themselves. Without the spell, the symbol itself means nothing and has no effect.

The writings of certain scribes apart, the Elder Sign is worthless in personal defense if the monster or minion can evade the Sign. Those wearing an Elder Sign around the neck, for instance, might gain protection for a few square centimeters of flesh where the Sign rests against the skin; however, the rest of the wearer's body would be completely vulnerable.

Glass from Leng

> *"…a great round window of a most curious clouded glass, of which [Wilbur] said only that it was a work of great antiquity, which he had discovered and acquired in the course of his travels in Asia. He referred to it at one time as "the glass from Leng" and at another as "possibly Hyadean in origin", neither of which enlightened me in the slightest."*
>
> *August Derleth and H.P. Lovecraft — The Gable Window*

This magical arcane glass allows the possessor to see random visions of other places. The owner inscribes a pentagram in red chalk (presumably for protection), recites a brief verse and then the glass shows a scene of beings from the Cthulhu Mythos. Unfortunately, such beings can also see through the glass to the user's side. The choice of scene viewed is not of the user's choice and appears randomly.

The spell used to enchant the glass is long forgotten, although rumors persist that a certain odd fellow who lives in Carcosa will impart the spell if a bargain can be reached.

Lamp of Alhazred

> *"The lamp of Alhazred was unusual in its appearance. It was meant for burning oil, and seemed to be of gold. It had the shape of a small oblong pot, with a handle curved up from one side, and a spout for wick and flame on the other. Many curious drawings decorated it, together with letters and pictures arranged into words in a language unfamiliar."*
>
> *August Derleth and H.P. Lovecraft — The Lamp of Alhazred*

An enchanted oil-burning lamp. When lit, the lamp gives forth vapors that send the minds of those who inhale them into ecstasies of vision. These revelations are of the strange and weird landscapes of Mythos places and dimensions, and the ways of the entities there. If this lamp were actually used by Al-Hazred, the author of the Al Azif, some of the breadth of his knowledge would be explained.

Pipes of Sorrow

> *"... ancient legends of Ultimate Chaos, at whose center sprawls the blind idiot god Azathoth, Lord of All Things, encircled by his flopping horde of mindless and amorphous dancers, and lulled by the thin monotonous piping of a demoniac flute held in nameless paws."*
>
> *H.P. Lovecraft — The Haunter of the Dark*

The musical instrument augments the chance for success in casting particular spells. For each lot of 5 POW sacrificed, the musical instrument must steep in fresh, warm blood for two hours. A new animal, of at least cat or rabbit size, must be slaughtered for each 5 POW. For each point of POW it contains, the finished instrument adds 2 percentiles to the success chance of Summon/Bind Servitor of the Outer Gods and other spells requiring the use of pipes or flutes to cast.

Powder of Ibn-Ghazi

> *"Those without the telescope saw only an instant's flash of grey cloud—a cloud about the size of a moderately large building—near the top of the mountain. Curtis, who held the instrument, dropped it with a piercing shriek into the ankle-deep mud of the road. He reeled, and would have crumpled to the ground had not two or three others seized and steadied him. All he could do was moan half-inaudibly."*
>
> *H.P. Lovecraft — The Dunwich Horror*

This powder makes visible magically invisible things by blowing the powder against or over the invisible thing. The thing that is dusted stays visible for no more than ten heartbeats. That which could be made visible includes the magical lines extending from a place enchanted for the Calling of a Mythos deity, the aura around a Gate, or a creature that is normally invisible, such as a star vampire. Using the powder costs no Sanity points, but seeing what it exposes may.

Shining Trapezohedron

> *"[it was] a nearly black, red-striated polyhedron with many irregular flat surfaces; either a very remarkable crystal of some sort, or an artificial object of carved and highly polished mineral matter. It did not touch the bottom of the box, but was held suspended by means of a metal band around its center, with seven queerly-designed supports extending horizontally to angles of the box's inner wall near the top… exposed, [Blake] could scarcely tear his eyes from it, and as he looked at its glistening surfaces he almost fancied it was transparent, with half-formed worlds of wonder within."*
>
> *H.P. Lovecraft — The Haunter of the Dark*

A peculiar metal box in which is mounted a stone about four inches thick. It rewards or damns those who look into it with visions of other worlds and dimensions—thus the stone shines with the interior light of things not of our world.

When the box is closed (enclosing the gem in total darkness), a hideous avatar of Nyarlathotep comes, known as the Haunter of the Dark since it abhors light—it will not enter any space where light is present, not even the pale circles of light cast by street lamps.

The stone exercises great command over human psyches and is believed to be used by worshipers of Nyarlathotep. This artifact is ancient, predating humanity and possibly manufactured by a long-extinct race...

Stasis Cube

Almost all stasis cubes are simple in design, made from metal or plastic with no sign of external circuitry. These devices appear in a number of different shapes and sizes, however they all have a single purpose: to slow the flow of time. Older cubes give ratios of 1-second internal time per thousand years external time.

Symbiotic Armor

The Symbiotic Armor resembles a very heavy set of living organic armor, with chitinous plates, but without any type of weapons. Symbiotic Armor is humanoid in shape (i.e., has two arms, two legs, a head and a torso) simply because the wearer is human, but additional appendages are one of the available enhancements. Although each armor starts out fundamentally the same, each looks a little different and has personal touches and styling that makes it stand out as unique.

Symbiotic Armor is alive, bonded to its wearer so that it responds as if it were a second skin. The living armor regenerates damage done to it, face wraps enable the wearer to breathe even in the deadliest of atmospheres, wing packs let warriors and scouts soar through the skies, weapon systems grow from the limbs, and just about every other need is accounted for and provided.

There are limitations to how much a given piece of Bio-Technology can be altered for a given user, and his own natural physical endurance and mental stability, since many pieces of Bio-Technology form a permanent bond with theirs operator. If that unit was enhanced beyond the physical capabilities of the operator, the device could literally eat him alive, as it began to metabolize the user's flesh in order to meet the demands placed on their joined metabolisms. Similarly, the device could fry the very neurons of an operator's brain and spinal cord, overloading and short-circuiting the individual's mind, leading to a loss of mental faculties and/or motor control, paralysis, or all out insanity.

The user suits up by stripping naked and sliding into his living suit. The Symbiotic Armor secretes a neurolytic jelly that creates a direct neural interface between the flesh and armor. The Symbiotic Armor and wearer share all physical stimuli, sensations and even pain, making for a truly unparalleled method of symbiotic union.

Each time an operator suits up Symbiotic Armor, he must succeed a fortitude roll or lose 1D6 sanity points.

Symbiotic Armor is a living creature and as such, requires sustenance and rest. The suit first devours all the waste materials from the human body, including urine, feces, dead skin cells, and body hair. Once the Armor has most consumed all waste materials, it slowly feeds upon the wearer's skin, gently eating it away, bit by bit. The process is not painful but very telling and inflicts 1D3 HP of damage to its wearer per day. This forces the user to regularly feed his armor on the blood of other living creatures.

Symbiotic Armor must feed on the equivalent of half its CON Hit Points of blood per day, and failure to do so brings on weakness and starvation – a starving Symbiotic Armor sees its Speed, number of melee attacks and bonuses reduced by half. If the suit is not fed with a full half CON Hit Point meal of blood within the next CON days, the Symbiotic Armor enters in stasis. Then, the armor must be given its CON Hit Point of blood to be reactivated.

Symbiotic Armor that successfully bites and damages a victim can drain 1D6 HP from that victim on each subsequent round it is able to stay attached to the target, using normal grappling rules. The drained HP are stored and can be used by the armor to recovered from future sustained damage.

Symbiotic Armor cannot regrow severed limbs or destroyed weapon systems that have been reduced to zero (there must be some HP remaining), but an Engineer can generate and attach a replacement limb with minimal difficulty.

Characteristics		Average			
STR	1D6+6	9	Move	10/6 Swimming
CON	2D6+6	12	Hit Points	28
SIZ	2D6+10	16		
INT	2D6	7		
POW	2D6	7		
DEX	1D6+6	9		
HF	0/1D6			

Armor: 3-point thick chitin.

Protection: The Armor itself is shielded from damage by fire (+2000°C) and cold (-270°C). The Symbiotic Armor purifies the air before it is passed on to its wearer, removing all toxins, poisons and impurities before it is breathed.

Weapon	Attack	Damage
Bite*	40%	1D6+½db (bleeding) + Blood Drain
Claw**	50%	1D8+db (bleeding)
Grapple	35%	special
Spits acid	40%	2D10 POT, 1D6 times per day, 5-meter range

*Every 10 HP drained raises the total hit points of the wearer by one point.

**Will attack twice with claws each round and once with a bite attack 5 DEX ranks later. If it is successful with both claw attacks, it will attempt to grapple and bite on the next round.

Instinctive skills: Alertness 80%, Listen 75%, Orientation 70%, Track 80%, Dodge 55%, Hide 60%, Stealth 80% and Wilderness Survival 70%.

	Symbiotic Armor
Rad Shield	5
Exoskeleton	Add armor's STR and DEX to wearer
Polarized Visors	PVC
IR Visors	range: 400 m
Night Visors	range: 2000 m
UV Visors	range: 400 m
Thermo-imaging	range: 400 m
Seismic sensor*	Range: 20 km
Magnetic north sensor	All the time
Sound amplifier	range: 100 m
Sleep Requirements	2D3 hours of sleep/rest/inactivity per day, generally during the daylight hours
Special Senses	sense of taste and smell about twice as acute as an ordinary human
Life Support	built-in system of gills to allow the user to breathe underwater for an unlimited period of time
Armor Protection**	3-point thick chitin
Mass	armor's SIZ in kg

*able to detect minuscule vibrations in the ground, feeling earthquakes, thunder, explosions and even the approach of heavy vehicles, robots, troop movement, and stampeding animals.

**If a person wearing Symbiotic Armor is struck, the damage inflicted will be subtracted first to the Symbiotic Armor's HP. When the armor's hit point tally falls to 2 or less, it will drain 2D6 HP from the wearer! If its hit point total reaches 0, the armor crumbles and dies.

Corporations

by John Ossoway, Wade Dyer, Chris Dias, Andrew E.C. Gaska & Michael Tresca

> *"The Titan Prometheus wanted to give mankind equal footing with the gods—for that he was cast from Olympus. Well, my friends, the time has finally come for his return.."*
>
> *Sir Peter Weyland – founder and CEO of Weyland Corp*

Everyone answers to someone and everybody wants to get paid. After the Blackout, humanity stood on a precipice. Increased carbon emissions, inappropriate disposal of toxic wastes, limited nuclear exchanges, and overpopulation led to the mass extinction of several species, rampant disease, environmental decay, a worldwide energy crisis, and famine.

While stagnant governments were reluctant to change to meet these threats, multinational corporations headed by innovators like Peter Weyland or Niander Wallace stepped up and led the charge into the future. As many nations shut down their space programs, the private sector poured money and resources into pushing humanity out into the greater solar system and beyond. While politicians argued over global warming, water restrictions and health care, corporations set about repairing the ozone layer and curing most cancers. Establishing off-world colonies within the solar system, corporations gave humanity new places to flourish rather than wither on a damaged Earth.

As Motokatsu-Kyono Combine and other companies explored the stars, they established extrasolar colonies before there was any legislation in place to govern them. As these worlds flourished, it was the corporations that made policy. Realizing their technological dependence on companies like Weyland-Yutani to both travel to and terraform these planets in the first place, the governments of Earth had no choice but to play by company rules. At the mercy of these corporate overlords, nations soon found themselves in severe financial debt to them.

Capital has agglomerated into the hands of an ever dwindling number of ever bigger corporate entities. Wholesale and retail commerce, transport, communications, manufacturing, mining, agriculture, and most services (from inn keeping and catering to legal, medical and financial services) has fallen increasingly under the control of highly diversified corporations organised and operating on an interstellar scale.

The early years of space exploration saw a rapid increase in the power and influence of these megacorporations. Defined by neither country, society, or ideology, without their financial backing the exploration and eventual colonisation of space would have been economically impossible for the nations of Earth.

Some corporations have whole worlds that they control themselves; some are even named them after their ownership (e.g. Hallidon in the Epsilon Indi star system). Most, however, have their corporate headquarters located in the Sol system itself. But the military industrial complex, interstellar commerce, and deep space mining all keep the system going, and you need the corporations to take care of that. Without them, the economy would collapse. The current depression on the Frontier is symptomatic of this political and corporate tug of war. Government control is an illusion, and it's a bad card trick at that. You can be assured that behind every politician is a corporate overlord exerting some form of control.

The Dirty Dozen

Artificial Life Incorporated

Industry Sectors	Artificial intelligence, android manufacturing, computer software, cybertechnology
Current Share Price	E$35
Ownership	CEO 52%; Cenargo Corp 12%; UA Government 3%; Board 11%; Private investors 22%
Corporate HQ	Seattle, WA (United Americas, Earth)
GDP	E$88.4 billion

Formed out of the breakup of the corporation Microsoft Corp in the mid 21st Century, Artificial Life spearheaded the research into artificial intelligence culminating in the Matriarch Program, descendents of which are still the industry

standard for automated starship navigation software. Android technology has become so commonplace in the late 23rd Century that it is standard ICA policy for any licensed starship to have an Android Exo on board.

Artificial Life is still the controlling force in the manufacturing of AI technology. Even though AI technology is now constructed by other corporations besides Artificial Life, none manufacture them in the same volume or of the same quality. Artificial Life are responsible for every new technology in the field including the Rebirth terraforming robots, Series 81 android technology and the Matriarch intelligent software used onboard interstellar starcraft. With so many aspects of 23rd Century life involving intelligent computer software, it could be said that Artificial Life have their fingers into almost every area of day to day living.

Artificial Life's corporate headquarters is still located on Earth, in United Americas territory. The twelve board members plot corporate policy in secrecy. They operate invisibly within the company and often follow their own rules. Artificial Life has the lucrative contract to supply the UEAF with android technology.

Artificial Life eventually develops Skynet, a network of supercomputers that employ artificial intelligence in order to replace human beings as commercial and military aircraft pilots, and for the control of other military systems, including nuclear missiles.

All but a few select pieces of Artificial Life hardware and software come with Artificial Life's own security update framework in place. Ostensibly, this allows Artificial Life to push security updates to all associated devices, fixing security holes that might allow hackers to break into the system. This framework, however, allows Artificial Life their own security hole, where with an update they have the ability to hijack control of the device—using it in electronic surveillance or in their own bot network.

To all the would-be hackers out there, Artificial Life is not a friendly institution. The corp does not like its code tampered with, and hackers that have raised the corp's ire can find themselves targeted on their own turf—the net and electronic forms of interference. Since Artificial Life has a lot of resources to throw at enforcing its digital edicts, these campaigns by the corp tend to be largely one-sided.

History

2147   Artificial Life Incorporated is founded

SEATTLE, UNITED AMERICAS, EARTH: The corporation is founded out of the break-up of Microsoft Corp by its CEO Tabitha Gates.

2148   The creation of Adam

SEATTLE, UNITED AMERICAS, EARTH: AL Inc. unveil 'Adam', the first ever self-aware computer. The New Confederate Christian Church (NCCC) of the United Americas, one of the fastest growing religions of the 22nd Century, denounces Adam as blasphemy.

2164   First commercial androids

AL Inc. develops its first generation of commercial androids: available for non-combat roles, such as piloting, tactical assistance and paramedical staff. They are deliberately limited by behavioural inhibitors based on Asimov's famous 3 laws of robotics.

Over the next decade, AL Inc. sells licences to several corporations, allowing them to develop and produce their own models.

2214   The Auton Project

During the initial Alpha Prototype Distribution stage of its 5th Generation Androids, Artificial Life runs into problems. Some of the Fifth Gens, or Autons, are found to be too emotional and uncontrollable. When tests are run, it is revealed that they have evolved way beyond their design parameters and are showing signs of real consciousness, otherwise known as Alpha Level AI.

The Auton Project is cancelled shortly thereafter and all existing Fifth Gen models are deemed illegal and recalled for destruction. Since this time Alpha Level AI has been banned apart from a handful of government monitored examples.

Behind the Scene

Artificial Life have the making of a scandal on their hands. A large shipment of synthetics was recently sold before their behavior inhibitors were installed, and these units went to an anonymous buyer on the Frontier. While unsubstantiated, some believe these androids were covertly commissioned by the ERC for use as an artificial combat unit, and still other worry that the omission of the inhibitor programming was but a simple error with the potential for disastrous ramifications. The thought of synthetics capable of murder introduced into the civilian population is one no colonial administrator or marshal wants to contemplate.

Cenargo Corporation

Industry Sectors	Aerospace, spacecraft manufacturing, colony management, and medical technology.
Current Share Price	E$55
Ownership	EF Government 9%; Board 51%; Private investors 40%
Corporate HQ	Earth (London) and Mars (Viking City)
GDP	E$106.4 billion

The Cenargo Corporation was founded by the merger of Centaur Technologies and Argon Aerospace, the companies who funded the development of the Foscolo reactionless displacement drive. As a result of it's early investment in the technology which made economically viable space travel a reality, Cenargo Corp became very rich. Cenargo's has since diversified into many new fields including spacecraft manufacturing, colony management, and medical technology.

Today the company works closely with world governments in the areas of space exploration, commerce, colonization, and military trading. More recently Cenargo has become involved in the development of new weapons technology in order to ensure the safety of its terraforming colonies transport ships, and the lives of Company employees who serve on them. Humanity has explored space for centuries, and the discovery of every new world presents new dangers. These factors are taken very seriously by the Company, and the Bio-Weapons Division is constantly developing new forms of protection against such threats.

The many branches of Cenargo Corp work together under the close scrutiny of the shareholders to ensure that all projects meet Company standards. In this universe of fear, treachery, and intrigue, it is very difficult to know your true friends. By far, your most powerful one is Cenargo.

History

2249   The Mercenary War

> THE OUTER RIM: Rival mercenary units clash in the Outer Rim, despite both having being hired by Cenargo to protect colonial assets against pirate activity. Both force's contracts are promptly revoked, but fighting escalates, forcing Cenargo corporate forces to become involved.

> The war is finally brought to an end with the signing of the Mercenary Charter, formulated by the ICA, laying out a code to which all mercenaries are expected to adhere.

Behind the Scene

Cenargo Corp has been approached by MiliSci to create a vaccine capable of fighting an alien virus known as Purity, also known as the black oil. Cenargo spent years trying to create a vaccine, experimenting on a number of different individuals using slightly different methods. Some of these experiments were carried out using an ancient RNA retrovirus, known as the Progenitor virus, with the ability to mutate DNA and recombine genes to strengthen a host's characteristics but cause detrimental mutations or death when cells developed abnormally. To date, the discovery of a vaccine that would resist the black oil has failed. However, Cenargo applied the Progenitor virus to Bio Organic Weapons development, living biological weapons for military application. It had mutagenic properties able to rapidly transform organisms and grant new capabilities impossible in the evolution of the natural world.

Cheung Corporation

Industry Sectors	Energy, metals, colony management, terraforming, machinery, chemicals, food and general merchandise.
Current Share Price	E$49.73
Ownership	Board 48%; Government 22%; Private investors 30%
Corporate HQ	Beijing, Earth
GDP	E$96.2 billion

Formed in 2132 from a three-way merger of Cheung Industries, Ling Consumer Products, and Shenzhou Aerospace (the largest Chinese corporations of the time), Cheung Corporation appeared on the scene during the chaotic period following the end stages of what has become known as the First Exodus and became one of the primary commercial concerns involved in the initial stages of the Jovian Project.

In the years since its inception, Cheung Corporation has bought out scores of smaller companies and gained ownership of many privatised government assets. As a result the board membership includes private citizens and members of the Chinese Consortium government and military. The corporation is engaged in business in virtually every industry, including energy, metals, colony management, terraforming, machinery, chemicals, food and general merchandise. Cheung Corporation has sizable investments and assets in the Circum-Jove system.

Cheung Corporation designs and manufactures almost all the technologies currently in use by the Chinese Consortium Ministry of Communications, Ministry of Transportation, and ChinaCorps. With such a controlling hold on the markets in Chinese Consortium territories both on Earth and in the colonies, the corporation has naturally grown rich and powerful.

They have a regional office in Midgard City, Callisto.

History

2132   Cheung Corp founded

Cheung Corp is founded from a three-way merger of the largest Chinese corporations of the time.

2136   The Tharsis Dispute

MARS, SOL SYSTEM: The largest and most famous of the territorial disputes in the early 22nd Century, following a series of land-grabs by competing megacorps on Mars. The Tharsis Dispute is sparked when fighting breaks out on the Tharsis Bulge between corporate security teams from Cheung Corp and rivals EnerTek . The UEF deploys peacekeeping troops to act as a buffer between the two megacorps.

2138   The Tau Ceti War

ANJUNA, TAU CETI SYSTEM: There are corporate clashes after both EnerTek and Cheung Corp hire mercenaries to protect their further afield assets, following the Tharsis Dispute two years earlier. Revenge attacks by both sides quickly cause matters to escalate out of control. Undercover support flows in from Chinese and American factions on Earth, resulting in the conflict spreading across the system

2140   The Viking Treaty

VIKING CITY, MARS, SOL SYSTEM: The Viking Treaty of 2140, signed at the Mars colony, brings an end to the fighting at Tau Ceti after almost 18 months of conflict.

The breaking point comes when Cheung mercenaries deploy tactical nuclear weapons against opposing EnerTek forces at Kow-Lang, resulting in the deaths of over a thousand civilian colonists. A UEAF taskforce is despatched to Tau Ceti and a peace accord is brokered. Though neither of the protagonists is entirely satisfied, it is financially unacceptable to prolong a war that shows no sign of victory for either side.

The conflict also shows that the UEF is simply not organised or equipped to police and govern the ever growing number of colonies out beyond the Core Systems, forcing the creation of the Colonial Act.

Behind the Scene

Cheung Corporation control much of China as well as many neighbouring states. Its structure is based on patterns derived from the organised crime groups that once covered the world such as the Italian and Russian Mafia, East Asian Triad and Tong, Jamaican Yardies, Russian Organizatsiya, Japanese Yakuza, Colombian Cartels, American Street Gangs and British Firms. As a result, the membership of the Ai-Jinn is diverse. Although most of their number are Asian, anyone with criminal skills and propensities are drawn to their ranks.

Consolidated Aerospace

Industry Sectors	Aerospace design and construction, aerospace technology research, precision electronics
Current Share Price	E$48.13
Ownership	Board 40%; Private investors 43%; Government 17%
Corporate HQ	Viking City, Mars
GDP	E$118.23 billion

Founded in 2106, at a time when spaceflight was still in its relative infancy and government-controlled spacecraft development wasn't developing as fast as it could, this North American-Chinese joint venture quickly outgrew and

outstripped the government agencies. Consolidated Aerospace's visionary founders, Saul Petersen and Alexander Liu, anticipated the move to explore and colonise the solar system and beyond, and while others were seeking to exploit the growing demand for small private orbital spacecraft, they concentrated on government contracts for the construction of massive vessels capable of carrying settlers across the vastness of space.

Possessing the largest privately owned shipyards in the Sol System (the Mars Orbital Shipyards, more commonly known as Elysium Planitia) and controlling many associated industries. It is estimated that one in every three major spacecraft in production is built by Consolidated Aerospace or one of it's many subsidiaries.

Consolidated Aerospace now has manufacturing bases throughout the Core Systems, building ships to drive humanity ever further into space. The corporate headquarters remain in the Sol System, at Viking City on Mars.

History

2106   Visionaries found Consolidated Aerospace

Saul Petersen and Alexander Liu found Consolidated Aerospace in the infancy of spaceflight, quickly outstripping goverment agencies. They concentrate on government contracts for the construction of massive vessels capable of carrying settlers, rather than on small private craft.

2149   ConAer move to Mars

VIKING CITY, MARS: The corporation relocates its HQ to Mars; construction of the Mars Orbital Shipyard commences.

2268   ConAer Heist

ELYSIUM PLANITIA, MARS: An entire shipment of Gravidium is appropriated from the Elysium Planitia facility in Mars orbit by a team of unknown criminals. They are never brought to justice.

Behind the Scene

Spectacular technological breakthroughs from Consolidated Aerospace are rumored to be from a mysterious site located at Coprates Chasma on Mars. Other rumors also mention a wreck of an alien spacecraft without any evidence being substantiated or proven. Although the site was closed by MiliSci, the company has always denied any involvement with the authorities.

Federated Boeing Interstellar

Industry Sectors	Aerospace design and construction
Current Share Price	E$35.4
Ownership	Board 64%; Private investors 36%; Government 11%
Corporate HQ	Mare Ibrium, Luna
GDP	E$98.14 billion

With roots that go back as far as the 20th century, this American-Russian aerospace manufacturing corporation currently stands as one of the oldest megacorporations still in business. Federated Boeing Interstellar is responsible for many attemps in their field, including the first FTL voyage to Proxima Centauri in 2040 by the vessel Event Horizon. Unfortunately, the ship vanished and mysteriously reappeared in a decaying orbit around Neptune seven years later. Whatever was found aboard the Event Horizon by the rescue missions, it was all covered up by the company and all research of its designer, Dr. William Weir, were destroyed.

Finally, Federated Boeing achieved the design and construction of the Foscolo, which was the first crewed spacecraft to make a succeeded interstellar journey using the Foscolo Star Drive in 2115.

The dawn of interstellar exploration which brought with it the constant discovery of new planetary systems and resources caused the commercial spaceflight industry to grow exponentially. Federated Boeing Interstellar soon found their monopoly of the commercial space industry challenged by younger corporations like Consolidated Aerospace and Wolf Weisner Krupp.

Federated Boeing Interstellar is still based in the Sol system, with shipyards at Mare Ibrium on the Moon. The corporated has never diversified its holdings, staying strictly in its core sectors of aerospace design and construction. It recently streamlined it's portfolio, divesting itself of several subsidiaries.

GGL Incorporated

Industry Sectors	Film, television and holovision production, television and holovision networks, satellite television and holovision, newspapers and magazines, book publishing, sports ownership, websites
Current Share Price	E$32.1
Ownership	Private investors 44% Board: 21%; Ralph McDowell 29%; Government 6%
Corporate HQ	United Americas, Earth
GDP	E$84.81 billion

Media and communications giant, GGL Incorporated grew from a successful 21st century communications and information software firm to dominate digital communications in the late 23rd century. GGL's sphere of influence encompasses film production and distribution, television and holovision production and broadcasting, advertising, newspaper and magazine publishing, book publishing, sports ownership, multimedia, information technology and music publishing.

Scores of television and holovision channels are controlled by GGL, and there is growing criticism that Ralph McDowell, current President and CEO of the GGL media empire, uses his position to bias news reporting towards his own political agenda.

Hallidor Corporation

Industry Sectors	Agriculture and agricultural products, colony terraforming and management, consumer goods, military technologies
Current Share Price	E$47.1
Ownership	Board 36%; Private investors 50% UA Government 14%
Corporate HQ	The planet Hallidon, Epsilon Indi star system
GDP	E$114.58 billion

Formed in the late 21st Century out of a dozen smaller companies in an effort to combine and protect their interests, Hallidor is now one of the largest corporations operating in United Americas colonized space. Hallidor has invested greatly in terraforming technology, and it has managed to secure a large number of worlds in the ICC, which the corporation and the government co-funded and maintain. Hallidor has greatly diversified interests and has spun off numerous subsidiaries to push into new and emerging markets.

There have recently been reports of infighting between some of the companies making up Hallidor Corp, but there is no real evidence.

Hallidor's corporate headquarters were originally on Earth, in the United Americas. Recently they relocated to the planet Hallidon in the Epsilon Indi star system. They have a regional office in Midgard City, Callisto. Having been one of the corporations to be involved in the Jovian Project from the start, the company has a strong influence there.

History

2110   Project Ceres begins

ASTEROID BELT, SOL SYSTEM: Hallidor Corporation presents Project Ceres, a bold plan for colonising and mining the Asteroid Belt, to the UEF Space Agency. The plan is approved. Hallidor launches two prototype deep space mining craft, Rameses I and II.

2111   Colonisation of the Belt

ASTEROID BELT, SOL SYSTEM: Rameses I establishes Ceres Base, a permanent mining colony, and Hallidor subsidiary Ceres Metals begins surveying other asteroids. Rameses II tows the first nickel-iron asteroid back to Earth for strip mining.

Within a year half a dozen other corporations and a score of private investors have staked claims and begun mining.

2118   Jovian Holdings formed

CIRCUM-JOVE SYSTEM: Hallidor forms the subsidiary Jovian Holdings, through which it now manages all of its assest in the Circum-Jove.

2254   Acquisition of Enertek's assets

Hallidor Corporation acquires Enertek Corporation's colonial assets following the company's bankruptcy in 2246. Many believe that it was this Hallidor's overeagerness to access the abundant natural resources in the Herculis Cluster that fanned the flames of sedition and indirectly brought about the Colonial Wars.

Motokatsu-Kyono Combine

	Industry Sectors	Advanced technologies research, communications technology, electronics, engineering, terraforming, colonisation and aerospace manufacturing
	Current Share Price	E$48.6
	Ownership	CEO 28%; Federal Government 8%; Board 52%; Private investors 12%
	Corporate HQ	Tokyo, Japan (Earth); Anchorpoint City (Mars)
	GDP	E$98.4 billion

The Japanese owned Motokatsu-Kyono Combine (MKC) has roots that go back over two centuries, to the summer of 2033, when two of the largest Japanese corporations at that time merged in preparation for the commercial exploitation of the Moon.

Motokatsu Electronics and the Kyono Telecommunications Engineering Company had realised early on that off-world investment was a market that would soon be opening up to commercial interests, and would potentially become a much more lucrative revenue stream than Earth-bound investment projects.

MKC initially displayed a ruthless streak in its dealings with rival corporations also trying to establish an off-world presence. In 2074 in what is now referred to as the Luna Crisis, a dispute over water mining rights at the Clavius Crater between MKC and the recently formed Lunar Development Corporation (LDC inc) rapidly escalated to the brink of the first armed conflict in space. Before events could escalate out of control, the UNSA managed to negotiate a peaceful settlement. The Luna Crisis gave MKC reason to rethink its policies regarding corporate competition, and over the coming decades would work hard to reposition itself as a firm but fair competitor.

The corporation was one of the first commercial organisations to invest heavily in the development of the Luna colony, and did not hesitate to become a member of the Martian Development Consortium. By 2106, Motokatsu-Kyono's fortunes were inextricably entwined with the colonisation and terraforming of Mars. The corporation became one of the biggest employers on the red planet, behind Cheung and Cenargo, and was one of the major investors in the Phobos Project (2168-2178) which saw the construction of the Martian Space Tether.

Unlike the majority of the other megacorporations on Mars, MKC has opted to locate its headquarters in Anchorpoint City rather than Viking City, citing the proximity to the Martian Space Tether as being the driving factor behind this decision.

MKC is a heavily diversified corporation, with interests in advanced technologies research, electronics, terraforming, colonisation and aerospace manufacturing. Although much of its assets are now located on Earth's moon and on Mars, a strong tie with tradition has kept the corporate headquarters located in Tokyo, on Earth.

It has a regional office in Europa and its dealings in the Circum-Jove are through subsidiary MKC-Jupiter. Their influence in the region is growing though they are still a minor player compared to Hallidor Corporation and Cheung Corp. MKC did not invest in the Circum-Jove colonies until the mid-22nd century, when the corporation expanded into Foscolium mining. Their confrontation on Io with Cheung Corporation was the catalyst for the UEF establishing a permanent marine garrison in the region.

History

2033   Motokatsu-Kyono Combine founded

Motokatsu Electronics and the Kyono Telecommunications Engineering Company merge in the summer of 2033, aiming to commerically exploit the moon.

2059   Moon mining

MARE IBRIUM, LUNA: MKC begins mining Helium-3 on the Moon. Within 10 years, at least a dozen corporate concerns are mining substances scarce on Earth, including helium-3, which is the ideal fuel for fusion reactors, gallium, which has replaced silicon in the making of chips, chromium, iron, gravidium and super-hard titanium.

2074   The Luna Crisis vs. LDC

CLAVIUS CRATER, LUNA: A dispute with the recently formed Lunar Development Corporation over water mining rights nearly becomes the first armed conflict in space. Motokatsu blame LDC for the "software bomb" that wreaked havoc at its Tokyo headquarters, threatening "retaliation" if its suspicions are confirmed.

Both corporations begin evacuating non-essential personnel from their mining operations, while shipping security personnel from Earth. Luckily, UNSA manages to negotiate a peaceful settlement.

This crisis gave MKC reason to rethink its policies regarding corporate competition, over the coming decades it worked hard to reposition itself as a firm but fair competitor.

2106   Corporate influence on Mars

MARS: MKC's fortunes become inextricably linked with the colonisation and terraforming of Mars. The corporation becomes one of the biggest employers on the red planet, behind Cheung Corp and Cenargo.

2168-   The Phobos Project
2178
ANCHORPOINT CITY, MARS and PHOBOS: MKC is one of the major investors in the Phobos Project which sees the construction of the Martian Space Tether.

Proxima Incorporated

Industry Sectors	Deep space and open cast mining, hazardous materials containment, decontamination and transportation
Current Share Price	E$29.43
Ownership	Board 28%; Private investors 72%
Corporate HQ	Prox City, Proxima II
GDP	E$76.2 billion

Another conglomerate like Hallidor Corp but substantially smaller, Proxima Incorporated was formed after the Proxima Miners Strikes of 2154. It was at the peak of this industrial action that a succession of unexpected Management Buy Outs took place by subsidiaries of the megacorps backing the Proxima II colony.

With the popular backing of the unions, these break-away subsidiaries formed Proxima Incorporated. The company has grown rapidly, to the point where it holds a monopoly on deep space and open cast mining across the Inner Colonies. Proxima Incorporated has its headquarters on Proxima II, and have diversified into various dangerous industry sectors which are necessary evils of modern society. They include hazardous materials containment, decontamination, and transportation.

Proxima Incorporated operates many of the mining operations throughout the Sol system, and while its mining positions are known for paying well, they are also known for the harsh and dangerous conditions. Proxima seems happy to regularly neglect safely precautions and regular maintenance, preferring instead to lure would-be miners to its operations with promises of high wages — wages that soon are paid back to the corp through high local food and living charges. In some operations, Proxima makes use of indentured work forces as well.

History

2154   Proxima Incorporated founded

PROXIMA II, PROXIMA CENTAURI SYSTEM: At the peak of the Proxima Miners' Strikes, subsidiaries of the megacorps backing the Proxima II colony made a succession of unexpected management buy-outs. Backed by the unions, these break-away subsidiaries formed Proxima Incorporated.

2263   Europa drilling accident

JUPITER II, EUROPA: Kepler 822, a research and drilling facility operated a deep-sea drill at the bottom of the Mariana Trench, was struck by a strong earthquake. Two survivors did make it to the surface, but the horrors they experienced have been covered up by Proxima Incorporated.

2266   Proxima II Data Heist

PROXIMA II, PROXIMA CENTAURI SYSTEM: A team of criminals destroy the ICA Computer Hub on Proxima II, fleeing with valuable company and ICA data. They remain at large.

Weyland-Yutani

Industry Sectors	Research and development, Deep space transport, Synthetic manufacture, Terraforming, Extrasolar colonization, Weapons manufacture
Current Share Price	E$54,3
Ownership	CEO 55%; Government 24%; Umbrella 11%; Corporate investors 10%
Corporate HQ	Tokyo, London, San Francisco, Sea of Tranquility
GDP	E$136.2 billion

The Weyland-Yutani Corporation was formed when Weyland Corp absorbed the Yutani Corporation in a hostile takeover in 2099. Following the merger, Weyland-Yutani opened with the largest share value ever recorded on the Systems Exchange. While it is known that Weyland Corp had suffered severe financial losses with the failure of the Prometheus mission and the deaths of both company founder Peter Weyland and CEO Meredith Vickers, it is also true that Yutani had suffered many setbacks as well.

The company would go on to buy out numerous other businesses, investing in almost every sector, and had a controlling stake in a vast number of diverse corporations. According to some, Weyland-Yutani owned "pretty much everything" by the 2150s. Many of the companies wholly or partly owned by Weyland-Yutani continued to operate under their own brand, such as the Kelland Mining Company.

By 2137, Weyland-Yutani was heavily involved in the colonization of extrasolar planets, including the terraforming of suitable bodies with inhospitable atmospheres through the construction of Atmosphere Processing Plants. Over its history, the company constructed and administrated numerous colonies across the galaxy, including Hadley's Hope — ironically established on LV-426. Weyland-Yutani was also involved in non-civilian colonies, notably overseeing the Class C Work Correctional Unit and the associated industrial penal lead foundry on Fiorina "Fury" 161.

As well as its colonization efforts, Weyland-Yutani also operated numerous research and development facilities throughout the galaxy, often pursuing top-secret research into illegal or dangerous fields, focusing in particular on the study of the Xenomorph species. Despite tight security, typically enforced by Weyland-Yutani manufactured combat androids, these research facilities were notorious for their containment failures and outbreaks, events that usually led to huge loss of life amongst staff (and any civilians unlucky enough to be caught in harm's way) and the involvement of the Colonial Marine Corps.

Like both its predecessor companies, W-Y plays hard and fast with mergers and acquisitions, buying out those they can and destroying those they can't. As such, they have a ruthless and cutthroat reputation in the corporate world. Despite the fact that the company has a seat in the Interstellar Trade Commission's Company Review Board, their commercial fleet management is known to bribe both ITC agents and Colonial Marshals rather than submit their spacecraft to mandatory safety inspections.

Bio-Weapons Division

Weyland-Yutani's Bio-Weapons Division was a special department that dealt with the research and development of biological and viral weapons. One of their primary goals was to obtain a viable specimen of the species they designate Xenomorph XX121. Weyland-Yutani believed that biological self-replicating weapons such as the Xenomorph could form a ubiquitous component of distant force projection operations, which were otherwise vulnerable to unforeseen threats capable of exhausting traditional security personnel and ammunition stores that may not be easily replenished across the vast distances of space.

For decades, a major focus of said research has been the procurement of both Chemical A0-3959X.91-15 and p.praepotens for use as biochemical self-replicating weapons. After the incidents on LV-426 and Fiorina 161, W-Y has doubled down on their efforts. Orbital research facilities like RB-232 "The Cold Forge" and Odobenus station have spent considerable time and effort researching the Xenomorphs, but a method of safely containing them still eludes the company.

Reverse-Engineering Division

The Reverse-Engineering Division was mainly focussed on the study and implementation of recovered Yautja technology. The department was largely built upon the work carried out by Borgia Industries and the Yutani Corporation, both of which were incorporated into Weyland-Yutani through business mergers (with the Yutani Corporation being a major partner and partial originator of the company's name).

As with the company's Bio-Weapons Division, Weyland-Yutani's reverse-engineering projects were generally run with little regard for morals, although owing to the research being based primarily on the study of appropriated technology, the scope for appalling breaches of human rights was less open. Even so, the division ruthlessly captured and exploited alien tech, stealing Predator and Engineer technology with little thought as to how the species that created it may react.

Special Services Division

Little is truly known about Weyland-Yutani's Special Services Division, with the only confirmed contact being through employee Carter Burke, who acted as Special Projects Director within the department. However, it is thought to be an umbrella division that oversaw and managed various other aspects of the company's research programs.

Weapons manufacture

Apart from the company's bio-weapons projects, Weyland-Yutani was also heavily involved in the manufacture of conventional weaponry, and was a major supplier for the UEAF. The company products include the VP78 Pistol and the NSG 23 Assault Rifle. Weyland-Yutani is also covertly developing aggressive X-stimulants, hardwired cybernetic integrated exosuits, and illegal combat androids.

Other divisions

Weyland-Yutani held numerous other divisions of interest, most notably a large stake in interplanetary cargo transport. It also operated departments focussed on media and manufacturing, and worked in close conjunction with the Interstellar Colonial Authority (ICA). Weyland-Yutani's terraforming efforts were frequently portrayed as being benevolent in nature, but almost always carried a hidden agenda, or at least a substantial profit margin for the company. Weyland-Yutani also manufactured Aspen Beer in the early 22nd century.

Wolf Wiesner Krupp (WWK)

Industry Sectors	Precision electronics, computer hardware, industrial robotics, Cybertechnology, space engineering, colony building
Current Share Price	E$41.36
Ownership	Board 20%; Private investors 80%
Corporate HQ	Anchorpoint City, Mars
GDP	E$81.36 billion

One of the largest manufacturer of computer hardware and industrial robotics in the United Earth Federation (UEF), European megacorp Wolf Wiesner Krupp (WWK) is famous for pioneering research into actuator technologies that allowed development of powered exoskeletons. WWK has recently diversified into space engineering and begun a planetary colonisation programme in the Outer Rim. In 2248 it relocated much of its administrative divisions to Mars to take advantage of the tax breaks set up by the UEF to encourage emigration from Earth to the red planet.

WWF are the finest amour manufacturers in the world. They keep the very best weapons for themselves but sell thousands via their subsidiaries, Anzeiger Military Systems and Yaeger & Stanton. Their domination of this market has influenced their combat methodology to the point that anything but WWF made armours are a rare sight in a unit.

History

2248   WWK relocates many divisions

> ANCHORPOINT CITY, MARS: WWK relocates much of its administrative divisions to Mars to take advantage of the tax breaks set up by the UEF to encourage emigration from Earth to the red planet.

Behind the Scene

During the Colonial Wars, WWK provided arms and training both to the UEF and the rebels. Despite BRINT investigations, no sufficient evidence has been able to assert these rumors. However, in many conflicts across the colonized system, it is not uncommon to meet WWK military advisers. Typically the WWF rely on small units of highly trained Agents often arranged like a Special Forces squad with each Agent a specialist in their own field; sniper, explosives, heavy support, etc. Their utter belief in their cause makes their decisions easy. They are not into subtly subverting foreign powers but seek simply to subjugate, then take control and make a change for the better.

Zen Medical

Industry Sectors	Genetics, medical supplies, pharmaceuticals, medical research, biotechnology, nanotechnology
Current Share Price	E$44.31
Ownership	Board 47%; Private investors 30%; Chinese Consortium 10%; Japanese Affiliates 10%; Motokatsu-Kyono Combine 3%
Corporate HQ	Viking City, Mars
GDP	E$89.4 billion

The largest medical conglomerate around, Zen Medical took over American firm Medtech, its closest competitor in a leveraged buy out 10 years ago. In those years, Zen Medical has grown to being the largest supplier of medical equipment in the Core Systems. Zen Medical's R&D arm remains at the forefront of medical research, and many items in common usage today were originally patented by this company.

Zen medical is also the primary provider of Bioware implants. Their Biotech Division has the largest amount of financial assets of any biotech division in the Core Systems, and it is well-diversified in nanotechnology and pharmaceuticals.

Zen medical has made significant leaps in cultured neuralware and continues to pour funds into research. Their primary focus is on the brain and its associated neural research, although the company has been plagued with rumors involving unethical research.

Zen Medical are the designers and manufacturers of the industry standard for cryopods: the CP71.

History

2128 The 'Sterility Plague' Pandemic

EARTH, SOL SYSTEM: Starting in Central and South America, the Bolivian H2 Alpha Super-Flu or 'Sterility Plague' rapidly goes pandemic. Earth is quarantined by the UEF in an effort to stop the plague spreading to the fledgling off-world colonies.

The flu is eventually brought under control when Zen Medical develop a vaccine, however it has already claimed 114.3 million victims and over a billion people are left sterile.

2134 The Fecundity 5 Vaccine

EARTH, SOL SYSTEM: A scientific breakthrough by the corporation repairs the damage done by the Sterility Plague at a genetic level. With fertility restored, Earth suffers a minor population explosion.

2250 Takeover of Medtech

The largest medical conglomerate around, Zen Medical, takes over American firm Medtech, its closest competitor, in a leveraged buy out.

Bio-Engineering Division

The Bio-Engineering Division is mainly focussed on the study of the Innsmouth "taint", Massachusetts (Earth, United Americas). The town was communing with an underwater culture, crossbreeding with them to produce horrific entities known as the Deep One, who lived off Devil's Reef.

When a Deep One mates with a human, it causes alterations both physical and mental, leading to Deep One-human hybrids. Scientists experiment protocols to isolate the gene of immortality on captured Deep Ones. Purity Control was the name for this top secret project, to create Deep One-human hybrids. The project initially centered around gene therapy using Deep One DNA to cure terminally-ill cancer patients. These patients quickly recovered, developed super-human strength and the ability to breath underwater. These patients' blood/bloodgas is incredibly toxic to humans and is green in color.

Zen Medical is in a bio-arms race with Weyland-Yutani to secure bioweapons contracts with the UEAF, and each is constantly the victim of corporate espionage and sabotage by the other. As Zen Medical is not as well protected as W-Y, the ERC has placed spies within the company administration with the intent of stealing their research for their own.

Emerging Infectious Pathogens Division

Zen Medical maintains dozens of black sites and secret laboratories across the Sol system where they manufacture tailored diseases and the retroviral means to eliminate them. The company then employs their covert paramilitary and

espionage division to unleash these deadly microbes. After the epidemic boils to truly terrifying body counts, Zen Medical's more public divisions, perfectly prepared in white-knight lab coats and armed with the perfect antiviral, swoops in like an angel of mercy.

> *Zen Medical is responsible for over thirty outbreaks in the last two decades, including the Ngano plague, and their incredible ability to stem these viral tides has earned the company record-crushing contracts each time. They have driven most of their competitors to ruin, often by targeting communities that maintain standing contracts with other medical service organisations. As these companies struggle to deal with the inexplicable outbreak of a deadly new disease, Zen Medical rides in and saves the day… and then effortlessly steals their contracts with the offer of faster and far more effective treatment.*
>
> *Zen Medical's shadowy recesses contain some of the sector's leading medical minds. Some have no idea how their work is being twisted, while others delight in playing god with millions of lives. Beyond the mad scientists and unscrupulous virologists, Zen Medical's dark side also contains a host of cloak-and-dagger operatives who specialise in infiltration, shadow warfare, and covert ops. These agents are spread far and wide through the Core system and beyond.*

Other 'bubbling under' megacorp status

Earthwerks Incorporated

Industry Sectors	Terraforming
Current Share Price	E$29.51
Ownership	Board 53%; Private investors 30%; Consolidated Aerospace 17%
Corporate HQ	Mars, Sol
GDP	E$86.2 billion

Earthwerks Incorporated is the leading specialist in planetary terraforming. While many large corporations manufacture terraforming machinery, it was Earthwerks Incorporated who pioneered the technologies behind the first generation of atmospheric processors. The company was perfectly placed, at a time when space exploration was just beginning, and the various colonial powers desperately needed access to new terraforming methods.

By the time the Core Systems had been colonised the technology had been licensed to at least a dozen other companies, making Earthwerks Incorporated very rich.

With the terraforming market no longer a captive one, Earthwerks Incorporated liquidated much of it's terraforming assets, and restructed itself as a specialist planetary engineering consultancy. Earthwerks Incorporated Consultants are highly trained specialists in their field, and are contracted out to nation states and other corporations as advisers during particulary complicated or hazardous terraforming operations.

Earthwerks Incorporated's main corporate headquarters is on Mars, with small offices throughout the Core Worlds.

Cyberdyne Systems

Industry Sectors	Research and development, Synthetic manufacture, cybertechnology, Extrasolar colonization
Current Share Price	E$24.31
Ownership	CEO 21%; Private investors 32%; Corporate investors 28%; Government 19%;
Corporate HQ	Mare Tranquility, Luna (Sol III)
GDP	E$39.7 billion

The Cyberdyne Corporation was the first to develop Synthetics, including the Cyberdyne System 120-A/2. Though their work was pioneering in the early 22nd century, many of their Synthetics were flawed. Cyberdyne has always been in competition with ALinc and Weyland-Yutani, a competition that almost blossomed into open warfare in the race to colonize new worlds. The crown jewel of Cyberdyne's moons is Rhea (Saturn V), where secret Synthetics research is performed. Amongst Cyberdyne employees, there is no trace of dissent.

Cyberdyne employees are taught that the ends justify the means. The rewards for those who succeed at Cyberdyne immense: wealth, power, and even access to illegal technologies.

Behind the Scene

In 2260, a damaged CPU and the right arm of a cyborg were recovered by Cyberdyne from an ETI derelict and became the basis for the company to developed a research program to create human cyborgs. Miles Bennett Dyson, the director of special projects for Cyberdyne, invents a revolutionary type of microprocessor based on the reverse engineering of these parts. The Hunter Killer or "HK" series of anti-personnel combat units were the simplest and most numerous of the various combat oriented Machines designed by Cyberdyne.

LockMit Industries

Industry Sectors	Research, design, development, manufacture and integration of advanced technology systems, products and services.
Current Share Price	E$22.38
Ownership	Board 41%; Government 29%; Private investors 19%; Corporate investors 11%
Corporate HQ	Earth (Split between United Americas/Japan)
GDP	E$37.2 billion

LockMit Industries was formed out of a merger between one of the United Americas most prominent advanced technology companies, and one of Japans largest general trading companies. It is principally engaged in the research, design, development, manufacture and integration of advanced technology systems, products and services. LockMit are the producers of the LM44 Tactical Aerospace Combat Suit (TACS), an innovative anti-G suit and the most common in military use.

The majority of LockMit Industries business is with the United Earth Armed Forces, Federal Law Enforcement Authority and other Federal Government agencies, but they have recently diversified into the civilian market, comprised of commercial sales of products, services and platforms.

LockMit Industries has a close working relationship with Consolidated Aerospace, who are a minority shareholder in the corporation.

Wallace Corporation

Industry Sectors	Replicant manufacture, Bio engineering, Synthetic farming
Current Share Price	E$36.31
Ownership	CEO 60%; Private investors 23%; Corporate investors 17%
Corporate HQ	Los Angeles, CA (United Americas, Earth)
GDP	E$62.5 billion

Niander Wallace is a scientist, replicant manufacturer, technologist and the founding CEO of the replicant manufacturering company, Wallace Corporation. Wallace's first move onto the world stage occurred after the Blackout brought the world into a state of crisis, with stock markets crashing and food shortages prevalent. He pioneered advancements into genetically modified food, essentially bringing an end to the global food crisis, ending his reclusiveness, and allowing his company to expand on Earth and onto Off-world Colonies.

Wallace Corporation is the second and most recent manufacturer of the Nexus line of Replicants, the successor to Tyrell Corporation, the manufacturer of the original Nexus Replicants. Wallace Corporation acquired the remnants of Tyrell Corporation, giving it control of the replicant technology and the business records of Tyrell.

Wallace began to modify genetic engineering to produce replicants that were not only superior in strength and agility compared to their human creators, but also loyal beyond question, bred to obey. These Nexus-9 replicants were made legal by Wallace and the magistrates of Los Angeles in 2236, allowing replicants into the workforce and society.

Wallace pioneered advancements in genetically modified food, and his accomplishments in synthetic farming, followed by the gratuitous sharing of his patents of the technology in the year 2225, averted the famine that threatened life on planet Earth and ended the global crisis, thus been considered a philantropist and a benevolent savior by most if not all.

Other Notable Corporations

In the 23rd Century capital has agglomerated into the hands of highly diversified interstellar megacorporations without whose financial backing the exploration and colonisation of space would have been economically impossible.

Corporation/HQ	Origin	Sector	Description
Azumi Smart Systems	American	Augmented Reality equipment	This corporation currently leads the way in AR software and hardware.
Black Sun Security	Russian Subsidiary of Black Sun Consulting	Private security, personal protection	In 2260, the company is founded by an ex-marine, Colonel Alexei Baretsky. Black Sun Security is a private security company with several premises, including a regional office on Callisto. It has assets deployed on Io, working for Hallidor Corporation and several of the smaller mining companies such as Ceres Metals, Praxis Mining and Proxima Incorporated.
Cain Planetary Engineers	European	Terraforming	This European Federation company specialises in terraforming.
Ceres Metals Ceres Base, asteroid belt	Subsidiary of Hallidor Corporation	Mining, surveying	Born from Project Ceres a bold plan for the colonisation and mining of the asteroid belt out beyond Mars this company is owned by its parent, Hallidor. It has operations throughout known space, notably in the Circum Jove system. It runs the prototype deep space mining craft Rameses I and Rameses II. Rameses II towed the first nickel-iron asteroid back to Earth L-4 for strip mining in 2111.
Europa Biotech Sarpedon, Europa, Circum-Jove	Japanese Independent company once owned by Zen Medical	Biotechnology	Europa Biotech was founded in 2168 as a subsidiary of Zen Medical to perform high-end biotechnology R&D. It was made independent after a management buy-out in 2214 led by famed geneticist Herodotus "Hero" Singh. It wasn't long before the press started calling Singh and his staff the Gene-Hackers. Amongst their achievements are the original templates for the closed hydroponic systems and biomass reactors which are used not only on the Galilean moons but on colony worlds far from Sol. Europa Biotech also developed the first generation of vacuum organism farms.
Hercules Shipping Acallaris City, Ganymede, Circum-Jove	Australian	Interplanetary shipping, logistics, freight and personal courier services	Hercules Shipping is a growing company which was founded in 2196. Hercules Shipping deals in both the intricate logistics and freight forwarding requirements of major companies as well as smaller companies and personal courier services. The company prides itself on providing the same high level of professional service – whether using express interplanetary freight services or cheaper freight-forwarding services.
InterCredit	?	Banking, smartcards, financial services	The combination of FTL communications and a unified central currency exchange has almost totally eliminated the need for hard currency, replacing it with a system of instantaneous computerised transactions. The various banks and financial institutions saw the need for a standardised banking

			network, working for the financial community but able to make independent decisions, and so InterCredit was born.
			InterCredit supply smartcards that are accepted as payment in 92% of colonised space (according to the adverts), and when you are heading out of civilised space, the card can either be 'topped up' with credit – in effect downloading money from your account to the card, or used to acquire hard currency – enabling the individual to spend their money at some of the less technologically advanced worlds on the Outer Rim.
Jovian Holdings Sarpedon, Europa, Circum-Jove	American Subsidiary of Hallidor Corporation	Mining	Jovian Holdings operates in the Circum-Jove system. As well as its headquarters in Sarpedon, the company has regional offices in both Acallaris City on Ganymede and Midgard City on Callisto. It was incorporated in June 2118.
Laing Construction Minos City, Europa, Circum-Jove	?	Construction, surveying	Laing Construction is the company responsible for manufacturing the luxury resort Aphrodite Station.
MedTech	American Subsidiary of Zen Medical	Private healthcare and medicine	American firm Medtech was taken over by Zen Medical in a move to subsume its closest competitor through a leveraged buy out in 2261. All citizens of the Federation are entitled to free health care via the Federal Health Service (FHS), although waiting lists for expensive treatments and therapies can be up to 6 months long. As a result, private healthcare organisations such as MedTech provide an expensive way to get immediate access to treatments.
Praetorian Security Consulting	A subsidiary of the Umbrella Group	Personal protection, security consulting, security systems	Praetorian Hardware, a weapons technology company; Praetorian Logistics, specialised interstellar shipping; and Praetorian Solutions, a software security corporation. It has a regional office on Callisto.
Praxis Mining	?	Mining and refinement	This smaller company has interests in the Circum-Jove system. Notably, it has a base of operations for 10,000 workers on Luyten's Folly in the Luyten's Star system. They are currently mining the asteroid belt for its large radioactive ore reserves.
Qin Mian Technologies (QMT) Acallaris, Ganymede, Circum-Jove	Chinese	Industrial and medical biotechnology	Qin Mian Technologies, or QMT, is an advanced biotechnology firm engaged in industrial and medical biotechnology research and development. Their CEO, Aaron Kwok, is an outspoken political activist and critic of the Jovian Treatise of 2198; believing biotechnology research will lift humanity to the next level of its evolution, but only if allowed a free reign to explore the possibilities. QMT scientists are conducting experiments with Shoggoth matter. They were attempting to create some kind of bio-weapon by splicing Shoggoth DNA with a sample of the virus that caused the Ngano Plague of 2250. What they have ended up with is a highly infectious contagion which mutates its victims into proto-shoggoth matter.
Shinohara Heavy Industries	?	Power cores, fusion reactors, energy, aerospace	Shinohara Heavy Industries provide the four fusion reactors which supply Unity Space Station's power requirements alongside its solar arrays.

		engineering	
Threshold Unlimited	European/ Japanese A subsidiary of Cenargo Corporation	High-energy research, particle physics research, FTL propulsion, quantum communications, unified field theory, exotic matter synthesis, etc.	Threshold Unlimited is a subsidiary of Cenargo, focused on high-tech R&D. As well as elsewhere, they have a small presence in the Circum-Jove on the space station Argus Panoptes. Located in a geostationary orbit around the moon Io, Argus Panoptes is very much a special purpose station and its facilities and staff are rather minimal compared to most other stations of similar size. Approximately 200 people live and work on the station, most of them scientific personnel. A variety of research fields have extensive laboratories aboard the station, many of which use the magnetic field the station is immersed in as a testbed. Cenargo is very guarded about the work being conducted aboard Argus Panoptes. The station keeps to itself and does not get involved in anything that happens on Io.
Titan Corporate Collective (TCC) Titan, Sol System	?	Mining	The Titan Corporate Collective is a mining conglomerate headquartered on Titan. The Titan Corporate Collective was founded when the three original companies operating on Titan and among the moons of Saturn merged in 2148, the thirtieth anniversary of Titan's colonisation. Though other corporations have since moved into business on Titan, TCC still have a monopoly on mining activities in the Circum-Saturn system.
Triton Marine Research (TMR) Minos City, Europa, Circum-Jove	A subsidiary of Seaborne Foundation	Near-shore habitat inventory, assessment and environmental analysis	Triton Marine Research was partially funded by a grant from the Seaborne Foundation. It was founded in 2258. The Deep Ones in the Circum-Jove colonies have mostly arrived as employees of the Seaborne Foundation or TMR, and can be found on the moon Europa. They are as careful as on Earth to conceal their identities from the humans around them.
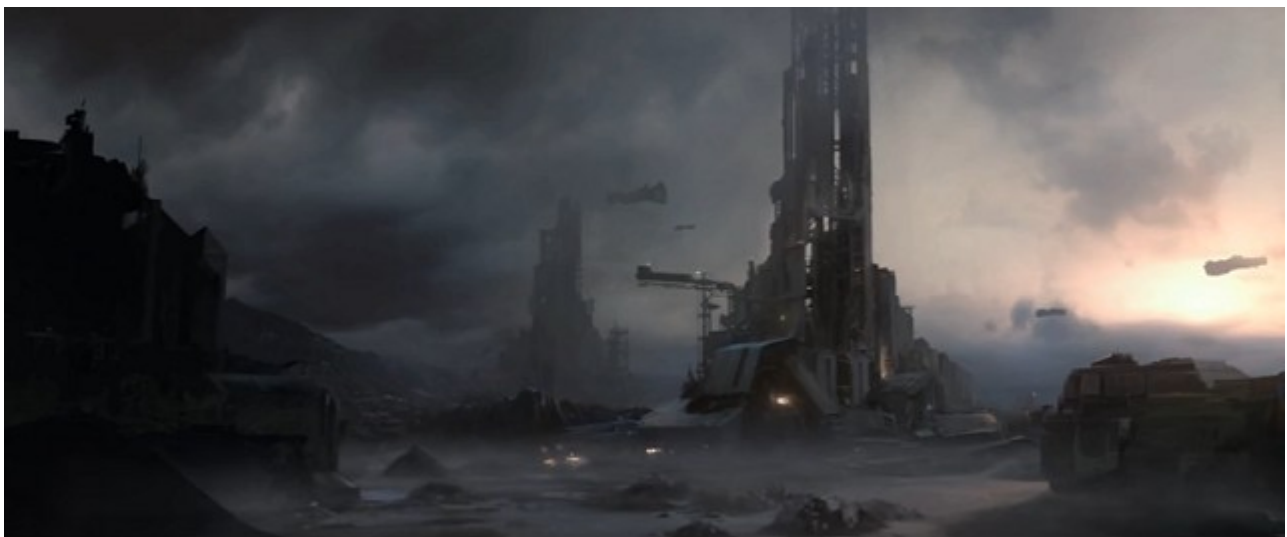
Secret Societies

by Gareth Hanrahan, Paul Wade-Williams, Dennis Detwiller, Adam Scott Glancy, John Snead & John Ossoway

> *"Come with us quietly, Rosemary. Don't argue or make a scene. Because if you say anything more about witches or witchcraft, we're gonna be forced to take you to a mental hospital. You don't want that, do you?"*
>
> *Dr. Abe Sapirstein – physician and Satanist*

Unlike some spiritual movements that seek to proselytise and grow, cults and secret societies must conceal their activities from the authorities. Cults are generally found in isolated colonies, in remote communities, in the wilderness on the fringes of civilised areas, or in the heart of great cities where many hundreds of people can gather without being noticed.

Many beings are too powerful to be defeated by human opponents and so horrific that direct knowledge of them causes insanity. When dealing with such beings, Lovecraft needed a way to provide exposition and build tension without bringing the story to a premature end. Human followers gave him a way to reveal information about their "gods" in a diluted form and made it possible for his protagonists to win paltry victories. If the adventurers are going up against powerful entities every week, it won't be long before they are all dead. Using human cultists, worshippers, mad scientists and other suitably nefarious characters will provide not only more evenly matched opponents but also variety in scenarios.

At the heart of every cult is a preacher or charismatic of some sort, referred to as the cult leader. Such a leader is usually human – a deranged priest who believes the apocalypse is coming soon, a Sorcerer or a Necromancer – but some cults are led by inhuman entities or even the Devil himself. The leader and his inner circle are the lynchpin of the cult – eliminate them and you strike the head from the serpent.

Forbidden Knowledge

One of the most destructive and dangerous ways that humanity can interact with aliens or hyperspatial entities is by forming cults and worshiping or serving these beings. Although aliens are now common trading partners, in the past humans who encountered aliens often worshiped them because they assumed that all non-humans must be divine or demonic. While this is no longer the case, hyperspatial entities still have a strong power differential in their interactions with humans, usually leading to conditions of servitude.

Today the vast majority of cults serve various hyperspatial entities rather than commonplace aliens. Cthulhu, in particular, periodically maintains sufficient wakefulness and connection to the physical world to be able to send dreams and visions to sensitive individuals. Other hyperspatial entities, including Fallen Angels and other Great Old Ones, also occasionally attempt to suborn humans in the same fashion. Most sane individuals ignore dreams and vision sent by hyperspatial beings. At most, the majority of humans would either seek therapy or take up the use of sleeping pills. However, someone with a mildly unstable mind can become fascinated with visions of ancient and terrible wonders and inhuman dimensions. Others are filled with the hope that the monstrous being that contacted them can fulfill some difficult or impossible desire, or become terrified of these visions and the beings sending them and do their bidding in an effort to attempt to appease the entity.

Some people join cults not because they have had any direct contact with any alien entities, but simply because they are convinced to do so by existing members of the cult. Cults that grow large enough to recruit people with no direct connection to demonic or mythos entities are rare, but are also the most powerful and long lasting of these cults. Often, the leaders of such large cults have had extensive contact with the being the cult worships, and may no longer be fully human.

These leaders often have ways to introduce new members to the worshiped entity, either via telepathic contact, where the leader imparts visions and their often insane motives to the recruit, or via forbidden and blasphemous rites that summon the being into the minds of new members. The most dangerous cults of all are where the leader or leaders are not merely in close contact with hyperspatial entities, but are also skilled Sorcerers. Occasionally, careless Sorcerers succumb to the call of various hyperspatial entities, and equally often, such entities teach sorcery to their favored servants to increase those servants' effectiveness.

Non-Religious Servants

The term cult can be misleading. Actually worshiping hyperspatial entities or aliens is far from the only way to interact with them. Some individuals feel no reverence for these beings and are not attempting to free Lucifer, Cthulhu or otherwise allow various hyperspatial entities to attempt to conquer the Earth or rule humanity. Instead, these people seek to serve their own selfish ends, and find the aid that demonic or mythos entities provide to be invaluable. In most of these cases, a single individual is contacted by a hyperspatial entity or an alien, which asks the person for help. These requests can be anything from vague and disturbing dreams of R'lyeh, to a chance meeting with a Lesser Demon. Regardless of the nature of the encounter, the entity requests aid and offers some payment in return. A deep one might sink a ship or provide sorcerous aid. A ghoul might break into an underground structure and steal something or kill someone. The Demon often offer useful technology. A hyperspatial entity could drive a rival insane, or could provide precise visions of some location or time, providing the person with information that they otherwise could never obtain.

However, to attain this reward, the person must first perform some useful service: stealing or unearthing some ancient artifact and presenting it to the entity, performing some exotic rite to help Lucifer temporarily gain more awareness and ability to influence humanity, helping cover up evidence of forbidden activities by deep ones, or some similar action.

Occasionally, the service is a onetime affair, where the entity needs some immediate assistance and offers to pay for it. More often, both the entity and the person find the arrangement to be useful, and so the entity now has a human servant.

Humans who make deals with Great Old Ones or Fallen Angels are dealing with creatures who regard humans as at best useful, non-sentient vermin and which excel at using vermin as their pawns. Physical beings like deep ones or ghouls are obviously on a more human level. However, deep ones willing to break their treaties with humanity are especially inclined to view humans as lesser beings worthy only of being used, and many ghouls regard humans who work with them as potential prey who may outlive their usefulness at any time.

Over time, these transactions make people willing to go increasingly far in aiding their inhuman masters, and commit serious and sometimes heinous crimes in return for useful rewards. This is especially true when the person is serving a hyperspatial being, since repeated exposure to this being changes the person and may eventually destroy their sanity and transform their mind and even their body into something completely inhuman.

This relationship can also expand to include others. While most servants of entities prefer to keep the nature of their motivations secret and to hire unknowing assistants to help them accomplish their

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master's commands, sometimes the requests are sufficiently unusual that the only way to gain assistance is to find others willing to serve their inhuman master. The resulting cabal consists of the board of directors of a powerful corporation or the members of an alliance of politicians or business owners more often than it resembles a religious sect. However, the group's actions are quite similar to those of an actual cult; only the reasons and rationalizations are different. Instead of enacting the will of their deity or the directives of an unchangeable fate, these "cultists" seek to serve their own ends, but are more than willing to provide aid to malignant inhuman creatures in order to accomplish their goals.

The Goals & Activities of Cults

Regardless of whether people serve entities from selfish greed, misplaced reverence, or fear, these entities find a variety of uses for human cultists and servants. Ordinary aliens and inhuman beings like the deep ones, gargoyles, or ghouls all have relatively simple and obvious needs. They order or pay their human cultists or servants to acquire useful artifacts or eliminate individuals who interfere with their plans. Hyperspatial beings are far less comprehensible. Great Cthulhu or Lucifer have the obvious goal of wishing to regain their freedom, while others wish for greater power, domination of the Earth, or similar goals, but their methods of accomplishing these goals rarely seem straightforward.

Some hyperspatial entities seek to cause large-scale catastrophes like earthquakes or nuclear explosions in order to either feed of the power of the event and the energy of the deaths caused – or because these events in some way alter the local structure of hyperspace in ways that benefit the entity. Other hyperspatial beings order their human servants to acquire powerful magical artifacts, assemble at some magically potent site, and perform an exotic ritual. While some of these rituals have obvious goals like allowing the creature, or more often one of its servants to temporarily manifest, other rituals have no obvious effect, but may eventually grant the creature greater access to Earth.

The most terrible and ambitious plans involve several large cults performing rituals at widely separated locations, with the goal of changing the local structure of hyperspace in profound and occasionally lasting ways. Most rituals designed to make permanent or long-lasting effects on the structure of hyperspace have little or no chance of success. Restructuring hyperspace is exceptionally difficult and even the most powerful hyperspatial beings have great difficulty in reliably making such changes.

Sometimes these rituals have short term effects as well. One ritual performed in 1916 caused hundreds of thousands of people in Europe and America to fall prey to a mysterious illness that produced coma-like sleep, sometimes for decades. Occult scholars now know that the minds of these victims drifted into hyperspace, where they were gradually devoured or fed upon by Cthulhu.

Similarly, a group of very powerful servitors of the other gods was summoned in San Francisco in 1953. The actions of these beings caused a temporary ripple in the local fabric of hyperspace that for the next two days caused more than 300 people in the city to accidentally wander into hyperspace, where they were devoured by its hungry denizens. Many researchers also worry that if repeated often enough, some rituals designed to make major changes in hyperspace might actually succeed.

The Hidden Foe

Cults fear the light and so seek to conceal themselves from prying eyes. They meet in ritual circles at midnight out in the forest, or in hidden temples deep beneath the earth. A travelling merchant might see nothing untoward in the village by day and pass by, unaware that he was ever in the company of cultists. Uncovering a cult requires careful observation, investigation and even infiltration.

The relative strength of a cult and the difficulty of the investigation can be broken into five factors. These factors are rated like skills. As a guide to a cult's operations, the Games Master should allocate points to each of these five factors. A small cult might have only 200 points to spend; a medium sized cult 300; a large and potent cult some 500 points.

Subversion: What proportion of the common population subscribes to the cult's beliefs? How many are sworn to its service? A cult with a low Subversion score has only a few secretive members and little local influence; a cult with a high Subversion score holds the loyalty of most of the people in the area.

Fanaticism: How devoted the members of the cult are to their beliefs. This affects the cultist's willingness to die for the cause and their ability to resist torture and interrogation. Cultists can also draw on fanaticism to steel themselves against threats both mundane and supernatural.

Concealment: How well the cult hides its activities from investigation. A low-concealment cult is doomed to be short-lived, as the first Character to notice the cult will be able to unravel all its secrets. Low-concealment cults meet openly, have easily spotted cult brands or especially showy magical rituals, or simply do not take care when hiding the bodies. A high-concealment cult is adept at avoiding detection.

Force: How well can the cult exert its power directly? Force takes many forms – armed guards, assassins, political influence, wealth – but always comes down to the exercise of power. A low-Force cult might be a group of fearful unemployed worshipping an alien deity; a high-Force cult might be a cabal of politicians who have taken to practicing satanism behind a screen of guards and political power.

Supernatural: What unnatural entities or monsters are allied with the cult? This category also covers the magical ability of the cult leader. A cult with a low Supernatural component might not have any occult elements at all. A high Supernatural factor indicates that the cult has considerable magical power and that the Characters will face several monsters.

Although they resemble skills, factors should not be used as hard-and-fast rules in the same way. They are guidelines for the GM to adjudicate the cult's abilities and responses. If it makes for a better story to have Steve the barman be a cult member, do not bother rolling Subversion – just have him try to murder the PCs in their beds. If you already have a set-piece battle with a summoned monster planned, then use it without worrying about rolling Supernatural. However, it is a good idea to leave at least some events up to the roll of the dice – rolls against cult factors can suggest surprising twists in the tale. What does it mean when the characters capture a young orphan and the GM rolls a critical success on Fanaticism? What caused a botched Concealment roll when the cult was trying to hide a body? What disturbed them?

Investigation Difficulty

The higher the cult's Defensive Factors of Subversion, Fanaticism and Concealment, the harder it is for the characters to investigate along certain avenues. Subversion blocks covert investigation, information gathering and questioning; Fanaticism opposes direct questions and interrogation; Concealment blocks physical investigation and tracking.

Factors may also help cultists with certain Skill Tests.

Factor Effects Table

Factor	Subversion	Fanaticism	Concealment
Skills Opposed	Disguise, Insight, Streetwise	Torture, Persuade	Occult, Perception, Track
Skills Aided	None	POW	Stealth
Applies In	Covert investigation, talking to people, spying on the cult	Overt questioning, torturing, trying to convince cultists to change sides	Searching for physical tracks, looking for concealed evidence or signs of cult activity

Subversion

As a rule of thumb, the Subversion score measures the proportion of important Non-Adventurers in the area who are members of the cult. If the PCs walk into a district with a Subversion score of 20%, then one in every five significant people they meet will be a cultist. A cult with a Subversion score of 100% means that virtually everyone in the area is a member of the cult. (If the Subversion score is over 100%, then any points above 100 means that the cult has secret spies outside its normal area of influence)

The GM can roll Subversion to see if a random NPC is a cult member or sympathiser. For example, the PCs hear rumours that the cult has a ritual circle in the surrounding districts. The GM expects them to go investigating the districts immediately but the players decide to contact an informer first. The GM rolls against the cult's Subversion score to see if the informer turns out to be a secret cult sympathiser.

Using Subversion:

The cult may use Subversion to exert social pressure within its area. If the characters are asking too many questions, then potential witnesses may be pressured into staying silent with a successful Subversion roll. Subversion can also be used as the cult's Perception analogue – were the characters spotted approaching the town? Roll Subversion to find out.

Detecting Subversion:

There are several ways to notice Subversion, usually via roleplaying and interpersonal Skill Tests. Skill Tests should be modified by the cult's Subversion, Fanaticism or Concealment, as appropriate.

- ■ Insight: 'You notice that two of the barmaid in the local are keeping to themselves and throwing the occasional glance in your direction. You think they are watching you.'

- Streetwise: 'Asking around the village, everyone agrees that the local police officer is up to no good.'
- Culture: 'That is an… unusual style of our church. For one thing, The Saviour is usually depicted with fewer tentacles.'

Dealing with Subversion:

The nasty thing about a high Subversion is that it corrupts the social fabric of a community. Even those who are not part of the cult are unwilling to talk to outsiders, for fear of retribution. Subversion can be reduced by:

- Removing witnesses from the cult's influence. People are more willing to talk when they do not have the cult around them, pressuring them into silence.
- Protecting witnesses from cult retribution. This might involve rescuing hostages or defending a shopkeeper against racketeering.
- Exposing influential leaders as cult members. If a cult controls a local authority figure, like a priest or politician, then eliminating him can free wavering members of the cult.

Fanaticism

Fanaticism measures a cultist's devotion to the cause. Fanaticism makes the cult harder to defeat, as its members cling to their heretical beliefs with extreme tenacity.

The GM can roll Fanaticism as a quick morale check for cultists, which comes in very handy when cultists run into the surprising physical prowess and wonder-weapons of the Order. Do the cult guards flee when confronted by a band of soldiers armed with automatic rifles? Roll Fanaticism.

Using Fanaticism:

Fanaticism's primary use is to resist interrogation. If the characters are using Influence or torture to extract information or confessions, then Fanaticism helps the cultists resist. The GM may also allow cultists a Fanaticism bonus to Resilience tests if the cultists are fighting to defend their leader.

Detecting Fanaticism:

Fanaticism is usually only detected when the characters try to investigate a cultist only to find their questions rebuffed. Insight and Perception may also be used to spot especially fanatic cult members by their demeanour.

- Torture: 'The cultist screams as you apply the hot irons but he still won't talk.'
- Military Tactics: 'They fight like those who are already dead.'

Dealing with Fanaticism:

A direct attack on fanaticism is counter-productive, as cultists already believe they are under attack. Pressuring a believer just reinforces his fanaticism.

- Acts of surprising mercy and compassion can break down fanaticism. A cultist who believes that he will be executed may be redeemed if instead you free him from the service of his masters.
- Demonstrating the weakness or corruption of the cult leadership can shake the belief of their subordinates. Slaying or humiliating a leader of the cult in the presence of his followers can reduce their fanaticism.

Concealment

Concealment is basically the cult's housekeeping ability – how well do they clean up after themselves? If the cult holds black masses in the woods, then how well do they hide their sacred altar from prying eyes? If the cult practices human sacrifice, how well do they hide the bodies? It also reflects the cult's knowledge and mastery of the area it controls; a cult with a high Concealment might have hiding places and secret fortresses everywhere.

Roll Concealment to see how well the cult hides evidence.

Using Concealment:

A traditional twist in occult investigation is where the characters find proof of the cult's activities and try to bring it before the authorities; only to have the evidence disappear. For example, the characters find a mass grave in the dead of night but when they visit it the next morning with the local police officer, the grave has been dug up and emptied overnight. Throw Concealment to determine if the cult is able to pull off disappearing acts like this one.

Detecting Concealment:

Concealment is detected mainly by the absence of evidence but there are a few clues connected to Concealment that can tip the characters off to cult activity.

- ■ Track or Survival: 'This area is eerily free of tracks, as if even the local animals are avoiding these woods.'

- ■ Engineering: 'Something about this barn feels off. There is an odd echo. Maybe there's a false wall.'

- ■ Commerce: 'This ledger has been tampered with. Someone tried to hide the fact that the ship made at least one extra stop on each voyage.'

Dealing with Concealment:

To deal with Concealment, the characters need to find some clever way of forcing the cult to reveal its secrets.

- ■ Disguise: Pretending to be a cultist and following them to their cult meetings is a great way to uncover secrets (and to get into a lot of trouble – remember that Subversion works against Disguise).

- ■ Characters can also find other ways to track the cult, such as tracking dogs or a spy drone.

Force

Force is used to directly oppose the character's investigations. When the characters' presence is noticed by the cult, the cult leader may choose to retaliate by physical or supernatural means. A physical retaliation generally means the characters are attacked, either openly (the cultists draw guns and hunt down the characters) or secretly (assassins, poisons, daggers between the ribs).

The cult's Force can be used as a guideline for the sort of equipment and weapons possessed by the cultists, as well as their weapon skills. Not every cultist will have such a weapon skill – just the ones assigned to handle physical problems, such as guards and assassins.

Force	Cultist Combat Skill	Typical Weapons	Typical Armour
0–10	20%	Improvised weapons; clubs, knives	None
11–25	30%	Guns	bulletproof vest
25–50	50%	Guns, shotguns	PBA
51–75	70%	Guns, riffles	RBA
76–99	90%	Military weapons	CBA
100+	100%+	Military weapons or magical weapons	BBA

Using Force:

Roll Force to determine how quickly and efficiently the cult can respond to attacks. For example, if the characters kill some guards, roll against force to see how long it takes the cult to notice the loss and investigate.

Detecting Force:

Detecting Force is very easy when the cultists are hitting you in the face with knives. More cautious characters can get an idea of a cult's Force score by observing its guards or gathering information about the military forces present in the area.

Dealing with Force:

The best way to deal with Force is by killing the armed cultists. Winning a fight against a band of cultists reduces the cult's Force temporarily until it can rearm.

- ■ Distracting the cult can also reduce Force. If one character can draw some of the guards away, then the cult's effective Force is diminished.

- ■ If the guards can be otherwise occupied, they also do not contribute Force. Only a fool fights in a burning building, so set the cult temple on fire and then attack.

- ■ Sabotage can reduce Force. Poisoning the guards beforehand makes for an easier fight.

Supernatural

A cult's Supernatural score determines what sort of magical ability they possess. Like Force, it can be used as a guideline for the cult's magical ability. For every 10% of the cult's Supernatural score, it possesses one supernatural asset of some kind – a significant supernatural creature or a pack of lesser creatures, sufficient to pose a threat to a group of Adventurers.

Using the Supernatural:

In addition to determining what supernatural assets the cult has, the Supernatural score can be used as a guide to the cult's knowledge of the occult and their ability to cope with supernatural attack. A cult with a low Supernatural score might easily be overawed by a few Spells; a cult with a high Supernatural will laugh at such petty manifestations.

Detecting the Supernatural:

Some supernatural forces are invisible and can be detected only through the use of powers like Psionic. Others can be detected by conventional means but need lots of Lore (Occult) to correctly identify.

Dealing with the Supernatural:

The best way to deal with the supernatural is with Magic spells or Psionic.

Supernatural	Supernatural Creatures	Spells	Horrors
0–10	Single servitor	1 grimoire 1D4+1 spells level 1-2	0
11–25	Zombies, Skeletons, Lesser Independent Race	1 grimoire 1D6+1 spells level 1-3	1
25–50	Ghouls, Greater Independent Race, Imps, Gargoyles	2 grimoires 2D4+2 spells level 1-5	2
51–75	Werewolves, Lesser Servitor Race, Lesser Demons*	2 grimoires 2D6+2 spells level 1-7	3
76–99	Vampires, Greater Servitor Race, Greater Demons*	3 grimoires 3D6+1 spells level 1-9	4
100+	Deities, Princes of Hell	4 grimoires 4D6+1 spells level 1-10	5

*: May also be the cult leader.

Horrors

Horrors are supernatural 'overspill'. If there is too much supernatural power in one area, it manifests in eerie and horrific ways. The natural world becomes corrupted and twisted by the Horror.

Horrors are divided into groups. The GM should reuse the same groups for recurring foes. For example, if the characters encounter a necromantic cult, then the GM might use the Horror of Blood group for that cult. Later, in another adventure when the players are investigating another mystery, they encounter Horror of Blood effects again – implying that the same cult is involved in this new mystery. Use Horrors as occult foreshadowing and to build atmosphere.

The supernatural entity or cult who generate the Horrors may not necessarily be in control of them; they are effectively occult side effects. Cults trying to remain hidden do not want Horrors but they still manifest as the cult's power grows.

A Horror has a level, ranging from 1 to 3. Level 3 Horrors are the most potent and dangerous. If a cult has multiple Horrors, it must have as many level 1 Horrors as it does level 2 and as many level 2 Horrors as it does level 3s. So, a cult with five Horrors could have Levels 1, 2 and 3 from one Group and level 1 and 2 from another, or three level 1s, one level 2 and one level 3 from one Group, or any similar combination.

The area affected by a Horror depends on the potency of the magical effect that created the Horror in the first place. Level 1 Horrors cover a much greater area than level 2 Horrors and level 3s only affect the heart of the supernatural manifestation. For example, a Level 1 Horror might cover an entire valley, the associated level 2 Horror affects only the woods where the cult meets and the Level 3 Horror affects only the summoning circle.

Horrors Table

Horror/level	Description	SAN
Cryptic Blood/1	Sometimes, when blood is split, it forms itself into significant shapes.	0/1D2
Enhanced Injury/1	Any attack that causes damage inflicts an extra point of damage, because of the extra bleeding.	–
Blood in the Water/1	At times, water sources in the area such as streams or lakes – or even a bowl of water in a bar – turn to blood.	0/1D4
Unquiet Dead/1	The dead in this place do not stay buried. Corpses move when the characters are not looking; graves are pushed open from below and you can sometimes hear scratching noises, as if someone was clawing at the inside of a coffin deep underground…	0/1D4
Dreams of the Dead/1	Anyone slumbering in this region has vivid dreams of the recently deceased.	0/1D2
Power of Undeath/1	All undead creatures in the area gain +2 Hit Points to each Hit Location.	–
Deeper Darkness/1	The shadows are especially murky in this region. All Perception test penalties due to darkness are increased by 20%.	–
Night Sight/1	All cultists and monsters gain the Night Sight ability.	–
Corpse Lights/1	Spectral lights are seen floating in the fields at night. Characters who follow the trail of these lights may find significant clues – or be lured out to their deaths.	0/1D2
Cold Spots/1	There are zones of unnatural cold in some places. Characters in such a zone take damage unless they have a source of warmth or protective clothing.	0/1D2
Unseen Claws/1	Characters find strange marks and wounds appearing on their bodies, like the marks of chains or unseen claws.	0/1D4
A Stench of Sulphur/1	The whole area stinks of sulphur.	–
The Buzzing Flies/1	Thick clouds of flies buzz around this area, gathering in such huge hordes they blot out the sun. Characters attempting to do anything in such a cloud suffer a –10% penalty to all actions.	0/1D3
Sickness/1	A plague is loose in this region. Characters must make a CON vs. POT/12 test each day to avoid falling ill. Those who fall ill suffer a –10% penalty to all skills.	–
Pox and Boils/1	All those who dwell in this Horror, or who spend too long here, develop hideous boils and lesions on their skin, reducing their APP by 3. Characters must make a CON vs. POT/14 test each day to prevent themselves from developing these symptoms.	–
Blood Rain/2	Sometimes, the rain turns to blood. The sticky, ghastly rain gives an additional –10% penalty to any Skill Tests made outdoors.	0/1D4
Taste for Blood/2	Animals and cultists in the area have an unnatural hunger for the blood of the wounded. Any attacks on characters who are already injured by animals and cultists have a +10% bonus.	–
Dead on Dry Land/2	The water invades places that should be dry. The characters might find flood waters flowing up a hill towards them, or a locked room might fill with water from no discernable source.	0/1D6
Flowing Darkness/2	The darkness moves, flowing like inky water to hide those who worship it. Cultists and other enemies gain a +20% bonus to Stealth tests.	0/1D4
Whispering Dead/2	The dead speak. Sometimes, the lips of corpses move as if straining to form words. The characters can speak to the dead but may not like what they hear…	0/1D6
Grasping Hands/2	The dead claw at the characters. If the characters are moving through a battlefield, or a graveyard, or any place littered with corpses, the dead grab at them and try to drag them down into the earth…	1/1D6+1
Visions/2	Characters are occasionally assaulted by visions of how the unquiet spirits died. These horrific visitations can occur at any time, even in the middle of a fight. A Persistence test is needed to fight off an unwanted vision.	0/1D4
Eternal Darkness/3	There is no day here, anymore. The area is forever night.	0/1D6
Risen Dead/3	Any cultist slain in the area rises again as a hostile zombie.	1/1D10
Deadly Plague/3	The plague is now a lethal one. Characters who enter this region of the Horror suffer from a fever and lose one point of CON per day until they pass three CON vs. POT/16. One Resilience test is allowed each day.	–

Defeating Cults

To defeat a cult, the characters must accomplish the following tasks:

1. Investigate the cult and find out what is going on.

2. Survive the cult's inevitable counterattack

3. Identify the cult's leaders and other sources of power

4. Eliminate the leaders and sources of power

5. Conceal their own activities and ensure that no-one ever knows what happened

Cult Reactions

As the characters get closer to the heart of the cult, the cult will respond. The nature of this reaction varies depending on the cult.

High Subversion: An ally close to the characters turns out to be a cult member.

High Fanaticism: A suicide squad of attackers strikes at the characters.

High Concealment: The cult tries to redirect the investigation by planting clues leading away from it or by sacrificing a few members to make the characters believe they have dealt with the cult leaders.

High Force: A mob of cultists attacks or the cult dispatches assassins.

High Supernatural: The cult casts offensive spells at the characters or sends a supernatural creature to stalk them.

Cult Brands

Many cults wear some symbol or marker to identify their members. If the characters can identify this brand, it makes finding the cult easier. Of course, the use of a brand makes masquerading as a cultist that much harder. Roll 1d10 to determine what sort of brand the cult uses.

1d10	Brand
1	Ritual scarring or branding: All cult members have a scar carved or burnt into their flesh in the shape of the cult's holy symbol.
2	Curse: All members of the cult are cursed in some fashion. Perhaps plants wither in their presence, or they smell foul, or they slowly mutate into monsters.
3	Tattooing: A hidden tattoo of the name of the cult's patron demon or his symbol.
4	Token: All cultists carry an item that identifies them as members of the cult, such as a ring, a piece of jewellery or an unholy relic.
5	Cult garb: The cultists wear a particular set of holy vestments, such as white robes and a dagger, or bestial masks. While they only wear these uniforms during cult ceremonies, the characters might find clues by searching the homes of cult members.
6	Sacrifice: Every cultist has made a particular sacrifice. Perhaps all members of the cult have cut off their left little finger or maybe to join the cult, they must sacrifice one of their children.
7	Black mark: Membership in the cult manifests as a strange black pockmark on the cultist's skin.
8	Taboo: Members of the cult may not perform some relatively common act. Maybe they cannot step onto holy ground or cannot have sex.
9	Obligation: Members of the cult must perform some ritual act. Perhaps they are bound to protect and feed cats, or have to pray at moonrise or lose their place in the cult.
10	Spiritual Foulness: Entering the cult taints the cultist's soul, making them detectable by occult skill or Psionic.

Cult Leaders

At the head of every cult is a charismatic leader. This leader directs the cult and holds it together by sheer force of will. If the leader is slain, the cult is beheaded, so the cult puts every effort into protecting the leader.

When creating a new cult, consider what sort of leader it has and build the cult around that. A cult ruled by, say, a resurrected Egyptian Sorcerer will be very different to one that springs up around a nine-year-old girl who channels the wisdom of a forest spirit. Cult leaders can be recurring antagonists and should on their own be a significant challenge.

Consider how the leader can avoid being summarily assassinated by the Adventurers. There are several ways to prolong the battle with the cult, such as:

- The cult leader has considerable personal magic and is warded against direct assault. The characters have to first attack his power sources before then eliminating him.

- The cult leader resides in the cult stronghold and never leaves. The characters have to find and infiltrate the cult's temple to eliminate him.

- The cult leader operates through intermediaries or figureheads; the cult believes that the high priest is in charge, when it is the high priest's bodyguard who is actually the true leader.

The Final Confrontation

The final confrontation is the last battle with the cult, when the characters attempt to slay the high priest and topple the cult's altar. It should be more than a set-piece skirmish – it should be a battle between the faith of the PCs and the dark power of the cult. It should also be a dramatic and tactical challenge, one where the characters can triumph only if they have prepared for the battle.

The best way to do this is to start with the cult leader and his immediate minions, who should be a serious challenge for the characters to begin with. Make sure you design them in such a way that they can deal with some of the Adventurers' attacks (make sure, for example, that a single bag of choking dust cannot take out the entire cult).

Next, come up with an interesting and atmospheric place for the final confrontation. Usually, this will be in the cult's secret sanctum. Think of ways to make the scene horrific or inspiring; a necromantic cult might be fought in an underground cavern full of bones, with combatants clambering over piled skulls and ribcages snapping underfoot.

Burying the Cult

Once the cult is decapitated, the characters need to ensure that knowledge of it is buried forever. The Order dictates that knowledge of the supernatural and strange gods cannot be allowed to spread. Therefore, if anyone outside the cult was exposed to the supernatural, then the characters' duty is to eliminate those people. Whether or not they do so is up to the players but there are consequences either way. Murdering innocents for God may trigger a crisis of faith for the characters; letting those who know about the supernatural survive should result in new cults appearing. Maybe one of those 'innocents' who the characters spared becomes a new cult leader or some seemingly minor item was taken from the cult's stronghold that turns out to be a powerful magical relic.

Sample Cults

Freemasons, The

The Freemasons are often accused of all kinds of things from influencing international affairs to managing interplanetary alliances and treaties. To most, the Masonic Order is a gentlemen's club, it's lay members drawn from all walks of life, with many being rich businessmen and politicians.

What most lay members do not know, is that the upper echelons of the Order, the 'Inner Temple', like the Illuminati, also know about the true history of the Earth. They fight a covert war against the schemes of the Illuminati.

The Freemasons, through their political and corporate interests, pushed for the colonisation of space, theorising that the more worlds humanity occupies, the greater it's chance of survival should the Great Old Ones ever return. They also encouraged the development of psychic powers in humans, as it may prove a powerful tool in the fight against the minions of the Great Old Ones. Undeclared Asyncs can find refuge in the organization, have a new identity and rebuild a life.

- Subversion: 10%. The Order is not actively subverting anyone and has no grand goals other than study. That said, some of the members are very influential, so the League's political power is much higher than this figure indicates.

- ■ Fanaticism: 10%. The vast majority of members have no idea they are dabbling with forbidden science.

- ■ Concealment: 90%. The Order is a private club and while the members do not believe they are doing anything illegal or immoral, they still want to conceal their activities from prying eyes.

- ■ Force: 15%. A few elite soldiers but not a significant fighting force.

- ■ Supernatural: 40%. The Order has access to a single major grimoire but have yet to fully comprehend its power.

GRU Spetsialni Podrazdeleniye 8

GRU stands for Glavnoye Razvedyvatelnoye Upravlenie: "Chief Intelligence Directorate of the General Staff." In the winter of 1918 during the Russian Civil War, Lieutenant Gregor Studnikov of Red Army intelligence investigated rumors of cannibalism in his sector of the Siberian front. He discovered the existence of nekrofagiyisti, or ghouls. Studnikov entered the GRU in 1927 after rooting out an Evenki cult worshipping a pagan god they called "Kotura, Lord of the Winds." By 1931 Major Studnikov headed Spetsialni Podrazdeleniye 8 (SP-8; Special Department 8) of the GRU. His mission: spy on Stalin's secret occult experimentation unit within the OGPU, later the NKVD. Unsurprisingly, the NKVD purged Studnikov in 1938 along with the rest of the GRU leadership.

In 1940, the GRU reactivated SP-8 for the occult war against the Ahnenerbe and Karotechia. In 1942, SP-8 again hunted ghouls during the Siege of Leningrad. Under its chief, General-Major Sergei M. Shtemyenko, it also fought Stalin's occult directorate during the chaos in occupied Vienna during Operation SUMMER BREEZE. In June 1953, the GRU destroyed the SMERSH life-extension laboratory and doom Stalin's occult immortality, and SP-8 executed or absorbed its occult researchers and assets.

When Soviet intelligence learned about the Roswell crash, Shtemyenko (by then head of the whole GRU) convinced Stalin to assign the investigation to SP-8. The department began a full espionage campaign, while Shtemyenko simultaneously removed all evidence of SP-8's continued existence from army and intelligence files. After 1947, the personnel of SP-8 would officially not exist, even in the all-seeing State. Even its funding came from fictitious projects, approved by Shtemyenko and his successor as GRU head, SP-8 veteran Colonel General M.A. Shalin.

During the Colonial Wars, the GRU joined the Eurasian Rimworlds Combine in the Outer Rim Territories. Under its current chief, the affably brutal Lieutenant General G.F. Ivanov, SP-8 worked to take active measures against the UEAF: the magical murder of a Free Worlds Alliance colonel in 2259 or the occult serial killing at Viking City on Mars in 2260.

Today, SP-8 works to obtain more knowledge regarding the Forbidden Science and to struggle against MiliSci.

- ■ Subversion: 5%. Only a few GRU's staff have so far joined Spetsialni Podrazdeleniye…

- ■ Fanaticism: 70%. … but are especially devoted.

- ■ Concealment: 80%. To most, SP-8 doesn't exist.

- ■ Force: 90%. The unit is very well equipped.

- ■ Supernatural: 45%. SP-8 has some Grimoires.

Illuminati, The

The founder of the Bavarian Illuminati, Adam Weishaupt, was also a Mason. This fact prompted wide speculation that the two groups had been (or still are) working in tandem for a broader objective the establishment of a "New World Order." What most people do not know is that Weishaupt recruited Illuminati from the ranks of his fellow Masons. This recruitment continued unabated until he was finally caught and expelled from the Masonic Order.

The Illuminati of the 23rd century have much power and influence in the Federal government, and own stakes in many of the largest of the megacorporations. The highest members of the Illuminati, the NWC (New World Council) know about the true history of the Earth, about the Great Old Ones, Elder Gods etc. They are even rumoured to be preparing the way for the return of the Great Old Ones when the stars are right. They control the division of MiliSci concerned with the investigation of extra-terrestrial phenomena, and make sure all such operations are tightly controlled.

- ■ Subversion: 35%. The Illuminati control MiliSci.

- ■ Fanaticism: 80%. … and are ready to do what it need to.

- ■ Concealment: 50%. Many talk about the Illuminati but their existence is not proven.

- ■ Force: 100%. The Illuminati use MiliSci resources.

- ■ Supernatural: 80%. A lot of Dark knowledge.

Karotechia, The

The Karotechia, a super-secret occult organization buried within the ancestral research division (Ahnenerbe) of the SS, spent huge amounts of time and money tracking down the arcane science of "Magik" in an attempt to help the Nazi war effort.

At its forefront was Dieter Scheel, Hauptscharführer in charge of Projekt Ewig, or Project Eternity, a search for knowledge that could grant eternal life. It was obvious from their earlier experiments that something of the sort existed, even if they did not yet understand it.

In December 1941, outside the Hungarian town of Zolta near the Schwarze See (or Black Lake), an entire outfit of Nazi engineers disappeared while surveying the area for a series of hydro-electric dams. When the SS came at the behest of local authorities and the Wehrmacht, they found most of the engineers wandering about the shores of the lake as if in a stupor. Many had been pierced through the chest by an organic spine of some sort, which later dropped away. Although the wounds were grievous, the men remained conscious and somewhat coherent. They had no blood pressure, heartbeat, or any other discernible autonomic function. They did not need to breathe. Projekt Ewig had its first solid lead.

Study of the site, the engineers, and local legends suggested that something lived in the small lake that could grant immortality, and which seemed to draw humans to it through dreams. After several incidents and disappearances in the small Karotechia group, the research was conducted only during the day from the town Jagnence instead of Zolta.

A Karotechia medical team made extensive studies of the engineers, performing all manner of tortures on them to discover the limits of their inhuman condition. The engineers proved to be extremely resilient and able to survive all but the most destructive attacks with acid, fire, or the like. Physical damage caused only disfigurement and loss of range of movement, not the shock an injured human would experience.

They retained knowledge of who they were and what they once were, but were incoherent much of the time. They served "Gla'aki," the elusive creature of the lake, refusing orders from superiors so they could answer the creature's "call."

- ■ Subversion: 20%. The organization is weakened since the 2nd world war.

- ■ Fanaticism: 90%. Members are especially devoted.

- ■ Concealment: 100%. No one knows about its existence.

- ■ Force: 80%. The organization members are well trained soldiers....

- ■ Supernatural: 80%. … and a lot of Dark knowledge.

Military Sciences Division

Military Sciences Division, or MiliSci as they are more commonly known, are the branch of the United Earth Armed Forces responsible for the development and acquisition of new technologies for use by the military. They have quite a broad remit to achieve this, operating without much official regulation or oversight by the UEF government. Their budgets are vast and mostly classified. Access to information even within the organisation is heavily compartmentalized. There are many subdivisions in MiliSci, ranging from lower echelon black projects to the super-black branch known as the Black Chamber. The Black Chamber does not officially exist, and most members of the UEF government can exercise plausible deniability in this matter, because most of them believe this also.

The Black Chamber are in charge of all research and development involving the occult and/or alien technology. They are possibly the descendants of Majestic 12… The name has changed but the missions have remained the same:

1. To determine the truth about extraterrestrial life.

2. To recover, control, and exploit alien and paranormal technology and artifacts.

3. To keep the project totally secret.

That second mission statement results in oceans of black budget money from the military and top-secret science establishments flowing into MiliSci programs. The third one sometimes leads to the death of witnesses – or even unreliable officials who know too much. Agents of MiliSci struggle to defeat threats that outstrip human comprehension,

as the human world rushes towards inevitable destruction. Agents live their lives—what of their lives they can maintain—and keep the ultimate secret from their loved ones: No matter what they do, they know, eventually, the end is coming.

The need for secrecy is real: revealing that the UEF is defenseless against alien attack would at best cause an interplanetary panic and at worst trigger an arms race.

MiliSci have bases of operations throughout colonised space, such as at Icaria Planum on Mars, and the Trinity Testing Facility in the 40 Eridani star system. A top-secret Black Chamber base is located within the Cilix Crater on Europa. From here several exploratory missions have been sent into the alien ruins codenamed Telephassa. Cilix has a serious amount of black project funding, and has a dedicated team from the MiliSci SAD Force assigned to it.

The most infamous name associated with MiliSci is Pandora. A space station which serves as the Area 51 a top secret research base and repository for acquired alien tech. Like the Black Chamber, it does not officially exist.

- Subversion: 5%. Few military staff join MiliSci.
- Fanaticism: 50%. The members are not fanatically loyal – but they are loyal to the UEAF. They also know they would certainly be executed for their black ops, so they are unwilling to surrender.
- Concealment: 5%. MiliSci is a known branch of the UEAF.
- Force: 100%. MiliSci uses elite soldiers with last updated technology.
- Supernatural: 60%. A lot of Alien technology.

Seaborne Foundation, The

The Seaborne Foundation is a consortium of rich businessmen from across the globe, with sizeable investments in several extra-solar colonial interests notably Proxima II in the Proxima Centauri star system, and Horizon in the Groombridge 1618 star system as well as holdings in a number of marine research and genetic research companies.

The Foundation prides the privacy of its members, and as such very little is known about them. Founding member Daniel Seaborne lives out his life in a private archaeology in orbit around Earth. He is 133 years old, kept alive by the medical technologies affordable by being a multi-billionaire. What is not common knowledge is the fact that the senior members of the Seaborne Foundation are also Deep Ones and high ranking members of the Second Church of Ashago. The Seaborne Foundation's extra-solar colonial interests are the main facilitator for Deep One migration from Earth…

The Seaborne Foundation have invested an undisclosed sum in the exploration of the Europan World-Ocean, and are actively working on the moon with one of its associated companies, Triton Marine Research (TMR), to catalogue the entire ecosystem below the Europan ice. TMR provides cover for a number of top secret projects, the primary one being codenamed Altior. Project Altior concerns cloning a race of Super-Deep Ones from a combination of Deep One and Star Spawn DNA.

- Subversion: 60%. Rich businessmen from across the Sol system with many tentacles.
- Fanaticism: 5%. … but only a few are extremely devoted.
- Concealment: 100%. No one knows the true nature of the foundation.
- Force: 90%. The foundation uses PMC some times.
- Supernatural: 80%.

Second Church Of Ashago, The

Ever since its centre of worship (Innsmouth) was destroyed by the Federal Government in 2253, the Esoteric Order of Dagon has been declared an illegal religion. Despite this, the cult has survived. Now operating under the name The Followers of Ashago or Second Church of Ashago, its main centre of influence on Earth lies in the Pacific Rim Nations, Asia and the West coast of the United Americas. It also has branches further afield on Proxima II in the Proxima Centauri star system, and Horizon in the Groombridge 1618 star system.

It infiltrated secret societies, criminal organizations and occult brotherhoods across Asia, and avidly pursued contact with the Deep Ones. The inner core of the Second Church of Ashago exercised power through their official positions in the Japanese military, government ministries, and secret police.

The Adepts are misfits, bums, junkies, the downtrodden: those broken by large cities capitals. When they break just right, they hear the call of the Second Church and respond. They carry messages, pick up protection money, answer pay phones, and follow the hints and orders in their dreams. They tend to show up whenever and wherever something of occult or unnatural significance happens.

The Network keeps around fifty Adepts in active service. They may turn up anywhere, at any time, the invisible in pursuit of the incoherent. In addition to standing their strange watches, the Adepts insulate the Network from provably criminal activity. A complete airlock of secrecy exists between the Second Church and organized crime. No solid link, written, recorded, or photographed is detectable between the crime families and the High Priests of the Second Church. The Adepts provide this security with their utter anonymity and insanity.

- Subversion: 60%. The cult uses the Seaborne Foundation influence.

- Fanaticism: 100%. All members are are motivated through their strong faith.

- Concealment: 90%. No one knows the Esoteric Order of Dagon still exists. The cult has survived for many centuries without being detected.

- Force: 30%. The cultists are not trained warriors.

- Supernatural: 90%. The cult has some magical power and a close relationship with the Great Old Ones.

Twilight Order, The

The Twilight Order's true origins are lost in the mists of time, for there have always been men willing to barter with dark forces in return for power and wealth. The Twilight Order, in its current incarnation, was founded by Gilles de Rais around 1435. A former lieutenant of Joan of arc, de Rais was always interested in the acquisition of power. Several attempts to secure higher nobility through marriage failed, two of which involved the deaths of his betrothed before the wedding. After retiring from the military in 1435, the debauched nobleman turned his attention to the dark arts. After years of deep study, he took in apprentices, tutoring them in the ways of the infernal.

Local peasants reported many of their children has gone to de Rais' castle and never returned. The bishop of Nantes ordered an investigation and de Rais was arrested. Dozens of skeletons, many lacking heads, were uncovered in his well-stocked dungeon, and a collection of occult tomes was unearthed in a secret chamber.

The nobleman was hanged in october, 1440. That night, as his body swayed from the noose, a warning to others who would traffic with demons, a fearsome storm arose, blackening the sky and pelting the earth with hailstones the size of fists. As morning broke, de Rais' corpse was found to be missing. All that remained of the gallows was a pile of burnt, blackened timbers and the vile stench of brimstone.

Although de Rais had been brought to justice, his apprentices were never located. They took their master's teachings, built upon them, and spread the unholy word. The lure of power and wealth tempted many young nobles and citizens with aspirations to grandeur into the fold. Each generation of nobility has steadily grown more depraved, causing each generation of peasants to become more destitute. The Twilight Order has consequently grown ever larger, extending its dark teachings further and further into society.

The Twilight Order has no wide-ranging formal structure. If there could be said to be an overarching guiding hand behind their teachings, it is that of Satan, the Prince of darkness. members operate either in solitary study, or as part of a small coven of like-minded individuals. Students are accorded respect based on the depths achieved in their studies, and how far along the dark road they have traveled.

Students are a varied lot. Some are politicians who seek new pleasures to amuse themselves or sate their unholy lusts, or who desire grander positions. Others are scientists, willing to take whatever shortcuts are required to ensure the next big breakthrough in learned reasoning. A few students are schooled in the black art of necromancy. Whether a Sorcerer or not, all members practice human sacrifice, commit unholy sexual acts, revel in the screams of torture victims, and pay homage to Satan (or at least to one of his minions).

Students of fatum scientia receive special attention, as Belphegor is particularly active in the current era. Wondrous and terrible weapons of war have been created in the name of science, yet result only in the expenditure of more human blood. Members students of the Twilight Order have forsaken the divine for the infernal as a shortcut to knowledge and power. Members of the Twilight Order seek knowledge purely because it leads to power. If that power requires the occasional human sacrifice to appease their dark mentors, it is a small and easy price to pay.

Like all arrogant men, they believe they control their own destinies. They claim to have dominated the powers of hell into serving them, but the truth is the complete reverse: Satan, through his charms and manipulation, uses the school of night for his own dark ends, giving its members the illusion of free will.

- Subversion: 80%. The cult has many politicians and renowned scientists like Hugo Foscolo!

- ■ Fanaticism: 5%. Their goal is not as idealistic. They have no wish to study creation, but to control it, to bend it to their collective and individual wills. Likewise, they do not see men as equal, but firmly believe in the right of the minority to rule the majority. Satan is more than happy to provide them with the knowledge they desire, but at a price.

- ■ Concealment: 95%. The Order is well hidden and takes care not to be discovered.

- ■ Force: 30%. The cult has few guards.

- ■ Supernatural: 70%. Nearly every member of the cult has some supernatural ability.

Wicca, The

The Wicca supposedly takes its name from a grimoire of the same name published in 1517 by Alibeck the egyptian, a Sorcerer of great power. The grimoire explored in detail the infernal powers, their abilities, and described how to form pacts with demons to achieve one's desires.

In truth, the organization is far older, stretching back at least to the 12th century, and possibly as far back as the days of Attila the Hun. The name stems from the scholomance, Lucifer's school for witches and warlocks. The scholomance, it is said, is located in the distant and mysterious land of Transylvania. It stands on the shores of an immeasurably deep lake high in the Carpathian mountains. Here, Lucifer admits ten Sorcerers at a time to study the mystical arts under his personal tutelage. Over the course of a year, they learn all manner of unholy wisdom and magical powers. New intakes occur every ten years.

The ranks wielded by members mimic those supposedly used in hell. the highest rank is the Wiccann, a position held by a single man (or woman). Personally trained by Lucifer, his post is sacrosanct. Only when Lucifer marks another Sorcerer is his position under threat. The newly selected student must challenge the current grand dragon in a magical duel. if he wins, he takes the mantle. Should he fail, his soul is claimed by Lucifer. The current Wiccan has reigned, or so it is claimed, for 120 years.

The nine other scholomance students hold the position of general. Unlike the Wiccan, they hold their position for exactly ten years. When the latest scholomance class graduates, Lucifer takes the souls of the current generals and promotes the new students to their position.

Serving beneath the generals are 66 Commanders, powerful Sorcerers in their own right, but not trained at the scholomance. They serve for as long as they live (no one quits the Wicca and survives for long), and do so in the hope of attracting Lucifer's attention and being invited to attend his school.

Finally there are the officers, of whom there are always 590. These are lesser Sorcerers, typically with only basic knowledge of the magical arts. It is their hope to one day rise to the position of Commander. Assassination of a Commander is a valid tactic for promotion, for Lucifer despises the weak. However, it is a rare officer who gets to make a second attempt if the first fails. These numbers are strictly enforced, for it brings the organization's total membership to 666 damned souls.

- ■ Subversion: 60%. The cult has spies everywhere.

- ■ Fanaticism: 80%. The cultists serve Lucifer directly!

- ■ Concealment: 70%. The headquarter of the cult is located in a very well hidden place.

- ■ Force: 40%. The cult has a lot of followers but relatively few of them are trained soldiers.

- ■ Supernatural: 90%. All members of the organization are Sorcerers who have sold their souls in return for magical power and other favors. The traditions and arts known to members are varied, and every combination is practiced by at least one member.

Sample Cults Table

	Subversion	Fanaticism	Concealment	Force	Supernatural
The Freemasons	10	10	90	15	40
GRU SP-8	5	70	80	90	45
The Illuminati	35	80	50	100	80
The Karotechia	20	90	100	80	80
MiliSci	5	50	5	100	60
The Seaborne Foundation	60	5	100	90	80
Followers of Ashago	60	100	90	30	90
The Twilight Order	80	5	95	30	70
The Wicca	60	80	70	40	90

The Setting

by John Ossoway, James Bowman, Michael Tresca & Rob Boyle

> *"We train young men to drop fire on people, but their commanders won't allow them to write 'fuck' on their airplanes because it's obscene!"*
>
> *Colonel Walter E. Kurtz – UEAF Special Forces*

Politics

The United Earth Federation (UEF)

The United Earth Federation of the 23rd Century still bears some resemblance to the original United Nations, that troubled institution born in the aftermath of World War II. While still dealing with problems of patronage and bureaucracy, sheer necessity has enabled the body to become somewhat effective in its original purpose of keeping the peace.

The United Earth Summit in Geneva, 1st January 2085, was attended by Australia, China, the European Federation, Japan, New Zealand, the Russian Republic, South Africa, and the United Americas. The nations attending the summit proposed that the United Nations Constitution be radically ratified. These proposals in effect dissolved the United Nations, replacing it with the United Earth Federation (UEF), an economic/political conglomerate committed to the goal of uniting the nations of Earth in preparation for the colonisation of the planet Mars and the rest of the solar system. The colonisation of space has greatly aided the nations of Earth in putting aside national differences, enabling them to present a (mostly) unified front as the United Earth Federation. Despite this, some experts say that human tribal instincts have simply shifted to an interplanetary and interstellar rather than global stage.

Important branches of the United Earth Federation include:

1. General Assembly
2. Security Council
3. Interstellar Colonial Authority
4. Interstellar Trade Commission
5. Communications
6. Military
7. Intelligence
8. The Federal Law Enforcement Authority
9. The Colonial Security Force
10. The Federal Health Service
11. The Federal Labour Force

Notable legislation introduced by the UEF include:

1. The Colonial Act (2140)
2. The Colonial Policing Charter (2140, 2265)
3. The United Earth Federation Space Treaty (2101, 2140)
4. The Geneva Statute (2084, 2140)

General Assembly

Based in Geneva, the General Assembly is the main deliberative organ of the United Earth Federation. It is composed of representatives of all member states, each of which has one vote. Despite this supposedly level democratic playing field, politics are still dominated by the richest of the member states. Decisions on important questions, such as those on peace and security, admission of new members and budgetary matters, require a two-thirds majority. Decisions on other questions are by simple majority. The wheels of United Earth Federation government move slowly on many issues because of the time needed for the General Assembly to reach concensus.

The General Assembly may meet in special sessions at the request of the Security Council, of a majority of member states, or of one member if the majority of members concur. Emergency special sessions may be called within 24 hours

of a request by the Security Council on the vote of any nine Council members, or by a majority of the United Nations members, or by one member if the majority of members concur.

At the beginning of each regular session, the Assembly holds a general debate, often addressed by heads of state and government, in which member states express their views on the most pressing international issues.

Security Council

The composition and rules under which the Security Council operates have changed since the United Nations became the United Earth Federation. While there are still only five permanent member seats, (United Americas, the Chinese Consortium, European Federation, Russian Republic and the Japanese Affiliates), India, the Central African Bloc, Australia, and the Islamic Holy Republic also retain seats on the Security Council on a regular basis. Also, the power of the permanent member veto has changed a permanent member veto can be overriden by a four/fifths majority vote of the rest of the council. (12 votes out of the 15 seats available).

When a dispute leads to fighting, the Council's first concern is to bring it to an end as soon as possible. On many occasions, the Council has issued cease-fire directives which have been instrumental in preventing wider hostilities. It also sends United Earth Armed Forces peace-keepers to help reduce tensions in troubled areas, keep opposing forces apart and create conditions of calm in which peaceful settlements may be sought. The Council may decide on enforcement measures, economic sanctions (such as trade embargoes) or military action.

A Member State against which preventive or enforcement action has been taken by the Security Council may be suspended from the exercise of the rights and privileges of membership by the General Assembly on the recommendation of the Security Council. A Member State which has persistently violated the principles of the Charter may be expelled from the United Earth Federation by the Assembly on the Council's recommendation.

Interstellar Colonial Authority (ICA)

Formed after the Colonial Act of 2140, the Interstellar Colonial Authority, is a branch of United Earth Federation government tasked with the government of colonised space out beyond the Sol system designated as Zones 2 and 3 of the Federated Colonies, and to a limited extent representing UEF policies in Far Space. The ICA is responsible for the day to day management of these colonies, including local law and order, liaison with Earth, communications, logistics and a host of other functions. In the absence of direct contact with Earth, the ICA has veto on any local government decisions.

Each colony in Zones 2 and 3 has an ICA presence. On some of the newer colonies it is little more than a small Settlement Welfare Team office with a handful of representatives. On larger, more established colonies there is a large established ICA administrative presence. Larger colonies also sometimes have regional ICA headquarters.

Interstellar distances have to allow for a necessary devolution of certain powers to local leaders, which allows the elections of local officials by the colonial population. Despite this, the local ICA Administrator is able to dictate policy should he see fit. It is common practice for megacorporations with invested interests in a colony start up to have representatives on local councils.

The ICA has surveyed hundreds of worlds, and it's exploration arm, Interstellar Expeditions (ISX), is in the process of surveying dozens more The ICA has surveyed hundreds of worlds, and it's exploration arm, Interstellar Expeditions (ISX), is in the process of surveying dozens more. Each world surveyed is classified according to how much work is needed to establish a colonial base, and how rich the planet is in natural resources. Once a world has been surveyed and classified, contracts are then issued, up for bid by any nations and corporations interested in investing in the venture.

The ICA is also in charge of interstellar immigration/emigration. Despite hundreds of millions of people now living offworld in the colonies, Earth in the late 23rd Century is still home to almost 10 billion people and is woefully overcrowded. To compound matters, those wishing to live in the colonies must apply for Colonist Status from the ICA. This involves a series of rigorous background checks, physical, mental and psychological examinations.

Interstellar Trade Commission (ITC)

The Interstellar Trade Commission (ITC) came into being in 2140, when, in an effort to regulate interstellar commercial shipping and trade, the WTO was radically expanded and remodelled. The ITC is the primary body dealing with commerce throughout the systems colonised by the UEF in the

23rd century. All crewmembers of commercial transport and cargo starships are required by Federal law to possess a valid ITC licence.

The ITC also deals with Customs and Excise Duties. The ITC enforces shipping restrictions and biological and chemical quarantine procedures for Earth and all other colonies. In addition to performing spacedock inspections, the ICC can randomly detain, seize, and search cargo and personal craft for suspected contraband. All trade starships entering the Sol system must be prepared to go through ITC quarantine, if the ITC suspects the ship is carrying any unauthorised cargo.

In addition ITC officers often work closely with Colonial Marines strike teams, fighting the endless battle against smugglers, pirates and terrorist groups that are active in the Federal Colonies.

The Federal Network (FedNet)

The Federal Network, or FedNet, is the collective term for the technology behind the wirelessly-networked, ubiquitously-connected urban environment of the 23rd century. FedNet provides entertainment in the form of over a thousand digital television and radio channels, information in the form of the Interstellar Web (ISW), communications access for Personal ComLinks etc etc.

This would be amazing if it were just on Earth, but a series of FTL Relay Stations throughout the Federal Colonies provides FedNet access to everyone who holds Citizenship in the United Earth Federation. While the citizens of the Sol system can enjoy realtime FedNet access, those further afield have time delays, as FTL datastreams travel at a maximum speed of 1 parsec per day. As a result, common information is stored locally at the larger colonies, and orbiting satellites allow wireless communications.

United Earth Armed Forces (UEAF)

The formation of the United Earth Federation was the spark for several conflicts (the Unification Wars 2085-2102), primarily fuelled by nations who refused to be a part of the new global government. In response, the newly formed United Earth Federation ratified a treaty of United Earth Armed Forces, a cohesive fighting force to stop these and future wars, with troops and equipment supplied by all member states, under one general command staff comprising of high ranking officers of all nations.

The military arm of the United Earth Federation, tasked with defending Earth and the Federal Colonies against any and all outside aggressors. The UEAF is split into two distinct branchs: SpaceCorps and PlanetCorps. SpaceCorps is the branch of the UEAF that incorporates naval fleet units, marine corps and other associated ancillary organisations. The PlanetCorps consists of infantry, armour and other ground-based military units.

- **AmeriCorps:**

  Units of the UEAF PlanetCorps supplied by the United Americas and its colony worlds.

- **AsiaCorps:**

  Units of the UEAF PlanetCorps supplied by the Russia Republic and its colony worlds, as well as several other Eurasian states.

- **ChinaCorps:**

  Units of the UEAF PlanetCorps supplied by the Chinese Consortium and its colony worlds.

- **EuroCorps:**

  Units of the UEAF PlanetCorps supplied by Europe and its colony worlds.

- **JapanCorps:**

  Units of the UEAF PlanetCorps supplied by the Japanese Affiliates and their colony worlds.

- **The United Earth Federation Expeditionary Force (UEFEF):**

  The taskforce assembled by the UEF from the PlanetCorps at the start of the colonial wars to mount the campaign to stop colonial sedition in the Outer Rim Territories. The campaign met with limited success. Three years of war resulted in two firmly established separatist pockets of space, independent from Earth rule. The UEFEF presence in the Outer Rim Territories was scaled back after the end of hostilities, but several bases are maintained close to borders with separatist controlled space, as part of a so far unsuccessful military and economic blockade.

- **Martian Marine Corps (MMC):**

The Martian Marine Corps (MMC) is part of the UEAF assigned to the defence of the Mars colony. The MMC serve on Martian-controlled outposts and navy ships throughout the Sol system, including Ganymede before the incident, and are the counterpart to the Interstellar Colonial Marine Corps (ICM). They use powered, vacuum-rated armor and operate in a wide range of combat situations utilising a variety of equipment and tactics. MMC Force Recon Marines use Goliath Mark IV Powered Armor and formerly the obsolete Mark III.

- **United Earth Space Command (UESC):**

The United Earth Federation space navy. There are at present twelve 'fleets' in the UESC, as well as a multitude of other auxillary support groups. The 1st Fleet is nominally assigned to the defence of the Sol System.

- **Interstellar Colonial Marine Corps (ICM):**

The Federation's interstellar rapid reaction force, the ICM deal with colonial disputes, piracy, civil unrest and just about every other problem that occurs in the colonies requiring the possible exercising of brute force. The ICM incorporates units specially trained for vacuum operations, shipboard combat and planetary assault.

The Interstellar Colonial Marine Corps (ICM) was formed from the Interplanetary Marine Corps (the IP Marines) to enable the UEF the ability to project military force quickly and decisively throughout its sphere of influence to quickly resolve colonial disputes and keep the peace.

The duty of the ICM is strictly devoted to the defence of all United Earth Federation colonies in space. Interstellar Colonial Marines are the vanguard of the UEF/ICA interstellar armed forces, responding swiftly and potently against any aggressor who should pose a threat to the security of Federation territory and civilians in space, whether it be a human aggressor, intelligent extraterrestrial force, or a "pest control" situation involving primitive alien lifeforms.

In many ways Colonial Marines are 'special forces', undertaking short to medium duration missions including ship-to-ship and fleet boarding actions, or the establishing of the initial planethead during a planetary assault. They are also tasked with shipboard security of United Earth Armed Forces spacecraft. The ICM possesses organic ground and air combat elements, and relies upon the United Earth Space Command (UNSC) fleet units to provide space combat elements to fulfil its mission.

- **Colonial Security (ColSec)**

The ICA and ITC are backed by the Colonial Security force (ColSec), a subsidiary of the Federal Law Enforcement Authority (FLEA). Recruited locally where possible, ColSec act as a colonial police force who maintain law and order throughout the Federal Colonies.

- **The Sol Defence Fleet:**

Collective name for space vessels of the UEAF assigned to defend Sol system against aggressors.

- **Military Sciences Commando Division:**

Black Ops unit attached to the Federal Government's shadowy Military Sciences Division.

- **The Psychic Operations Group (POG):**

Branch of the UEAF recruited directly from the Metasensory Academy. Also referred to as PsiCorps. POG is mostly an organisational structure, as operatives are usually assigned to other line units as needed. The Psychic Operations Group is headquartered at Fort Alexander, Hecates Tholus, Mars.

- **UEAF Special Operations Group Command (SOGC):**

SOGC is essentially the special forces of the UEAF. SOGC is responsible for 13 Special Operations Groups (SOGs). Each SOG is small and self-contained, and size varies between groups. The most famous (and largest at company strength) unit is the 3rd SOG, that saw action on the Rimworlds Front during the Colonial Wars.

Other Military Organisations outside of the UEAF:

- **The People's Commando Division:**

Special Forces unit from the Eurasian Rimworlds Combine.

- **Royal Marine Commandos (Commachio Group):**

Commachio Group's responsibility for protecting British oil rigs was extended in the 2030s to the United Kingdom's near-Earth-orbit asteroid mining operations. As the largely British-owned Vosper-Babbage corporation expanded into the Main Belt, its mission has further extended to protecting the lives and property of

Her Majesty's subjects. The Royal Marines (Commachio Group) are a modern force, specialists in assaulting and defending asteroid installations, and are considered one of the finest counter-terrorist and hostage-rescue units in the solar system.

■ **Foreign Legion (Légion Étrangère, 2e Régiment Étranger Spatial):**

The Foreign Legion is a professional fighting force with a proud tradition dating back to 1831 Legionnaizes are famous or their esprit de corps: men of action, brave in combat, sharing close bonds of comradeship. Their motto is *Legion Patria Nostra*: the Legion is our homeland. They vow never to abandon a comrade, alive or dead, on the battlefield. The Legion is unique in that it accepts volunteers from any nation, model, or species who can meets its standards, and allows them to join under an assumed name. As such, people will often enlist to escape a troubled past (trough the Legion does not accept criminals) or seek adventure. Officers are French, but more than half the enlisted personnel come from other nations. After completing three years' service, recruits may he granted French (and European Union) citizenship.

The 2e Régiment Étranger Spatial is the Legion unit trained for spaceborne operations. It is experienced in low-gravity vacuum operation on Mercury and in microgravity assault on orbital factories and L5 colonies.

■ **67th Space Infantry Division (SID):**

China's Space Mobile Infantry, the 67th SID, saw some action during the Pacific War, although the heaviest fighting was on the ground. It consists of three quanto ("fist") rapid-reaction brigades: one based at Rust China on Mars, one on Taiko Station (normally for training and refitting), and one divided into smaller units stationed on other Chinese installations and spacecraft throughout the system. In addition to assault tasks, they provide secutiy at Chinese spaceports and major space stations. Service in the 67th in one way for a bioroid to obtain high status in Chinese society.

The Federal Security Agency (FSA)

The Federal Security Agency (FSA) coordinates, directs, and performs highly specialised activities to protect UEF government information systems and produce foreign signals intelligence information. A high technology organisation, the FSA is on the frontiers of communications and data processing. It is also one of the most important centers of foreign language analysis and research within the federal government.

FSA conducts some of the UEFs leading research and development (R&D) programs. Some of the Agency's R&D projects have significantly advanced the state of the art in the scientific and business worlds.

The Federal Law Enforcement Authority (FLEA)

Policing in the 23rd Century is handled by the Federal Law Enforcement Authority (FLEA). From their headquarters on Earth, and via many local stations throughout the Federal Colonies, Federal police officers have the unenviable task of tackling crime over interstellar distances.

The Genetic Regulatory Agency (GRA)

The GRA was founded in 2156 as an office of the European Federation, although Switzerland also worked with it from the outset – indeed, its first headquarters was in Geneva. Its original mission was to police abuses of human genetic engineering (HuGE). This required agreement as to what was abuse, and harmonization of national laws; the creation of the GRA represented a major accomplishment in both idealism and politics.

In the wake of its Civil War, Russia found itself struggling to suppress a hyperactive "biotech underground" and to shed a reputation for lawlessness; signing up with the GRA looked like good politics. Its new Russian agents were keen to see action, not just to file reports, and many of the older preservationist European Federation staff were happy to go along. The GRA managed to acquire comprehensive powers within signatory states, and an efficient intelligence section to monitor biotech globally. Rumors began to spread that this section's agents weren't above a bit of extraterritorial, extralegal sabotage. This has always been denied, but GRA "spies" certainly sometimes stretch legal limits or abuse diplomatic status.

Over time, the GRA's effectiveness in dealing with problems within its ambit was globally acknowledged. Some preservationists came to idolize it, while authorities in other power blocs became happy to consult its experts. After all, it

was known to be rigorous about not favoring any one nation's interests. A series of diplomatic agreements gave agents "visiting rights" far beyond Earth.

The GRA's international role might have remained purely advisory, but a series of biotech accidents and artificial-disease outbreaks in less advanced areas panicked several nations into giving GRA agents free rein. Biotech crimes can be truly horrible occurrences, and anyone offering a solution – and trying not to overreach themselves – could find welcome in many places.

The agency also has become involved in policing international bioroid crime, which often involves the same criminal groups as illegal HuGE. This sort of thing, and the need to expand its operations into space and the oceans, leaves the GRA stretched, administratively and financially. The desire to preserve a polite image, to make it easier to acquire funding and diplomatic privileges, often conflicts with agents' fiercely preservationist attitudes. The GRA is frequently accused of bullying its way around the Outer Rim Territories; certainly, agents may care more about biotech safety standards than they do about local sensibilities.

The Colonial Act

The conquest of space was never an easy undertaking. Indeed, the first tentative steps into space by humanity were difficult and often costly. Despite the many obstacles and deterrents, Humanity gradually edged off Earth into space. The colonisation of space and with it the struggle to survive in often strange and hostile surroundings challenged the determination and ingenuity of human civilisation, but three hundred years since Neil Armstrong first set foot on Earth's lunar companion there are millions of people who call planets beneath alien skies home, many of whom have never set foot on the planet which will always be their spiritual birthplace.

Despite Sol being little more than another star in the night sky to many of these colonists, the majority are still tax-paying citizens of the United Earth Federation (UEF). Though the UEF would deny it in the strongest terms, it is to all intents and purposes an imperial power, with regional governors administering colonial assets. The maintenance of order in an interstellar civilisation requires a degree of control which to many is in itself undesirable, and the nearer one approaches the administrative centre of such a society, the more rigid its constraints.

It required an interstellar war to show the UEF that it simply was not organised or equipped to police and govern the every growing number of colonies and shipping lanes out beyond the Core Systems.

In 2138, rival megacorporations EnerTek Corp and Cheung Corp clashed on the planet Anjuna in the Tau Ceti star system in what would become known as the Tau Ceti War. Territorial disputes between the two corporations on Mars two years earlier persuaded both to hire mercenaries to help protect colonial assets out beyond Sol. At first the fighting was localised to a handful of contested sites, but tit for tat revenge attacks by both sides quickly caused matters to escalate out of control. Undercover support flowed in from Chinese and American factions on Earth, spreading and deepening the conflict across the system.

After 18 months of fighting, the Viking Treaty of 2140 signed at the Mars Colony, brought an end to the conflict.

Though the war was over, it had been a wake-up call for the UEF. Faced with a gradual erosion of power by the continuing interstellar colonial expansion, and the possibility that this could lead humanity to splinter into dozens of factions, the UEF moved quickly to restructure and reposition itself. The changes resulted in a piece of legislation being passed called the Colonial Act.

A Brief Definition of the Federal Colonies

The Federal Colonies encompasses a sphere of influence 20 light years in radius with Sol at the centre. The UEF reserves the right to expand this sphere of influence, and annex any colonies lying beyond it's boundaries, up to and including all star systems in a 50 light year radius from Sol.

The Federal Colonies is split into three distinct zones of control:

Federated Colonies Zone 1:

Federated Colonies Zone 1 comprises all planets in the Sol system, and is controlled directly by the UEF government. Territory within the Sol System that is not on the planet Earth is not subject to national or corporate appropriation by claim of sovereignty. Colonies and outposts within this region are not considered to be the territory of any one nation or corporation. This means no territory within this region can declare itself a nation, independent of UEF control.

Federated Colonies Zone 2:

Federated Colonies Zone 2 is a sphere 12.5ly in radius, with Sol at the centre, and called the Core Systems. This region is controlled by the UEF via the Interstellar Colonial Authority (ICA). Territory within this region is not subject to national or corporate appropriation by claim of sovereignty. Colonies and outposts within this region are not considered to be the territory of any one nation or corporation. This means no territory within this region can declare itself a nation, independent of ICA control.

Federated Colonies Zone 3:

Federated Colonies Zone 3 stretches from the outermost edge of the Core Systems to the edge of the Federal Colonies, and is referred to as the Outer Colonies. This region is controlled by the United Earth Federation via the ICA. Within this region, the ICA has the authority to regulate the use of, and territorial claims to, any celestial body or region of space. The ICA currently recognises claims up to 1000km around a landing area. The ICA may offer colonisation contracts to nations and/or corporations to larger territorial regions than 1000km if it sees fit.

Far Space:

Far Space lies out beyond Federated Colonies Zone 3. It is often referred to as the Outer Rim Territories, or simply the Frontier. Out here UEF member states, non-governmental bodies, private concerns, and corporate entities may establish manned or unmanned facilities on celestial bodies for scientific investigation, commercial use or human settlement. Such endeavours however must be registered with, and regulated by, ICA law.

Apart from a few obvious exceptions, ICA presence and influence at colonies in this region is limited, usually no more than a small Settlement Welfare Team. Corporations or other concerned parties may come to local commercial arrangements with each other when engaged in ventures out this far. ICA law runs only as far as to cover crimes against Federation personnel, or criminal events on or concerning Federation spacecraft in as much as Federation spacecraft must abide by the principles of Space Law. Apart from a few exceptions there is generally no active policing of Far Space outside of the larger colonies. Most small colonies in this region have learned that as long as they keep their heads down and noses relatively clean, ICA control is a remote form of government at best.

Basic Tenets of the Act

The Colonial Act places Zones 2 and 3 of the Federated Colonies under the control of the Interstellar Colonial Authority (ICA). The United Earth Federation maintains direct control of the Zone 1 Sol colonies.

The Colonial Act allows the UEF the legal right to establish an ICA presence on any colony in Far Space if the security of the Federated Colonies requires it.

Local laws established by corporate run colonies must be agreed to by both employer and employees.

In carrying out activities in outer space and on celestial bodies in the region of space designated as the Federal Colonies, all citizens of the UEF must render all possible aid to anyone in distress, regardless of nationality or corporate affiliation.

All signatories to the Colonial Act must inform the UEF, either directly or via the ICA, upon discovering any phenomena in outer space which could constitute a danger to the life of Federal citizens.

All signatories to the Colonial Act must inform the UEF, either directly or via the ICA, upon discovering evidence of extra-terrestrial life, so that it can be catalogued and investigated properly.

Non-governmental organisations may not possess or carry weapons of mass destruction, or weaponised radioactives, within the region of space designated as the Federal Colonies.

New Organisations Created by the Act:

- The Interstellar Colonial Authority (ICA)
- The Interstellar Trade Commission (ITC)
- Colonial Security (ColSec)
- The Interstellar Colonial Marines (ICM)

Political Power Blocks

Though the political landscape of Earth has forever changed from that at the turn of the 21st century, some things stay remarkably familiar. Earth, the Sol System and the Core Systems are now governed by the United Earth Federation (UEF), a world government that replaced the United Nations in 2085AD. This global government includes representatives from all the nations of Earth, who are now termed Member States. As with modern day politics, the most powerful economic power blocks heavily influence Federal policy and the decisions of the Security Council. The most influential are listed below:

Major Member States

- The Chinese Consortium
- The European Federation
- The Japanese Affiliates
- The Russian Republic
- The United Americas

Minor Member States

- The Australia Republic
- The Central African Bloc
- The Democratic Republic of India
- The Islamic Holy Republic

Non-UEF Powers

- The West African Protectorate

In addition to these economic power blocks on Earth, there are also two colonial splinter factions in the Outer Rim Territories who, while not recognised by the UEF, deserve a mention here:

- The Eurasian Rimworlds Combine (ERC)
- The Free Worlds Alliance (FWA)

The Australian Republic

Politics	Democratic Republic
Population	Earth: 40.14 million
	Space: 3.1 million (approx)
Colonies	None

Economy:
Australia has a prosperous Western-style capitalist economy, with a per capita GDP on par with the five dominant colonial powers.

Description:
Long-term concerns include pollution, particularly depletion of the ozone layer, and management and conservation of coastal areas, especially the Great Barrier Reef. A referendum to change Australia's status, from a commonwealth headed by the British monarch to a republic, was passed in 2028.

Australia as a nation has not featured heavily in the colonization of space. Much of the nation's economic wealth has been diverted into the "Rebirth" project, aimed at reclaiming the vast tracts of land that have turned into uninhabitable desert. This has not stopped Australian nationals joining the millions of other Earthers who have applied for colonist status to find a new life in the offworld colonies.

The Central African Bloc

Politics	Democratic Republic
Population	Earth: 370.84 million
	Space: 2.7 million (approx)
Colonies	None

Economy:

The Central African Bloc is still a developing nation state, and it's economy is still too weak to invest in space flight or the colonization of other worlds. CAB satellites orbit the Earth and like the Australians, African nationals too have joined the millions of others applying for colonist status on Earth.

Description:

Advances in solar energy technology in the mid 22nd century resulted in development in lower latitudes of the world. After the generations of civil wars that had plagued Africa, the Commonwealth of African Nations was dissolved, and two power blocks emerged: the West African Protectorate and the Central African Bloc. Both blocks were industrialising and developing rapidly until Maunder Minor hit in 2120. Repeating a behaviour first exhibited in the seventeenth century, though this time to a much lesser extent, the Earth's sun dimmed. The effect lasted over two decades, until 2146, and it contributed to the economic collapse of those equatorial powers who relied heavily on solar power, including the nations of the Protectorate. The resultant social upheaval forced many to look to find work offworld, as colonist-workers in the fledgling Jovian and Saturn colonies. The nations they left behind quickly dissolved into civil war.

The Central African Bloc had hedged its bets investing in fusion power as well as solar power, and it paid off. Surviving Maunder Minor, in 2146 delegates from the Central African Bloc took their places at the United Earth Federation in Geneva.

The Chinese Consortium

Politics	Authoritarian Socialism with Technocratic tendancies
Population	Earth: 1.88 billion
	Space: 168.21 million (approx)
Colonies	7

Economy:

The economic influence of non-state organizations and individual citizens continues to steadily increase. Foreign investment remains a strong element in the Chinese Consortium's remarkable economic growth. There is still heavy government involvement in business, but now Party leaders are also board members of companies such as the Cheung Corporation. GDP: E$91.4 trillion.

Description:

Formed in 2086 by China and most of South East Asia following the end of the Pacific Rim War, the Chinese Consortium is the largest and most powerful member state of the United Earth Federation, and the largest contributor to the Earth economy. Though still officially Communist, internal policies have softened since the formation of a global government. The state is socialist in political orientation.

Culturally, the Chinese Consortium incorporates elements from South East Asia, Russia, China and other old socialist powers of the preceding three centuries, with Chinese, Vietnamese and Russian being the principle languages. Men and women have equal, even in the military, but androids have only machine status. The people have very strong faith in their socialist ideals, which is seen by many as an extreme reaction to the capitalism of the United Americas and European Federation territories.

Along with the United Americas, the Chinese Consortium is at the forefront of the UEF interstellar colonisation programme. Since missing out on the first wave of Lunar colonisation in the mid 21st century, China was first to sign up to the Mars Project, and invested heavily. To this day a large proportion of the Martian population are of Chinese descent.

The European Federation

Politics	Federal Democracy. National legislature was replaced by direct federal democracy in 2029.
Population	Earth: 262.57 million
	Space: 114.20 million (approx)
Colonies	10

Economy:

The European Federation has an affluent and technologically powerful economy, with substantial offworld assets and investments. As a member state of the United Earth Federation, it controls a large slice of Earth's financial markets. GDP: E$81.2 trillion.

Description:

Formed in the early part of the 21st Century out of the European Union, the European Federation is one of the five major colonial powers in ICA regulated space. It consists of the original member states of the European Union, eastern Europe plus some of the defunct USSR break away states in the Baltic region.

The European Federation emerged from the political turmoil of the 21st century as one of the major economic powers on Earth. Seen as the most liberal of these power blocks, the borders of the European Federation territory seem out of place: high perimeter fencing, forboding watchtowers bristling with state of the art surveillance technology and armed patrols have been the norm ever since the Unification Wars of the late 21st century (2085-2102). During this chaotic period, as the newly formed UEF and it's armed forces fought a reluctant war of global unification with break-away states, the European Federation was forced to close it's borders to the hundreds of thousands of refugees fleeing the warzones, unable to cope with such a large influx of people.

Quality of life for citizens of the European Federation is generally good, with most people employed by the government or one of several megacorporations. Despite being a unified state, citizens still retain a strong individual national pride.

The Democratic Republic of India

Politics	Democratic Republic
Population	Earth: 1.3 billion
	Space: -
Colonies	none

Economy:

India's diverse economy encompasses traditional village farming, modern agriculture, a wide range of modern industries including genetics and nanotech.

Description:

India is fast catching up with the dominant member states of the United Earth Federation. There are striking contrasts in quality of living, from the overcrowded and technologically advanced coastal cities to the vast rural regions. India is the heart of the entertainment industry on Earth, Bollywood having overtaken Hollywood in the early 22nd century. It has not yet invested in any colonial ventures, but the state is facing a crisis as many of its younger generations are tempted by the rich megacorps into lucrative contracts as technical specialists and software engineers at off-world colonies.

The Islamic Holy Republic

Politics	Theocratic Republic
Population	Earth: 188.48 million
	Space: 2.4 million (approx)
Colonies	none

Economy:

The economy is a mixture of central planning, state ownership of oil and other large enterprises, village agriculture, and small-scale private trading and service ventures. No Islamic corporations are strong enough yet to invest in space exploration or colonisation.

Description:

Born from the fallout of the 5th Middle East War, the Islamic Holy Republic is a significant minor power, capable of competing directly with any other power except the five Major Powers. Once rich and powerful due to the region's abundant fossil fuel resources, the advent of fusion power combined with dwindling oil reserves stopped the Islamic Holy Republic from becoming a major colonial power.

The Islamic Holy Republic suffers from an overly aggressive foreign policy and second rate technological capability. The region is in theory ruled by the Council of Sultans with the assistance of the provincial amirs; in practice, the amirs only put their feuding on hold when it is obviously necessary to fight off an immediate outside threat.

The Islamic Holy Republic has incorporated Islamic law into its legal systems. Certain Muslim states have declared Islam to be their state religion in their constitutions and apply Islamic law in their courts. Pan-Islamism advocates the unification of the Muslim world under a single Islamic state. The most famous, powerful and aggressive pan-Islamic group that pursues the objective of unifying the Muslim world is the jihadist movement Islamic State of Earth and the Levant.

The Japanese Affiliates
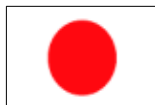
Politics	Constitutional monarchy with a parliamentary government
Population	Earth: 214.31 million
	Space: 68.03 million (approx)
Colonies	7

Economy:

Government-industry cooperation, a strong work ethic, mastery of high technology, and a comparatively small defense allocation (1% of GDP) have helped Japan advance with extraordinary rapidity to the rank of second most technologically powerful economy after the United Americas and third largest economy after the United Americas and the European Federation.

Description:

Japan is one of the five major colonial powers. The Japanese Imperial Government is nominally a monarchy and is actually a constitutional monarchy where a large degree of governmental power is vested in the emperor. Unlike the old Earth Chinese Emperor's who received heaven's mandate to rule, Japanese Emperors are literally living gods. This fact has enabled Japan to claim at least 2000+ years of unbroken imperial power.

Also to be reckoned with are the large corporations, which are in some sense hereditary. These corporations, often massive transnationals of the 20th, 21st, and early 22nd centuries, have established themselves as massive controllers of power within the Japanese government. Greatest of these is Cenargo Corporation, an Anglo-Japanese combine which is the major financial investor in Japanese colonial expansion.

The Japan Empire is heavily influenced by Weyland-Yutani—in fact, W-Y is the only non-state to actually have a seat in parliament. Rumors abound that several key members of Parliament have even been replaced with W-Y android duplicates, but none have been exposed—yet. The Empire has maintained a somewhat peaceful relationship with the United Americas, though the UA is wary of the Empire's aggressive expansion efforts and monitors their borders at all times. As tensions rise between the UA and Weyland-Yutani, the Empire has become caught in the crossfire. Some feel it is only a matter of time before an armed conflict breaks out along the Frontier.

The Russian Republic

Politics	Federal Republic
Population	Earth: 211.03 million
	Space: 138.48 million (approx)
Colonies	11

Economy:

After the Russian Civil War (2197), the nation suffered an economic depression, but with the help of the UEMF (United Earth Monetary Fund) and the goodwill of it's neighbours the European Federation a complete economic collapse was narrowly averted. Russia is still struggling to establish a modern market economy, modernize its industrial base, and maintain strong economic growth.

Description:

The Russian Republic consists of the remains of Russia, Ukraine, Beylorus, the Baltic States, and various bits and pieces of the non-EF/UPP Slavic nations. Consisting of territories on Earth as well as several inner colonies some thriving outworld colonies, the Russian Republic is a significant political, military, and economic power, and is one of the five major colonial powers in ICA regulated space.

70 years after the end of the Russian Civil War, which saw the disintegration of the Russian Federation, the Russian Republic has rebuilt much of it's infrastructure, through aid from the Federal Bank, and investment from European and Japanese corporations. The prevailing political alignment of the government is somewhat socialist, though much less so than in the early 21st Century. As may be expected in such a society, there is a large gap between rights of the "haves" and "have nots."

In the years following the Russian Civil War, the ICA gave priority to Russian civilians applying for colonial status, as many had lost their homes and families during the fighting. Many of the small 'shake and bake' colonies in the Outer Colonies and Outer Rim Territories have a large proportion of Russian colonists from the Yekatarinburg region, which was totally destroyed during the war.

The United Americas

Politics	Federal Republic; strong democratic tradition	
Population	Earth: 512.4 million	
	Space: 164.98 million (approx)	
Colonies	11	

Economy:

The United Americas has the largest and most technologically powerful economy in the UEF. In this market-oriented economy, private individuals and business firms make most of the decisions, and the federal and state governments buy needed goods and services predominantly in the private marketplace. GDP: E$ 84.9 trillion.

Description:

Second most powerful member state of the United Earth Federation with a strong economy and at the cutting edge of technological advancement, the United Americas was formed in 2084, a year before the foundations of the global government were laid. The United Americas consists of the USA, parts of Canada, Mexico and Central America. As such is run by a President, Vice President, and a Congress representing all member signatories. On the Frontier, any encounter with UA leadership is likely to be with a Colonial Marshal or a bureaucrat from Colonial Administration.

The United Americas remains the cultural melting pot that is was at the turn of the 21st Century, it's population consisting of a diverse array of ethnic and social groups. Although seeming very much like a model of racial and religious integration on the surface, the United Americas has all the same social problems that it has always had. Many outside the UA consider the nation to be politically corrupt, with the Corporations having much of the real power.

In reaction to this rampant corporate consumerism, religious Conservatism has been on the rise in the United Americas, notably the New Confederate Church of America, a Baptist offshoot which is gathering support amongst many high-ranking Republicans.

Along with the Chinese Consortium, the United Americas is at the forefront of the UEF interstellar colonisation programme. While the UEF is not controlled by Weyland-Yutani or Hallidor, the companies business holdings with the United Americas Allied Command means that the Colonial Marines can be called upon to provide security to W-Y or Hallidor assets at any time—a fact that doesn't sit well with many a platoon commander.

The Eurasian Rimworlds Combine (ERC)

Politics	Authoritarian; Fascist Dictatorship	
Population	Earth: 42.7 million (approx)	
	Space: unknown	
Colonies	Exact number unknown: in 2260 the ERC controlled 5 star systems	

Economy:

The ERC is one of the most centrally planned and isolated economies, and faces desperate economic conditions after over a decade of sanctions from the ICA and ICC.

International Relations:

Unofficial ceasefire in effect with ICA. No official diplomatic relations with any of the other colonial powers.

Description:

A group of star systems at the outermost of the European and UPP colonised arms, the rebel colonies that make up the Eurasian Rimworlds Combine (ERC) seceded during the Colonial Wars of 2258-2260, and the region has been a galactic hotspot ever since. Locked in an ever-escalating arms race with the Federation, the UPP has always managed to stay only one step behind them despite the fact that they will not deal with corporations. At the time of its inception, many androids were already in use within the member states of the ERC. They were not, however, granted citizenship status of any kind. Now, over sixty years later, they are still just considered machines and the property of the state.

The leaders of the ERC have refused to sign a treaty with the ICA, granting them substantial autonomy – demanding instead recognition and total independence, something that the ICA were unwilling to give. An unofficial ceasefire has been in effect since 2260, with a 1 parsec DMZ established between ERC and UEF space. Any civilian craft that enters the DMZ without authorisation space is boarded and searched. Any military craft traversing through without authorization can be considered an act of war.

The ERC is obsessed with securing more space and its aggressive tendencies has warranted many corporations to refuse trade. Unlike the FWA, the ERC is not a democratic society but rather a fascist dictatorship bent on technological advancement. Despite political isolation, the ERC has an active intelligence network both inside and outside of its borders. Their agents have gained access to high levels of government and corporate information. The ERC monitors insurrections on separatist colonies within ICA space and covertly supports them where appropriate, to both further their own political goals and destabilise their enemies internally.

Most of the ERC's offensive starship capability is made up of ColSec and ICM craft captured during the Colonial Wars 11 years ago. They have recently begun manufacturing their own craft, however. The elite commandos of the ERC are known as the Space Operating Forces. Said to be roughly equivalent to the Interstellar Colonial Marines, the SOF has a similar regimental breakdown. They maintain a fleet of warships and transport vessels, have their own dropships, and use massive, two-story armored trucks for troop deployment.

A national security agency and secret police, the MSS gathers both internal and external intelligence for the good of the Eurasian Rimworlds Combine. The Ministry maintains a number of operatives throughout the Frontier, undercover on both ERC controlled worlds and UEF colonies. MSS spies have infiltrated top corporations and stolen their military designs. They monitor their own citizenry to make sure they stay true to the Combine. In the ERC, they say trust your enemy to be your enemy, but never trust your neighbor to be your friend.

The ERC is in a state of cold war with the UEF. Over the past few decades, limited engagements have seen border worlds change hands or even be destroyed. Some twenty years ago, a regime change on the independent world of 8 Eta Boötis A III led to what became known as the Tientsin campaign—a bloody conflict where the UEAF backed an independent planet's attempt to keep an ERC aligned government from taking power. The conflict decimated the once lush world and left it in ruins.

The Free Worlds Alliance (FWA)

	Politics	Democratic Republic
	Population	Earth: 58.43 million (approx)
		Space: unknown
	Colonies	9

Economy:
The ICA imposed economic sanctions upon the worlds of the FWA and established a blockade at the official end of the Colonial Wars (2260). The FWA's economy struggled but survived, and is now almost self-sufficient.

International Relations:
Unofficial ceasefire with the ICA.

Description:
The FWA is a loose alliance of worlds that have claimed independence from any interstellar governing body. As humanity's reach stretched into the Outer Rim during the 2200s, more and more colonies became dissatisfied with the support they received from their governments. Colonial administration was understaffed and overworked. Supply lines were late and the ICM and marshals were spread too thin. Some colonies decided to declare themselves independent, but with no corporate giant behind them.

In the spirit of free commerce, the Alliance reinvented themselves as the Independent Core System Colonies and extended their reach past the core systems to offer support to any colony that wanted its freedom—and could afford to pay the FWA's protection fees. Because the FWA is outside of any governmental jurisdiction, individual planets set up their own rules. Several large banks and credit companies have settled here, providing security and bonds for corporations whose shady dealings might otherwise have their accounts frozen for government investigation.

Apart from the Eurasian Rimworlds' Combine, this group of independent colony worlds in the region of space known as the 'Herculis Cluster' is the only holdout from the Colonial rebellions. It is isolated from the rest of Federation space by the military blockade maintained by the UEAF.

The capital planet, Ernesto Prime, has a population approaching 30 million, and was originally owned by Hallidor Corp. Designated a Class One Planet by the ICA, Ernesto Prime is a democratic republic, self-sufficient in air, food and water, and is rapidly industrialising, to compensate for the loss of trade imports from the Core Systems.

The Federation has imposed trade sanctions and severe import and export taxes on the FWA. A major UEAF base is located just outside the FWA—in part to keep a watchful eye on the independent systems, but also because some major companies want the Colonial Marines close in case of an invasion of the FWA by the ERC. Outside the Core, the FWA services, protects, and trades with a smattering of independent worlds in the Outer Rim and smugglers regularly run the Federation blockade to sell goods to the FWA.

Criminal Organizations

These groups make the provision of contraband goods and services their business. There are many criminal groups operating on Earth. Criminal organizations tend to be run more like guerrilla cells than like the syndicates or street gangs of the 20th century, due to the vastly enhanced surveillance capabilities available to police. Most crime bodies (triads. Families, cartels, etc.) are set up in pyramids of cells, each cell having no more than a dozen members. An individual crime-cell heather usually only has knowledge of two or three other cells (depending on his rank and position). Communication between cells relies on strong encryption running through data havens.

Estrella Negra

One of the most powerful crime syndicates operating in Circum-Jove is the Estrella Negra (the Black Star). A cartel of organised crime groups originating for the most part in South America on Earth, Estrella Negra has a lot of influence amongst immigrants to Circum-Jove from Latin America. Despite the best efforts of FLEA and the Colonial Marines, this organisation continues to run sizable drug smuggling and people trafficking operations to the Circum-Jove colonies.

Estrella Negra is known to exert a great deal of influence amongst the poorer social classes, and have government officials and cops on the payroll. As yet, FLEA has been unable to locate La Catedral – the infamous headquarters of Pedro Ignacio Ramirez, head of the Estrella Negra Circum-Jove Cartel.

Martian Triads

This Mars-based crime syndicate has recently expanded into the Main Belt and L5. The Triads specialize in bioroid trafficking and manufacture: they sell pleasure models to space crews (especially freehaulers and asteroid prospectors) and combat models to the ERC and FWA. There are (hidden) Triad offices in most places in the Sol System, but their main birth-lab factories are scattered throughout the Belt, often on small "gas station" outposts. The Martian Triads also run protection rackets for gas-station operations and provide high-interest loans to desperate gas station owners and freehaulers... many of whom end up paying their debts by supporting Triad operations (e.g.. through smuggling).

Cappello Nero

The Capello Nero is a Mafia-terrorist-type organized crime syndicate. It is a loose association of criminal groups that share a common organisational structure and code of conduct. The basic group is known as a "family" or cosca. Each family claims sovereignty over a territory in which it operates its rackets. Its members call themselves "men of honour", although the public often refers to them as mafiosi. The Mafia's core activities are protection racketeering, the arbitration of disputes between criminals, and the organizing and oversight of illegal agreements and transactions.

Following waves of emigration, the Mafia has spread to the Core Systems.

The Red Dragon

The Red Dragon is a transnational organized crime syndicate originating in Japan and form the street-level enforcement arm of the Second Church Of Ashago. The Red Dragons members are notorious for their strict codes of conduct ensuring that nobody challenges the syndicate's supremacy in the criminal underworld. Their methods are usually deterrent-based; making a single, gruesomely bloody example of those who try to muscle in on Seaborne Foundation operations often does more than a dozen relatively clean hits.

Organising themselves into extremely close-knit gangs, which they refer to as 'clans', the Red Dragon represent a living nightmare for the authorities; street toughs with corporate backing. ColSec security and even the FLEA are often rendered impotent by these well-equipped, well-financed and utterly unreasonable hoodlums.

Terrorist Groups

The People's Revolutionary Army

Terrorist Group operating in the Outer Rim Territories. Thought to be financed by the Eurasian Rimworlds Combine.

The People's Revolutionary Army (PRA) fight a guerrilla war against the UEF in the Outer Rim Territories in the Colonial Wars of Independence. The border campaign, as it became known, involved various military columns carrying out a range of military operations, from direct attacks on security installations to disruptive actions against infrastructure.

The use of weapons of mass destruction (nuclear, chemical, biological, or nanotech weapons) remains a widespread fear, but most attacks still rely on more traditional means. Conventional bombs, whether a bomb-jacked remote carrier, or planted in an innocuous location in public, remain the terrorist weapon of choice.

The Islamic State of Earth and the Levant (ISEL)

Terrorist Group operating in the Sol system. Thought to be financed by the Islamic Holy Republic.

The Islamic State of Earth and the Levant (ISEL) is a Salafi jihadist militant group. ISEL is widely known for its videos of beheadings and other types of executions of both soldiers and civilians, including journalists and aid workers, and its destruction of cultural heritage sites. The UEF holds ISEL responsible for human rights abuses and war crimes. ISEL promotes religious violence and believes that only a legitimate authority can undertake the leadership of jihad, and that the first priority over other areas of combat, such as fighting non-Muslim countries, is the purification of Islamic society.

The group uses truck and car bombs, suicide bombers and IEDs, and has used chemical weapons. ISEL captured nuclear materials from a dead zone in 2266, but is unable to convert them into weapons so far.

Earth Isolationist Movement

An Earth-based activist group calling for the total cessation of all terraforming activity on Mars, the Isolationists are known best for their use of environmental terror weapons. Starting in the mid-21st century, the Earth Isolationist Movement began using "areoformers" to turn local areas of Earth into rough approximations of the pre-terraform Martian surface. Little is known about the group, other than its clear expertise with advanced environmental technology. They are believed to be an Earth-based offshoot of the Earth Children cult.

This is a violent preservationist group, dedicated to ending terraforming, reversing it where possible, stopping immigration, and allowing the human population on Mars to slowly decline. They favor orbital habitats, and allowing scientists and rare visitors on the surface, but in the long run want to see Mars essentially depopulated.

Time Line

The 21st Century

In the early decades of the 21st century, as fossil fuel production peaked then began to fall there was a global scramble for the dwindling reserves of oil, natural gas, minerals, and clean water. Governments throughout the world defined resource security as a prime objective, which caused widespread global instability, especially in those regions where competition for essential materials overlapped with long-standing territorial and religious disputes.

As the century progressed the political map of Earth was to change dramatically. New superpowers emerged to challenge the world dominance of the USA, with the most notable amongst these being China. Even the USA wasn't immune to change, uniting with Canada, Central America and parts of South America to form the United Americas, in direct response to the shifting economic climate.

By the middle decades of this century the global energy crisis was averted by the discovery of nuclear fusion, and Humanity also took it's first tentative steps towards colonising the solar system, but the real start of the Interstellar Space Age would have to wait until the dawning of the 22nd Century.

Perhaps the most important event of the 21st Century was the formation of the United Earth Federation.

2026: Jerusalem Accord signed

A coup backed by elements of the army deposes the current hardline Israeli government bringing an end to the Fifth Middle East War. The war was not fought over religious beliefs or territorial disputes as in the past. In 2022 Syria, Jordan and Israel went to war for the limited water resources delivered by the Jordan River.

The United Nations step in to broker a peace deal between Israel and the Arab states in the region.

The Israeli occupied West Bank becomes the nation of New Palestine while Jerusalem becomes an independent city much like 20th Century Kosovo. United Nations peacekeepers are deployed in Jerusalem for an indefinite period.

2029: The European Federation

Formation of the European Federation; Final dissolution of NATO.

The USA's unrelenting support of Israel during the Fifth Middle East War causes NATO alliance to unravel. This clears the way for the formation of the European Federation from the member states of the European Union.

The European Federation is a Federal super-state of more than 40 countries stretching from Iceland to the Caspian Sea. As well as the obvious member states, it includes the Balkans, Belarus, Moldova and Ukraine, and the Caucasian states of Armenia, Azerbaijan and Georgia. Turkey's membership gives the European Federation a direct border with the troubled Middle East.

The Trade War of 2017 had already driven a wedge between America and Europe. The events during the Fifth Middle East War push the UK and other ex-NATO countries into full membership of the European Federation, despite not fully accepting all of it's policies. This puts an end to the once treasured 'special relationship' between the Americas and UK, that has existed since WW2. Relations between the USA and UK will remain strained for several decades, but cooperation during the colonisation of the Moon restores ties between the two nations.

2030: World Bank declares bankruptcy

Earth's fossil fuel based economy reaches breaking point. With major oil reserves dwindling rapidly, on 23rd November 2030, the World Bank declares bankruptcy. Global Economy collapses, leading to civil unrest around the world. Rioting and looting breaks out in major cities across the globe.

2031: Nuclear Fusion

The Tokomak fusion reactor at Cardarache in France is demonstrated to be safe, economically competitive and infinitely upscaleable. The breakthrough pulls the world back from the bring of global anarchy and social meltdown. The advent of cheap, safe and virtually limitless energy significantly shifts the balance of power on Earth.

During the next decade there is a transitional period, as global economies and infrastructures change. By 2043, most of the world's energy needs will be met by fusion power. Regional wars are fought over the planet's depleted oil reserves. The UN places a ban on the burning of fossil fuels and starts a compulsory recycling scheme of ALL plastic waste, as remaining reserves are designated for use in manufacturing of plastics, PVCs and UPVCs.

# 2033: Formation of the Islamic Holy Republic

Unification of Iraq/Iran sees formation of the Islamic Holy Republic, with it's capital in Tehran.

2034: Lunar Landings Redux

Humanity returns to the Moon after an absence of almost 65 years. The Capricorn V landing is the first of a series of missions that are part of a commercially-backed project by the newly established United Nations Space Administration (UNSA) to prepare the way for a permanent Lunar colony. The main functions of the colony will be scientific research and to conduct a geological survey of the Lunar Regolith with a view to finding the best site to begin mining Helium-3. The first generation of fusion reactors run on Deuterium-Tritium fuel, but a new wave of Helium-3 fuelled reactors are seen as the way forward to secure Earth's growing power needs.

2040: Vanishing of the Event Horizon

The Event Horizon is launched into space to test a new propulsion system that permits instantaneous travel between points light years apart by folding space and creating a gateway. The Event Horizon disappears without a trace and mysteriously reappears seven years later orbiting Neptune. A rescue ship, the Lewis and Clark, is dispatched to investigate with Dr. William Weir on board, the designer of the Event Horizon. The Event Horizon was found deserted and the rescue mission failed in strange manner.
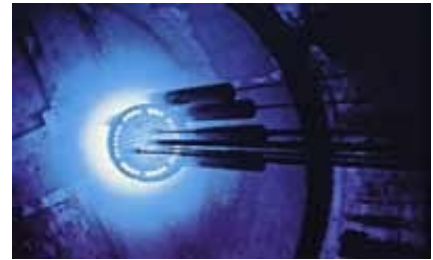
2057: Lunar colony established

Armstrong, the first permanent Lunar colony is established at the Copernicus Crater. The colony is nominally under UN Mandate, but it is primarily a joint American, European (UK and France) and Japanese venture. Initial population is 150.

In the absence of any legally binding agreement governing the mineral exploitation of the moon, the megacorporations who financed the colony stake claims to large regions of the lunar nearside which selenologists believe harbour commercially viable ore deposits.

2059: Commerce arrives in outer space

The powerful Japanese corporation Motokatsu-Kyono Combine begins successfully mining helium-3 from the Mare Imbrium. It sparks a wave of commercial interest in the Moon. Within 10 years, at least a dozen corporate concerns are involved in mining substances abundant on the lunar crust but scarce on Earth. These include helium-3, which is the ideal fuel for fusion reactors, gallium, which has replaced silicon in the making of chips, chromium, aluminium, iron, oxygen, gravidium and super-hard titanium.

2061: The Mars Landings

4 July: UNSA spacecraft Ares 3 lands on Mars with a multi-national crew of 4 (American and Chinese). Utilising an advanced fusion drive the journey to Mars take little more than 2 months.

2071: Ares station operational

Ares station on Mars is now manned by 51 personnel. Stickney Base, a waystation for supply missions from the Earth-Moon system, is constructed on Phobos, larger of Mars' two moons. The Armstrong Luna Colony now has a population approaching 400. With up to a dozen commercial mining bases scattered across the moon, the total Lunar population is close to 1000.

2074: The Luna Crisis

A dispute over water mining rights at the Clavius Crater between rival corporations Motokatsu-Kyono and the recently formed Lunar Development Corporation (LDC inc) escalates to the brink of the first armed conflict in space. Water ice provides the Lunar Colony with drinking water, oxygen and hydrogen for use as rocket fuel. Motokatsu-Kyono blame LDC for the "software bomb" that wreaked havoc at it's Tokyo headquarters. The corporation threatens "retaliation" if its suspicions are confirmed. Both corporations begin evacuating non-essential personnel from their mining operations, while shipping security personnel from Earth. Reacting to the possibility of armed conflict on the Moon, Helium-3 prices on Earth begin to rise. Helium-3 is rare on Earth but relatively common on the lunar surface.

Before events can escalate out of control, the UNSA manages to negotiate a peaceful settlement to the Lunar Crisis. As a direct result of the Lunar Crisis, the UNSA is given the mandate by the UNSC to establish the Lunar Security Force (LSF), a small detachment of soldiers and security specialists, tasked with keeping the peace and mediating any disagreements. In addition the Outer Space Treaty is revised, preventing any one organisation restricting the supply of a vital resource like water to other organisations.

2084: Formation of the United Americas

United Americas formed. It initially encompasses the USA, Canada, Central America and parts of South America.

2085: The United Earth Summit

Geneva, 1st January 2085: The United Earth Summit is attended by Australia, China, the European Federation, Japan, New Zealand, the Russian Republic, South Africa, and the United Americas. The nations attending the summit propose that the United Nations Constitution be radically ratified. These proposals in effect dissolve the current UN, replacing it with the United Earth Federation (UEF). The nations who become signatories to the United Earth Constitution of 2085 become member-states of the first unified global government, an economic and political conglomerate committed to uniting the nations of Earth in preparation for the continued colonisation of Luna, and the planned colonisation of the planet Mars and the rest of the solar system.

This move sparks several conflicts (the Unification Wars 2085-2102), primarily fuelled by nations who refuse to be a part of the global super-state. The newly formed United Earth Federation ratifies a treaty of United Earth Armed Forces (UEAF), a cohesive fighting force to stop these and future wars, with troops and equipment supplied by all member states, under one general command staff comprising of highranking officers of all nations. The biggest armies in the UEAF include EuroCorps, AmeriCorps, ChinaCorps, AsiaCorps and troops from India and Latin America.

2086: Formation of the The Chinese Consortium

Formation of the The Chinese Consortium from China, the Indonesian Consortium, Vietnam, Cambodia and (with some reluctance) North Korea. Many believe it's formation is in response to the formation of the United Americas two years earlier.

2087: South American War

A frighteningly potent alliance between the Revolutionary Armed Forces of Colombia (FARC), and the National Liberation Army (ELN) threatens to tip the balance of power irretrievably towards the drug barons. At the request from the Columbian government, the United Americas increases it's military aid package to the country.

When Marxist guerrillas attack the UA Embassy in Bogotá, killing the American ambassador and 33 of his staff, the United Americas is drawn into a messy war, sending troops to fight alongside the Columbian troops against the guerrillas, who control much of the country's cocaine and heroin-producing regions.

2091: Antarctic-Gate

When a United Americas company is found to be secretly drilling for oil in the Antarctic Nature Reserve, it leads to a major scandal in Washington, later to be dubbed 'Antarctic-Gate'. A UEF inquiry unearths evidence of corruption at the highest levels of the United Americas government. The Anderson Presidency is left in ruins, as many of his senior staff are implicated.

2094: The Shackleton Disaster

Disaster strikes the Lunar colony when a transport loaded with water-ice mined from the Shackleton Crater crashes on take-off fracturing the main dome of the Shacktleton Mining Base. Before the ruptured sections can be sealed off, 23 people die from exposure to vacuum and a further 44 suffer serious injuries. During the subsequent investigation into the accident it is discovered that the transport suffered a catastrophic systems failure due to a history of poor maintenance. The United Earth Federation in conjunction with Lloyd's Space Shipping pushes through new legislation designed to ground any ships that do not meet basic safety standards.

2098: The Lunar Express

Construction starts on the Trans-Lunar Express, a high-speed monorail system connecting the major colony sites.

The 22nd Century

The 22nd Century saw the start of the true Space Age, with the invention first of the reactionless displacement drive, then the jump drive. By the end of this century, humanity had achieved amazing wonders, including the colonization of the solar system, but had also continued it's warmongering ways, notably in the nuclear Russian Civil War, and the Tau Ceti War.

2101: The Foscolo Discontinuity

European physicist Hugo Foscolo discovers what will come to be known as the 'Foscolo Discontinuity'. The theory radically rewrites Einstein's theory of relativity and the physics of gravity. It postulates that there are at least nine dimensions above the five we know, and that spatial physics work differently in these higher dimensions. Possibilities include interstellar travel in a vastly shorter time and manipulation of the Zero Point Field, both longtime goals of scientists.

2102: Zero Point Field Theory

Hugo Foscolo's groundbreaking discoveries concerning Zero Point Field Theory result in the development of the reactionless displacement drive, which allows quick and cheap space travel within the Solar System. The first mission to Mars on a ship powered by the Foscolo RD drive takes a mere 17 days.

2106: Mars Terraforming Begins

UNSA issues major contracts for corporate investment in the colonisation of Mars. Earth's largest megacorporations rush to get involved.

The melting of the southern polar icecap using orbital mass drivers releases large quantities of carbon dioxide, causing an increased greenhouse effect, raising the average surface temperature of the planet. In addition dark microbial life forms and lichens specifically engineered for the Mars Terraforming project are spread across the surface, increasing the albedo of the red planet and consequently upping the amount of solar radiation captured by Mars as heat.

Atmospheric processors are set up across the planet. Genetically engineered biomass is seeded across the planet in vast quantities. The aerobraking of captured comets cause outgassing of gasses into the atmosphere.

Consolidated Aerospace founded by Saul Petersen and Alexander Liu.

2107: The Colonisation of Mars

Initial construction is completed at Viking City, the first Martian civilian colony. The city is located in and around the Mie Crater, a large basin formed by asteroid or comet impact in Utopia Planitia. Initial population numbers 936. With a population fast approaching 10 billion, food riots in most countries and a biosphere contaminated by the burning of fossil fuels and use of dirty nuclear power (i.e. fission), the colonisation of the solar system is seen as the key to the eventual regeneration and uniting of Earth.

Advances in solar energy technology results in development in lower latitudes of the world. The Central African Bloc is established.

2108: Development of FTL Communications and Suspensor field technology

Scientists in a Taiwan laboratory succeed in transmitting information faster than the speed of light utilising tachyons. Calculated at travelling nearly 3.26 light years in one Earth day, near instantaneous communications is now possible with the fledgling Mars colony.

First baby born on Mars.

The first working gravity-field generator is activated in San Francisco. This makes artificial gravity fields possible on the larger starships.

2109-2119: The Phobos Project

In the wake of similar projects on Earth nearing completion, the construction of a Martian space tether is seen as essential to the economic development of the fledgling Mars colony. A space tether would dramatically reduce the cost of moving stuff up and down the planet's gravity well. With the technology already tried and tested on the two Earth space tethers, a consortium of corporations involved in the Mars colonisation program gain UEF backing to initiate the Phobos Project.

Building the Martian space tether would be a herculean engineering effort and a unique challenge – primarily because of the choice of the Martian moon Phobos as the tether anchorpoint. Until the construction of the tether Phobos was in a low orbit, intersecting the equator regularly (twice every orbital period of 11 h 6 min). It is decided early on that a collision between the elevator and the 22.2 km diameter moon would have to be avoided by moving the moon itself out of the area, and if they were going to move the moon, why not use it as the anchorpoint?

Within months of the project being greenlit, rockets and mass drivers are attached to Phobos, and begin firing. Slowly the moon's orbit is arrested and its orbital distance increased. Within eighteen months it arrives in a geo-stationary orbit over the Martian equator. Automated manufactories on the surface of the moon begin using the moon-rock to construct the bundles of carbon nanotubes that will become the tether. The caverns created by the tunnelling will later be pressurised and form part of the subterranean portion of John Carter Space Port.

It will be another eight years before the tether touches down at the base station atop Pavonis Mons on the surface of Mars. Anchorpoint, the town that grows up around the base station, quickly becomes a large transit facility and the second largest colonial settlement on the planet.

2110: Project Ceres

Hallidor Corporation presents Project Ceres to the United Earth Federation Space Agency a bold plan for the colonisation and mining of the asteroid belt out beyond Mars. The plan is approved. Hallidor launches two prototype deep space mining craft, Rameses I and II, the same year.

2111: Colonisation of the Belt

Project Ceres is a success. Rameses I establishes Ceres Base, a permanent mining colony, from where Hallidor subsidary Ceres Metals begins surveying other asteroids. Rameses II tows the first nickel-iron asteroid back to Earth L4 for strip mining. Within another year half a dozen other corporations and at least 20 private investors have staked claims in the asteroid belt and begun mining operations. The development of permanent mining colonies in the Belt is seen as a vital source of raw materials for the fledgling Mars colony.

2112: Hugo Foscolo passed away

Hugo Foscolo dies ages 82.

2113: Development of the F-Drive

Expanding on principles behind the Foscolo Discontinuity, a consortium of scientists from the European Federation and Japan turn the dream of interstellar space travel into an achievable reality with the development of technology capable of punching a hole into the higher dimensions postulated to exist by Hugo Foscolo. Scientists successfully transport living matter from their Kyoto research labs to a facility on the Lunar Far Side. The extra-dimensional region it travels through is dubbed 'F-Space' in honour of Hugo Foscolo. Physics in F-Space work differently than in realspace, allowing matter to travel great distances in a relatively short period of time. Scientists calculate that a spaceship equipped with the ability to enter, traverse and exit F-Space could travel the equivalent of 1 parsec in an Earth week.

2115: Flight of the Foscolo

Using a Foscolo Star Drive (F-Drive) powered by the rare element Ununpentium (Element 115, later dubbed Foscolium), the UEFSA spaceship Foscolo makes the first interstellar flight to Alpha Centauri by opening a portal into F-Space, traversing this region and emerging at pre-calculated coordinates. At a distance of 4.39 light years from Earth, the Foscolo makes the journey in just over one Earth week. After a week-long communications blackout, the first news from the Foscolo crew reports a successful F-Space journey, which deposited the ship at the edge of the Alpha Centauri A planetary system. After several days of realspace travel inbound to the system, the crew report the discovery of an Earth like planet orbiting Alpha Centauri A. This sparks what is now known as the first wave of interstellar colonial expansion from Sol (or the First Exodus), as thousands of people seek to escape from the troubles on Earth to the new 'frontier'. Suddenly space exploration becomes a commercial industry, and several of Earth's larger corporations begin to fund space exploration and colonisation efforts. As interstellar distances increase, cryosleep becomes a necessity of interstellar travel. Ununpentium mining becomes almost as big business as Helium-3 mining.

The early years of space exploration see a rapid increase in the power and influence of multinational Corporations (now referred to as Megacorps or Metacorps). They are not defined by country, society, or ideology. In industry, in business, and in the media, the multinationals become ever more powerful and more visible.

2116: The Saturnian Project

A UEFSA colonial mission lands on Titan, largest of Saturn's moons. Images sent back show the shores of a liquid-methane ocean beneath a bright orange photochemical smog. The ocean is a witch's brew of life-creating molecules, but at a mind-numbing low of -178°C. It is deemed perfect for a long-term terraforming operation. The initial colony base, once established has a population of 246.

2118: The Jovian Project

The UEFSA Jovian Project establishes colony bases on the Jovian moons Callisto, Ganymede, Io and Europa. The primary objective of these bases is to serve as supply bases for a fleet of mobile mining platforms being constructed to mine Jupiter's Helium-rich upper atmosphere.

2120-2146: Maunder Minor

Earth's sun dims, repeating a behaviour first exhibited in the seventeenth century, though this time to a much lesser extent. The economies of those nations who rely heavily on solar power find it hard to adjust, with agriculture and power-generation severely handicapped. The resultant social upheaval forces many to look to find work offworld, as colonist-workers in the fledgling Jovian and Saturn colonies.
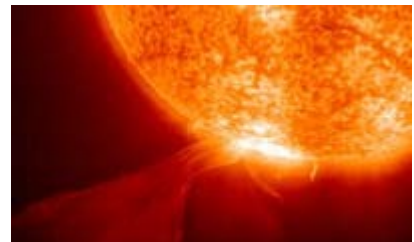
2127: Emigration to the Jovian moons

Early success in the Jovian mining operations and a large influx of migrants from Earth causes the colonies on Ganymede and Europa to expand much quicker than initially projected. Construction begins on what will eventually become the Hanging Cities of Europa.

2128: The Bolivian H2 Alpha super-flu pandemic

Outbreak of the Bolivian H2 Alpha super-flu strain across Central and South America on Earth. Bolivian H2 Alpha, nicknamed the "Sterility Plague", rapidly goes pandemic. Earth is quarantined by the UEF in an effort to stop the plague spreading to the fledgling offworld colonies. By the time Bolivian H2 Alpha is brought under control with a vaccine developed by the Japanese firm Zen Medical, it has claimed 114.3 million victims. Over a billion people become sterile as a side effect of the plague.

2134: Development of the Fecundity 5 vaccine

A scientific breakthrough by Zen Medical enables the repair of damage done by the Sterility Plague at a genetic level. With fertility restored, Earth suffers a minor population explosion.

2135: Consolidation

All the star systems within 12 light years of Earth have been explored, and their planet's surveyed. Colonies or terraforming operations have been established in each system. Up until this year Earth's space exploration and colonisation programme has been unified under the flag of the Federal Colonies.

Greed, as ever, brings this delicate alliance to an end, when the United Americas and Chinese Consortium separately begin their own colonisation programs, out beyond the Core Systems. They are soon followed by the European Federation, Russian Republic and Japan. The majority of colonies are part-financed by powerful multinational corporations, without whom the colonial powers couldn't operate.

2136: Territorial Disputes on Mars

During the early decades of the 22nd Century, land-grabs by competing megacorps on Mars lead to territorial disputes, the largest and most famous of which is now known as the Tharis Dispute. The Tharsis Dispute is sparked by an incident on the Tharsis Bulge, when fighting breaks out between corporate security teams from rival megacorps EnerTek Corp and Cheung Corp. Both corporations immediately begin hiring and transporting military assets to the red planet.

Worried that the violence will spread, the UEF sanctions the deployment of peacekeeping troops to Mars to act as a buffer between the two megacorps mining the Tharsis Bulge.

2138: The Tau Ceti War

Rival megacorporations EnerTek Corp and Cheung Corp clash on the planet Anjuna in the Tau Ceti star system. Territorial disputes between the two corporations on Mars two years earlier persuaded both to hire mercenaries to help protect colonial assets out beyond Sol. At first the fighting is localised to a handful of contested sites, but tit for tat revenge attacks by both sides quickly causes matters to escalate out of control. Undercover support flows in from Chinese and American factions on Earth, resulting in the conflict spreading and deepening across the system.

2140: The Colonial Act

The Viking Treaty of 2140, signed at the Mars Colony, brings an end to the fighting at Tau Ceti after almost 18 months of conflict. The breaking point for the UEF came when mercenaries in the employ of Cheung deploy tactical nuclear weapons against opposing EnerTek forces at Kow-Lang, resulting in the deaths of over a thousand civilian colonists unable to escape the war-zone. The security council sanctions the despatch of a UEAF taskforce to Tau Ceti, to protect the civilian population and to contain and stop the fighting. The peace accord is brokered by the UEF, and though neither of the protagonists is entirely satisfied with the outcome, prolonging a war that shows no sign of victory for either side is financially unacceptable. Anjuna is policed by a large and permanent UEAF garrison.

The end of the Tau Ceti War sees many unemployed mercenaries and mountains of military equipment disappear into the Outer Colonies. The conflict also shows that the UEF is simply not organised or equipped to police and govern the every growing number of colonies and shipping lanes out beyond the Core Systems.

The Colonial Act of 2140 places Earth's extrasolar colonies under the control of the newly formed Interstellar Colonial Authority (ICA). Each colony under UEF control has an ICA presence. On some of the newer colonies it is little more than a small Settlement Welfare Team office with a handful of representatives. On larger, more established colonies e.g those at Alpha Centauri, there is a large established ICA administrative presence. Larger colonies also sometimes have regional ICA headquarters.

Interstellar distances have to allow for a necessary devolution of certain powers to local leaders, which allows the elections of local officials by the colonial population. Despite this, the local ICA Administrator is able to dictate policy should he see fit. It is common practice for megacorporations with invested interests in a colony start up to have representatives on local councils.

The ICA is backed by the Colonial Security police force (ColSec), a new arm of the Federal Law Enforcement Authority. In addition to this new colonial police force, a new arm of the UEAF is created: the Interstellar Colonial Marine Corps (ICM). An Interstellar rapid deployment force, the ICM is designed to be able to mobilise quickly to resolve military disputes and keep the peace in the Colonies.

To regulate interstellar commercial shipping, the WTO is expanded and remodelled to form the Interstellar Trade Commission (ITC). All commercial flight crews must hold an ITC licence.

The Tau Ceti star system is absorbed into the Core Systems, over which the Federation continues to maintain direct control.

2146: Earth Isolationist Movement

A bomb planted by Earth Isolationist terrorists, kills 87 colonists in Viking City on Mars. UEAM (United Earth Army Mars) MarsCorps garrison established.

The three companies operating on Titan and among the moons of Saturn merge to form the Titan Corporate Collective (TCC) or TriCorp, the thirtieth anniversary of Titan's colonization (fuelling a renewal of the rumour that the colonization of Titan was the result of a competition between three wealthy investors).

2147: Break-up of Microsoft Corp

Break-up of Microsoft Corp by it's CEO Tabitha Gates. The biggest company formed from the break-up is 'Artificial Life Incorporated'. This company spearheads groundbreaking research into artificial intelligence.

2148: Artificial Intelligence

Artificial Life Incorporated unveils 'Adam' the first ever self-aware computer. The New Confederate Christian Church of the United Americas, one of the fastest growing religions of the 22nd Century, denounces Adam as blasphemy.

2148: Last stand of the Butcher of Kow-Lang

The UEF succeed in tracking down Tiberius Lee, ex-commanding officer of mercenary unit the Star Tigers. Lee is held responsible for ordering the tactical nuclear strike during the Tau Ceti War that resulted in the deaths of almost 1200 civilian colonists at Kow-Lang on the planet Anjuna.

Lee is arrested after a fierce 10 hour battle with Colonial Marines at his fortified compound on Titleman's Rest in the Ross 780 star system.

2149: Seas appear on Mars

The population on Mars begins to grow very quickly, prompting an increase in terraforming and the construction of new and larger colony pyramids (all large buildings on Mars are pyramid shaped, designed as the best defence against the sometimes harsh Martian weather). Cargo ships transporting ice from the asteroid belt and Jovian system arrive at Mars weekly.

The Martian northern polar icecap is partially melted with the use of orbital mass drivers. Seas appear on Mars.

Consolidated Aerospace relocates to Mars. Construction of the Mars Orbital Shipyard commences.

2156: GRA established

The Genetic Regulatory Agency is established by the UEF. The GRA exists to investigate and prevent the abuse of human genetic engineering. Much of its activity involves monitoring scientific literature and making recommendations to policy-forming bodies. GRA operatives also do a great deal of police work, investigating genetics labs and cooperating with local police to enforce genetic laws.

2164: First commercial use of android technology

AI Inc develops it's first generation of commercially available androids humanoid machines running the latest in intelligent software design. Androids are always programmed for non-combat roles, such as piloting, driving, tactical assistance, or medical staff. Their capabilities are deliberately limited by behavioural inhibitors based on Asimov's famous 3 laws of robotics. Over the next decade, AI Inc sells licences to several corporations, allowing them to develop and produce their own models.

2166-96: The Second Exodus

With interstellar travel becoming safer and cheaper all the time, and the population of Earth rising, a second wave of colonial expansion begins as people try to escape the resource-drained homeworld of humanity. By the end of this period, all viable worlds in the area of space now called the Outer Colonies have been or are in the process of being colonised by the UEF via the ICA. Beyond the Outer Colonies, megacorporations are already exploring, surveying and staking claims to countless more worlds.

Most starships are almost completely automated by the end of this period, using state of the art computer systems, notably the Matriarch operating system developed by Artificial Life Incorporated. Starships require only a small human crew to perform duties such as orbital insertion and in-flight repairs.

2196: Aral Sea Conflict

The dwindling volume of the Central Asian inland Aral Sea sparks a conflict between Russia and neighbours Kazakhstan and Uzbekistan. The sea's decline was caused by the long defunct USSR's diversion of the rivers which fed the sea, leaving areas of arid, salt-laden dust that then polluted large areas of Kazakhstan and Uzbekistan.

2197: Russian Civil War

The Aral Sea Conflict, coupled with the failure of the Russian potato and wheat lead to food riots in St. Petersburg. The Russian government declares that because of declining economic fortunes it cannot afford to pay it's troops in the Volga-Ural regions and in the outer colonies. As a direct result of this action, General Poborski, leader of the Volga-Ural military, declares himself military governor of the region, with 70% of the armed forces under his command backing him. His first action is to block all tax revenues bound for Moscow, threatening the complete collapse of the fragile Russian economy.

Within days, government troops have clashed with the rebels, and fierce fighting is reported in and around the city of Yekatarinburg. By the end of the first week of fighting, with government forces gaining the upper hand, the civil war turns nuclear when General Poborski orders strikes against aerospace-bases surrounding Moscow. Five bases are destroyed using aerospace launched tactical nuclear missiles. Tens of thousands of people die in and around the bases.

Premier Zakharov immediately orders an escalation to strategic nuclear weapons. 14 STGBMs are fired from an orbiting spacecraft against rebel military targets inside the Volga-Urals. The death toll is estimated in excess of 250,000, with 80,000km² contaminated by radioactive fallout.

UEFSC meet in emergency session. A ceasefire holds, mainly because of the threat of a nuclear strike against Moscow itself by General Leonov, Russia's Far East Region military commander. Elements of the UEAF EuroCorps and ChinaCorps land in Volga-Urals and in Moscow, as part of a stabilisation force to make sure the ceasefire holds.

2199: Formation of the New Democratic Russian Republic (NDRR)

With the complete disintegration of the Russian Federation after the civil war, Russia's satellite states are all granted membership of the UEF General Assembly as separate states. Russia emerges as the New Democratic Russian Republic (NDRR). Alexei Leonov takes his seat in the General Assembly as the new leader of Russia.

The 23rd Century

The 23rd Century sees humanity continue to colonise space. The UEF begins to fracture at it's edges, resulting in the Colonial Wars.

2201: Strategic Arms Reduction Treaty

To prevent strategic nuclear weapons being used by colonial powers against colony worlds, the Strategic Arms Reduction Treaty of 2201 prohibits armed nuclear warheads larger than 100 kilotons from being carried by starships.

2205: NEXUS-1 introduced

The Tyrell Corp. introduces the NEXUS-1 model Replicant, a standard robotic android form covered with genetically-engineered human flesh.

2206: NEXUS-2 introduced

These are N-1's with a programmed personality.

2208: NEXUS-3 introduced

These are physically the same as N-1's and N-2's, but their programming is highly advanced, including basic emotions.

2209: Union of Progressive Peoples

The UPP is formed by a coalition of colonies led by China and Russia in direct response to the perceived threat of the United Americas. Additional members like Vietnam, Spain, Germany and several other Asian and Eastern European countries later joined. The UPP Frontier is overseen by a Governor-General and naval task force, and each colony has its own mayor. The UPP Frontier Governor in 2210 was Governor-General Pham Dinh.

2210: "The Battle of Tannhäuser Gate"

A NEXUS-3 combat team stages a bloody mutiny against the Tannhäuser Gate colony. The UEAF fought in the retaking of Tannhäuser Gate from the replicants.

2211: Replicants illegal on Earth

The Tannhäuser Gate incident prompted replicants as a whole to be prohibited on Earth. UEF orders all Replicants on Earth be taken off-world or destroyed within 28 days. Blade Runner units formed.

2212: NEXUS-4 introduced

Tyrell Corp. gets permission from the UEF to introduce NEXUS-4 Replicants in the off-world colonies, if some means can be devised for distinguishing them from human beings. The Nexus-4 was the most advanced replicant, but concern arose when a pleasure model murdered lab worker Lydia Kine.

2213: Piracy activities

Pirate activity becomes a more organised threat in the Outer Rim Territories. The two main pirate groups operate in the Herculis Cluster and in the Rimworlds Colonies.

2213: NEXUS-5 introduced

They are the same as N-4's but with mission-specific programming. The Nexus-5 was stronger, more agile, and at least as intelligent as its designers.

2214: The Auton Project

During the initial Alpha Prototype Distribution stage of its 5th Generation Androids, Artificial Life runs into problems. Some of the Fifth Gens are found to be too emotional and uncontrollable. The Auton Project is canceled shortly thereafter, and all existing Fifth Gen models are recalled.

2216: NEXUS-6 introduced

Tyrell Corp. secretly introduces NEXUS-6 models to off-world colonies. With a genetically-engineered human brain, their programming is so advanced, the designers fear they may eventually develop their own emotions. They counter this by programming them with a four-year lifespan.

2219: Death of Eldon Tyrell

In October of 2019, Roy Batty, a Nexus-6 combat model replicant led a group of replicants killed twenty-three people in an Off-world colony and hijacking a shuttle with the assistance of other replicants, Leon, Pris, Zhora, and two others. These renegade replicants killed the crew and set a course for Earth.

Roy Batty arrived at Tyrell HQ and killed Eldon Tyrell. As result, the rest of the unused or unsold Nexus-6 replicants were allowed to expire in storage.

2220: NEXUS-8 introduced

The Tyrell Corporation releases the Nexus-8 model, with a full lifespan. The Nexus-8 series were the final iteration of numerically-designated bioengineered humans. Nexus-8 replicants were used for Off-world warfare and tasks humans did not want to do on Earth.

2222: The Blackout

The quantum malware Crawling Chaos infects out 90% of AIs from the Solar System and the colonies. As a result, the world, mostly run by computers, crashed. Governments were forced to order the destruction of many Data centers and AIs to save humanity. EM pulses deleted or damaged untold amounts of data and knocked out most of the planet's financial institutions and industries. In the same time, the "Replicant Register" was erased.

Much of the devastation wrought to the Earth and its populace as well as on Mars, Luna, and in space. Nuclear strikes used against the SAIs killed millions and ravaged an already weakened ecosphere or destroyed critical infrastructure with just as lethal consequences.

In the aftermath, food supplies dwindle to a dangerously low level.

2223: Beginning of the Replicant Prohibition

The governing magistrates legislate an indefinite "prohibition" on replicant production by the Tyrell Corporation. All Nexus-6 models are decommissioned due to their 4-year lifespans. Due to the prohibition, Nexus-8 replicants are mandated to be retired, but some manage to go into hiding. This sent the Tyrell Corporation into bankruptcy.

2225: A major tsunami impacts Los Angeles

The construction of the Sepulveda Sea Wall is commissioned.

Scientist Niander Wallace solves Earth's food crisis by genetically engineering Nematodes, a species of artificial worm high in protein, that will become a primary source of food by the year 2249. The Wallace Corporation experiences a surge in growth as a result.
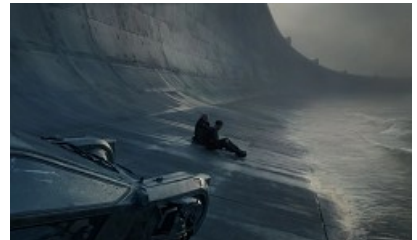
2228: Takeover of Tyrell Corp.

The Wallace Corporation purchases the now defunct Tyrell Corporation.

2232: Evolution of Man

An article is published in the New England Journal of Medicine, offering proof of the existence of telepathy. The UEF establishes the Metasensory Administration Agency (MAA) from the Committee on Psychic Phenomenon (CPP), headed by Senator Paul Fox, to oversee the Telepath situation.

Research undertaken verifies the existence of Telepaths. This begins a major panic.

2235: Internal Security Act

The UEF passes the Internal Security Act, establishing two quasi-governmental departments as branches of the MAA: MetaPol and PsiCorps. Attached to the Federal Law Enforcement Authority, MetaPol, or the Metasensory Police, is mainly made up of telepaths and precogs, who use their powers to interrogate those who have committed crimes against the Federation, or to predict the outcome of certain events. A quasi-military branch of the MAA, PsiCorps operatives are

usually assigned as 'psychic security' to government officials, or attached to UEAF units on missions that might benefit from the availability of psychic powers.

In addition, the Internal Security Act allows for the formation of Psychic Service Providers private organisations licensed and regulated by the MAA who hire out their talents to block telepathic snooping and other paranormal dirty tricks. It has become common practice for executives of large corporations and government bodies to employ such agents as 'psychic security'.

2236: End of Replicant Prohibition

Niander Wallace introduces his new Replicant model.

Niander Wallace meets with Los Angeles lawmakers in order to demonstrate the obedience of the Nexus-9 replicant by having one cut himself and choose between taking his own life or Wallace's. The Nexus-9 selects the former.

Replicant prohibition ends. The Wallace Corporation publicly releases the Nexus-9 Replicant model.

2238: Space Pirates Strike in the Core Systems

A cargo of gravidium, element 126, is snatched by space pirates while en route to Centauri Prime from Helada. The crime bares the unmistakable hallmark of the renegade Chinese Consortium space pilot Kim Chung Song and his band of disaffected followers. The stolen shipment is valued by Lloyd's Space Shipping at E$9 billion. Up unto now his activities have been confined to the Outer Rim Territories along with the rest of pirate activity.

2240: The Sepulveda Sea Wall

To contend with global climate change, Los Angeles constructs the so-called "Sea Wall" to contain the rising waters, with some replicants being illegally employed for the project. Human-Replicant tensions continue to escalate.

2243: Capture of Kim Chung Song

Space pirate Kim Chung Song is captured after a dramatic 36-hour battle around and on several of the moons of Irsas, a gas giant in the Alpha Centauri system. The final confrontation takes place beneath the surface of the moon Irsas X, in the warren of lava tubes that honeycomb the moon, and involves more than 500 UEF soldiers.

Colonial Marines, fighting for the most part in vacuum conditions, suffer heavy casualties before cornering Kim Chung Song and 34 of his surviving cohorts. They are taken to Centauri Prime to await trial.

2244: Destruction of Kim Chung Song operations base

One of Kim Chung Song's surviving followers cracks under interrogation, giving up the location of Song's base of operations in the Core Systems: a converted colonial transport currently in the Sirius Star System. An ICM taskforce is dispatched to neutralise the pirate threat.

Locating the pirate stronghold, the taskforce succeeds in crippling the pirate ship before it can escape. Taking no chances, the marines decompress the vessel before boarding. By the time the have secured the ship there are few survivors amongst the crew.

2246: The EnerTek Scandal

EnerTek Corp declares bankruptcy, subsequently collapsing in a scandal involving billions of E$ in losses, corporate power abuse and attempted blackmail of ITC officials. EnerTek Corp is the primary colonial investor in the Herculis Cluster, a sector of space with a high concentration of habitable and resource rich star systems in close proximity to one another. During the next decade, the Herculis Cluster colonies are allowed a degree of regional autonomy unprecedented by the UEF.

2249: The Mercenary War

Rival mercenary units clash in the Outer Rim, despite both having being hired by Cenargo Corporation to protect colonial assets against pirate activity. Both force's contracts are promptly revoked, but fighting escalates, forcing the Cenargo corporate forces to become involved.

The Mercenary War is finally brought to an end with the signing of the Mercenary Charter. The Charter, formulated by the ICA, lays out a code to which all mercenary units and their employers are expected to adhere. All signatories to the Charter, which includes most organisations that either supplies or employs foreign mercenary troops, agree not to hire any unit that does not comply with the terms of the code.

2250: Outbreak of the Ngano Plague

Outbreak of the Ngano Plague. Caused by airborne microbes in the atmosphere of 58 Eridani II ('Ngano', a jungle world in the 58 Eridani star system, in the Chinese Consortium colonised arm), the Ngano Plague is a highly contagious viral disease that causes vivid hallucinations and acute paranoid delusions in those exposed. Infected victims are dubbed 'Crazies' due to the insane psychopathic state induced during the plague's later stages.

The plague quickly cripples the colony (it has an incubation period of over 4 weeks) and carriers soon infect the colonies in neighbouring systems. Ships with infected personnel arriving at star systems further afield are intercepted and quarantined. Approximately half a million colonists fall victim to the Ngano Plague before it's spread is checked by the ICA and ITC.

In the wake of the plague, new laws are brought into effect, making it illegal for any interstellar vessel to enter the Core Systems without first passing through ITC quarantine. It also becomes standard policy for any ITC licensed starship to have an Android Exo on board.

2254: Hallidor Corp acquires EnerTek Corp

Hallidor Corp acquires EnerTek Corps colonial assets. As Hallidor and the ICA move in to take control of the Herculis colonies, the action sparks a wave of civil unrest. A grassroots independence movement has been growing in the Herculis Cluster ever since the colonies were allowed a degree of regional autonomy by the ICA during the chaotic years following the EnerTek collapse.

2255: Colonies in the Herculis petition for regional autonomy

Eli Navarro, a colonial administrator from the fledgling Nuevo Santiago colony in the 18 Scorpii star system leads a delegation of representatives from colonies in the Herculis Cluster to petition the UEF General Assembly for continued regional autonomy. The controlling political party in the General Assembly – the Centralist/Neo-Federalist Alliance is staunchly anti-separatist and rejects the petition.

2257: Colonial Sedition

Civil unrest in the Herculis Cluster grows, and on the larger colonies the protests turn into riots as separatist-supporting colonists clash with ColSec troops. Separatists led by Eli Navarro take control of the ICA office on Nuevo Santiago, declaring independence from Earth rule. Other colonies in the Herculis Cluster quickly follow suit, rallying to Navarro's cause. Large numbers of the ColSec and corporate garrisons, many with families and some born and raised on worlds light years from Earth, defect to join the separatists.

The UEF Security Council meets in emergency session. Resolution 11702 is passed, and the UEAF begins massing forces at 70 Ophiuchi, taking control of the orbital drydocks. The first target is Aricebo in the 82 Eridani star system. Colonial Marines quickly take control of the starport and neutralise the separatists on the world. Resentment of the military occupation amongst the population remains high and the ICM are drawn into a prolonged and dirty guerrilla war.

2258: The Rimworlds Rebellion

NatSoc, a political movement in the Outer Rim Territories stages a series of swift and bloody coups against local ICA installations. On Pei Pei colony in the Alpha Mensae star system, rebel fighters raid the ICA complex, capturing many hostages. Armed NatSoc-loyal militias, joined by defecting ColSec forces, quickly overpower the local garrisons. The colonies declare themselves the Eurasian Rimworlds Combine (ERC). The leaders of the ERC demand recognition and total independence. At the age of 50, Scolar Visari is named first Autarch of the Eurasian Rimworlds Combine.

A raid by the ICM, on Pei Pei colony, succeeds in rescuing the majority of the ICA hostages held by the rebels. At the same time, a state of emergency in the Outer Rim Territories is declared by the UEF. The ICM, backed by the newly

formed United Earth Federation Expeditionary Force (UEFEF) is ordered to stop the insurrection. Martial law is imposed in the Outer Rim Territories and Herculis Cluster.

2258-2260: The Colonial Wars

The Colonial Wars are fought primarily on two fronts: the Herculis Front lies Coreward of Sol and comprises the star systems that would become the Free Worlds Alliance (FWA); the Rimworlds Front lies Rimward of Sol and comprises those star systems that would become the Eurasian Rimworlds Combine (ERC).

The war rages for three years, during which time the UEF wage economic and military warfare against the rebels, and sees fighting on a score of worlds in over a dozen star systems. Some colonies capitulate quickly and with little loss of life. Others turn into protracted and bloody campaigns claiming thousands of lives, such as Vega, Delta Eridani and the disastrous Ixion invasion.

2260: The Ceasefire

Casualties continue to mount, as public support for the war continues to fall. Anti-war protests on Mars turn violent, and the Mars garrison has to be mobilised to quell the riots.

When an ERC suicide mission succeeds in penetrating defences at Omicron² Eridani and cripples a UEAF taskforce orbiting Eridanus with great loss of life, voices inside the General Assembly begin to call for a negotiated ceasefire with both groups of rebels. On 1st May 2260, thanks in part to the negotiating skills of the Chrislamic Church, an uneasy ceasefire is established with both of the remaining pockets of rebellion. No peace treaty is signed with either group.

Blockaded by the UEF, the separatist colonies in the Herculis Cluster declare themselves the Free Worlds Alliance. As promised, Eli Navarro devolves government to individual colony worlds, with all colonies agreeing to help maintain an FWA militia.

A 1 parsec DMZ is established between ERC and UEF space.

2261: The Relaunch of ORION

The UEAF reactivated the ORION Project. The project was named after the Orion Arm of the Milky Way galaxy. The aim of the ORION project was to increase the effectiveness of the Colonial Military Authority's soldiers in charge of colonial security.

2262: UEF Elections

Social and political fallout from the Colonial Wars is cited as the main factor in the defeat of the centre-right Centralist-Neo Federalist Alliance in UEF elections. A centre-left coalition takes control of the General Assembly.

2264: The Capellan Mandate

Documents are leaked to the press revealing that during the Colonial Wars the UEF government covertly hired Capellan pirates to harass ERC shipping. The scandal reverberates through the UEF corridors of power. A commission is set up to investigate the matter and bring those responsible to justice.

2265: The SPARTAN-II Project

Though the Orion super-soldiers were effective; their abilities fell short of the scientists' hopes, and they cost far too much to develop and field. The new goal of Spartan-II was to learn from the mistakes of the previous attempt and, using advancements in bioengineering technology, create a genetically enhanced and mechanically augmented super-soldier - and to deploy these soldiers behind enemy lines where they would quell insurgencies in their infancy, or neutralize established insurgences by destroying their chain of command.
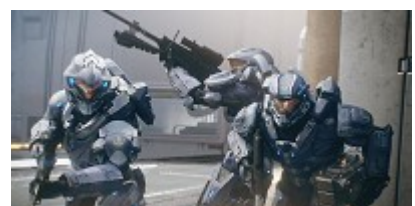
2271: NOW

The End Times

By the end of the 23rd Century, the End times are still upon humanity. Something is going to happen, but there is a chance that humanity will survive in some fashion, somewhere out there amongst the stars…

4.5 billion BC	As the Earth begins to cool down from its own creation, a Great Old One named Cthugha arrives on Earth with his legion of Fire Vampires.
1 billion BC	A race of aliens known as the Elder Things arrive on Earth in the Antarctic region and create a city within the ice.
541 million BC	On Earth, the Elder Things fight against the Spawn of Cthulhu.
250 million BC	The Great Race of Yith inhabits Earth and wars against the Flying Polyps. Meanwhile, the Elder Things are still active on the planet, now fighting against the Mi-Go as well as dealing with the first Shoggoth rebellions.
100 million BC	The Thing crash lands on Earth in the Arctic where it became frozen in ice for millions of years.
10 million BC	The Forerunner - Precursor war happens rendering the Precursors almost extinct and The Forerunners take the mantle of responsibility by force.
250,000 BC	A meteorite falls in Alaska containing Parasitic Ice Worms which would remain dormant until being accidentally released in 1993.
110,000 BC	The Human-Forerunner war. Ending in the defeat of the ancient humans and the Forerunners taking the Mantle of responsibility.
100,300 BC	A Forerunners space-faring scientists, make first contact with a parasitic organism known as the Flood. The Flood-Forerunner war begins.
57,448 BC	A meteor bearing Forerunner symbols crashes on the planet that will be known as Sigma Octanus IV. The meteor will be discovered approximately 60,000 years later, with its contents later reclassified as an important artifact to the Covenant.
35,000 BC	Two cavemen in North Texas, Earth are attacked by a long-clawed alien. One of the men is killed while the other becomes infected with the Purity.
10,000 BC	A meteorite falls to Earth, containing genetic material that would later be used in the creation of an alien predator.
2996 BC	The Predators arrive on Earth, teach humans to build pyramids, and are worshiped as gods. An ancient civilization located in a huge cavern beneath the volcanic Bouvet Island grows to the height of its power.
2200 BC	Queen Nitocris, the Ghoul-Queen, rises to power in Sixth Dynasty Egypt. She revives the worship of Nyarlathotep once more, and uncovers the Shining Trapezohedron. She engages in many unspeakable acts during her reign, weakening her nation sufficiently to usher in the First Intermediate Period of Egyptian history. She leaves behind an artifact known as the Mirror of Nitocris.
126	A force of legionnaires travels north of Hadrian's Wall into Pictish territory on a mysterious mission. Their fate is never uncovered.
534	Meteor impact in Britain (modern Brichester Lake) brings Gla'aki to Earth.
640	The Great Library at Alexandria is burned. Certain texts escape the Library's destruction, and eventually make their way to the monastery of Perigon in Averoigne.
738	Abdul Alhazred dies. According to popular lore, he is killed in the marketplace of Damascus by an invisible monster.
1000	A "strange and powerful dynastic order" builds a stone priory atop an ancient temple in modern-day Anchester, the site of which eventually becomes Exham Priory.
1200	The local clergy in Avebury begins efforts to remove certain local standing stones, efforts that continue into the 14th century; many of the stones are destroyed.
1307	The Knights Templar in England are disbanded by King Edward II.
1400	A man described as a "ghoul" is buried in a Holland graveyard, along with a jade amulet of the

	"corpse-eating cult" of the Plateau of Leng.
1519	Leonardo da Vinci dies, and his library is scattered. Among the lost books is his copy of the Latin Necronomicon.
1573	A sect of Yog-Sothoth worshippers is founded in the mountains of Romania. Their leader is a man named Chorazos, and they are thus called the Chorazos Cult.
1600	A meteor containing an alien city crashes into the Severn Valley. The being known as Gla'aki lives within. The meteor crater slowly fills with water, eventually becoming a lake.
1639	Settlers from southern England and the Channel Islands found Kingsport on the coast of Massachusetts, south of modern-day Arkham. A cult arises in Kingsport, with meetings held in the town's Congregational Church.
1643	The town of Innsmouth is founded in Massachusetts.
1692	March: A witch hysteria engulfs Salem, Massachusetts. Many innocent citizens are accused of witchcraft and executed. An ancestor of Richard Upton Pickman is among those that are hung. The danger drives Joseph Curwen to move to Providence, Rhode Island. Others, a group of Believers (including the Whateley and Bishop families), move to north-central Massachusetts. There, they found the town of New Dunnich. Edmund Carter, ancestor of Randolph Carter, is nearly hung in Salem and flees to the hills behind Arkham. Soon after the witch panic begins in Salem, it spreads to Arkham. As a result, they send one witch, Keziah Mason, to Salem for trial. However, Mason disappears from her cell before she can be executed. The witch panic also spreads to Kingsport, which results in the hanging of thirteen reputed witches.
1718	A band of pirates are hunted by a Yautja, who eventually takes a gun crafted in 1715 with the word "Roanoke" engraved in it.
1722	A raid is made on Kingsport's Congregational Church, to disperse a pagan cult holding ceremonies beneath it. Thirty of the pagans are captured. The raid is led by Mayor Eben Hall
1844	Professor Enoch Bowen ceases his excavations of Nephren-Ka's tomb upon finding the Shining Trapezohedron, and returns to Providence. Once there, he founds the Church of Starry Wisdom.
1878	Obed Marsh dies. His family continues to run the Esoteric Order of Dagon in his stead, and retain control of Innsmouth.
1882	A strange meteor lands near Arkham, on the property of a farmer named Nahum Gardner. Henry Armitage later investigates, leading to his interest in acquiring the Necronomicon for the Miskatonic University library and studying it.
1896	London, England: A Predator hunts in London, giving rise to the legend of the murderer Spring-Heeled Jack. It is faced again by Captain Edward Soames, who is employed by the secret order of the mysterious Diogenes Club, lead by Mycroft Holmes. Soames defeats the beast, its body sinking to the bottom of a mud pit. Holmes orders its ship, which was hidden in the sewers of London, to be sunk into the sea.
1904, October 10	Bouvetoya, Antarctica: Aliens and Predators wipe out the inhabitants of a whaling camp on Bouvetoya in the South Atlantic Ocean. One whaler, Karl Johanssen witnessed a Predator fighting an Alien before dying of hypothermia.
1914, August	France: World War I. The Predators are attracted to the massacres and battles in the war. Cloaked Predators are shown active at at least two locations.
1915	A supercargo captured by Germans in the Pacific escapes in a raft. He soon finds himself on a recently uprisen island, where he has a terrifying encounter. After returning to civilization, the former supercargo makes inquiries into the nature of the Philistine god Dagon. After this, he disappears.
1916, June 18	Verdun, France: Jean Brunaud and his squad witness a Predator in battle at the trenches near Verdun. He tries to tell his superiors but goes unheeded, despite Predators being witnessed killing German and French troops. He keeps a helmet of one of the fallen Predators. It is eventually passed down by mysterious people to CIA lawyer Griggs Irving in 1992.
1921	A visitor to Kingsport walks off the cliffs at Orange Point, then is rescued, while raving about being from the past and taking part in a hideous subterranean ceremony. He is confined to Arkham Sanitarium.
1925	R'lyeh rises from the ocean. In short order, many cases of madness erupt worldwide.

1926	Florida Everglades: A redator hunts an escaped convict from the Big Cypress Penitentiary and the three prison guards sent after him. Only the lead guard survives, keeping his story a secret.
1928	The U.S. government raids the town of Innsmouth, attacking Devil Reef, and bombing the underwater city of Y'ha-nthlei. They also capture many deep one half-breeds, taking a number of them to a camp in Oklahoma. During the raid, Asaph Waite, author of the Invocations to Dagon, is killed. Most of the Marsh family escapes to Ponape, though a few remain behind or go elsewhere. As a result of this raid, the government becomes aware of the existence of Mythos activity. They continue to occupy and block off access to Innsmouth through the next year, destroying more buildings and taking numerous town records. Miskatonic University acquires numerous books from the Esoteric Order of Dagon's library, including a copy of the Codex Dagonensis.
1930 September 2	The Miskatonic University Expedition departs for a geological and biological study of Antarctica, led by geologist William Dyer. The expedition lands in November and explores the Antarctic for two months. Disaster strikes when its researchers uncover long-dormant Elder Things, and then an Elder Thing city and a monstrous shoggoth.
1939-1945	Llanganati Mountains, Ecuador, South America: During World War II, a Nazi commandant and his team encounter a Predator during their quest for Incan gold. They destroy a village and use a child as their guide. He is the only survivor who keeps his story a secret.
1947 june 24	Thunderstorms apparently cause an unidentified flying object to crash near Roswell, New Mexico. A 150-man team from the Central Intelligence Group recovers the wreckage and four humanoid creatures, three killed in the crash and one unconscious.
1947 September	To consolidate xenobiological research, the single surviving extraterrestrial occupant found at the Roswell crash is transferred to a purpose-built facility at Los Alamos.
1964	Despite the efforts of the Wilmarth Foundation, the cthonians invade the Americas. This leads to an intense campaign against the cthonians in America and Great Britain that continues through 1969.
1968	Vietnam: A Predator hunts during the Vietnam war and the South Vietnamese officer from the famous footage of the execution of a North Vietnamese prisoner is later accused of committing a bloody massacre which was actually a Predator attack.
1980	The Wilmarth Foundation initiates Project Cthylla. A nuclear bomb is sent burrowing beneath Devil's Reef, where it is intended to destroy Cthylla. After it is detonated, a hateful psychic assault is sent from R'lyeh. Over the next three days, many are driven insane, the Miskatonic Valley is decimated by natural disasters, Miskatonic University itself is destroyed, and Wilmarth Foundation director Wingate Peaslee is killed. The University is rebuilt, but Cthylla survives, and the anti-Mythos organizations must look on their foes with new humility.
1984	Nicaragua: A Predator attacks and decimates a Contra-training camp headed by US Special Forces Officer Faulkner. Only Faulkner survives the incident.
1987	Val Verde, Central America: In the jungles of South America, a group of hardened Special Forces commandos are on a routine rescue mission when they find themselves being hunted by an alien predator. The group is slowly whittled away a Predator, but eventually defeated by the sole surviving member of the commandos, Major Dutch Schaefer.
Summer 1989	New York City, NY: A Predator fights Dutch Schaefer's brother Detective Schaefer, his partner, Detective Rasche, and street gangs. Shaefer fights another Predator in Val Verde. Shaefer, Rasche, the gangs, the police and the army then face a fleet of Predators in New York City. The military officer in charge of the operations dealing with the Predators is Major General Philips from the Val Verde incident.
1990	Yamal Peninsula, Siberia, Russia: About 5 months after the events in New York, a Predator ship crashes near an oil station in Siberia and attacks the refinery. An undercover US team is sent in by Major General Philips, who recruits Detective Shaefer to join them, in order to capture the Predator's technology. A Russian team is also sent to do the same. Shaefer teams up with the lead Russian officer who survived the initial attack to fight the Predators and destroy their ship.
Summer 1997	Los Angeles, CA: A Predator lands in Los Angeles and begins hunting gang members and policemen involved in a drug war, but is defeated by Lieutenant Michael Harrigan. The Predators are hunted by a clandestine government military team known as the OWLF unit is lead by Special Agent Peter Keyes, they have detailed information about the Predators and records of the Val Verde incident. The Predator's body is reclaimed. Harrigan is given the gift Raphael Adolini's flintlock pistol by an Elder Predator, presumably the Golden Angel Adolini fought with. Keyes is followed by Agent Garber as head of the OWLF unit.

2004, October 03, sunday	Bouvet Island, Antarctica: A Predator ship nears Earth, initiating a heat bloom beneath Bouvet Island near Antarctica which is detected by satellites belonging to Weyland Industries. Specifically, Weyland Industries satellite P12 picks up a heat bloom over Antarctica and the icebreaker Piper Maru is dispatched to investigate. Max Stafford starts combing the globe looking for various experts for the expedition.
2004, October 10, Sunday	Bouvet Island, Antarctica: A Weyland Industries team led by company head Charles Bishop Weyland discovers a pyramid beneath Bouvet Island, where they are caught in a battle between the Predators and Aliens. Lex Woods is the only survivor. As the Predator ship departs, an Predalien erupts from the body of a dead Predator.
2004, October 14, Thursday	Gunnison, Colorado: A hybrid Predalien crashes aboard a Predator ship outside of Gunnison, Colorado. Several facehuggers and the hybrid creature escape, invading the town and creating more Aliens. A lone Predator arrives and fights the Aliens in a battle with the a group of local people caught in the middle. The United States government gets involved with the attempt to contain the situation in an extreme way. A recovered Predator shoulder cannon is delivered to a woman identified as "Ms. Yutani".
2017	OWLF (Other Worldly Life Forms Program) is renamed into Project Stargazer.
2018, October	A Yautja ship crash-lands on Earth. The Predator is captured and taken to a lab for experimentation. An Ultimate Predator arrives, kills the prisoner and destroys the crashed ship.
2025, January 07	Weyland manufactures the first advanced android prototype model of its kind. He is affectionately called David, a name Sir Peter Weyland had initially reserved for his own human son.
2029, December 12th	After years of litigation, Weyland wins the David patent lawsuit against the Japanese start-up Yutani Corporation, effectively protecting the investments of both Weyland Industries and its shareholders.
2039, May 14th	Weyland astronomers discover multiple moons and a ringed planet just outside the Zeta 2 Reticula System, which are possibly able to support life. Weyland expects to travel there within the century.
2040	Vanishing of the 'Event Horizon' spaceship during its maiden voyage to Proxima Centauri for an experimental engine that opened a rift in the space time continuum.
2047	The spaceship 'Event Horizon' mysteriously reappeared in a decaying orbit around Neptune. The rescue vessel Lewis and Clark is dispatched to look for survivors and determine what happened. Seventy-two days later, the forward section of the Event Horizon is boarded by a rescue party, who discover the remaining crew still in stasis.
2061	Arkham Sanatorium burns down.
2083	Arkham Sanatorium rebuilt at a location close to the original.
2089	Dr. Elizabeth Shaw and Charlie Holloway discover a star map on Earth that points to LV-223.
2091	The Prometheus mission leaves Earth.
2093	The Prometheus reaches LV-223 and most of its crew is killed. Sir Peter Weyland is killed by an Engineer and the Prometheus is destroyed.
2094	David wipes out the Engineer population on the Paradise planet. Dr. Elizabeth Shaw is killed.
2103	The Covenant mission leaves Earth with the purpose of reaching the planet Origae-6 to colonize it.
2104	The Covenant mission receives a transmission from Dr. Elizabeth Shaw and lands on the Paradise planet to investigate.
2121	The Nostromo leaves Thadeus on a course to Earth with the crew of 7: Kane, Dallas, Lambert, Ripley, Ash, Parker and Brett.
2122	Nostromo lands on LV-426 to investigate a derelict transmission, they find a derelict ship where executive officer Kane is impregnated by a Xenomorph. Kane is brought onboard with the Xenomorph, crew wiped out in 24 hours, Nostromo destroyed, only survivor Ellen Ripley escapes in the Narcissus shuttle.
2128	The colonial transport vessel Moonchaser vanishes while enroute to Jupiter.
2139	Europa incident: a craft of strange organic design smashing its way out of Europa destroying the nearby mining colony of Gower 2, killing four citizens.
2150-ties	The Hadley's Hope colony is established on LV-426.
2179	The Narcissus with Ellen Ripley is picked up by a deep space salvage team.

2179, June 12th	Carter Burke sends a transmission to Hadley's Hope to locate the Derelict.
2179, July	Contact with Hadley's Hope colony on LV-426 is lost.
2179, July	A ICM team lead by Lieutenant S. Gorman is sent to LV-426 to investigate contact breakoff with Hadley's Hope in the USS Sulaco. Ellen Ripley is sent with them as a consultant. The marines find only 1 survivor, Rebecca Jorden. Most of the marines wiped out by Xenomorphs or friendly fire, Atmosphere processor goes critical, the colony and surrounding area destroyed. The mission has 4 survivors: Ellen Ripley, Dwayne Hicks, Bishop 341-B android and Rebecca Jorden.
2179, August	The USS Sulaco jettisons the survivors of the LV-426 mission in an EEV as a fire is started on the ship by a Xenomorph. Ellen Ripley is impregnated. The EEV crashlands on Fury 161, a prison planet with 23 prisoners, 2 wardens and a medical officer. Dwayne Hicks and Rebecca Jorden are killed in the crash. A Xenomorph is brought along in the EEV, it infests a dog/ox, kills most of the prisoners, Warden Andrews and medical officer Clemens. Ripley consults heavily damaged Bishop and shuts him down. The Bishop II android with a team of special forces is sent to acquire Lieutenant Ripley on The USS Patna to get a hold of the alien queen specimen inside her. Ellen Ripley commits suicide, warden Aaron is killed. The only survivor is prisoner Morse. Fury 161 is closed down.
2183	Human Horizons Press offices burn down. Jonathan Monroe, author of a book the publishing house was about to publish, is arrested in connection with the fire. He later commits suicide while in police custody.
2194	The Anubis Incident. Nanotech accident at a research base in the Anubis crater on Ganymede. To this day the Anubis Quarantine Zone is a no-go area, and is patrolled by a marine contingent.
2199, March	Genetic Regulatory Agency investigation links bioroid trafficking to Martian Triad-controlled gas stations in the asteroid belt. SAD sends a squadron to the belt to suppress the activity.
2203	Professor Sutton and several other founding members of the Institute are killed in what is reported to be a freak boating accident off the island of Ponape.
2214	The Earth Children cult, an extreme offshoot of the Earth Isolationist Movement, grows in power. Eventually stories of kidnappings and holding members against their will pushes the Federal authorities to take action. A Waco style siege ensues. Federal troops storm the cult's heavily defended compound in Texas, but the cult's enigmatic leader, the Reverend Jebediah Stone, is nowhere to be found.
2222, April 26th	The quantum malware Crawling Chaos infects out 90% of AIs from the Solar System and the colonies and causes the Blackout. Out of the 10 billion inhabitants of the Earth, more than 60% are eradicated.
2242	Attempts to create a digital copy of the Necronomicon by EnerTek Corp's R&D division on Earth end in disaster when a computer virus is somehow introduced into the corporation's computer networks. EnerTek suffers critical data loss. Cultists of Nyarlathotep responsible. The disaster is the cause of EnerTek's eventual collapse.
2243	Destruction Of Spalding's Party.
2244	The Crawling Chaos computer virus crashes the Global Stock Exchange network, causing chaos amongst the business community. It is attributed to a group of computer hackers called the Exiles who were worshipers of Nyarlathotep.
2253	Innsmouth is quarantined by the FHS using the cover story of an outbreak of Ngano plague. Federal Law Enforcement officers, backed up by AmeriCorps soldiers raided the town. The raid resulted in the capture of approximately 200 Deep One hybrids. During the raid FLEA discovered five conical stone tablets inscribed with glyphs. The stone tablets are turned over to the Military Sciences Division cryptography unit.
2254	The captured hybrids are moved to a prison facility in south-eastern Arizona disguised as a military supply depot. Innsmouth is firebombed and remains sealed off by order of the Federal Government to this day. Some subjects are delivered to the R&D department of Zen Medical for research on gene therapy.
2255	MiliSci HQ on Mars is totally destroyed, when an explosion rips through the complex. Explosion caused by certain alien devices taken to the complex from an undisclosed site.
2258	Military Sciences Division transfer the bulk of their activities to a top secret location, a space station code named 'Pandora'.
2260	A Cenargo Corp. funded survey team on Mars discovers alien ruins at the bottom of the Coprates Chasma. MiliSci takes over the excavations. The find is classified as Top Secret. The area is sealed off to the public and the site is placed under heavy guard.

Unknown to MiliSci, Cenargo has already taken certain items, including extensive photographic evidence of a set of stone tablet fragments inscribed with alien writings.

2261	An ERC recon team uncovered pre-human constructions on a satellite in the DMZ of the Border. By order of Jorhan Stahl, all findings are brought under the command of SP-8. The abandoned city's location is designated Point 103.
2262	A Colour Out Of Space attacks Mayfield, a colony in the Outer Colonies. It is eventually contained using a magnetic field generator, taken from an unused fusion reactor. MiliSci organise a cover-up.
	Point 103 gradually grows to house 22 archaeologists, cryptographers, and experts in ancient languages. Having discovered an arcane formula for the "resuscitating of ye vital saylts," a section of SP-8 uses the formula to revive the corpse of Kim Chung Song. Jorhan Stahl immediately orders the creation of SP-Koldovstvo to research and exploit the occult for military purposes.
2263	Professor Kitover, a MiliSci scientist, translates the Coprates Fragments and promptly goes insane and destroys his lab, including the Fragments.
2264	The Hansen's Disease Research Facility was a medical center situated inside the canyon of Valles Marineris, on Mars. The facility was used by Zen Medical as a cover for the experimental therapy. The patients were homeless and insane individuals on whom gene therapy was performed using Deep One DNA. These experiments had terrible results and left the patients with a half-alien, half-human appearance. This failure at producing healthy hybrid specimens led the Corporation to have the patients shot by MiliSci and piled up in a mass grave.
2265	SP-K perfect a method for reviving the dead. A labor force of concentration camp prisoners is transported to Point 103 for experiments.
2266	A shuttle of "resuscitated casualties" are driven from Point 103 to the Border and are released on an UEAF outpost. SP-K considers the results very satisfactory. MiliSci is immediately alerted.
2267	Contact with Robinson, a colony in the Outer Rim Territories is lost. ICM S&R team dispatched. Upon arriving they discover the colony base burnt to ashes, with only one survivor, raving about how 'the stars swarmed on us and killed everyone'. MiliSci organise a cover-up.
	The Point 103 team unearths an unimaginable weapon used by the pre-human civilization to reshape the face of a planet. The satellite is obliterated during an abortive and poorly understood attempt to summon dread Azathoth, the Daemon Sultan.
2268	The Tyrant (T-002 Type), an improved variants of the Progenitor virus, was completed. However, an accident occurred during injection of the virus into the host, causing an airborne leak of the strain within the Laboratory that infected the researchers. Cenargo sealed their site in Acheron Fossae on Mars.
2270	A suborbital transit station between Midgard City and the Asgard Industrial Park, Transit Station 13 was closed down after a flash fire destroyed it and a docked personnel transport, killing 126 people. Conspiracy theories and dark rumours have dogged this disaster. Some claim that the passengers' bodies were not burnt but badly mutilated, and that no traces of fire were found by the initial rescue team. Rumours also claim that MiliSci arrived on the scene and closed off the station. All of which is denied by the authorities. Though it is an odd fact that all of the ten man fire team that first arrived on the scene that day have either left the colony, vanished or died.

The Solar System & the Colonies

by Wikipedia, John Ossoway, David Pulver, Thorin Tabor & Matthew Grau

"We used to look up at the sky and wonder at our place in the stars, now we just look down and worry about our place in the dirt."

Joseph Cooper – Astrogator

The conquest of space was never an easy undertaking. Indeed, the first tentative steps into space by humanity were difficult and often costly. Despite the many obstacles and deterrents, Humanity gradually edged off Earth into space. The colonisation of space and with it the struggle to survive in often strange and hostile surroundings challenged the determination and ingenuity of human civilisation, but three hundred years since Neil Armstrong first set foot on Earth's lunar companion there are millions of people who call planets beneath alien skies home, many of whom have never set foot on the planet which will always be their spiritual birthplace.

Despite Sol being little more than another star in the night sky to many of these colonists, the majority are still tax-paying citizens of the United Earth Federation (UEF). Though the UEF would deny it in the strongest terms, it is to all intents and purposes an imperial power, with regional governors administering colonial assets. The maintenance of order in an interstellar civilisation requires a degree of control which to many is in itself undesirable, and the nearer one approaches the administrative centre of such a society, the more rigid its constraints.

Governed by the powerful Interstellar Colonial Authority (ICA), the Federal Colonies encompasses a sphere of influence 20 light years in radius with Sol at the centre. The UEF reserves the right to expand this sphere of influence, and annex any colonies lying beyond it's boundaries, up to and including all star systems in a 50 light year radius from Sol.

The Federal Colonies are split into four distinct regions:

1. Zone 1: The Sol System
2. Zone 2: The Core Systems
3. Zone 3: The Outer Colonies
4. The Frontier: The Outer Rim Territories

Space Travel

Hydrogen, Nitrogen, Oxygen and other chemical fuel engines are simple liquid/gas fuel rockets. Engines of this type were created by humans in the early 20th century, and used for short range space flight, including on aerospace craft for orbital injection burn. By the 23rd Century, chemical rockets have been all but superseded by fusion drives and the reactionless displacement drive.

Propulsion systems in use by spacecraft in the late 23rd century range from the now archaic chemical rocket engines to the F-Drive. Most ships equipped with reactionless displacement drives are capable of a constant 1g acceleration in deep space. Military craft can usually exceed this, pushing their acceleration up to 3g, sometimes higher, though extended operations at high acceleration can cause damage to both crew and vessel.

The following table can be used to compute the distance traveled, in astronomical unit, with various travel times and accelerations.

Distance traveled Table

Travel time	Acceleration (g)							
(days)	1.0	1.1	1.2	1.4	1.5	1.8	1.9	2.5
1	0.24	0.27	0.29	0.34	0.37	0.44	0.47	0.61
2	0.98	1.08	1.17	1.37	1.47	1.76	1.86	2.45
3	2.20	2.42	2.64	3.08	3.30	3.97	4.19	5.51

4	3.92	4.31	4.70	5.48	5.87	7.05	7.44	9.79
5	6.12	6.73	7.34	8.57	9.18	11.01	11.63	15.30
6	8.81	9.69	10.57	12.34	13.22	15.86	16.74	22.03
7	11.99	13.19	14.39	16.79	17.99	21.59	22.79	29.98
8	15.66	17.23	18.80	21.93	23.50	28.20	29.76	39.16
9	19.83	21.81	23.79	27.76	29.74	35.69	37.67	49.56
10	24.48	26.92	29.37	34.27	36.71	44.06	46.50	61.19
11	29.62	32.58	35.54	41.46	44.42	53.31	56.27	74.04
12	35.25	38.77	42.29	49.34	52.87	63.44	66.97	88.11
13	41.36	45.50	49.64	57.91	62.05	74.46	78.59	103.41

The following table can be used to compute the travel time within the Sol system, assuming a constant acceleration and deceleration of 1 g with a move in a straight line. Considering a displacement with an elliptic trajectory, add (20 + 1d10)% to the trip duration.

Travel time Table

|	AU	Period (years)	Time travel (days)
Mercury	0.39	0.24	1.78
Venus	0.72	0.62	2.43
Earth	1.00	1.00	2.86
Eros 433	1.46	1.76	3.45
Mars	1.52	1.88	3.53
Vesta 4	2.36	3.63	4.39
Juno 3	2.67	4.36	4.67
Ceres 1	2.77	4.60	4.75
Jupiter	5.20	11.86	6.52
Saturn	9.54	29.46	8.83
Uranus	19.19	84.02	12.52
Neptune	30.07	164.78	15.67
Pluto 134340	39.48	248.40	17,96

The Sol System

Federated Colonies Zone 1 comprises all planets in the Sol system, and is controlled directly by the UEF government. Territory within the Sol System that is not on the planet Earth is not subject to national or corporate appropriation by claim of sovereignty. Colonies and outposts within this region are not considered to be the territory of any one nation or corporation. This means no territory within this region can declare itself a nation, independent of UEF control.

The Sol System Table

System	Colony	Class	population	Distance from planet	Distance from Sol
Inner	Earth	1	10 000 million	N/A	1au
Inner	Lagrange L1 (Unity)	station	70 000	345 400km	1au
Inner	Lagrange L4	station	490 000	384 400km	1au

Inner	Lagrange L5	station	45 000	384 400km	1au
Inner	Luna (Armstrong)	3	10 million	384 400km	1au
Inner	Mars	2	100 million	N/A	1.5au
Belt	Eros 433	3	500 000	N/A	1.13 – 1.46au
Belt	Juno 3	3	40 000	N/A	1.99 – 3.36au
Belt	Pallas 2	3	30 000	N/A	2.13 – 3.41au
Belt	Vesta 4	3	72 000	N/A	2.15 – 2.57au
Belt	Ceres 1	3	3 million	N/A	2.56 – 2.98au
Belt	Hygiea 10	3	24 000	N/A	2.78 – 3.50au
Outer	Io (Jupiter I)	3	10 000	421 800km	4.95 – 5.46au
Outer	Europa (Jupiter II)	3	1.4 million	671 100km	4.95 – 5.46au
Outer	Ganymede (Jupiter III)	3	50 000	1 070 400km	4.95 – 5.46au
Outer	Callisto (Jupiter IV)	3	250 000	1 882 700km	4.95 – 5.46au
Outer	Tethys (Saturn III)	3	10 000	294 660km	9.04 – 10.12au
Outer	Dione (Saturn IV)	3	30 000	377 400km	9.04 – 10.12au
Outer	Rhea (Saturn V)	3	80 000	527 040km	9.04 – 10.12au
Outer	Titan (Saturn VI)	2	4.7 million	1 221 830km	9.04 – 10.12au
Outer	Phoebe (Saturn IX)	outpost	100	12 944 000km	9.04 – 10.12au
Outer	Pluto 134340	outpost	1 000	N/A	29.66 – 49.31au
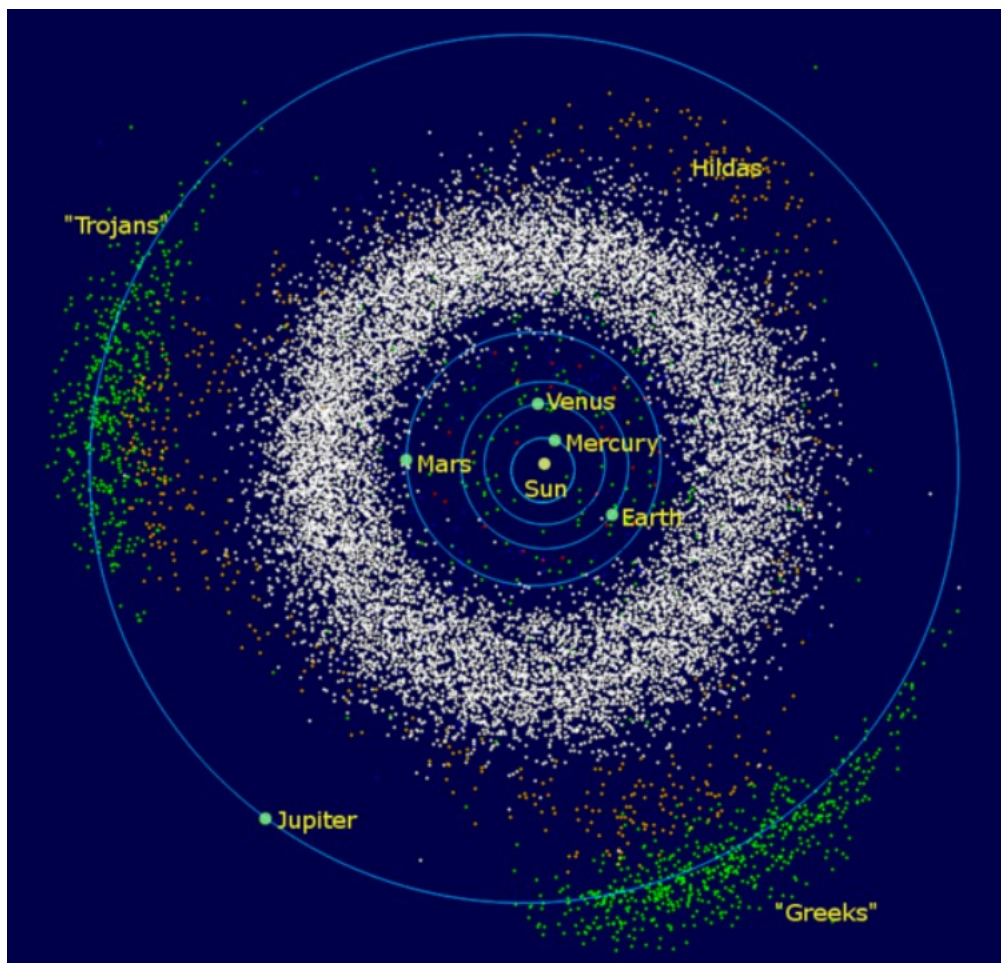
SOL
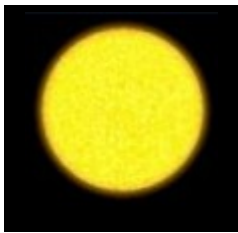
|	
Main Star	Sol
Type	G2 V
Age	4.6 billion years
Distance from Sol	n/a

Description:

Still the centre of the galaxy as far as the majority of humanity is concerned, Sol is a yellow-orange, main sequence dwarf star (G2V) about 4.6 billion years old.

Sol radiates a constant stream of ionized particles known as the solar wind. These particles low outward from the star at an average speed of 400 km/second. They eventually make their way to the very edge of the solar system, where they encounter charged particles from interstellar space. his boundary, known as the heliopause, marks the Sol system's edge some 150 AU from the sun.

The sun's emanations are not constant; instead, they vary moment to moment with the solar weather. These variations are unpredictable, and those caught unaware can suffer major damage. The most violent changes occur in the form of solar flares—a sudden ejection of electrons, ions and other particles from the corona of the sun.

Orbit 1: Mercury
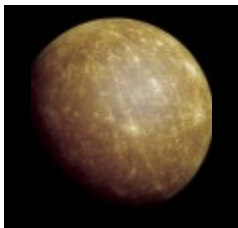
Orbit Radius	0.47 au
Type	Rock
Density	0.98
Diameter	4879 km
Gravity	0.38 G

ATMOSPHERICS / ORBIT

Atmosphere	Vacuum
Pressure	0
Composition	None
Orbital period	88 days
Rotational period	56.8 days

WATER

Water	Ice sheets
% water	0
% ice	5
% clouds	0

TEMPERATURE / SATELLITES

Polar	-170°C
equatorial	430°C
Satellite	0

UNUSUAL FEATURES

Large spaceport at Goethe crater.	

MINERAL RESOURCES

Metal ore	55
Radioactive ore	2
Precious metal	15
Raw crystal	0
Precious gems	0

Description:

This planet is the closest m the sun. It is also the second-smallest planet. although its iron core makes it the densest body in the solar system after Earth. Mercury, has practically no atmosphere. As a result, day-night temperature variations are extreme, ranging from -170°C in the shade to 430°C in the sun. Amazingly, water ice exists in the perpetual shadows of some polar craters. The combination of ice, abundant solar power, and mineral resources made Mercury an attractive location for colonization.

Mercury's surface is a mix of heavily centered highlands and smoother lowlands. The Comets event, 3.85 billion years ago, was a giant asteroid impact that blew off much of Mercury's surface crust. It created a 1350 km wide crater halfway between the equator and north pole, marked by concentric blocks of mountains around its edges. The Caloris impact

was so powerful that seismic waves carried through the planet creating the Guido d'Arezzo, a zone of jumbled, km high hills and valleys the size of western Europe. Both the impact basin and the Guido d'Arezzo are rich in heavy metals, although they are located far from the more habitable poles.

Mercury is blessed with rich deposits of heavy metals, as well as some He-3. The largest colony, at Goethe Crater on the north pole, was founded by the European Federation and corporations. They have built a 150-km-long mass driver to accelerate loads of metal to Earth-Lunar space and established several mining bases across the Caloris Basin.

Four other nations also have mining colonies. Sharing the north pole are the United Americas (at Purcell crater) and the Russian Republic (at Aristoxenis crater). On the south pole, the Chinese Consortium has a large facility at an ice-rich Chao Meng-Fu crater. Many of the inhabitants are contract workers rather than permanent immigrants; China and the United Americas also use androids.

The other mayor industry is the use of solar power re produce anti-matter. The European, Chinese, and Americans anti-matter factories (mostly built on the equator) use hundreds of square km solar cell to power large particle accelerator facilities that create anti-hydrogen at a rare of a few grams week. The value of anti-matter has resulted in institutional paranoia. Officials are alerted for spies, security is tight, and any industrial accident is regarded as potential sabotage. All national bases have military garrisons.

Orbit 2: Venus

Orbit Radius	0.73 au	
Type	Hot House	
Density	0.95	
Diameter	12,104 km	
Gravity	0.91 G	

ATMOSPHERICS / ORBIT

Atmosphere	Super dense
Pressure	90
Composition	Carbon dioxide/Nitrogen
Orbital period	225 days
Rotational period	243 days

WATER

Water	None
% water	0
% ice	0
% clouds	90

TEMPERATURE / SATELLITES

Polar	462°C
equatorial	462°C
Satellite	0

UNUSUAL FEATURES

Cloud cover

MINERAL RESOURCES

Metal ore	40
Radioactive ore	10
Precious metal	3
Raw crystal	0
Precious gems	0

Description:

Venus is a hellish pressure cooker of a planet, starkly, hostile to life. The planet is almost as large as Earth, and similar in composition, but there the resemblance ends. Its rotation is slow and retrograde to Earth's, so the sun rises in the west and sets in the east. Venus has an atmosphere of super dense carbon dioxide, and its surface is completely shrouded in pale yellow clouds of sulfuric acid. Its proximity to the sun and dense cloud cover create an extreme greenhouse effect, resulting in temperatures hot enough to melt lead. The crushing pressures on the surface are equivalent to those 900 meters beneath Earth's ocean. Daytime On Venus lasts for months, and is illuminated by dim, lemon-colored, omnidirectional light. The long night are pitch black; the stars are never visible from the surface. Venus has two main "continents," the north-polar Ishtar and equatorial Aphrodite, each elevated km above the surrounding terrain. There is no water. The surface is a gloomy, barren desert of basalt bedrock, sand dunes, fractured terrain, and old lava flows.

A few humans live and work on Venus, but their gear and habitats must be expensively engineered to withstand the extreme temperatures and pressure. The major base, Research Station Aphrodite, is ran by the European Federation with a transient population of 1,100. Most of Venus' human population are planetary scientists, teraforrming engineers, and technicians. The latter call it 'the Hell Hole," and spend their time maintaining or redesigning systems that degrade under the environmental stress. Its primary mission is to study Venus to discover information relevant to Earth's own

evolution and to lay the groundwork for a long-term Venusian terraforming project (which will likely take centuries). Aphrodite maintains scientific outposts scattered across the planet and various facilities in orbit. Visiting scientists from other nations also rent space at Aphrodite for their own projects.

Because of its location nearer to the center of the solar system, and relatively short solar year, Venus often makes for an ideal transit hub, even when traveling from Earth to Mars or the outer system. This traffic is seasonal, with a peak that's reached when Earth and Mars are on opposite sides of their orbits. Nevertheless, traffic to and from various stations in the Belt keep the station busy even in the of-season.

Gerlach is a typical cylindrical O'Neill habitat. It is 1 kilometer in diameter, 4 kilometers long, and has a total population of almost 12,000. It is the major Venusian spaceport and also the oldest inhabited location on or in orbit around Venus. Initially smaller, the focus of its construction was to establish a base to conduct research on the Venusian atmosphere, construct more habitats, and eventually terraform Venus. The station's interior was occupied by several enormous and roughly pyramidal arcologies, each 250 meters high and almost 900 meters across as the base. Studded between these huge arcologies were dozens of small bioreserves that between them contained a huge diversity of Earth life living in a close approximation of its natural habitat. These reserves served as a symbol for the proposed terraforming effort—the builders vowed that the descendants of the plants and animals on Gerlach would eventually live on the Venusian surface.

Orbit 3: Earth – homeworld

Orbit Radius	1 au	
Type	Terran	
Density	1	
Diameter	12756 km	
Gravity	1 G	

ATMOSPHERICS / ORBIT

Atmosphere	Standard
Pressure	1
Composition	Oxygen/Nitrogen mix
Orbital period	365 days
Rotational period	24 hours

TEMPERATURE / SATELLITES

Polar	-35°C
equatorial	40°C
Satellite	1

UNUSUAL FEATURES

High population

WATER

Water	Oceans
% water	70
% ice	5
% clouds	59

MINERAL RESOURCES

Metal ore	50
Radioactive ore	20
Precious metal	5
Raw crystal	15
Precious gems	5

Description:

Seat of power of the United Earth Federation, and the cradle of humanity, Earth is the heart of the galaxy as far as humanity is concerned. It is home to 10 billion—going on 11 billion—individuals, most of whom are born, go about their lives and die with barely a thought about what it's like in space.

Centuries of unchecked industrialisation with little or no concern for the long-term environmental impact has left much of Earth a polluted, overcrowded and resource-poor planet. The advent of fusion power and other 'clean' energy sources such as orbital solar power satellites, along with green reclamation projects have helped to slow this trend, but the damage has already been done.

In 2222, the outbreak of the Crawling Chaos quantum computer virus led humanity near on the edge of extinction. The ensuing blackout was a very hard time for all the survivors of the solar and inner systems, but mankind managed to lift its head out of the abyss. A brutal brake was put on the development of AIs and the economy made a backward bound.

However, in just over a century, wealth and social status on Earth range from the most desperate poverty and oppression in history to unprecedented levels of riches and power. Those who rule the powerful Corporations have every possible trapping of wealth, including mansions, resorts, travel, obedient servants, private armies and more.

Beyond the Corporate preserves and the houses of the rich and the politically powerful, there are many millions of people who live uneasy middle-class lives in a world with few certainties. And then there are the dispossessed; billions of people who live in the vast urban sprawls, working at menial jobs or surviving on government subsidies. Or preying on others.

There are many stations and space habitats in orbit around Earth. The largest is Unity Space Station, one of the largest man-made structures in space, a spaceport housing over 70,000 people at any one time. This is also the base of the MSF Sol aerospace arm of the ICM. Earth's moon, Luna, is the most heavily populated moon in all of the Federal Colonies, with over 10 million people living in and around Armstrong Colony.

Orbit 3: The Lagrange Points – Space Stations

Orbit Radius	0.1 au
Type	Station
Density	1
Diameter	variable
Gravity	1 G

ATMOSPHERICS / ORBIT

Atmosphere	Standard
Pressure	1
Composition	Oxygen/Nitrogen mix
Orbital period	variable
Rotational period	variable

WATER

Water	None
% water	0
% ice	0
% clouds	0

TEMPERATURE / SATELLITES

Polar	18°C
equatorial	18°C
Satellite	0

UNUSUAL FEATURES

Artificial satellite.

MINERAL RESOURCES

Metal ore	0
Radioactive ore	0
Precious metal	0
Raw crystal	0
Precious gems	0

Description:

These are locations in Earth-Lunar space where the gravitational pull and orbital forces of the Earth and Luna cancel each other out. There are five Lagrange points, but L4 (located 60 degrees ahead of Luna's orbit around the Earth) and L5 (located 60 degrees behind its orbit) are especially stable. An object placed there will stay there, orbiting the L4 or L5 point while being carried along by Earth and Luna as they orbit the sun. National space agencies and industrial combines began placing hardware (ranging from telescopes to service stations) in the L4 and L5 points in the early 21st century. In the 2040s the first manned stations were built, supporting Lunar and asteroid prospecting missions. Between 2060 and 2090, Earth crossing asteroids were moved into the L4 and L5 points for mining. They provided the raw materials to build the many industrial stations and space habitats that exist today. The majority of people live in hollowed-out asteroids or smaller work stations. Only a few giant O'Neill cylinder colonies were constructed, and only after growing space populations, fusion power, and asteroid retrieval made them affordable.

Colonies in the same Lagrange point are usually within 500 km of each other, the closer they orbit the Lagrange point, the more stable their orbits. Their close proximity means that cheap, lightly built space taxis or scooters can be used to visit neighboring stations.

- ■   L1: Unity Space Station
- ■   L4: Zenith Space Station
- ■   L5: "junk jungle"
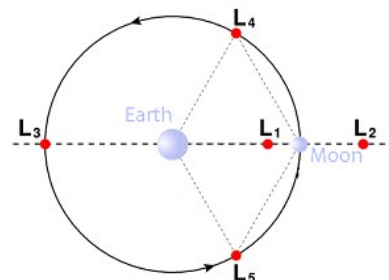
Lagrange 1

L1 was built in an asteroid that was towed from the Asteroid Belt in the early 22nd century. Construction of the Unity Space Station was completed in 2140, and it was initially a UEF military base. As time passed, civilian and corporate facilities have slowly but surely established a permanent presence on the station. These are kept a discrete distance from the military base but go a long way to help make a tour on Unity more pleasant and bring in a considerable income. Amongst the jumble of arcologies, geodesic domes and lunar concrete superstructures, there is a large space port, holiday resort, marine barracks and dry dock, as well as many privately owned corporate structures.

Unity Station is set up to have virtually no spin, the same face always faces towards Earth. The Station decks are all stacked one above the other, with 'down' being towards the Earth. Down is maintained by a comprehensive array of grav field generators. Four Shinohara Heavy Industries fusion reactors supply the stations power requirements with additional power coming from solar arrays. The majority of the stations power output is diverted to the hi efficiency/low output thrusters located at the station base. These motors are in almost continuous operation in order to maintain Unity in a stable L1 orbit. Technically this makes Unity Station the largest space vessel anywhere in known space!

A number of large military docking stations are tethered above the asteroid by 1m thick carbon nanotube cables, along which freight/passenger cars travel. Docking pits are available to smaller vessels. These pits are all in excess of 100m in diameter and can provide berths for hundreds of small ships in bays in the pit wall. The Station has a permanent crew of 5,127, and is able to house a further 65,000 transients. Two full wings of UEAF aerospace fighters are permanently stationed at the station, together with a squadron of dropships. In addition, at least half a dozen military warships of up to cruiser class can always be expected to be found docked here.

As would be expected of Earths prime military base and volume control facility Unity station rigorously controls its' surrounding volume. Approach within 100,000km (note that this includes Luna) is limited to a narrow range of approach cones, divergence from these traffic cones is regarded as a very serious infringement and is punished by revocation of the crews flight status and impoundment of the vessel at the very least (destruction without warning is a distinct possibility). Much of Unity's crew are tasked with space control and as such Unity Station has the finest sensor suite in Human space. Linked to Unity are a huge constellation of surveillance satellites and ships, all feeding information back to the central monitoring AI and human overseers. Little happens within the entire Sol system that Unity does not detect, whether or not this is noticed is another thing, it will be recorded a may be studied later. Unity is also the command and control centre for the Artemis Net, the array of deep space satellites and monitoring stations orbiting out near the edges of the Sol system yet inside the Heliopause/Termination Shock. The Artemis Net is capable of detecting F-Space activity up to half a light year away from Sol, out beyond the Oort Cloud.

Thousands of travellers pass through Unity every day, either inbound from the colonies, our heading out from Earth. Many thousand earn a living by working at Unity, either as part of the Federal workforce, or as one of the many corporate employees who work at both the uptown resorts and private villas, and the downtown clubs and bars. Vacations on Unity are often renowned (or infamous) for there exotic nature. In special large low G caverns tourists can enjoy the experience of flying under their own power, or can try swimming in the zero G floating 'pools' (SCUBA required), or more exotic activities.

All ships arriving at Earth must pass through the Orbital Customs & Excise location at Unity Space Station Spaceport. Here they must strip and be decontaminated (same goes for belongings). Transportation of any undeclared organic substance that is alien in origin is illegal. All such items must pass through ITC Quarantine to make sure it is safe and will not contaminate Earth's biosphere.

Lagrange 4

L4 is the most gentrified of the two Lagrange points. It was the first to be extensively settled, and is now home to a few dozen large colony habitats with a combined population of half a million people, as well a, numerous smaller manned and unmanned stations. Most of the stations were established by governments, major corporations, of well -funded ideological groups.

L4 is also the orbital headquarters and prime transit facility for FLEA personnel entering or leaving Earth-Lunar territory.

Lagrange 5

L5 is known as the "junk jungle." A great deal of older hardware, L4, and Lunar orbit has been towed out to L5 by salvage teams, simply to reduce the risk of debris collisions. It is often resold at scrap prices to whoever wants it, as building material or low-rent habitations. A few captured asteroids are also present, some so heavily mined that they were judged structurally unsound.

This collection of tin cans, "Swiss cheese" asteroids, and other junk is presently home to a sizable population of scavengers, exiles, dissidents, and homesteaders. The L5 explosion occurred in the 2070s, after the development of inexpensive anti-radiation nano made it possible to live in much cheaper space habitats by skimping on shielding. L5 has become a huge trailer park in space. Its inhabitants include many economic refugees and members of fringe ideological groups who split off from orbital stations, L4 colonies, or Luna, to seek their fortunes or to escape persecution. L5 colonies range in population from a few dozen to several thousand people; the smaller colonies are not self-supporting, but survive through contract work for the larger ones. The total population of L5 is uncertain, since some of the ideological colonies have used artificial wombs, it could be 40,000-50,000.

Orbit 3 (Earth 1): Luna Class 3 Colony

Orbit Radius	384 400km
Type	Rock
Density	0.61
Diameter	3476 km
Gravity	0.165 G

ATMOSPHERICS / ORBIT

Atmosphere	Vacuum
Pressure	0
Composition	None
Orbital period	27.3 days
Rotational period	27.3 days

WATER

Water	Ice sheets
% water	0
% ice	traces
% clouds	0

TEMPERATURE / SATELLITES

Polar	-151°C
equatorial	104°C
Satellite	0

UNUSUAL FEATURES

MINERAL RESOURCES

Metal ore	45
Radioactive ore	1
Precious metal	10
Raw crystal	0
Precious gems	0

Description:

Luna, the natural satellite of Earth, is a large rocky body like the four inner planets, although it has only one sixth Earth's gravity, no atmosphere, and no magnetic field. It was created 4.5 billion years ago when a giant asteroid struck Earth and blasted debris into space; this debris coalesced to form the moon. Luna is tidally locked with Earth, so the near side always faces Earth and the far side always faces away. There is no "dark side of the moon;" really, as all areas get sunlight half the time, but as on Mercury, some deep craters, near the poles are in permanent shadow. These were discovered to contain small ice deposits.

With no atmosphere to bum up incoming meteors, Luna has been an exposed target in a cosmic shooting gallery for billions of years. The Lunar landscape is dominated by overlapping impact craters. They range in size from a few meters across to the giant South Pole-Aitken Basin (2250 km wide and 11 km deep) on the far site, the largest impact crater in the solar system. The Lunar landscape varies considerably between the near and far sides. Flat maria giant asteroids impact craters whose surfaces were later smoothed over by basalt lava flows cover one-sixth of Luna, and are concentrated on the near side. Most of the far side and much of the near side is made up of the lunar highlands, formed from interlocking large and small craters.

The Lunar surface is covered with regolith, a loose fine-grained material with two major components: dusty rock and mineral particles, and agglutinates, mineral and rock welded together by glass produced in meteor impacts. The regolith is exposed directly to the solar wind. This has seeded it with useful volatiles, including traces of both hydrogen and He-3.

In addition, about half the mass of Lunar rocks is made of up of oxygen, and there are also economically useful quantities of iron, aluminum, and titanium. However, Luna is incredibly dry, with the only water ice being found intermixed with regolith on the north and south poles.

Luna's population prides itself on being a multinational cosmopolitan society on the cutting edge of Earth's technology. The major industries include He-3 mining (exporting it to Earth), ice and oxygen mining (for domestic consumption and export to Earth-Lunar stations), and heavy manufacturing, especially using processes considered dangerous or polluting on Earth. Much of Luna's infrastructure is owned by the large Japanese industrial Motokatsu-Kyono Combine (MKC), and Lunar Development Corporation (LDC). The importance of He-3 mining to the Lunar economy is declining due to competition with Saturn. The Lunar combines have diversified into manufacturing and tourism, but even so, there are fears that Luna may become an economic backwater.

Armstrong (population 2,540,000) is the largest settlement. It is located in Shackleton Crater on the Lunar South Pole, sitting atop major ice deposits. It is a free city, but under the thumb of Japanese and transnational space corporations.

Farside Observatory (population 3000) is located in Tsiolkovsky crater on the far side, and is the oldest settlement on the moon. It is a huge distributed array of radio and optical telescopes. Strict emission control regulations we enforced on Farside to avoid interference with the observatory's activities.

Tranquility Industrial Zone (population 230,000) is scattered in the Mare Tranquility region on the near side. An early censer for He-3 mining operations, it also boasts Port Tranquility, the largest surface spaceport, and the adjacent "Helium City" manufacturing center. In this thriving economic zone, synthetics outnumber humans by more than 10 to 1. Much of Helium City is above ground and in vacuum. The zone is now devoted more to industrial activities than He-3 mining.

Moonshadow (population 58,000) is a major tourist center, health spa and adventure park located in a planned community by shadow ice deposits on the north pole.

There are hundreds of other outposts on the moon, from oxygen mines to factory crawlers to science labs. Some of them are owned by individual corporations, others by nations, a few by individuals.

Orbit 4: Mars Class 2 Colony
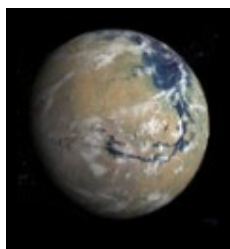
Orbit Radius	1.52 au
Type	Desert
Density	0.62
Diameter	6794 km
Gravity	0.38 G

ATMOSPHERICS / ORBIT

Atmosphere	Thin
Pressure	0.72
Composition	Oxygen/Nitrogen mix
Orbital period	686 days
Rotational period	24 hours

WATER

Water	Seas
% water	8
% ice	10
% clouds	15

TEMPERATURE / SATELLITES

Polar	-50°C
equatorial	11°C
Satellite	2

UNUSUAL FEATURES

Violent storms.

MINERAL RESOURCES

Metal ore	38
Radioactive ore	12
Precious metal	0
Raw crystal	10
Precious gems	8

Description:

Mars in the 23rd Century supports a thriving colony with a population in excess of 100 million. The first planet colonised from Earth, it's population can trace their families back generations before reaching Earth-relatives.

By the time the Second Exodus began (2166-96), Mars had undergone over half a century of intensive terraforming. Enough free-standing water now existed to form ice clouds, substantial rivers and lakes and even a small sea in the

northern polar regions. Terraforming has also altered Mars' atmosphere. The melting of the southern polar icecap released large quantities of carbon dioxide, causing an increased greenhouse effect, raising the average surface temperature of the planet.

Genetically engineered plants were seeded across the planet in vast quantities, which rapidly enriched the atmospheric levels of Nitrogen and Oxygen. The atmosphere on Mars is breathable at ground level, but in a lot of the highlands of the planet an artificial air supply is still required.

Despite all this change, Mars is still plagued by seasonal dust storms, and it's cities are all built using a pyramidal building design, which provides best protection against the sometimes harsh Martian weather. Outside of the artificial G-fields of the colony buildings Mars gravity is still only one third that of Earth.

Mars has some remarkable geological characteristics, including the largest volcanic mountain in the solar system, Olympus Mons (27 km high and 600 km across).

A number of large manufacturing corporations are based on this planet, and this industry is supplemented by large orbital and surface cargo facilities that handle commodities to/from outlying systems. Anchorpoint City, located on Pavonis Mons, is the second largest city and settlement on Mars in the Sol System. It grew up around the base station of the Martian Space Tether to Phobos which touched down on the planet in 2178. Becoming a large transit facility, Anchorpoint is home to the headquarters of megacorporations Motokatsu-Kyono Combine and Wolf-Wiesner-Krupp.

Orbit 4 (Mars 1): Phobos Class 3 Colony

Orbit Radius	17000 km
Type	Rock
Density	0.34
Diameter	11 km
Gravity	0.6 mG

ATMOSPHERICS / ORBIT

Atmosphere	Vacuum
Pressure	0
Composition	None
Orbital period	synchronous
Rotational period	locked

WATER

Water	0
% water	0
% ice	12
% clouds	0

TEMPERATURE / SATELLITES

Polar	-112°C
equatorial	-4°C
Satellite	0

UNUSUAL FEATURES

geostationary orbiting.

MINERAL RESOURCES

Metal ore	0
Radioactive ore	0
Precious metal	0
Raw crystal	0
Precious gems	0

Description:

Phobos is the larger of the Martian moons, orbiting 17,000km from the Martian surface. It was moved from 6000km to 17,000km into a geostationary orbit in 2111 to become the orbital anchor for the Martian Space Tether. Phobos is a small, irregularly shaped object with a mean radius of 11 km and is seven times more massive than the outer moon, Deimos.

Before completion of the Elevator, Phobos was the port of entry for Mars, and home to almost 10,000 people. John Carter Spaceport is one of the busiest commercial space ports in the Federal Colonies, its sprawling network of domes, pyramids and docking towers dominates the entire 27km length of the space-facing side of Phobos.

On the other side of Phobos from John Carter Spaceport, Ares Fleet Base is the largest military base in the UEF, home port of the Sol Defence Fleet (the UEAF 1st Fleet), and home to over 30,000 military personnel.

Orbit 4 (Mars 2): Deimos Class 3 Colony

Orbit Radius	23460 km
Type	Rock
Density	0.27
Diameter	6.2 km
Gravity	0.3 mG

ATMOSPHERICS / ORBIT

Atmosphere	Vacuum
Pressure	0
Composition	None
Orbital period	30.3 hours
Rotational period	synchronous

WATER

Water	0
% water	0
% ice	2
% clouds	0

TEMPERATURE / SATELLITES

Polar	-50°C
equatorial	-50°C
Satellite	0

MINERAL RESOURCES

Metal ore	0
Radioactive ore	0
Precious metal	0
Raw crystal	0
Precious gems	0

UNUSUAL FEATURES

Description:

Deimos is the smaller and outermost of the two natural satellites of Mars. As seen from Mars, Deimos has an angular diameter of one twelfth of the width of the Moon as seen from Earth, and therefore appears almost star-like to the naked eye. The satellite is presently hosting a deep radar station for the military.

Orbit 5: The Main Belt

The Main Belt is a region between the orbit, of Mars and Jupiter, 2 to 4 AU from the sun, that contains the majority of asteroids in the solar system. Asteroids are rocky bodies which orbit the sun, but are too small to be considered planets themselves. They are leftover detritus from the birth of our solar system, prevented by Jupiter's strong gravity from forming into a planet. That was 4.6 billion years ago. Since then, countless collisions haw shattered most larger asteroids into smaller ones, and left many of the remainder nothing more than fragments loosely held together by gravity.

Asteroids vary greatly in size. There are 16 large Main Belt asteroids 200 km or more in diameter, of which the biggest is Ceres, a spherical mini planet 850 km across. There are thousands of mid-size asteroids between 15 and 150 km in diameter, over a million with diameters of 800 meters or more, and billions of orbiting rocks from boulder to pebble size. Even so, the total mass of all asteroids, if they could be combined together, is barely enough to form a single moon-sized object about half the diameter of Luna.

Except for a few large bodies like Ceres and Vesta, asteroids tend to have irregular shapes, much like chunks of gravel. Sometimes two asteroids are mashed together as a result of a collision, and end up with very odd shapes.

Asteroids come in several distinct types. The asteroids in the innermost region of the Main Belt (2 to 2.5 AU from the sun) tend to be stony-irons, made of a mix of iron and silicate rock, with a smattering of large chunks of nickel-iron. The middle regions of the Belt from 2.5 to 3 AU are a blend of stony-irons and soot-colored carbonaceous asteroids These are formed from frozen hydrocarbon sludge mixed with rock and metal chunks, and, from 3 AU onward, water ice. From 3 AU to 4 AU, carbonaceous asteroids are the dominant type. Almost all asteroids contain traces of care minerals, ranging from platinum m uranium. Since even a fairly small asteroid can mass billions of tons, even trace amounts can represent vast concentrations of ore.

Despite the mineral wealth of the Belt, the asteroids are not alive with hardy prospectors hunting for platinum, gold, uranium or even ice. Asteroids are mined, but the process is different.

The Jupiter Trojans

The Jupiter Trojans are a large group of asteroids that share the orbit of Jupiter around the Sun. The asteroids are divided into two distinct groups, each distributed throughout elongated, curved regions around one or other of Jupiter's two Lagrangian points of stability, L4 and L5. These respectively lie 60° ahead of and behind Jupiter in its orbit around the sun. The L$_4$ swarm holds between 160,000–240,000 asteroids with diameters larger than 2 km and about 600,000 with diameters larger than 1 km. If the L$_5$ swarm contains a comparable number of objects, there are more than 1 million Jupiter trojans 1 km in size or larger. All the Jupiter Trojans are named after mythological figures of the Trojan War.

- The Greek Camp

  The Trojans orbiting ahead of Jupiter, around Lagrangian Point L4 are collectively referred to as the Greek Camp. There are 1179 objects recorded as orbiting Jupiter L4, the largest being 624 Hektor at 370 × 200km.

  The Greek Camp is location of the Telephus Observatory. This swarm of 200 individual robot telescopes is controlled from the scientific base on the asteroid Telephus. The robot telescopes are each equipped with a Delta Level AI which allows them to reposition themselves based on orders from Telephus. Combined, the robot telescopes allow for high resolution imaging of distant stellar objects.

- The Trojan Camp

  The Trojans orbiting behind Jupiter, around Lagrangian Point L5 are collectively referred to as the Trojan Camp. There are 1045 objects recorded as orbiting Jupiter L4. The Trojan Camp is the home of the Trojan Pirates, a loose-knit coalition who engage in smuggling, and small-scale acts of piracy against commercial and private shipping in and around the Circum-Jove system.

Ceres 1
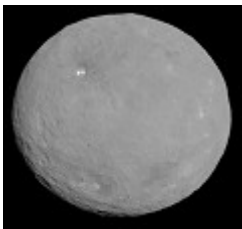
Ceres is the largest known asteroid (955 kilometers in diameter), the only dwarf planet in the inner solar system, and the first asteroid discovered by humanity.

Ceres is the site of Ceres station, a space station that was one of the first sites of human colonization. Half a generation after humanity arrived there, Hallidor Corporation managed to spin up the asteroid, which gave it a gravity of 0.3 g. The level of gravity changes with each level and there is a noticeable Coriolis Effect.

As the most important port in the Belt, the station has a population of approximately three million permanent residents with an extra half a million transiting through at any given time. Eight hundred to a thousand ships are docked on Ceres every day.

The top levels of Ceres are a long corridor wrapping around the outer edge of the station, topped by a dome that shows an approximation of sky, meant to comfort visitors and residents alike. Many Belters grow to adulthood staring up at a sight meant to replicate something they've never actually seen. Only the rich and the gainfully employed live up near the faux-sunlit apartments; the rest live deep within the rock, walking on dirt-strewn ground in a world lit by neon and sputtering lamps, cut with the glare of lights on electric carts that whir their way through the tunnels.

The station has tens of thousands of kilometers of tunnels. Transportation is provided by an extensive tube train network.

The black and grey markets thrive on Ceres, reinforced with dozens of ships crisscrossing the Belt—and virtually any Belter on board a ship might be tasked with helping out their fellows with the acquisition of hard to fin goods. Carved crevices and repurposed cargo containers play host to all manner of humanity, from miners to prostitutes to mechanics. Belters congregate around stools in restaurants that sell noodles and whiskey. The gravity lessens the deeper one goes into the poorer sections, and a pronounced Coriolis effect presents itself. Poured liquids curve in the air, while people stumble and suffer from dizziness, nausea, and seasickness millions of miles from the nearest sea. Water on the station is rationed, carefully monitored and trickling down in ever-decreasing amounts from the outer edges of the station.

Ceres' security is handled by the private security firm Black Sun Security, with a staff of mostly Earthers (and Belters who didn't mind the culture or working against their own kind).

Vesta 4

Vesta is one of the largest asteroids in the Asteroid Belt, and the second-most-massive after Ceres. It hosts one of the largest settlements in the outer planets. Vesta is a rocky asteroid with a diameter of 525 km. Vesta has a population of 72,000 mostly researchers and engineers.

Exogenesis Station houses the Wallace corporation's laboratories and manufacturing complex. The complex has a special research unit to carry out illegal operations on bioroids (vivisection, experimentation,...). Niander Wallace also has the habit of sending embarrassing people for his business or journalists who are too curious.

Pallas 2

Pallas is the third-largest asteroid in the Solar System by both volume and mass, and the second asteroid discovered by humanity. It is a rocky asteroid with a diameter of 513 km, slightly smaller than Vesta. It hosts one of the oldest stations, Pallas Station, in the outer planets. The station itself has a long history of a refinement station for the mining operations of the Belt. Due to this legacy, it continues to have its infrastructure maintained and upgraded, making use of its older equipment as overflow capacity.

Hygiea 10

Hygiea is a carbonaceous asteroid with a diameter of 407 km. Yametei Station houses a population of 24,000. It is the Main Belt headquarters of Wolf Wiesner Krupp (WWK) and a colony of Japan. Its major activity is manufacturing high-technology goods (such as industrial cyberware, 3D printers, and fusion reactors) for sale to other outer system operations.

Eros 433

Eros is a large, S-type, near-Earth asteroid approximately 34.4 x 11.2 x 11.2 kilometers in size. It is the second-largest near-Earth asteroid. It's a part of the Asteroid Belt, but its called a "Mars-Crosser" because its orbit crosses the orbits of both Earth and Mars. It is the first known asteroid to come within the orbit of Mars. Eros has been compared to the shape of a lumpy potato. A very large lumpy potato that would wipe out all but the simplest forms of life on Earth if it hit it.

Eros is the site of Eros Station, a space station that was one of the first sites of human colonization, which supports a population of a half million humans (a little more than Ceres had in visitors at any given time).

Roughly the shape of a potato, it had been much more difficult to spin up, and its surface velocity was considerably higher than Ceres' for the same internal g. The internal caverns of Eros had been the birthplace of the Belt. From raw ore to smelting furnace to annealing platform and then into the spines of water haulers and gas harvesters and prospecting ships. Eros had been a port of call in the first generation of humanity's expansion. From there, the sun itself was only a bright star among billions.

The economics of the Belt had then moved on. Ceres Station had spun up with newer docks, more industrial backing, more people. The commerce of shipping moved to Ceres, while Eros remained a center of ship manufacture and repair. On Ceres, a longer time in dock meant lost money, and the berth fee structure reflected that. On Eros, a ship might wait for weeks or months without impeding the flow of traffic. If a crew wanted a place to relax, to stretch, to get away from one another for a while, Eros was the port of call. And with the lower docking fees, Eros Station found other ways to soak money from its visitors: Casinos, Brothels, Shooting galleries.

Its big docks were in five main clusters around the station. The old shipyards protruded from the asteroid, great spiderwebs of steel and carbon mesh studded with warning lights and sensor arrays to wave off any ships that might come in too tight.

Orbit 6: Jupiter

Orbit Radius	5.2 au
Type	Gas Giant
Density	0.22
Diameter	142,984 km
Gravity	2.53 G

ATMOSPHERICS / ORBIT

Atmosphere	Dense
Pressure	1.38
Composition	90% Hydrogen/10% Helium
Orbital period	11.85 years
Rotational period	9 hrs 55 min

WATER

Water	None
% water	0
% ice	0
% clouds	100

TEMPERATURE / SATELLITES	
Polar	-108°C
equatorial	-108°C
Satellite	63
UNUSUAL FEATURES	
Cloud cover.	

MINERAL RESOURCES	
Metal ore	?
Radioactive ore	?
Precious metal	?
Raw crystal	?
Precious gems	?

Description:

Jupiter is the fifth planet from the Sun, orbiting at an average distance of 5.2 AU, and also has the distinction of being the largest planet in the Solar System. To give this some perspective, Jupiter is two and a half times as massive as all the other planets in the solar system combined. It is massive enough to easily swallow a thousand Earths. Jupiter, together with Saturn, Uranus and Neptune, is classified as a gas giant. Jovian is the adjectival form of Jupiter, and while it is has to some extent used to describe any large gas giant, it is still used primarily to describe the Jupiter system.

The upper atmosphere is arranged into wide parallel bands of different latitudes called tropical regions. The light-coloured bands are referred to as zones and the dark ones as belts. Temperature variations and chemical reactions cause their shades of yellow, brown, orange, and red. Interactions between these different regions cause violent storms and atmospheric turbulence. Winds of up to 600 km/h and lightning discharges that is a thousand times as powerful as on the Earth are commonplace in the Jovian atmosphere.

Perhaps the most famous feature of Jupiter's atmosphere is the Great Red Spot, a persistent anticyclonic storm that is large enough to contain two or three planets the diameter of the Earth. The storm has been in existence since at least 1831, and mathematical models show it to be so stable that it is thought to be a permanent feature of the atmosphere.

Jupiter has a very large and powerful magnetosphere. Eddy currents in the planet's metallic hydrogen core generate the magnetic field, which is 14 times as powerful as the Earth's, and fatal to any unshielded human. The magnetosphere of Jupiter – specifically the Jupiter-Io magnetic flux is a natural collector of Element 115, more commonly known as Foscolium. The solar wind carries particles of Foscolium out of the solar system, but over the centuries, large quantities have become trapped in the frozen Io regolith. Foscolium is the key to making interstellar travel possible.

The planet itself is home only to two large floating gas mines. Most workers live on Callisto and come in month-long shifts. The real excitement of Jupiter is found on the four Galilean moons – Callisto, Europa, Ganymede, and Io.

Orbit 6 (Circum-Jove 5): Io Class 3 Colony
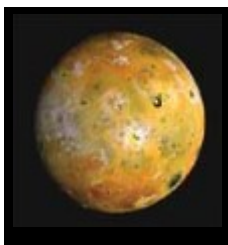
Orbit Radius	421 800km
Type	Rock
Density	0.35
Diameter	3643 km
Gravity	0.09 G

ATMOSPHERICS / ORBIT	
Atmosphere	Very thin
Pressure	0
Composition	Sulfur dioxyde
Orbital period	1 days
Rotational period	0 hours

WATER	
Water	02
% water	0
% ice	2
% clouds	0

TEMPERATURE / SATELLITES	
Polar	-143°C
equatorial	-73°C
Satellite	0
UNUSUAL FEATURES	
Tidally locked.	

MINERAL RESOURCES	
Metal ore	32
Radioactive ore	29
Precious metal	11
Raw crystal	5
Precious gems	9

Description:

The innermost of the four Galilean moons of Jupiter, Io is the most volcanically active body in the solar system. Infernally hot lava flows across a bitterly cold landscape, while billowing volcanic geysers spew plumes of sulphur to heights of up to 500 kilometres. This coupled with almost constant seismic activity and the vast electrical storms lasting weeks at a time which rage across the moon's angry surface make Io a very unwelcome place to visit.

Io's volcanoes continually expel an enormous amount of particles into space. These are swept up by Jupiter's magnetic field, where they become ionized and form a doughnut-shaped track around Io's orbit called the Io Plasma Torus. For spacecraft attempting to enter/leave Io orbit, these ionized particles can create seriously hazardous conditions, and have been responsible for a score of accidents involving crew fatalities. Despite the advances in radiation shielding that has made the colonisation of the Circum-Jove system possible, when the ion and radiation storms caused by the Io Plasma Torus are at their worst, getting on or off Io is nigh on impossible.

Not all of Io is dominated by volcanoes. The most common terrain is open, flat frost-covered plains. It is in the Io regolith that the first Foscolium deposits were discovered on the moon. Were it not for the sizeable deposits this most important of elements, it is doubtful anyone would ever come to this hellish place. Io has a thin atmosphere composed of sulphur dioxide and other gases. Unlike the other Galilean satellites, Io has little or no water.

The Io regolith is the primary source in the Sol system for Foscolium. Foscolium is a vital fuel source used to power interstellar drives. As well as the large scale corporate Foscolium mining operations, there are numerous small mining outposts scattered across the surface of Io, mining the metal ores that are ejected from the moon's many volcanoes. Life is hard on Io, but the pay is generally good. Most of the Io miners have families and homes on Europa and Ganymede. The population is approximately 10,000.

Orbit 6 (Circum-Jove 6): Europa Class 3 Colony

Orbit Radius	671 100km
Type	Glacier
Density	3.01
Diameter	3138 km
Gravity	0.135 G

ATMOSPHERICS / ORBIT

Atmosphere	Very thin
Pressure	0.2
Composition	Ice particles, traces elements
Orbital period	3 days
Rotational period	3 hours

WATER

Water	Glaciers
% water	0
% ice	60
% clouds	0

TEMPERATURE / SATELLITES

Polar	-180°C
equatorial	-50°C
Satellite	0

UNUSUAL FEATURES

MINERAL RESOURCES

Metal ore	12
Radioactive ore	2
Precious metal	0
Raw crystal	8
Precious gems	7

Description:

Slightly smaller than the Earth's Moon, Europa is the second of the Galilean moons. Europa is lightly cratered, with only three large impact sites. The surface has so few craters, as it is extremely tectonically active and thus the crust is geologically young. The most striking surface features are the lineae, a series of dark streaks crisscrossing the entire moon. Its bright surface consists of a 9 to 16 km thick cross of water ice, scored by ridges and lines. II resembles sea ice on Earth which is not surprising.

Beneath the surface ice of Europa there is a layer of liquid saltwater, as much as 50 km deep in some places, kept liquid by tidally generated heat created by its orbit around Jupiter. In fact, it contains more water than all the oceans on Earth! Microscopic life was discovered to be living there, which spurred a race to Jupiter. Although originally thought to be entirely alien in origin, it was soon discovered that these Europan organisms were descended from Earth-based

microorganisms, breaking away genetically some half billion years ago. The current theory is that the Europan microorganisms hitched a ride on a meteorite or other rocky body.

Because of this abundance of liquid water, Europa became the first of the outer planets to be colonised from Earth. Today it supports a population of 1.4 million, most of whom live in hanging cities just under the kilometre-thick crustal ice, at the top of the subterranean ocean. The 'Hanging Cities of Europa' have become a popular tourist destination for visitors from the inner planets.

In the black world-ocean which lies below Europa's icy crust lie the ruins of a cyclopean city of alien architecture. The architecture is similar to ruins found below the oceans of Earth, and only the Deep Ones themselves know if this is a different city, or if this actually part of sunken R'lyeh extending into the oceans of Europa through some unfathomable extra-dimensional anomaly. What is known is that in ancient mausoleums, a number of Cthulhu's kin lie sleeping here.

Two factions from Earth know of the existence of this city. They are the Seaborne Foundation and the super-black branch of Military Sciences Division (MiliSci) known as the Black Chamber. The Black Chamber has made some kind of deal with the Seaborne Foundation, for access to these ruins. Neither organisation trusts the other, and both are secretly working towards the downfall of the other.

The radiation level at the surface of Europa is equivalent to a dose of about 540 rem (Rad level/5) per day, an amount of radiation that would cause severe illness or death in human beings exposed for a single day.

Orbit 6 (Circum-Jove 7): Ganymede Class 3 Colony

Orbit Radius	1 070 400km
Type	Rock
Density	0.35
Diameter	5262 km
Gravity	0.14 G

ATMOSPHERICS / ORBIT

Atmosphere	Trace
Pressure	0
Composition	Traces of oxygen
Orbital period	7 days
Rotational period	0 hours

WATER

Water	Ice sheets
% water	0
% ice	31
% clouds	0

TEMPERATURE / SATELLITES

Polar	-164°C
equatorial	-164°C
Satellite	0

UNUSUAL FEATURES

Tidally locked.

MINERAL RESOURCES

Metal ore	11
Radioactive ore	4
Precious metal	1
Raw crystal	2
Precious gems	8

Description:

Ganymede is Jupiter's largest moon. It has a very thin oxygen atmosphere and is the only moon in the Sol system with a liquid iron core, somewhat similar to Earth's. This core produces a weak magnetosphere, which unfortunately provides little protection from Jupiter's intense radiation belt.

Ganymede is close enough to Jupiter that it experiences significant tidal stresses, which makes geothermal energy and liquid water available. Ganymede also possesses water ice, carbonaceous material, metals, and silicates. Fairly deep within Jupiter's gravity well, travel to and from Ganymede is relatively energy-intensive and therefore expensive.

The third largest of the Circum-Jove colonies, Ganymede has a population of approximately 50,000. Most of this number is located in the settlements on and below the vast Galileo Regio plains. Ganymede is often referred to as Nanotech Valley, the name a homage to Silicon Valley back on Earth. This is because the moon is a leading high tech hub with a large number of nanotech-engineers and venture capital backed technology start-ups based here. The Nanoforges and Manufactories of Ganymede are the lead suppliers of nanotechnology to Sol industry.

Orbit 6 (Circum-Jove 8): Callisto Class 3 Colony

Orbit Radius	1 882 700km
Type	Rock
Density	0.35
Diameter	4821 km
Gravity	0.14 G

ATMOSPHERICS / ORBIT

Atmosphere	Trace
Pressure	0
Composition	Traces of carbon dioxyde
Orbital period	16 days
Rotational period	0 hours

WATER

Water	Ice sheets
% water	0
% ice	22
% clouds	0

TEMPERATURE / SATELLITES

Polar	-153°C
equatorial	-153°C
Satellite	0

UNUSUAL FEATURES

Tidally locked.

MINERAL RESOURCES

Metal ore	8
Radioactive ore	10
Precious metal	0
Raw crystal	0
Precious gems	0

Description:

Callisto is one of the most heavily cratered satellites in the solar system. In fact, impact craters and associated concentric rings are about the only features to be found; there are no large Callistoan mountains. Callisto's battered surface lies on top of an icy layer that is about 150 kilometres thick. Beneath the crust lies a salty ocean in excess of 10 kilometres deep. Callisto has a trace atmosphere composed of carbon dioxide. Its source is the slow sublimation of carbon dioxide ice from the satellite's icy crust.

Outside of Jupiter's radiation belt and also geologically very stable, Callisto was chosen as the location of the first landing by a manned mission to the moons of Jupiter. Even though the colony at Europa is far larger, the Valhalla Dry Dock orbiting the moon is still the only orbital facility capable of accommodating the giant Jovian refinery ships. The surface colony is built in and around the Asgard Crater, and between this, several outposts and the orbiting dry dock facilities, Callisto has a population of approximately 250,000.

Orbit 7: Saturn

Orbit Radius	10.1 au
Type	Gas Giant
Density	0.125
Diameter	120,530 km
Gravity	0.91 G

ATMOSPHERICS / ORBIT

Atmosphere	Dense
Pressure	1.38
Composition	Hydrogen/Helium/Methane
Orbital period	29.46 years
Rotational period	10 hrs 32 min

WATER

Water	None
% water	0
% ice	0
% clouds	100

TEMPERATURE / SATELLITES

Polar	-189°C
equatorial	-139°C
Satellite	62

UNUSUAL FEATURES

Cloud cover.

MINERAL RESOURCES

Metal ore	?
Radioactive ore	?
Precious metal	?
Raw crystal	?
Precious gems	?

Description:

Like Jupiter, Saturn is a gas giant, although it is less dense and its radiation belt is only a fraction as intense as Jupiter's. Saturn rotates quickly for its size and has turbulent internal weather with winds reaching 1,800 kph. Saturn's atmosphere is very cold on the outside but reaches a tremendous heat on the inside. This causes it to radiate out two and a half times the heat it receives from the sun.

Saturn's northern pole exhibits a mysterious and persisting hexagonal wave pattern, which is larger than the Earth. This wave pattern rotates once every 10 hours, 39 minutes and 24 seconds, the same cycle as the planet's radio emissions. This is assumed to match the rotation of Saturn's interior core. The hexagon does not vary in longitude, as do the other clouds.

Saturn is surrounded by a complex ring system made up of small rocks, icy particles and dust. This system consists of nine main rings and three discontinuous arcs. Over a hundred moons and moonlets are known to orbit the planet— more than any other planet in the system.

Out there, beyond the treacherous rim of the Asteroid Belt and the great orbit of Jupiter lays the heart of mankind's new frontier – Saturn. Her many rings highlight the moons that are home to a rising civilization. Opportunities abound here for the adventurous of heart and the ingenious of mind. Rapid growth has created a strong economy built on industry, manufacturing, mining, tourism, and perhaps the most important of Saturn's commodities – agriculture. It might seem ironic that the world in the solar system named after the Roman god of the harvest would actually deliver on the promise of her namesake. However, Saturn has evolved into what is called the breadbasket of the outer planets.

Ice harvesting has become an important industry among Saturn's moons, especially Enceladus with its giant plumes of sprayed ice shot majestically into space from massive geysers on its southern pole. Other moons like Rhea play host to huge manufacturing plants and ship yards that allow Saturn to produce biodomes, shuttles, transports, and other necessary components that sustain the colony. Saturnine colony structures and merchant vessels are not uncommon among the Outer Worlds.

Orbit 7 (Circum-Saturn 21): Rhea Class 3 Colony

Orbit Radius	527,108 km
Type	Rock
Density	0.224
Diameter	1525 km
Gravity	0,264G

ATMOSPHERICS / ORBIT

Atmosphere	Vacuum
Pressure	0
Composition	None
Orbital period	4.51 days
Rotational period	4.51 days

WATER

Water	None
% water	0
% ice	0
% clouds	0

TEMPERATURE / SATELLITES

Polar	-220°C
equatorial	-174°C
Satellite	0

MINERAL RESOURCES

Metal ore	15
Radioactive ore	0
Precious metal	2

| UNUSUAL FEATURES		Raw crystal	0
Tidally locked.		**Precious gems**	0

Description:

Rhea is the second largest moon of Saturn and home to only a few hundred hardy engineers and pioneers, eking out a living manning the water harvesters and launch vehicles. The colony itself is mostly a set of surface docks connected to a network of habitable tunnels drilled into the ice. Trips between orbit and the surface are frequent and are aided by the low gravity. The population is mostly temporary and young, generally rotating in for a few years to make good money before rotating back home to make a real life.

Orbit 7 (Circum-Saturn 22): Titan Class 2 Colony
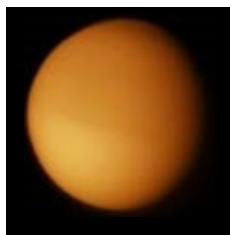
Orbit Radius	1,221,870 km
Type	Pre garden
Density	1.81
Diameter	5150 km
Gravity	0.14 G

ATMOSPHERICS / ORBIT

Atmosphere	Dense
Pressure	1.5
Composition	Oxygen/Nitrogen mix
Orbital period	15 days
Rotational period	10 hours

WATER

Water	Seas
% water	18
% ice	22
% clouds	80

TEMPERATURE / SATELLITES

Polar	-148°C
equatorial	7°C
Satellite	0

UNUSUAL FEATURES

Cloud cover.	

MINERAL RESOURCES

Metal ore	32
Radioactive ore	7
Precious metal	3
Raw crystal	1
Precious gems	19

Description:

Titan is the largest moon of Saturn. Although Titan is classified as a moon, it is larger than the planets Mercury and Pluto. It has a planetlike atmosphere. When explorers first set foot on Titan, it was confirmed that it's air was predominantly made up of nitrogen with other hydrocarbon elements which gave Titan its orange hue. These hydrocarbon rich elements are the building blocks for amino acids necessary for the formation of life, similar to Earth before life began putting oxygen into the atmosphere.

In comparison to Mars, terraforming Titan was relatively easy. Originally a small mining colony, Titan's population increased to the current 4.7 million inhabitants once the terraforming began to take effect. The colonial population are predominantly American and Chinese descent, with a growing number of European and Japanese.

The moon possesses a harsh and bitterly cold climate, but atmospheric terraforming allows colonists to walk outside the colony domes with only the aid of cold weather clothing and compressor unit. Hydrocarbons continue to react with the Sun's ultraviolet rays, producing the characteristic orange smog in the upper atmosphere.

Christiaan Huygens City is an important and thriving colony base, and its only economic rival in the outer Sol colonies is Europa in the Circum-Jove colonies. It is the headquarters of the mining conglomerate TCC (the Titan Corporate Collective). The Titan Corporate Collective was founded when the three original companies operating on Titan and among the moons of Saturn merged in 2148, the thirtieth anniversary of Titan's colonisation. Though other corporations have since moved into business on Titan, TCC still have a monopoly on mining activities in the CircumSaturnian system.

Titan is the UEAF 'hot dock' for the Sol Defence Fleet vessels assigned to the Deep Space Garrison. While Mars and Luna have larger military installations, Titan is better positioned to let starships intercept any unauthorised space vessel(s) inbound to the Home Worlds. UEF law dictates that no spacecraft may activate their F-Drive engines any close

to Sol than the orbit of Saturn. Titan Sound spaceport is always host to at least a dozen UEAF fleet vessels, and has sizable aerospace and marine assets at its disposal.

Orbit 7 (Circum-Saturn 27): Phoebe Outpost

Orbit Radius	12,960,000 km
Type	Rock
Density	0.30
Diameter	218 x 217 x 204 km
Gravity	0,04G

ATMOSPHERICS / ORBIT

Atmosphere	Vacuum
Pressure	0
Composition	None
Orbital period	550 days
Rotational period	9hrs 16 min

WATER

Water	None
% water	0
% ice	0
% clouds	0

TEMPERATURE / SATELLITES

Polar	-195°C
equatorial	-161°C
Satellite	0

UNUSUAL FEATURES

MINERAL RESOURCES

Metal ore	5
Radioactive ore	0
Precious metal	0
Raw crystal	0
Precious gems	0

Description:

Phoebe was one of the moons of Saturn. A small ice moon with an irregular orbit, it was thought to have originally come from the Kuiper belt and captured by Saturn's gravity.

The first manned landing on Phoebe was made in order to be surveyed for ice mining (much like the rings of Saturn). When core samples from the moon were investigated, however, silicate samples were found, and the UEF approached Weyland-Yutani corporation as a cosponsor of a long-term research facility.

After Weyland-Yutani discovered the alien agent they dubbed the protomolecule (colloquially known as the "Phoebe bug" due to its origin) encased in Phoebe, they theorized that Phoebe was not a naturally formed planetesimal, but created as a weapon by extra-terrestrials 2.3 billion years in the past, and launched at a trajectory towards the Earth. It was, however, captured by Saturn's gravity, where it settled as a satellite.

The labs at Phoebe Station were a joint scientific venture between the UEF and Weyland-Yutani researchers. Unfortunately, something went wrong and the researchers were exposed to the protomolecule. After the protomolecule killed the staff, Weyland-Yutani burned the bodies, purged the hard drives, and abandoned the station. Access to phoebe is now quarantined by the UEAF.

Orbit 8: Uranus
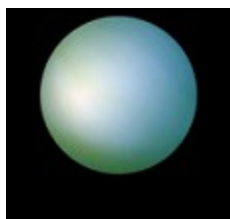
Orbit Radius	20.1 au
Type	Ice Giant
Density	0.24
Diameter	102,354 km
Gravity	0.89 G

ATMOSPHERICS / ORBIT

Atmosphere	Dense

WATER

Water	None

Pressure	0.99		% water	0
Composition	Hydrogen/Helium/Methane		% ice	15
Orbital period	84.01 years		% clouds	100
Rotational period	17 hrs 54 min			

TEMPERATURE / SATELLITES

MINERAL RESOURCES

Polar	-197°C		Metal ore	?
equatorial	-193°C		Radioactive ore	?
Satellite	27		Precious metal	?
UNUSUAL FEATURES			Raw crystal	?
Cloud cover.			Precious gems	?

Description:

For years, the Uranus sector had been nothing more than a junction point for transports off to the lucrative diamond mines of Neptune or the vast expanse of the Kuiper Belt beyond. Even then, that was only when the orbital alignments worked out. That all changed when Proxima Incorporated founded the hydrogen mining facility from Veronica Station. The corporation obtained the rights to the moons surrounding Uranus and has offered them to independent prospectors to do with as they will.

The surface of the planet is not actually a surface at all, but a mix of water, ammonia, and methane in a thick liquid form. Despite its large size, the gravitational forces of Uranus are actually less than that of Earth, so it would be possible to land on its surface if it was solid.

Given that Uranus has no solid surface, the only colony for Uranus proper is Veronica Station – the mining facility run by Proxima to extract molecular hydrogen from the atmosphere. The space station is a patchwork of various components and sections from a number of failed attempts to set a mining rig in the orbit of Uranus.

Veronica Station sits in very low orbit of Uranus and, because of this, the facility has the added advantage of a natural gravity very near Earth normal. There are 8000 people on board Veronica Station, most of which who are employed directly or indirectly by Proxima.

The moons of Uranus have all been set up as mining and prospecting regions, where independent contractors obtain deeds for mining rights from Proxima. Law is officially maintained by the internal security supplied by Proxima Incorporated. The reality, however, is that the local prospectors will deal with suspected criminals internally. In fact, the region has the lowest reported theft rate of anywhere in the solar system, but that only means that little crime is reported. Being much like the gold rush towns of the old west on Earth, law is very often handled as a personal matter between prospectors.

Orbit 9: Neptune
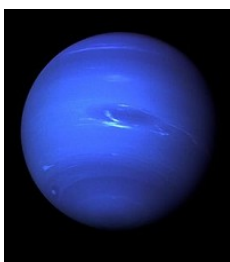
Orbit Radius	30.33 au
Type	Ice Giant
Density	0.29
Diameter	99,134 km
Gravity	1.14 G

ATMOSPHERICS / ORBIT

WATER

Atmosphere	Thin		Water	Ice sheets
Pressure	0		% water	0
Composition	Hydrogen/Helium		% ice	12
Orbital period	164.79 years		% clouds	0
Rotational period	16 hrs 6 min			

TEMPERATURE / SATELLITES

MINERAL RESOURCES

Polar	-211°C		Metal ore	?
equatorial	-200°C		**Radioactive ore**	?
Satellite	13		**Precious metal**	?
UNUSUAL FEATURES			**Raw crystal**	?
			Precious gems	?

Description:

Neptune, the last planet of our solar system, so far into space that it is thirty times the distance of the Earth to the burning Sun. Wind is a near constant on Neptune – the average daily winds range from 60 kmph to nearly the speed of sound. Unsurprisingly, the only colony on Neptune's surface is underground – or under the thick ice layer, which has baffled scientists. Beyond it lies only the Kuiper Belt, a place filled with only dwarf planets and miscellaneous chunks of rock. It's no wonder it is a frigid, inhospitable world, where only the greedy or desperate would dare set foot.

Getting down to the planet is opportunistic. Shuttles leave in between storms, when the wind speeds are at their least. People can wait weeks on Triton station, hoping for a window that will ferry them safely to the surface. Even then, the storms of Neptune are extremely dynamic and journeys are always perilous.

While Neptune is considered to have thirteen satellites, most of them are small and insignificant. Triton is the only satellite that is spheroid and is large enough to comprise 99% of the mass of all Neptune's satellites. What is also significant about Triton is that it is locked in synchronous rotation with Neptune – it always hovers in the same place, over Salacia.

Salacia is the only colony on Neptune. It is powered entirely by geo-thermal taps, utilizing the extremely hot core of the planet. At first glance, it would seem amazing that anyone would want to spend the large amounts of money and incredible effort required to maintain a colony on Neptune. Posterity or curiosity hardly seem reasonable motivations. The answer is simple – Neptune produces diamonds, the most precious gem in the solar system. Salacia is a joint operation of the European Federation and Cheung Corporation – a firm with long roots in the diamond business and the fabulous wealth that goes with it.

Over the last few years, strange things have become commonplace on Neptune. Many people have started to have intense nightmares, some of which have induced homicidal fits in otherwise normal folks. Insomnia (or sleep aids) are an epidemic. People also have started to go missing from time to time, without any trace – some believe there's a conspiracy afoot. On top of all that, there are those who claim to have heard eerie distant sounds through the surface flurries, like the songs of whales. None of these facts are advertised by Cheung – it would be bad for business.

Orbit 10: Pluto Outpost

Orbit Radius	39.5 au
Type	Primordial
Density	1.85
Diameter	1200 km
Gravity	0.063 G

ATMOSPHERICS / ORBIT

Atmosphere	Thin
Pressure	0.4
Composition	Nitrogen/Methane/carbon monoxide
Orbital period	90 560 days
Rotational period	153 hours

WATER

Water	Ice caps
% water	0
% ice	20
% clouds	0

TEMPERATURE / SATELLITES

Polar	-240°C
equatorial	-219°C
Satellite	5

MINERAL RESOURCES

Metal ore	10
Radioactive ore	0
Precious metal	0

UNUSUAL FEATURES	Raw crystal	0
surface composed of more than 98 percent nitrogen ice	**Precious gems**	0

Description:

Pluto is the farthest planet from the Sun and is not only smaller and much less massive than every other planet, but at less than 0.2 lunar masses it is also smaller and less massive than seven moons: Ganymede, Titan, Callisto, Io, Earth's Moon, Europa and Triton. Pluto's thin atmosphere comprises mainly of nitrogen and carbon monoxide, in equilibrium with solid nitrogen and carbon monoxide ices on the surface. The planet surface is crisscrossed with chasms, jagged spires of rock, and plains of frozen nitrogen ice with smaller amounts of (solid) methane, ethane and carbon monoxide.

The small dwarf planet has always been a bit of an enigma in the solar system. Its orbit sneaks in and out of the Kuiper belt and is tilted, running north and south of the ecliptic plain. There has never been a satisfactory explanation of this oddity.

Pluto is known as the Last Post Planet, as beyond this there is nothing but interstellar space. It is the location of an orbital UEAF deep space listening post (crew 12), located on Cthulhu Macula.

Orbit 11: The Kuiper Belt

Past the distant planet of Neptune lies a thick band of rock, from 35 to 50 AU, dust and ice known as the Kuiper Belt. Many dismiss this region as nothing more than another asteroid field, but those people do not truly understand the scope of the belt. Despite being far less dense in most areas than the better known belt of rocks that sits between Mars and Jupiter, the Kuiper Belt dwarfs its inner system cousin in its sheer population of rocks and ice that slowly drift through it. For this reason, the Belt has become the new frontier of the solar system.

While many asteroids are composed primarily of rock and metal, most Kuiper belt objects are composed largely of frozen volatiles (termed "ices"), such as methane, ammonia and water.

For those who are brave or, depending on who you ask, foolish enough to venture that far out, there lies a great potential to truly make a mark on the solar system. Many explorers have found massive deposits that have netted them finder's fees that allowed them to retire in style. Many more, however, have simply vanished never to be heard from again. While there is great promise in the Belt, there is also great danger.

So far out is the Kuiper Belt that even a small emergency can turn deadly. Unlike the inner system, there is usually no help to be found. Those who make their living in the belt are truly self-reliant – they have to be to survive. They are also freer to pursue their dreams than anywhere else in the solar system. The UEF has no say out here and even those corporations that have staked a claim out here, understand that they will never have any influence beyond the walls of their own stations.

In the last three decades, strange stories have begun to filter out of this region of space. Some are stories of things seen by independent explorers that cannot be explained or, for most, even believed. Ships have been found floating near iceroids and asteroids that are devoid of crew, with not even whispered clues of what happened to them. The most popular story revolves around a mine operated by Proxima Incorporated that has been closed down. While the official story is that an accident caused a major collapse of the mine, killing dozens of workers, those who survived the incident swear that the miners opened a cavern that had some sort of living monstrosities hibernating within.

The Colonies

"Ph'nglui mglw'nafh Cthulhu R'lyeh wgah'nagl fhtagn"
"In his house at R'lyeh, dead Cthulhu waits dreaming"

litany linked to the cult of Cthulhu

Space is full of demons, and they want your blood. In any number of the locations cited below, you might run into a shady Colonial Marshal looking for his take, a greedy corporate XO who finds you expendable, or a psychopathic synthetic with a god complex. You could be waylaid by pirates or betrayed by a megalomaniacal military commander. You might find plague-ridden treasures and run afoul of a dangerous organism or a hostile alien species. Or you might face bloody cults, and confront immortal horrors beyond time and space. The seeds of these encounters are planted in the planetary systems—it's up to you to determine which bear fruit and where.

See the 'New Horizon Sourcebook' for details.

The Outer Rim Territories

This region lies out beyond Federated Colonies Zone 3. Officially designated Far Space, it is more commonly referred to as the Outer Rim Territories, or simply the Frontier. Out here UEF member states, non-governmental bodies, private concerns, and corporate entities may establish manned or unmanned facilities on celestial bodies for scientific investigation, commercial use or human settlement. Such endeavours however must be registered with, and regulated by, ICA law.

Apart from a few obvious exceptions, ICA presence and influence at colonies in this region is limited, usually no more than a small Settlement Welfare Team. Corporations or other concerned parties may come to local commercial arrangements with each other when engaged in ventures out this far. Most colonies this far out are still in the early stages of colonisation and terraforming. Although the official frontier of the Federal Colonies is 20 light years from Sol, the Emergency Powers section of the Colonial Act (2140) makes provision for all colonies to come under the control of the UEF, either directly or via the ICA. This may work on paper, but the truth of the matter is that the Outer Rim Territories is a lawless place. ICA law runs only as far as to cover criminal events on or concerning Federation spacecraft, in as much as Federation spacecraft must abide by the principles of Space Law. Apart from a few exceptions, there is generally no active policing of Far Space outside of the larger colonies. Most colonies in this region have learned that as long as they keep their heads down and noses relatively clean, ICA control is a remote form of government at best.

Note: The Outer Rim territories have been left mostly as a bank slate for individual Game Masters to develop as they see fit. There are a handful of star systems that, for reasons such as economic and/or strategic significance, curiosity value or adventure plot-background, that have been fleshed out in more detail. They will appear here, bit by bit, as they are inputted. It is important to note that there are many small colonies in the Outer Rim Territories, and military presence is usually limited to policing those colonies with strategic and/or economic importance to Earth and the Core Systems.

Star Systems Of strategic/economic importance in the Outer Rim:

- Luyten 730-18
- Alpha Boötis [Arcturus]
- Alpha Aurigae [Capella]
- 20 Leonis Minoris [Menkalinan]
- HR209

Star systems lying in the Herculis Cluster under the control of the UEF:

- 12 Ophiuchi
- 36 Ophiuchi
- 70 Ophiuchi A

Star systems lying in the Herculis Cluster under the control of the Free Worlds Alliance:

- Mu Herculis (occupied by the ICM)
- Alpha Lyrae
- Gamma Serpentis
- Lambda Serpentis
- Psi Serpentis
- HR6806
- 18 Scorpii (FWA seat of power)
- 72 Herculis
- Zeta Herculis
- V645 Herculis

Star systems under the control of the Eurasian Rimworlds Combine:

- HR637
- HR857 [EP Eridani]
- Zeta Reticuli
- HR683
- CD53-570
- Tau¹ Eridani
- Alpha Fornacis

Encyclopedia

by Wikipedia, Rob Boyle & John Ossoway

ADVERTISING:

The 23rd Century is an advertising-saturated society where billboards call out to you on a first-name basis. Newspapers deliver news instantly over a broadband wireless network. Holographic hosts greet you at retail stores where biometric retina scans deduct the cost of goods from your bank account. It is a wirelessly-networked, ubiquitously-connected urban environment.

AI:

See 'Artificial Intelligence'.

AMERICORPS:

Section of the United Earth Armed Forces supplied by the United Americas. AmeriCorps comprises the 11th infantry division, 43rd tactical aerospace wing, and the 509th assault brigade. AmeriCorps soldiers wear both the UEF flag and the United Americas flag as shoulder patches on one arm, and their unit insignia on the other.

ANCHORPOINT CITY:

Anchorpoint City, located on Pavonis Mons, is the second largest city and settlement on Mars in the Sol System. It grew up around the base station of the Martian Space Tether to Phobos which touched down on the planet in 2178. Becoming a large transit facility, Anchorpoint is home to the headquarters of megacorporations Motokatsu-Kyono Combine and Wolf-Wiesner-Krupp.

ANDROID:

An android is a synthetic human, basically, a robot that is human in appearance. By the late 23rd century androids have advanced to a degree where they are externally indistinguishable from a normal human being.

Though they are an artificial intelligence in the broad sense, legally androids are classified as property. Their utility and not-inconsiderable unit cost is an incentive to any who wishes to treat an android as expendable.

ANDROID PROSTITUTION:

With the advent of anatomically correct models, several wealthier brothels in the core worlds invested in androids. Though initially expensive, androids have a much lower overall upkeep than human prostitutes, making their longterm value higher.

This sparked some controversy as many government and religious authorities considered sexual activity with androids to be morally deplorable unusual considering under the law, androids used in this fashion are no more than expensive and realistic sex-toys. Under this pressure, many of these early Sex-Synth brothels liquidated their android prostitutes.

No lasting legislation ever came into being, though to this day there is a social taboo associated with the practice of owning, or retaining the services of an android for sexual purposes. Regardless, the business can be lucrative especially considering androids have no legal standing and many brothels offer "Special Sex Toy Services" to discreet clients.

ANTARCTICA TRAFFIC CONTROL:

A station in Antarctica located near the south pole, that controls incoming and outgoing space traffic for Earth space. It is located in Antarctica due to the fact that it has direct line-of-site with any ship riding the ecliptic.

ANTI-G SUIT:

These suits are worn mainly by military and civilian aerospace crews who are subject to high levels of acceleration in order to prevent a blackout and g-LOC (g-induced Loss Of Consciousness). They prevent the wearer's blood from pooling in the lower areas of the body and protects the brain from deprivation of blood leading to hypoxia. Hypoxia causes first a brownout (a dimming of the vision), followed by tunnel-vision and ultimately a blackout (unconsciousness).

The most common Anti-G suit in use by the military is the LockMit LM44 Tactical Aerospace Combat Suit (TACS), an innovative full-bodysuit based on the principle of self-regulating hydrostatic rather than pneumatic action. The suit uses liquid (less than 1.14 liters) rather than pressurised air to exert an adequate counter-pressure on every part of the pilot's body during acceleration. In practice, when acceleration forces push blood towards the lower part of the body, they also push the liquid inside the suit in the same direction, so providing a counter-pressure that is automatically adjusted by the g load itself. The liquid is permanently contained in expandable tubes that run from the neck to the ankles and over the shoulders to the writs, and as such the suit is a completely autonomous, stand-alone system that requires neither compressed air from the aircraft's engine, nor does it feature any other interfaces or connections.

On the medical/physiological level, the key advantage of LM44 TACS lies in the fact that it reacts immediately and without any measurable delay to the onset of gravitational forces, As a result, pilots wearing the suite are able to recover rapidly after having been exposed to 9-10g loads, and relax completely at 4-5gs.

Features:

- Can withstand 10g sustained acceleration with high onset rate, for at least 30 seconds after 6g/s and at least 7g after a gradual (0.1 g/s) onset;

- Biological and chemical warfare protection;

- Completely sealed against vacuum, including explosive decompression;

- Arctic climate and cold water survival;

- High temperatures (fire) protection both in cockpit and on the ground;

- Air blast protection for ejection speeds up to 600 kt;

- Thermal protection;

ARES FLEET BASE:

On the other side of Phobos from John Carter Spaceport, Ares Fleet Base is still the largest military base in the UEF, home to the UEAF's 1st Fleet (also known as the Sol Defence Force). At any time, at least one ICM combat group and one UNSC battle group are stationed here, often with part of the group undergoing refit or repair in the large dry-dock facilities. The 1st Fleet's general staff is located here, along with its attendant command, control, and communications suite that ensures constant awareness of the situation in the Solar System. It is also the rumoured location for one of the UEF's Alpha-level AIs, but the UEAF refuses to confirm or deny those rumours.

ARTEMIS NET:

Unity Space Station, orbiting Earth, is also the command and control centre for the Artemis Net, the array of deep space satellites and monitoring stations orbiting out near the edges of the Sol system yet inside the Heliopause/Termination Shock. The Artemis Net is capable of detecting F-Space activity up to half a light year away from Sol, out beyond the Oort Cloud.

ARTIFICIAL INTELLIGENCE:

Artificial Intelligence, or 'AI' had been a goal of humanity ever since the invention of the computer in the latter half of the 20th century. In 2148, the company Artificial Life Incorporated unveiled 'Adam' the first ever apparently self-aware computer. AI displays synthesized emotion, superficially registers self-awareness and, most importantly of all, has the ability to reason conceptualize and offer opinion. However, these capabilities do not infer true human-like consciousness. A synthetic mind and personality is essentially a construct, and there is no true self-awareness as such, though this may not be all apparent to an untrained observer.

The creation of artificial life in man's image caused outrage amongst many right wing Christian groups, especially the New Confederate Christian Church of the United Americas. The church, one of the fastest growing religions of the 22nd Century, denounced Adam as blasphemy.

Levels of Artificial Intelligence can be broken down into four distinct categories as follows:

- **Alpha Level AI (Sentient AI):**
  True artificial self awareness. Banned as of 2214 apart from a handful of government monitored examples. The 5th Generation of androids (autons) can be considered Alpha Level AI.

- **Beta Level AI (Ego):**
  A synthetic mind and personality essentially a construct, and there is no true self-awareness as such, though this may not be all apparent to an untrained observer interacting with a unit. Beta Level AI is based on a set of algorythmic responses, the software creating a predictive model for how an individual would respond in a given situation. This allows the illusion of personality.

- **Gamma Level AI (Muse):**
  Lowest form of AI capable of interacting with humans. Can operate only within a predefined set of parameters. Shipboard AI are typically Gamma Level AI.

- **Delta Level AI (Sham):**
  Autonomic system that require moderate decision making ability without human intervention are Delta Level.

ARTIFICIAL LIFE INC.:

Artificial Life is still the controlling force in the manufacturing of AI technology. Even though AI technology is now constructed by other corporations besides Artificial Life, none manufacture it in the same volume or of the same quality. Artificial Life are responsible for every new technology in the field. With so many aspects of 23rd Century life involving intelligent computer software, it could be said that Artificial Life have their fingers into almost every area of day to day living.

For more information about Artificial Life Inc. view it's company profile.

ASCENDANTS:

The ascendants are a cultural evolution centred on the Gaia theory. They believe that the universe is alive, with a huge sentience in the centre that guides and protects them. They believe that humanity is on an evolutionary path to be become as one with the universal godhead.

ASIACORPS:

Section of the United Earth Armed Forces supplied by the Russian Republic and it's satellite states. AsiaCorps soldiers wear both the UEF flag and the Russian Republic flag as shoulder patches on one arm, and their unit insignia on the other.

ASYNC:

A person with psi abilities.

AU:

Astronomical Unit. The distance between the Earth and the Sun, equal to 8.3 light minutes, or about 150 million kilometers.

AUGMENTED REALITY:

Augmented reality is an environment that includes both virtual reality and real-world elements. For instance, an AR user might wear translucent goggles; through these, he could see the real world, as well as computer-generated overlays projected on top of that world. An augmented reality system is defined as one that:

- combines real and virtual

- is interactive in real-time

- is registered in three dimensions

Typical AR overlays are head-up displays used by soldiers and police, or pilots, which provide them with real-time information direct. Citizens use AR glasses which are wirelessly connected to their laptop or PDA, allowing them to access informational overlays while on the move.

Azumi Smart Systems currently lead the way in AR technology software and hardware.

AUSTRALIAN REPUBLIC, THE:

One of the 8 superpowers dominating Earth politics in the 23rd century. For more information view it's nation state profile.

AUTON:

Also known as Autons, the Fifth Generation Androids were the culmination of a project run by Artificial Life Inc. in the early 23rd century. Designed and built by other AI, Fifth Gens were significantly more advanced than the standard android models on the market.

With hyper-complex personality matrixes, the Fifth Gens were built to resemble humans in almost every way, including capability for abstract thought and emotion.

During the initial Alpha Prototype Distribution stage in 2214, Artificial Life ran into problems. Some of the Fifth Gens were found to be too emotional and uncontrollable. When tests were run, it was revealed that they had evolved way beyond their design parameters, and were showing signs of real consciousness

BEHAVIOURAL ALTERATION:

With what the government describe as 'corrective surgery', some of the worse persistent violent offenders can be 'pacified' and returned to society. Behavioural alteration involves the implantation of a device in a subjects' pre-frontal lobe through complex micro-surgery. This device, often referred to as an 'artificial conscience' controls the levels of enzymes and neurotransmitters in the brain, preventing violent acts from being committed.

Civil liberties groups are actively campaigning against Clause 404 (the law that allows FLEA to sentence offenders to undergo behavioural alteration), as those receiving the treatment, though pacified, are left in a persistent state of tranquilized numbness.

Other common forms of punishment include:

- Prison
- Penal Colonies

BELTER:

Slang term for those who make their livings prospecting and mining asteroid belts.

BETATHANATINE:

A general anesthetic given intravenously that produces catatonia and profound analgesia with little relaxation of the skeletal muscles. Betathanatine also lowers body temperature and heart rate, and causes loss of temporal perception in the recipient. It has become a popular recreational drug.

BIOFOAM:

Self-sealing Biofoam is a marvel of 23rd century medical accomplishment. Biofoam is a healing, coagulant foam that is inserted into the skin and even deeper into the body itself. This foam keeps damaged organs in place and helps stop bleeding and hemorrhaging. It is, unfortunately, very painful to use. It is an improvised medical option when there are no medics available.

BIOROID:

A cybernetic or fully biological organism created by artificial means.

BLACK SUN:

Black Sun Security is alternatively described as a security contractor or a mercenary organisation, depending who you ask. The majority of personnel hired by Black Sun Security are either ex-police or ex-military.

In 2267, the company was hired to provide a Personal Security Detachment to work with Hallidor employees working on Io. They are authorised to have 480 staff on the moon.

BURNERS:

Slang term. Burners are a weird sub culture that enjoys the sensation of being dominated by a telepathic psychic. The psychic and the burners often blend S&M with the practice. Most citizens regard this activity as abhorrent. It is illegal with a possible jail term for the telepath and MetaPol take an extremely dim view on the practice. There are also rumours that in some Burner clubs not all participants are willing.

CAIN PLANETARY ENGINEERS:

European company specialising in terraforming.

CENARGO CORPORATION:

One of the most powerful of the megacorporations, the Cenargo Corporation was founded by the merger of Centaur Technologies and Argonix Aerospace, the companies who funded the development of the Foscolo reactionless displacement drive. Cenargo has since diversified into many new fields including spacecraft manufacturing, colony management, and medical technology.

For more information about Cenargo Corporation view it's company profile.

CENTRAL AFRICAN BLOC, THE:

One of the 8 superpowers dominating Earth politics in the 23rd century. For more information view it's nation state profile.

CHARGING STATIONS:

In the 23rd century, with fossil fuels a distant memory to most people, the majority of civilian transport is powered by electric motors. Power for these motors is provided via onboard energy cells, which are recharged by plugging the car into the main power grid at points as 'charging stations'.

CHEMICAL ROCKET ENGINES:

Hydrogen, Nitrogen, Oxygen and other chemical fuel engines are simple liquid/gas fuel rockets. Engines of this type were created by humans in the early 20th century, and used for short range space flight, including on Aerospace craft for orbital injection burn.

By the 23rd Century, chemical rockets have been superceded by fusion drives and of course the reactionless displacement drive.

CHINACORPS:

Section of the United Earth Armed Forces supplied by the Chinese Consortium. ChinaCorps soldiers wear both the UEF flag and the Chinese Consortium flag as shoulder patches on one arm, and their unit insignia on the other.

CHISEL:

Slang term. This is the process of disabling the TCS connection in a ground car. Often used for getaway vehicles, stolen cars and vehicles transporting illegal items. It is expensive, illegal and requires some serious technical knowledge. Simply ripping out the TCS uplink will render the vehicle inoperable as it is placed into the actual vehicles control systems. It is also potentially dangerous as the car becomes invisible to the traffic control system.

CHRISLAM:

One of the fastest growing religions in the 23rd century is Chrislam, a religious sect that unifies Christianity and Islam. Chrislam first appeared during the Second Exodus (2166-96). Since then it has become a very popular religion in the colonies, though it has made little headway on Earth.

Chrislam's origins lie on the planet Tamir in the 61 Cygni Star System. The capital, New Mecca, once called Tamir Prime, is the birthplace of the Prophet Michael Abdul-Nur. Once an unassuming colonial city with a high proportion of colonists from the European Federation and Islamic Holy Republic, the city of New Mecca is now the destination of pilgrims from all across the Federal Colonies. It's population has been known to increase to 12 million during the holy festivals.

The primary language of Chrislam is Arabic in origin. All followers of Chrislam are encouraged to perform a pilgrimage (called a 'hajj') once in their lifetime to city of New Mecca. Chrislams do not drink alcohol.

CLASS 1 COLONY:

ICA designation for Earth-like worlds that require little or no terraforming before intensive colonisation can begin. Contracts to terraform and colonise Class 1 status worlds are lucrative, and as such very expensive.

CLASS 2 COLONY:

ICA designation for worlds which are fairly habitable, or which have can easily be adapted to human use through terraforming. Contracts to terraform and colonise Class 2 status worlds, though not as lucrative as those for Class 1 status worlds, are still highly prized.

CLASS 3 COLONY:

ICA designation for worlds which require substantial terraforming before they can be adapted to human use. Contracts to develop and terraform Class 3 status worlds are usually issued when the planet possesses significant deposits of valuable raw materials, but which otherwise would not be desirable for human habitation. If the extraction of the planet's natural resources can be made economically viable, corporate investment will fund a colonial mission.

CLONING:

Cloning of entire humans is banned after the Eckerley ruling of 2086. Organ cloning, however, is quite common. Cloning technologies now enable hospitals and private medical firms to grow new organs for patients needing transplant surgery, thus eliminating the spectre of organ rejection.

COLONIAL INDENTURED SERVICE:

A work contract system instigated by the Interstellar Colonial Authority under the Colonial Act of 2140, which binds a prospective colonist to work for an employer for a specific amount of time, be it the ICA themselves, or one of the megacorporations involved in colony building. Typically the employer provides little or no monetary pay, but is responsible for accommodation, food, other essentials, training and when applicable passage to the colony world. Upon completion of the term of the contract the colonist receive either payment in the form of company shares, a lump sum cash payment or a land grant. The colonist is then free to farm or take up another trade of their own. Colonial Indentured Service Contracts usually vary in length from five to ten years, Earth Standard Time.

Most of the colonists who left Earth during the Second Exodus (2166-96) did so under Colonial Indentured Servitude contracts. Most were young men and women with dreams of owning land on a colony world, or striking it rich out on the interstellar frontier. By entering into Colonial Indentured Service, they essentially sold years of their freedom in exchange for passage to the colonies.

Colonial Indentured Service is not to be confused with Penal Involuntary Servitude. However, there have been multiple occasions where the Colonial Indentured Service has been abused. In these circumstances, the system can represent a form of unfree labour.

COLONIAL SECURITY FORCE, THE:

Security force which acts as the local police force in the Federal Colonies, in conjunction with FLEA officers.

COLONIAL WARS, THE:

Period of interstellar warfare (2258-2260) during which the ICA waged military and economic warfare against a number of colony worlds that had seceded from Federal rule. Thousands lost their lives during the wars, both those doing the fighting and innocent civilians caught in the middle. Although hostilities ended 11 years ago with the establishing of an uneasy ceasefire through the efforts of Chrislamic negotiators, two pockets of resistance remain:

Blockaded by the ICA, in 2260 the United Americas separatists declared themselves to be the Free Worlds Alliance, with the colony at Ernesto Prime in the 18 Scorpius star system their seat of power. Several worlds on the edges of the Herculis Cluster, notably Ixion (Mu Herculis), are occupied by the ICM, but have never been fully pacified.

Across a 1 parsec DMZ from the Federal Colonies lies the group of star systems now known as the Eurasian Rimworlds Combine (ERC). A galactic hotspot since the Colonial Wars ended, the ERC have caused the ICA nothing but trouble. Known to trade with crime syndicates like the Cappello Nero and the Red Dragon, and suspected of funding numerous separatist and terrorist groups active in the Federal Colonies, it seems only a matter of time before another war erupts.

COLSEC:

See 'Colonial Security Force, The'.

COLSPEAK:

A Fairly recent phenomena in the Outer Rim Territories, Colspeak or simply 'The Speak' is a hybrid of English and Mandarin pidgin spoken by some colonists as a form of communication if no common language exists and access to Translation hardware / software is limited. It is a 'working language' in that its structure and purpose is not given for abstract converstions or any real depth. There is no written form of and many linguists debate if it is a language or a pure pidgin form. It is often used by traders for business and the criminal classes.

CORE SYSTEMS, THE:

Region of space within 12.5 lightyears of Earth. The Core Systems contains the most densely populated colony worlds outside of the Sol system. There are well established interstellar trade routes in the Core Systems. The United Earth Federation has direct control over the core systems.

CRAWLING CHAOS VIRUS, THE:

The multi-vector virus created by an unknown ETI. The Crawling Chaos virus is self-morphing and can infect both computer systems and biological creatures.

CRYOPOD:

Also known as a hypersleep chamber, this device is used to stop the negative effect of interstellar spacetravel, such as premature aging during frequent longhaul journeys. Cryopods are standard on most spacefaring vessels. All corporations manufacture cryopods. They are all identical in operation even though many variants of the style exist.

Although there are many makes and models of cryopod available on the market, by far the most ubiquitous is the CP71, designed and manufactured by Zen Medical. The CP71 is the industry standard, capable of preserving a human-sized lifeform indefinitely in cryosleep during interstellar travel.

Like all cryopods, the CP71 surrounds the sleeper in an amniotic sac of orthotic fluid that helps to prevent damage should inertial compensators fail during flight. This also allows vessels to perform sustained acceleration of above 1G or high-G manoeuvring without causing discomfort or serious injury to the sleepers. Crew and passengers entering cryosleep must wear a special bodysuit (a sleep suit) which has adaptors and plugs for various cryosleep systems including diagnostic and monitoring systems, catheters and an assortment of intravenous drip-feeds that feed nutrients and the cryonic drugs that slow down bodily functions.

All cryopods have an in-built Delta Level AI, which is programmed to monitor its sleeping charge for any signs of medical stress. All cryopod AI are slaved to the ships computer.

CRYOSLEEP / HYPERSLEEP:

Despite the invention of the Foscolo Interstellar Drive (F-drive) allowing humanity to the travel to the stars in relatively short time, journeys from Earth to the outermost colonies still takes almost four Earth months, one way. With commercial and military spacecraft making frequent long distance flights, scientists developed a means to hold travellers in suspended animation: cryosleep.

It is common practice onboard interstellar vessels for passengers and non-essential personnel to spend the large part of the journey in cryosleep. Cryosleep is an advanced branch of cryonics allowing the low-temperature preservation of humans and other animals for long periods. The individuals are then revived at the journey's end. All interstellar-capable vessels come equipped with a cryo-vault containing racks of cryopods, each capable of preserving a human-sized lifeform indefinitely (although the longest time on record that anyone has spent in cryosleep and been successfully revived currently stands by lieutenant Ellen Ripley at 57 years).

While in cryosleep crew and passengers require greatly reduced quantities of air, food and water, which conserves supplies during interstellar flight. While in cryosleep the aging process slows down, which in turn reduces the aging effects on people who do a lot of interstellar travel (see Slow drug).

Being abruptly awakened or long stasis periods can have a distortion effect on human perception. Known as Neurological Distortion Disorder, this syndrome causes paranoia, epilepsy, psychotic behavior and other side effects. Disorientation, headaches, chest pain, and nausea are all common side effects. While uncommon, some severe cases have resulted in death.

Cryosleep Revival Modifiers

Situation	Modifier
Military cryopod	-4
for each Cryotech skill level	-1
for each point over CON/15	-1
rude awakening	+8
for each year in cryosleep	+1

Neurological Distortion Disorder Table

2d6	Effect
7-	NO EFFECT. Yet.
8–10	VOMITING.
11–12	HEADACHE. The effect lasts for D6 hours.
12–13	PARANOIA. The PC becomes convinced that someone or something on board the ship is out to get him. The effect, which lasts until the FTL travel ends, should be roleplayed.
14–15	EPILEPSY. The PC suffers episodes of epileptic seizures, that will disable him for a full Turn. The PC must succeed a Stamina roll every 6 hours or a seizure occurs. The effect lasts for D3 days.
16–17	DEMENTIA. The PC memory is a blank slate. The PC can no longer recall who he or the other characters are. The effect lasts for D6 days.
18+	PSYCHOSIS. The PC immediately attacks the nearest person or creature, friendly or not. He won't stop until he is sedated.

DATA CRYSTAL:

Data Crystals are the primary data storage unit in use in the 23rd century. Information is stored by actually altering the physical form of the crystal on a molecular level, using a complex holographic data pattern that bends and distorts light to reproduce images and information in mathematical form. Data Crystals have a data storage capacity of just under a terabyte, with a data transfer rate of 1.5 gigabytes per second.

A typical 1 terabyte consumer-model Data Crystal is the same size and shape as a British one pound coin (weight 9 grams, diameter 22.50 millimetres). One side is left clear for data readers, while the other side is usually imprinted with a manufacturer logo.

Larger capacity models are usually referred to as 'data-stacks' as they resemble a stack of data-crystals.

DRUGS:

Despite all the best efforts of the ITC and FLEA, drugs are every bit as ubiquitous in the 23rd century as they are today.

EARTHCORPS:

Section of the United Earth Armed Forces assigned to the defence of Earth. EarthCorps soldiers wear both the UEF flag and a symbol of the planet Earth as shoulder patches on one arm, and their unit insignia on the other.

EARTH ISOLATIONIST MOVEMENT:

The Earth Isolationist Movement (Isolationists) started life as an environmental pressure group little known to the mainstream media until the mid-21st century, when they staged a series of publicity stunts that attempted to burst the bubble of euphoria surrounding the first crewed mission to Mars. The organisation claimed that the Ares mission landing craft had initiated a martian ecological disaster, having contaminated the red planet with terrestrial micro-organisms. The United Nations Space Agency refused to comment.

The Earth Isolationist Movement turned violent during the Mars colonisation programme of the early 22nd century, when a bomb planted by terrorists claiming affiliation with the group shattered one of the fledgling Viking Colony domes, killing 87 colonists.

The Earth Isolationist Movement was immediately outlawed by the Earth government, and those who FedPol managed to arrest were made examples of and imprisoned. The organisation remains illegal to this day, even though some of it's earlier predictions about 'xenocide' on alien worlds (the destruction alien ecologies by contamination of earth species) came true, notably on Centauri Prime.

EARTHWERKS INC.:

Terraforming company. For more information about Earthwerks Inc. view it's company profile.

EARTHWORM:

Derogatory slang used in the colonies for someone born on Earth. See also 'Worm' 'Wormie'.

ECKERLEY RULING:

The Eckerley ruling, made in 2086, made the cloning of entire human beings illegal and covered this with a hefty punishment.

ELEMENT 115:

See Ununpentium.

Emergence Point Variance:

The major limitation on usage of F-Space travel is positional inaccuracy upon emergence, more commonly known as Emergence Point Variance. F-Space has been described as behaving in some ways like a complex turbulent storm-tossed sea and the calculation of the exact exit point from F-Space is impossible due to quantum currents and eddies. This minimum inaccuracy is fixed regardless of distance travelled (perversely the maximum does increase with distance). Emergence Point Variance is usually measured in AU – generally between 0.001 and 0.7 AU. This minimum error is minimal when compared with a jump of several light-years, but for a short in-system jump renders the jump very difficult and dangerous, but not entirely impossible.

EMIGRATION:

Interstellar emigration is tightly controlled by the ICA and the ITC. To compound matters, those wishing to live in the colonies must apply for Colonist Status from the ICA. This involves a series of rigorous background checks, physical, mental and psychological examinations.

ENERTEK CORPORATION:

Origins: American/European

Sectors: Energy, metals, colony management, terraforming, machinery, communications, food, etc. Risk management, project financing and engineering services.

Date of closure: Declared bankrupt following an infamous scandal in 2246. Its assets were largely absorbed by the Hallidor Corporation.

History

2136 The Tharsis Dispute

MARS, SOL SYSTEM: The largest and most famous of the territorial disputes in the early 22nd Century, following a series of land-grabs by competing megacorps on Mars. The Tharsis Dispute is sparked when fighting breaks out on the Tharsis Bulge between corporate security teams from EnerTek and rivals Cheung Corp. The UEF deploys peacekeeping troops to act as a buffer between the two megacorps.

2138 The Tau Ceti War

ANJUNA, TAU CETI SYSTEM: There are corporate clashes after both EnerTek and Cheung Corp hire mercenaries to protect their further afield assets, following the Tharsis Dispute two years earlier. Revenge attacks by both sides quickly cause matters to escalate out of control. Undercover support flows in from Chinese and American factions on Earth, resulting in the conflict spreading across the system.

2140 The Viking Treaty

VIKING CITY, MARS, SOL SYSTEM: The Viking Treaty of 2140, signed at the Mars colony, brings an end to the fighting at Tau Ceti after almost 18 months of conflict.

The breaking point comes when Cheung Corp mercenaries deploy tactical nuclear weapons against opposing EnerTek forces at Kow-Lang, resulting in the deaths of over a thousand civilian colonists. A UEAF taskforce is despatched to Tau Ceti and a peace accord is brokered. Though neither of the protagonists is entirely satisfied, it is financially unacceptable to prolong a war that shows no sign of victory for either side.

The conflict also shows that the UEF is simply not organised or equipped to police and govern the ever growing number of colonies out beyond the Core Systems, forcing the creation of the Colonial Act.

2246 The EnerTek Scandal

EnerTek Corp declares bankruptcy, subsequently collapsing in a scandal involving billions of E$ in losses, corporate power abuse and attempted blackmail of ITC officials. EnerTek Corp is the primary colonial investor in the Herculis Cluster, which leaves the UEF no choice but to allow this important sector of space an unprecedented degree of regional autonomy.

2254 Hallidor acquire assets

Hallidor Corporation acquires EnerTek Corp's colonial assets.

ENERTEK SCANDAL, THE:

The EnerTek Corporation was a megacorporation whose industry sectors included energy, metals, colony management, terraforming, machinery, communications and food. The corporation also traded numerous other commodities and provided risk management, project financing, and engineering services. It was based on Mars and employed millions of people throughout the colonies before it's bankruptcy. EnerTek was at the forefront of colonial development and investment during the Second Exodus (2166-96) and up until 2246 owned many colonial assets in the Herculis Cluster region of the Outer Rim Territories.

EnerTek grew very wealthy during the latter half of the 22nd century, and was named "Most Innovative Company" by Asset magazine for five consecutive years, from 2192 to 2196. It was legendary even amongst the elite workers of the financial world for the opulence of its offices. Its reputation was undermined, however, by persistent rumours of bribery and political pressure to secure choice colonial contracts in the Outer Rim Territories.

In January 2246, EnerTek Corporation declared and filed for Chapter 11 bankruptcy. The announcement stunned most investors and analysts because EnerTek, at the time the seventh largest megacorporation in the Federal Colonies, had long reported huge earnings. The subequent complete collapse of the corporation involved a scandal involving billions of E$ in losses, corporate power abuse and attempted blackmail of ITC and ICA officials. The investigation into the EnerTek affair revealed that EnerTek had inflated its earnings by hiding its debt and losses in subsidiary partnerships. Although some of the company''s top executives made huge profits as EnerTek fell apart, many of its employees saw their

retirement savings wiped out by the collapse of EnerTek's share price. The fall of the value of investors" equity per share in EnerTek during 2146 was from E$65 to 22 cents.

As debt collectors and insurance Characters move in, hundreds of millions of E$ were found to have gone missing, funnelled through front companies and fake bank accounts.

The fallout from the scandal quickly extended beyond EnerTek and all those formerly associated with it. The trial of accountants Robinson Kay on obstruction of justice charges related to EnerTek quickly set off a wave of other accounting scandals. This wave engulfed many companies, exposing high-level corruption, accounting errors, and insider trading.

ETI:

Extraterrestrial intelligence.

EURASIAN RIMWORLDS COMBINE:

A group of star systems at the outermost of the European and UPP colonised arms, the rebel colonies that make up the Eurasian Rimworlds Combine (ERC) seceded during the Colonial Wars of 2258-2260, and the region has been a galactic hotspot ever since.

For more information view it's nation state profile.

EUROCORPS:

Section of the United Earth Armed Forces supplied by the European Federation. EuroCorps soldiers wear both the UEF flag and the European Federation flag as shoulder patches on one arm, and their unit insignia on the other.

EURODOLLAR:

The EuroDollar (E$) has been the standard currency of the United Earth Federation since its inception in 2085.

EUROPEAN FEDERATION:

One of the 8 superpowers dominating Earth politics in the 23rd century, the European Federation also has substantial offworld interests in the Federal Colonies and beyond.

For more information view it's nation state profile.

F-DRIVE:

See 'Foscolo Drive'.

F-SPACE:

Term for the nine-dimensional region outside of normal space that is accessible to interstellar spacecraft because of the Foscolo Discontinuity.

FEDERAL COLONIES, THE:

Catch-all name given to the star systems colonised and governed by Earth either directly or via the ICA.

FEDERAL LAW ENFORCEMENT AUTHORITY:

Policing in the 23rd Century is handled by the Federal Law Enforcement Authority (FLEA). From their headquarters on Earth, and via many local stations throughout the Federal Colonies, Federal police officers have the unenviable task of tackling crime over interstellar distances.

FEDERAL NETWORK NEWS:

Think the BBC meets CNN in the 23rd Century. A quasi-autonomous organisation part-financed by the civilian population of the United Earth Federation, FNN is reknowned for it.

FEDERAL NETWORK, THE:

The Federal Network, or FedNet, is the collective term for the technology behind the wirelessly-networked, ubiquitously-connected urban environment of the 23rd century. FedNet provides entertainment in the form of over a thousand digital television and radio channels, information in the form of the Interstellar Web (ISW), communications access for Personal ComLinks etc etc

This would be amazing if it were just on Earth, but a series of FTL Relay Stations throughout the Federal Colonies provides FedNet access to everyone who holds Citizenship in the United Earth Federation. While the citizens of the Sol system can enjoy realtime FedNet access, those further afield have time delays, as FTL datastreams travel at a maximum speed of 1 parsec per day. As a result, common information is stored locally at the larger colonies, and orbiting satellites allow wireless communications.

Federal Security Agency:

The Federal Security Agency (FSA) coordinates, directs, and performs highly specialised activities to protect the UEF government information systems and produce foreign signals intelligence information. A high technology organisation, the FSA is on the frontiers of communications and data processing. It is also one of the most important centres of foreign language analysis and research within the federal government.

FSA conducts some of the UEFs leading research and development programs. Some of the Agency's R&D projects have significantly advanced the state of the art in the scientific and business worlds.

Federal Service:

Students completing their education but not wanting to continue to a University are required by Federal law to take the Federal Orientation Test and complete three years of Federal Service. This involves working for the Federal Government in one of it's many branches, including the United Earth Armed Forces, the Federal Health Service, the Federal Transportation Network, and the Federal Labourforce. The pay isn't great, and choice of career path is limited depending on the results of the FOT, but completion of Federal Service usually gives an individual the option of staying on in their chosen profession with a salary increase.

FEDERAL STOCK EXCHANGE:

On 23rd November 2084, the World Bank declared bankruptcy, which caused the global economy to collapse. The formation of the United Earth Federation saw the introduction of Macro Economics, and the establishment of the Federal Stock Exchange (FSE), a global stock exchange through which all major commercial financial transactions happen.

FLASH CLONING:

Stem cell manipulation technology by which organs and limbs can be cloned from a patient and grown at an accelerated rate. See also Cloning.

FLEA:

See Federal Law Enforcement Authority.

FOAM-PHASE PLASMA WEAPONS:

Foam-phase plasma weapons provide a military commander the option of deploying a munition capable of delivering explosive power in the tactical nuclear yield without the radioactive after-effects.

The standard method of delivery of these weapons is via a missile tipped with a metallic hydrogen warhead. Within the warhead the hydrogen is kept in a meta-stable foam-plasma state inside an electro-magnetic bubble. On impact the bubble pops, and the contents expand rapidly, converting to a superheated plasma gas as the hydrogen returns to its normal state.

The explosive power of such a weapon is considerable. As such they are rarely deployed in planetary theatres of operation.

FOSCOLO DISCONTINUITY, THE:

An effect discovered by physicist Hugo Foscolo in the early 22nd century, the Foscolo Discontinuity refers to the warping effect on space-time caused by the interaction of the unique properties of Quantum Foam and intense gravity fields. When harnessed, this effect can be used to create what is termed a Foscolian Traversable Hyperspatial Link that connects two points in spacetime through an extra-dimensional region dubbed 'F-Space'.

Due to the topological features of the Foscolian Traversable Hyperspatial Link created by the Foscolo Discontinuity, the opening into F-Space is only accessible from Realspace for a short period and only from a precise angle of approach. Physics work differently in F-Space, allowing spacecraft to travel vast distances in a relatively short time period.

Often there is confusion about the idea that the Foscolo Discontinuity allows superluminal (faster-than-light) space travel. In fact there is no real superluminal travel involved. The time in which the distance was traveled appears faster because the subjective distance is shorter.

The calculations needed to navigate F-Space, which has been described as behaving in some ways like a complex turbulent storm-tossed sea, are almost impossibly complex for the human mind and are calculated using powerful computers developed by Artificial Life Inc.

FOSCOLO DRIVE:

The Foscolo Drive (or 'F-Drive') is the common name for the type of engine that allows spaceships to travel interstellar distances in a relatively short time period. A high-energy fusion reactor using Ununpentium (Element 115) as fuel powers a complex series of graviton beams, which in turn manipulate the Quantum Foam to create an effect now known as the Foscolo Discontinuity the opening of a Foscolian Traversable Hyperspatial Link that connects two points in spacetime through an extra-dimensional region dubbed 'F-Space'.

While in F-Space, the Foscolo Drive continues to function, generating a Foscolian Quantum Bubble around the ship, protecting it from the physics of this nine-dimensional region. The current generation of F-Drive engines allow ships to travel up to 6 parsecs of Realspace via F-space before requiring refueling, at an average rate of 1 parsec per standard Earth week (7 days Earth Standard Time).

The major limitation on usage of F-Space travel is positional inaccuracy upon emergence, more commonly known as Emergence Point Variance. F-Space has been described as behaving in some ways like a complex turbulent storm-tossed sea, and the calculation of the exact exit point from F-Space is impossible due to quantum currents and eddies. This minimum inaccuracy is fixed regardless of distance travelled (perversely the maximum does increase with distance). Emergence Point Variance is usually measured in AU generally between 0.001 and 0.7 AU. This minimum error is minimal when compared with a jump of several lightyears, but for a short insystem jump renders the jump very difficult and dangerous, but not entirely impossible.

The most famous example of a succesful in-system F-Space jump is the one performed by Admiral Keyes at the Battle Of Theta Persei II, during the Persei Campaign (a prolonged campaign mounted by the UEAF during the Colonial Wars, and one of the largest and longest campaigns of the Rimworlds Front, lasting 16 months from 2258-2259). Though the majority of his fleet successfully jumped in close to the ERC occupied planet, the troopship Menelaus jumped into the planet's upper atmosphere and was lost with all hands. Despite this tradegy, the Keyes Manoeuvre was instrumental in the UEF capturing Theta Persei II.

FOSCOLO, HUGO:

Famous physicist who discovered the effect now known as the Foscolo Discontinuity. Born 2030, European Federation, Earth. Died 2112 aged 82. Many rumours circulate on FedNet bulletin boards that Hugo Foscolo is in fact still alive, hidden in some government facility in cryogenic freeze, awaiting advances in medical technology that will cure him of Higgs Syndrome, the illness that officially killed him.

FOSSIL FUELS:

As nuclear fusion reactor techniques improved, fossil fuel burning was phased out. In the 23rd Century, all fossil fuel reserves are directed towards plastics industry, and there are strict laws regarding usage and recycling of plastics.

FREE MARS:

Political movement on Mars demanding devolution and self-rule.

FREE WORLDS ALLIANCE, THE:

A group of star systems in the region of space known as the 'Herculis Cluster'. Most of the discovered planets within their borders are resource-poor, causing the FWA to use transhumanism to adapt citizens to hostile worlds.

FRIGATE, TYPE 51:

The Type 51 Frigates were commissioned 20 years ago by the United Earth Armed Forces, and are still the prime movers of the Colonial Marine Corps.

FRIGATE, TYPE 71:

The Type 71 Frigates are the latest addition to the ICM strikeforce. Commissioned to replace the aging Type 51, the Type 71 is faster and better armed, but has a smaller cargo capacity.

FTL:

Acronym for Faster Than Light.

FTL COMMUNICATIONS:

See Quantum Communications

FUSION DRIVE:

Fusion rockets were first used to great effect in powering the Ares 3 Mars Mission in 2061. The Earth-Mars journey would have taken 259 days using a spaceship powered by chemical rockets, even with the 2 planets are in 'opposition' (Mars oppositions occur approximately once every 780 days). The fusion drive powering the Ares 3 cut this time to just 63 days (just over 2 months).

Fusion drive uses a fusion reactor to heat and eject the fuel in an 'impulse' which creates acceleration. Depending on the type and efficiency, the power of the specific impulse can vary.

The standard fusion rocket uses the D-3He fuel cycle, with bucking coils to extract a magnetic flux tube from a toroidal magnetic fusion reactor and exhaust the thrust. There were many technical difficulties to be overcome during the development period, especially involving magnetic field strength and the size and weight of the coils, and this engine only became practical with the invention of lightweight supercompact fusion reactors during the mid-21st century, almost 30 years after the first fusion reactor was built.

Fusion drives are still the most common form of propulsion in aerospace and interplanetary vessels, but in larger interstellar vessels, they have been all but superceded by the Boing Interstellar Reactionless Displacement Drive.

FUSION POWER:

See Nuclear Fusion.

FWA:

See Free Worlds Alliance.

FWA NEWS:

Pirate news channel broadcasting from out of the Herculis Cluster, which, despite their best efforts, the ICA has not been able to shut down.

With conflicting reports from official channels and independent news reporters of what is actually going on in this contested region of space, this is the only source of information direct from the rebels themselves. It provides an interesting alternate viewpoint of an ongoing war (or 'Police Action' as the ICA call it) where half-truths and propaganda are reported as fact.

GAUSS WEAPONS:

The ultimate development of the slug thrower, gauss weapons use a MLA (magnetic linear accelerator) to propel a projectile at incredible velocity. Velocity is directly proportional to barrel length: a gauss weapon of a given type will typically be substantially longer than a similar slugthrower, because of the need to maximize barrel length within acceptable parameters.

Generally speaking, ammunition for portable gauss weapons comes packed with a disposable battery of sufficient power to fire the entire clip. Ammunition is most often simple solid metal needles, but for those willing to pay, specialist ammo is also available: explosive, memory-form, poison, and illuminating rounds can be obtained. The clips come pre-loaded and sealed, and with the exception of tracer (which is normally loaded with solid shot at varying proportions), will usually be of an homogenous type.

GENETIC ENGINEERING:

In the 23rd Century, genetic engineering is big business. Correcting defective genes responsible for disease development through gene therapy has advanced to such a degree that most hereditary diseases can be easily and successfully diagnosed and treated.

It is not only in the medical sector that genetic engineering has advanced to such levels. Agricultural developments, like synthetic meat that is 'grown' in laboratory farms, and super-tough crops for use on harsh colony worlds have made those companies with stakes in the industry very rich indeed.

In the domestic market, cloning of pets is also big business, although since the Eckerley ruling of 2086, cloning human beings is illegal.

GHOSTERS:

These are the highly skilled hackers and forgers that create Ghosts. Those with a Ghost id do not just have a spare fake id. But an actual complete creation of a persons history. How far back this history goes depends on the money that is spent. Identity theft and manipulation is regarded as a serous offence and has a long prison sentence attached to the crime.

GRAVIDIUM:

Element 126 Gravidium, used principally in the photonics industry for its unique magneto-optical and piezoelectric properties and as a super-dense material in the manufacture of armour-penetrating projectiles.

Classed as "superheavy", Gravidium is 60% heavier than Uranium, the heaviest naturally occurring element (element 92). It is found in small but concentrated deposits, formed by as yet unknown selenological processes. Gravidium rich planets and moons are highly prized, and as such the Megacorporations guard these locations greedily. Piracy is a constant threat, especially in the lawless Outer Rim Territories. It is not unknown for space pirates, or raiders from the Separatist systems of the FWA and ERc to ambush freighters laden with unrefined Gravidium, as they head for the industrial worlds in the Core Systems.

HELIUM-3:

Helium-3 is the fuel source that drives the fusion reactor powerplants of the 23rd century. It is a form of the element helium and is very rare on Earth. In the early 1970s, astronauts discovered quantities of it on the lunar surface. It originated from the sun and was carried to the Moon via solar wind. It has since been discovered on asteroids and moons throughout colonised space.

When combined in a fusion reactor with a form of hydrogen extracted from water, 1 ton of Helium-3 can supply the electrical needs of a city of about 10 million people. Researchers concluded in the early 21st century that there is enough Helium-3 on the Moon theoretically to provide the Earth's energy needs for at least 1,000 years.

Until humanity switched to nuclear fusion as the major source of power in the mid-21st century, over 90% of the world's primary energy supply came from fossil fuel-driven sources.

HERCULIS CLUSTER, THE:

Sector of space with a high concentration of resource-rich and habitable star systems in close proximity to each other, approximately 25 light years from Sol. The Herculis Cluster had been a relatively autonomous zone ever since EnerTek, the company that funded the majority of the region's colonisation projects,

declared bankruptcy in 2246. EnerTek subsequently collapsed in a scandal involving billions of EuroDollars in losses, corporate power abuse and attempted blackmail of ITC officials.

With EnerTek's assets frozen during ensuing investigation, the Herculis Cluster was allowed a degree regional autonomy by the ICA to self-govern, a decision that is now probably regretted in the corridors of power on Earth.

EnerTek's colonial assets were acquired by the Hallidor Corporation in 2254. Many people believe that it was this megacorporations overeagerness to gain access to the abundant natural resources in the Herculis Cluster that fanned the flames of sedition and indirectly brought about the Colonial Wars.

HESTIANS:

Arising from the chaos at the end of the 22nd Century, the Hestians are part of the 'decivilisation' movement that has existed since the 20th Century (or could even be considered to extend further back, if a more generous definition is used). As a reaction to the 'threats posed by technologies that Man seems unable to use peacefully' and 'the dehumanization of the average man and woman in the face of sprawling cities and faceless corporations,' the Hestians embraced a philosophy of self-reliant frontier living, somewhat of a romantic reimagining of the North American West in the 1800s. Their beliefs are not strictly religious, but spiritual, putting a strong emphasis on self-reliance, individualism, limited environmental impact, and pre-industrial trades. While they use limited amounts of electricity, generally it is generated through relatively simple processes, such as water or wind power, and used sparingly.

In their early years, the Hestians formed small communities on the less populated but still habitable Core Worlds, such as Proxima II, Hesperus, and Groombridge, trying to stay away from the major colonies and live on their own. Many of their colonies did not survive, wiped out by natural disasters or failures of various vital technologies; others ran into problems when valuable natural resources were discovered nearby and they suddenly became packed with outsiders and corporate officers seeking to expand operations. For instance, the Hestian colony on Groombridge was abandoned in 2253, when the ICM depot on the planet was built not more than 100 kilometers away.

When the ICA began pushing for colonists to settle the distant worlds of the Outer Rim as a bulwark against the newly-independent ERC and FWA, leaders of the movement suggested that the Hestians establish colonies on a more habitable world in the Outer Rim, far from the predations of the megacorporations and the UEF government. While many members of the movement decided to stay where they were, most of the movement and its leadership began gathering investment and planning a move out into the Rim.

HOLOGRAPHIC CRIME SCENE CAPTURE SYSTEM:

For numerous reasons it's not always possible to maintain or keep a crime scene closed off on a colony. For example: A suicide by drowning in a vital water supply tank on a small colony. The Holographic Crime Scene Capture System (HCS) is a practical method of recording an accurate picture of vulnerable crime scenes. The scene of crime officers take detailed holographic pictures of the scene as they collect physical evidence. Then after the details are collated the data can be assimilated to construct a holographic representation of the scene, to be duplicated in the analysis rooms of the main Colsec offices.

By the 23rd century holographic technology such as this is not expensive, but it is bulky and power consuming, and as such not all Colsec offices are fitted with a HCS chamber.

Holographic crime scenes are recorded as high-resolution digital data to allow Colsec officers to zoom in and minutely examine every aspect. The scene can also be scaled down to much lower resolutions to get an overall view of a crime scene.

HOLOGRAPHIC POSITIONAL REFERENCE:

A piece of law enforcement tech, this device is for use on closed crime scenes where the body has been removed for forensic analysis. When activiated it projects a holographic picture of the corpse (and any separate parts) in its death position. The body can be a true to life representation of the corpse, or a dark shadowy shape. The device itself is disc shaped and about 2.5cm thick, which sits nicely in the palm of the hand. It can be voice activated and sits in the centre of the Corpse.

ICA:

See Intersteller Colonial Authority.

ID-CARDS:

All citizens of the Federation are required by law to carry an ID card. This card carries biometric information such as retina print, genetic fingerprint etc. When FedPol Officers arrest a suspect, their retina and dna are checked, to make sure it matches those on file in Zurich.

IDENTIFICATION:

In the 23rd century, most retail outlets use a combination of ID-Card and biometric retina scan to verify an individual's identity. If both match, the transaction is performed, and the individual's bank account is debited the cost of goods purchased.

ILLEGALS:

Due to the strict regulations of colonial emigration there is, of course, a service available for those who wish to enter illegally. People smuggling is serious problem for the police and a lucrative business for criminals. These criminals often employ the services of a Ghoster, to set up new identities. However these illegals are playing with firs as they are dealing with serious criminals. There have been rumours of illegal's having their money taken from them, and then thrown out into deep space a week or two into their journey. Also if an illegal is caught they face deportation or possible prison.

INDIG:

UEF military slang for 'indigenous', used to describe the locals or local forces on a colony world.

INTERSTELLAR COLONIAL AUTHORITY, THE:

Formed after the Colonial Act of 2140, the Interstellar Colonial Authority (ICA), is a branch of Federal Government tasked with the government of colonised space beyond Sol. With it's headquarters in Viking City on Mars, the ICA is responsible for the day to day management of the colonies, including local law and order, liasion with Earth, communications, logistics and a host of other functions. In the absence of direct contact with Earth, the ICA has veto on any local government decisions. For more details see Federal Government: ICA.

INTERSTELLAR TRADE COMMISSION, THE:

The Interstellar Trade Commission (ITC) came into being in 2140, when, in an effort to regulate interstellar commercial shipping and trade, the WTO was radically expanded and remodelled. The ITC is the primary body dealing with commerce throughout the systems colonised by the UEF in the 23rd century. All crewmembers of commercial transport and cargo starships are required by Federal law to possess a valid ITC licence. For more details see Federal Government: ITC.

ITC:

See Intersteller Trade Commission.

JAPANCORPS:

Section of the United Earth Armed Forces supplied by the Japanese Affiliates. JapanCorps soldiers wear both the UEF flag and the Japanese Affiliates flag as shoulder patches on one arm, and their unit insignia on the other.

JOVAD:

The Circum-Jove Administration was established in 2200. Modelled after the Martian Administration, it provides the colonies with a political voice in the General Assembly on Earth. The CJA (or Jovad, as it is often called) manages the day-to-day running of government in the Circum-Jove colonies. The administration has devolved a lot of local government to locally-elected councils on the Galilean Moons. The CJA and various corporate concerns are guaranteed non-voting seats on these councils.

Prior to the formation of the CJA, Jovian Project was managed by a branch of the UEF government named the Circum-Jove Development Corporation. Historians now cite mismanagement of the Circum-Jove economy and the gross mishandling of the Callisto Dockers' Strikes of 2170-71 as the factors that brought an end to direct government of the Circum-Jove from Earth via this body.

JOVIAN HOLDINGS:

Origins: American

Sectors: Mining

Ownership: A subsidiary of Hallidor Corporation

HQ: Sarpedon, Europa, Circum-Jove

Jovian Holdings is a mining company owned by Hallidor which operates in the Circum-Jove system. As well as its headquarters in Sarpedon, the company has regional offices in both Acallaris City on Ganymede and Midgard City on Callisto.

It was incorporated in June 2118.

JUMP:

Slang term for an interstellar journey using a Foscolo Star Drive (F-Drive). e.g. 'We just made the jump from Sol to Proxima'.

KINETIC WEAPONS:

Kinetic weapons, or slug throwers, are defined as those weapons that rely upon speed and hardness to deliver their destructive punch.

In the 23rd Century, slug throwers are still the mainstay of most military organisations, although energy weapons are becoming more and more commonplace.

KUIPER BELT:

A region of space extending from Neptune's orbit out to about 55 AU, lightly populated with asteroids, comets, and dwarf planets.

LAGRANGE POINT:

One of five areas in respect to a small planetary body orbiting a larger one in which the gravitational forces of those two bodies are neutralized. Lagrange points are considered stable and ideal locations for habitats.

LANGUAGE:

Though a multitude of languages still exist in use on Earth, the most common languages in use in the colonies are English and Mandarin Chinese. This is mainly because the most powerful colonial powers are the United Americas and the Chinese Consortium. These languages have also become the 'official' languages of the United Earth Federation.

LAW:

See 23rd Century Life: Law for more details.

LIGHT SECOND:

A Light Second is defined as the distance light travels in an absolute vacuum in one second i.e. 299,792.458 kilometres. This unit of length is used along with the Light Minute, Light Hour and Light Day to describe distances in interplanetary rather than interstellar space.

Of course with one Light Second equating to a distance of almost 300 000 km, smaller units of measurement are required. It is common practice for Light Seconds to be split into centi-seconds, or hundredths of a second. Each centi-light second is a distance of 2997.92km.

Anything below 3000km is usually referred to in km or m.

A light minute is 60 light seconds and a light hour is 60 light minutes or 3600 light seconds. A light year is 31,557,600 light seconds.

Some distances in light seconds:

■ The average distance from the Earth to the Moon is 1.282 light seconds.

■ The average distance from the Earth to the Sun (or 1 astronomical unit) is 499.0 light seconds or 8.317 light minutes.

■ The distance from the Earth to the main Belt varies from 2.2 to 3.2 astronomical units.

■ The Kuiper belt extends between 40 and 48 astronomical units.

■ Light Second: 299 792.5 km.

■ Light Minute: 17 987 547.5 km.

■ Light Hour: 1 079 252 848.8 km.

■ A light-day is about 173 astronomical units.

■ A light-year is equivalent to about 63 000 astronomical units or 9.46 trillion km.

■ A parsec is approximately equal to 3.26 light-years or 206 000 astronomical units, i. e. 30.9 trillion km.

LOONIE:

Derogatory term used on Earth to describe Luna Colonists. Also Lunatics, Loons.

MAIN BELT:

The main asteroid belt, a torus ring orbiting between Mars and Jupiter.

MARSCORPS:

MarsCorps was established in 2146 by the UEF after a bomb planted by Earth Isolationist terrorists killed 87 colonists in Viking City on Mars.

Initially a battalion strength garrison force, in the 125 years since it's conception MarsCorps has grown into the United Earth Army Mars, which alongside EarthCorps forms the backbone of the Sol Defence Force.

MarsCorps comprises 3 divisions of infantry (including a brigade of mobile infantry), and armoured division, and an aerospace wing based based at Ares Fleet Base, Phobos.

MARVIN:

Derogatory term used on Earth to describe Mars colonists.

MASS COUNTERS:

The only form of sensor that works while in F-Space is a mass counter. A mass counter detects gravity wells in the vicinity of the ship, enabling the ship's navigation computers avoid dropping the ship back into Realspace inside a planet or star.

Mass Counters are usually programmed to prevent a ship emerging from F-Space any closer than 100 planetary diameters from any stellar mass of moon size or greater.

MAUNDER MINOR:

Maunder Minor is the name given to the period from 2120 to 2146 when Earth's sun dimmed, repeating a behaviour first exhibited in the seventeenth century (called the Maunder Minimum), though this time to a much lesser extent.

During this 26 year period the economies of those nations of Earth who relied heavily on solar power found it hard to adjust, with agriculture and power-generation severely handicapped. The resultant social upheaval forced many to leave Earth and start new lives offworld, as colonist-workers in the fledgling Jovian and Saturn colonies.

It is named after the later solar astronomer E.W. Maunder who discovered the dearth of sunspots during that period by studying records from those years.

MEDICHINE:

Nanomedicine is the medical application of nanotechnology. Nanomedicine ranges from the medical applications of nanomaterials and biological devices, to nanoelectronic biosensors, and even possible future applications of molecular nanotechnology such as biological machines.

MEME:

A viral idea. A unit of information transmitted socially that self-replicates and mutates in a manner analagous to genes.

MESH, THE:

The mesh is a decentralized internet-of-things. Miniature computerized devices with advanced processing and storage capabilities are everywhere: your clothes, your weapons, your appliances, and throughout the structures, environment, and even air around you. This everyware is equipped with minute sensors for monitoring the environment and wireless radios, microwave links, or laser links for communicating. All of these devices network together. Each acts as an ad-hoc server and repeater, passing messages and data along from sender to recipient. Though larger backbone servers still exist, especially in larger habitats with heavy traffic, there is no longer a need for any kind of centralized infrastructure. If a node in the mesh network goes down or cuts off traffic, the data simply routes around it, finding a new path to its destination. This makes the mesh easily expandable for new colonies, resilient against harm in crisis scenarios, and resistant to censorship and other forms of centralized control.

MESH ID:

The unique signifier for every device on the mesh, used for communication and tracking.

MILITARY SCIENCES SPECIAL ACTIVITIES DIVISION:

A Black Ops unit attached to the Federal Government's shadowy Military Sciences Division.

They are essentially an elite paramilitary force operating outside of the main UEAF chain of command. Potential members are screened during their recruitment into the organisation from other UEAF units for possession of a certain psych profile. Moral flexibility would be the best way to describe it. Obviously anything the MiliSci Special Activities Division does is classified. They perform many morally questionable duties.

NANOTECHNOLOGY:

Nanotech enjoys limited use but has never made it into the big time as posited by many science fiction authors of the 20th century. Nanomachines only work well in sterile, controlled environments, as significant amounts of background radiation produce a rapid degradation in their ability. They also have very limited memory and can only set up for simple non-repetitive tasks. What they are good at is assembling simple components at the molecular level.

The fear that nanomachines would escape and run riot never materialised. In the big world outside of the specialist construction laboratories called NanoForges, they are just totally outclassed. Temperature fluctuations, everyday contaminants such as dust and various forms of radiation all contribute to their rapid demise. The microscopic molecular components of computers and AI's, and the vast carbon nanotubes of the space tethers could not be manufactured without nanobots.

NAVIGATION GUIDANCE SIGNAL:

More commonly referred to as a T Beam (traffic beam), the Navigation Guidance Signal is used on larger colonies and space ports to control the movement of space ships in tight confines. A Space port sends out a string of transmissions, like an invisible web, with each signal unique to a ship. The pilot/autopilot can use this signal to navigate through busy spaceship traffic in a port.

A fully automated version can be set up in large asteroid or debris fields to help ships navigate a safe path through.

Military space craft use a version for navigating through 'friendly' minefields set up around planets, or some bases. In this case millions of encrypted T Beams signals are projected out and the ships computer decodes the correct beam and follows it in.

NEEDLECAST:

Term used for FTL communications transmission across interplanetary and interstellar distances. See FTL Communications.

NUCLEAR FISSION:

A process where energy is created when a free neutron bombards the nuclei of plutonium or uranium, causing the atom to split, and send fragments bombarding into other nuclei, causing a chain reaction. See also: atom bomb, fission fuels. Humanity experimented with nuclear fission as a power source in the latter half of the 20th Century, but after several accidents and public safety concerns, it was abandoned.

NUCLEAR FUSION:

Discovered in 2031 by a consortium of scientists from across the globe, nuclear fusion is best defined as the combining of light nuclei into heavier ones, with the release of great amounts of energy as used in the hydrogen bomb. This energy is far greater than the binding energy liberated in the "splitting", or fission, of the heavy nuclei in a fission reactor.

Helium-3 is the fuel source that drives the fusion reactor powerplants of the 23rd century. It is a form of the element helium and is very rare on Earth. When combined in a fusion reactor with a form of hydrogen extracted from water called deuterium, 1 ton of Helium-3 can supply the electrical needs of a city of about 10 million people for centuries.

Large quantities of Helium-3 exist on Luna, Earth's moon.

OUTER COLONIES, THE:

Stretching from the outer edge of the Core System, to a distance of 20 light years from Earth, the Outer Colonies region of space is colonised by the most economically powerful member-states of the UEF: the United Americas; Chinese Consortium; European Union; Japanese Affiliates, and the Russian Federation, as well as several private organisations.

All colonial ventures in this region are financially backed by one or more megacorporations.

The Outer Colonies fall under the jurisdiction of the Interstellar Colonial Authority, a division of the UEF formed in 2140 after the Tau Ceti War.
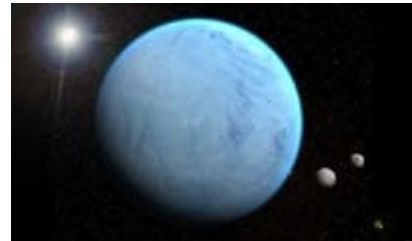
OUTER RIM TERRITORIES, THE:

Region of space stretching from the outer borders of the Outer Colonies to a distance of approximately 50 light years from Earth. The Outer Rim Territories, are colonised by the megacorporations without any direct UEF member state involvement. The furthest edges of colonised space is often referred to as 'The Frontier', and in many ways is like the old Wild West. It can be a dangerous, lawless place, as the only star systems with anything like a substantial UEF/ICA presence are those bordering the breakaway regions of space formed after the Colonial Wars.

PENAL COLONIES:

For those criminals with a knack for escaping from even the most secure prison facilities, and those individuals the government wants to be rid of permanently, a life-sentence to a penal colony is usually the most common solution. Penal colonies are typically Class 3 Colony worlds, requiring decades of terraforming work. A prisoner sentenced to such a place faces a bleak life of mining planetary resources or maintaining the terraforming machinery, under the watchful eyes of a small team of wardens. Revolt is discouraged by withholding of supplies.

Other common forms of punishment include:

■ Prison

■ Behavioural alteration

PENAL INVOLUNTARY SERVITUDE:

A form of involuntary servitude has existed since the Colonial Act of 2140 amended the Geneva Statute of 2084, allowing the Federal government the authority to sell the contracts of individual prisoners to private corporations. The prisoner

then becomes the property of the corporation, who has the right to set the prisoner to work, usually at those tasks deemed unpopular and dangerous by the corporation.

Penal Involuntary Servitude makes financial and economic sense for both the UEF government and those megacorporations involved in colony management: the UEF cannot afford to maintain and supply large numbers of prisons on every major colony world, and the megacorporations gain access to a large supply of cheap labour.

Penal Involuntary Servitude does sometimes have advantages. Criminals who manage to work off their sentence through this system usually receive help starting a new life in the colonies by their former keepers.

The prison slang for Penal Indentured Servitude is 'doing a piss', which comes from the initials PIS.

PSYCHIC OPERATIONS GROUP:

Branch of the UEAF recruited directly from the Metasensory Academy. Also referred to as PsiCorps. POG is mostly an organisational structure, as operatives are usually assigned to other line units as needed.

The Psychic Operations Group is headquartered at Fort Alexander, Hecates Tholus, Mars.

PUNISHMENT:

Punishments vary from incarceration in prison, being 'chipped' and placed under curfew at home, to exile to a penal colony. Although no death penalty exists, it is common knowledge that FLEA officers have a 'shoot to kill' policy with dangerous suspects.

Common forms of punishment include:

- Prison
- Penal Colonies
- Behavioural alteration

QUANTUM COMMUNICATIONS:

To accelerate an object beyond the speed of light is impossible (in the context of this entry, FTL refers to c, a constant equal to the speed of light in a vacuum, roughly 300,000 kilometres per second), but interplanetary and interstellar communications rely on the unusual properties associated with quantum entanglement. When the quantum properties of particles such as photons, become entangled, they behave like psychic twins. Even if they are separated by vast interplanetary or interstellar distances, a disturbance to one affects the other. If changes are made to one of the pair, they are reflected in the other. Scientists in the early 22nd century discovered that this effect still experiences a delay, as the spooky interaction between the particles ripples through space-time at a rate of 1 parsec per Earth Standard Day.

Information transmitted using a quantum communications array can travel at a maximum speed of 1 parsec per standard day (24 earth hours).

Since the mid 21st century, all interplanetary and interstellar vessels have been equipped with quantum communication arrays. All such communications (usually referred to as needlecasts, due to the shape of quantum communications antenna) include a location and time stamp, which allows a ships position to be calculated at broadcast time. This system is called UPS the Universal Positioning System. Within the core systems it can track a ships position down to a few hundred thousand kilometres.

REACTIONLESS DISPLACEMENT DRIVE:

Vacuum is known to contain enormous amounts of energy that might be tapped (zero point energy, or ZPE). Up until the end of the 21st century this was widely believed to impossible, but a physicist named Hugo Foscolo changed that. The Foscolo Discontinuity vastly expanded understanding of unified field theory and it slowly became apparent that there were loopholes that could be exploited.

The Reactionless Displacement Drive exploits one such loophole, manipulating certain nuclear structures which enables Zero Point Energy to be 'borrowed' for an extended period of time. The Zero Point Energy is used to generate an electro-magnetic energy flow. Electro-mechanical displacement of said flow produces a net unidirectional displacement without *local* reaction. The momentum of the mass of the spacecraft utilising such a propulsion method reacts with the surrounding vacuum, gradually returning the borrowed energy to the Zero Point Field.

Though the drive obviously relies upon a power source to manipulate the Zero Point Field, it is a purely electrical propulsion system requiring *no* reaction mass, i.e.: no propellant of any kind.

Zero Point Energy cannot be used as a normal energy source, as the energy always has to be "returned" to the vacuum for the process to work.

REALSPACE:

A term used by interstellar travellers when referring to the 'normal' space we exist in, to differentiate between it and the extra-dimensional region known as F-Space that connects the two mouths of a wormhole.

RED DRAGON:

An organised crime syndicate, with a background in both the Chinese Consortium and the Russian Republic, known to trade with the Eurasian Rimworlds Combine.

RELAY STATION:

Quantum communications are not without their limits. Information integrity begins to degrade over distances greater than approximately 10 light years. Beyond this distance, some as yet unidentified effect of quantum entanglement introduces information corruption. To avoid this, the Federal Communications Network utilises 'nodes' large relay stations that collect, store, filter/repair and forward communications on to the final destination. So a needlecast from Earth to the Outer Rim would 'hop' via several relay stations, each of which would re-compile the data and boost it onwards.

A relay station is an orbital affair, typically positioned at a planetary Lagrange point to allow a stable orbit. They are mostly automated, running Gamma level AI with a small caretaker crew. Star systems housing the most strategically important and heavily used relay stations always have a military presence to deter pirates and saboteurs from trying to destroy or hack the station. At colonies with heavily used relay stations the information is usually backed-up at a planetside location at regular intervals.

RELIGION:

As long as humanity needs answers to the unanswerable, there will be religion. All the major religions of the 21st century are still going strong, with a few notable additions. One of the fastest growing religions in the 23rd century is Chrislam – an amalgamation of Christianity and Islam that occurred during the Second Exodus (2166-96) from Earth. Chrislam is a very popular religion in the colonies, though it has made little headway on Earth.

Known religions and cults include:

- Chrislam
- Christianity
- Islam

SEX-SYNTHS:

With the advent of anatomically correct models, several wealthier brothels in the core worlds invested in androids. Though initially expensive, androids have a much lower overall upkeep than human prostitutes, making their long-term value higher.

This sparked some controversy as many government and religious authorities considered sexual activity with androids to be morally deplorable – unusual considering under the law, androids used in this fashion are no more than expensive and realistic sex-toys. Under this pressure, many of these early Sex-Synth brothels liquidated their android prostitutes.

No lasting legislation ever came into being, though to this day there is a social taboo associated with the practice of owning, or retaining the services of an android for sexual purposes. Regardless, the business can be lucrative – especially considering androids have no legal standing – and many brothels offer "Special Sex Toy Services" to discreet clients.

SKYCAR:

This is a catch-all name for the suborbitals which are capable of street driving, vertical lift-off, hovering and high-speed cruising. The skycar employs a dual-propulsion method, using a rechargable electric engine when on the ground, and up to four vectored thrust engines powered by a super-compact fusion reactor when engaged in atmospheric flight.

SOL DEFENCE FORCE:

The collective name for space vessels of the UEAF assigned to defend the Sol system against aggressors. The SDF are the 1st Fleet of the United Earth Federation Space Command.

SPACECORPS:

Branch of the UEAF that incorporates naval fleet units, marine corps and other associated ancillary organisations.

SPACE TETHER:

A Space Tether is a rigid structure running from the equator of a planet to a synchronous orbit and then on out to a counterweight. Space Tethers are a cheap way to move loads to and from orbit, but their construction is extremely expensive. It realises the goal of replacing rocket propulsion with the traversal of a fixed structure via a mechanism not unlike an elevator in order to move material into or beyond orbit.

Earth actually has not one but two functioning Space Tethers. The United American Space Tether is based on a mountain in equatorial Equador, while the Central African Space Tether has its base on a mountain in Western Uganda. Construction on the tethers was completed in the late 22nd century, and both have large transit centres, with maglev train stations, aerospace and suborbital landing zones and hotels. They have some Extrality priviledges, such as the availability of duty-free goods from the colonies, but are still subject to Earth law. Each base station has high security and a marine barracks close by.

The tethers themselves are constructed from carbon nanotubes embedded in foamed plasteel and carry twin magnetic induction tracks resembling vertical monorails. These run from the ground station to the orbital station. The journey from the surface up to to the orbital station takes approximately six hours.

Each tether has an orbital station, in a geosynchronous orbit 36,000km above Earth. These have extensive orbital facilities including large cargo docks where interplanetary freighters are loaded and unloaded, a transport terminus for the tether shuttle capsules, and hangar bays from where a frequent shuttle service runs to Unity Space Station and Luna. The stations also each have a small contingent of marines and private security force.

From the orbital stations the tethers then run up into space another 64,000km to a small asteroid. As the planet rotates, the inertia at the asteroid end of the tether counteracts gravity and keeps the cable taut via centrifugal force. Both asteroids are covered in communications relay equipment.

SUBORBITAL:

Generic term for the vast array of atmospheric flying vehicles designed to be used in a planet's gravity well, from the small civilian skycars up to the large passenger scramjets that hug low earth orbit during their intercontinental flights. While the larger freight transports and passenger suborbitals are capable of very high flight ceilings, civilian models usually have an absolute maximum cruise altitude of 5000m at most.

Suborbitals are expensive pieces of technology, especially the small skycars, and as such can only usually be afforded by the military, government agencies, and the high-ranking corporate elite. A suborbital pilot licence is required to operate one, and access to these licenses for civilians is notoriously difficult. Suborbitals have made the helicopter obsolete in the 23rd century.

SYNTHS:

Standard androids that are designed to look humanoid, though they are usually noticeably not human.

SYNTHOPHILIA:

A fetish for engaging in sexual congress exclusively with androids. Synthophilia was first classified in the late 22nd century as androids became more widespread.

T BEAM:

See Navigation Guidance Signal.

TERRAFORMING:

The lack of habitable worlds within a short distance of the Earth has encouraged the development of marginal worlds and the creation of small colonies by corporations.

Potential colony worlds can be colonised over a period of decades by reducing the unbreathable components of their atmospheres and increasing the levels of breathable gasses such as oxygen. Two techniques are used to do this. First, it is possible to establish ecological architectures which are usually specific mosses, grasses, and small flowering plants to convert certain gases in the atmosphere (mainly the carbon dioxide) into usable oxygen. The second technique is to supplement this long-term strategy with a number of atmosphere processing stations.

An atmosphere processor is a cone-shaped tower, about 1500 metres high. It is powered by a 1.0 Terawatt fusion reactor, and it draws into the planetary atmosphere through a series of louvers in the bases and sides. This atmosphere is then drawn up through a series of hot mass processors arranged in a ring around the fusion core. Each of the processors can draw into the atmosphere through a battery of turbines, which compresses the accelerates the gas. This is then passed through a high temperature electrical arc which heats the gases and ionizes it. The magnetic coils then heat the gas to near plasma temperatures in around 5,000 degrees Kelvin, and the molecules within the gases are dissociated into their component atoms. The hot streams of monatomic gas are then sorted by a series of magnetic fields into constituent elements. Some of these (such as carbon) can be drawn off as a waste by-product (such as graphite dust), while the remaining hydrogen, nitrogen, and oxygen atoms are expelled back into the atmosphere, where they can cool to form as hydrogen, nitrogen, and oxygen.

TRAFFIC CONTROL SYSTEM:

Also referred to as 'TCS' or 'Trafcom', this is a fully computerised traffic network linked to onboard computers inside the main drive systems of ground cars. It is often used in the larger cities and colonies to regulate, monitor and track the flow of traffic. On some colonies it is a legal necessity to use the TCS on the large slip roads and autobahns.

Vehicle autopilot systems are essentially slaved to the TCS mainframe and movement and speed is taken out of the control of the driver. Law enforcement can access the system to stop a vehicle, or pull one over if necessary. It is not uncommon during police/medical/fire emergencies for one lane to be cleared to give an emergency vehicle a clear path. Some criminals 'chisel' their vehicle to get around the system.

TRANSHUMANISM:

Transhumanism is a term used synonymously to mean "human enhancement." It is an international cultural and intellectual movement that endorses the use of science and technology to enhance the human condition, both mentally and physically. In support of this, transhumanism also embraces using emerging technologies to eliminate the undesirable elements of the human condition such as aging, disabilities, diseases, and involuntary death. Many transhumanists believe these technologies will be arriving in our near future at an exponentially accelerated pace and work to promote universal access to and democratic control. In the long scheme of things, transhumanism can also be considered the transitional period between the current human condition and an entity so far advanced in capabilities (both physical and mental faculties) as to merit the label "posthuman."

UEF:

See United Earth Federation.

UNITED EARTH ARMED FORCES:

The military arm of the United Earth Federation, tasked with defending Earth and the Federal Colonies against any and all outside aggressors.

UNITED EARTH FEDERATION:

Name for the global consortium of nations that has governed Earth since 2085. See the site pages on Federal Government for more information.

The United Earth Federation has direct control over the Core Systems, and controls the Outer Colonies via the ICA.

UNITY SPACE STATION:

Built on and in an asteroid that was towed from the Asteroid Belt to L1 Earth orbit in the early 22nd century, Unity Space Station is over 5km across at it's widest point.

Now, all ships arriving at Earth must pass through the Orbital Customs & Excise location at Unity Space Station Spaceport. Here they must strip and be decontaminated (same goes for belongings). Transportation of any undeclared organic substance that is alien in origin is illegal. All such items must pass through ITC Quarantine to make sure it is safe and will not contaminate Earth's biosphere.

UNUNPENTIUM:

Ununpentium, or element 115, is the primary fuel used in fusion reactors powering F-Drives. While more common elements such as deuterium or helium-3 are used in normal fusion reactors, the immense amount of energy required to create the Foscolo Discontinuity makes it necessary to use a special kind of fuel source. This is where Ununpentium comes in.

Ununpentium is very expensive to manufacture artificially, but it occurs in a natural, stable state in the heart of stars, and is thrown out as cosmic debris.

A spacecraft using a Ununpentium powered F-Drive can make a wormhole 'jump' up to a distance of 6 parsecs, before the reactor needs refuelling.

UPP:

see Union of Progressive Peoples.

UNION OF PROGRESSIVE PEOPLES:

The Union of Progressive Peoples was a wide-reaching and powerful socialist human federation. It was formed in 2208-2209 by a coalition of colonies led by China and Russia. Notably, the Union of Progressive Peoples was the only major federation of its era not to be influenced by corporate concerns, a fact that often put it at odds with its rivals the United Americas.

The UPP was a powerful socialist block that controlled a vast, albeit resource-poor sector of space, with a minimal presence on the Core systems to major presence in the Outer Rim Territories and the Frontier. Virtually since its formation, the UPP was locked in a state of cold war with the United Americas, and although behind its rivals in the space and arms race, they still maintained a formidable interstellar fighting force.

VIKING CITY, MARS:

Built on the site of the Viking II lander site at the northernmost edge of Utopia Planitia, Viking City is home to over 10 million colonists, and is a vast urban sprawl of buildings that all follow the basic pyramidal design common on Mars. A lot of the older buildings at the site can be completely pressurised, a reminder of the early years of the colony when the atmosphere of Mars was still far from breathable. Mars only has one third the gravity of Earth. To compensate for this, all large colony buildings are equipped with Field Generators (the same kind that large interstellar craft use) that create a standard 0.8g artificial gravity field.

Being the oldest colonial settlement on the planet and location of all major government and corporate buildings, Viking City is nominally accepted as being capital city of the Mars Colony. Viking Spaceport is the largest spaceport on Mars, and has an accompanying orbital facility for the large interstellar craft.

WELLS:

Home to over 7 million, Wells is the third largest city on Mars, after Viking City and Anchorpoint.

It is located in the Argyre Planitia basin in the southern highlands of Mars. The Argyre basin is approximately 1800km wide and drops 5.2km below the surrounding plains. The crater was formed by a giant impact during the Heavy Bombardment period of the early Solar System. This means the impact that created Argyre Planitia is thought to have occurred 3.9 billion years ago.

After extensive terraforming, the basin of the Argyre Planitia is now green with vegetation, fed by water flowing from the Borealis Sea and the Valles Marineris. Apart from Viking City and Anchorpoint, Wells has the only large spaceport on Mars.

WEST AFRICAN PROTECTORATE:

A loosely-affiliated group of African nations formed in the early 22nd century, the future initially looked bright for the West African Protectorate. Then in 2120 Maunder Minor hit, which brought about the economic collapse of those equatorial powers who relied heavily on solar power, including the nations of the Protectorate. The resultant social upheaval forces many to look to find work offworld, as colonist-workers in the fledgling Jovian and Saturn colonies. The nations they left behind quickly dissolved into civil war.

Over the next century and a half, the West African Protectorate would suffer a series of bloody civil wars, which effectively caused the nations involved to become poorer than they were before Maunder Minor.

The last war ended in 2256, when the use of battlefield tactical nuclear weapons was the last straw for the UEF, who immediately mobilised and sent in an intervention force to stop the fighting. A peacekeeping force supplied by the African Defence Force (the army of the Central African Bloc) has so far succeeded in preventing another war flaring up, while rebuilding efforts continue apace.

VOIGT-KAMPFF MACHINE:

A very advanced form of lie detector that measures contractions of the iris muscle and the presence of invisible airborne particles emitted from the body. The bellows were designed for the latter function and give the machine the menacing air of a sinister insect. The VK is used primarily by Blade Runners to determine if a suspect is truly human by measuring the degree of his empathic response through carefully worded questions and statements.

WORM:

See Earthworm.

ZURICH DATA CENTRE, THE:

One of the most secure places on Earth. This is the central data repository for information about citizens of the Federation. Zurich-1, an advanced AI mainframe 1.5km beneath the surface manages this vast library of information, which has details on credit transactions, health, employment history, criminal records, shopping habits... in fact any action that can be recorded digitally about an individual's life is stored here. The central database servers are not directly connected to the Federal Network, preventing any unauthorised access attempts.

The Last Log
A short, introductory adventure to New Horizon

by Jon Sutherland, Steve Williams & Tim Hall

additional material by William H Keith Jr

> *"I dunno what the hell's in there, but it's weird and pissed off, whatever it is. I'm going to hide this tape when I'm finished. If none of us make it, at least there will be some kind of record. The storm's been hitting us hard now for 48 hours. We still have nothing to go on. One other thing: I think it rips through your clothes when it takes you over. There's nothing more I can do, just wait."*
>
> *Captain John Spalding – Proxima Inc. Survey team, base #1*

This scenario could be used either as an introduction to New Horizon for novice players, or as a basis of a new series for experienced ones. The Game Master should read the entire scenario thoroughly, before starting. The players are the crew on a Proxima Inc (an interstellar mining company) freighter (the SS Thatcher), ordered to detour to investigate a nearby planet where a Proxima survey team have lost contact for several months. They travel down to the planet's surface in the Ship's Boat, which also carries an ATP (see Technology).

History

In 2164, ESAS Vancouver surveyed the class-K star listed in the catalogues as DM+46 1797. The sun was named Queen Alice's Star, and the second planet, lying within the habitable zone at close to the optimum distance for stellar luminosity, was dubbed Beowulf. The first British colony was opened to emigration from Earth in 2178, and within a century, Beowulf was the principal offworld colony of the remanent British Empire. The settlement today numbers over 26 million, mostly along the southeastern coast of the continent of Alicia. The capital is Heorot; the largest city is Aliceport.

The French established a presence on Beowulf in 2196, on the continent they called Europe Neuve. Gloser to the equator, and with less fertile soil than their English neighbors, the French colony now numbers about 15 million, with the capital at Devereaux.

Long-extant tensions between the two human colonies complicated by several radical factions-have re-emerged and reached a critical level. Disputes between various pro-English and pro-French groups have erupted into open-if low-level warfare, and there are reports of mercenary armies stalking one another among the islands of the Rhadamanthine Sea. Several attempts at negotiation have failed.

Official statements recently released from both Devereaux and Heorot, however, have announced that the situation is entirely under control. Future talks between French and British leaders are expected to resolve the question once and for all.

QUEEN ALICE'S STAR: SYSTEM DATA

Main Star	Queen Alice's Star
Type	K4v
Age	4.6 billion years
Diameter	0.63
Mass	0.62
Luminosity	0.17
Planets in system	8
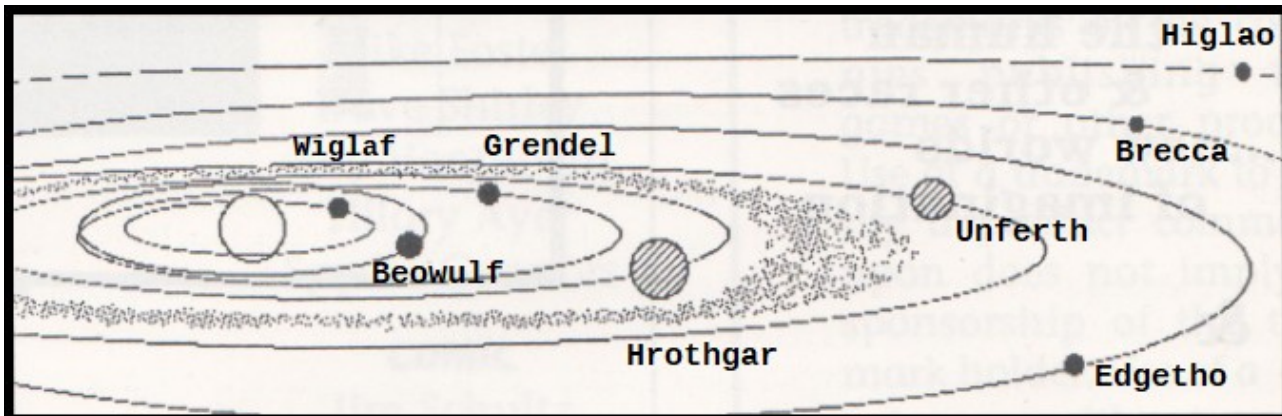
PLANETARY DATA: Beowulf, orbit 2

Orbit Radius	0.42 au
Type	Terran
Density	0.9
Diameter	13969 km
Gravity	1.045 G

ATMOSPHERICS / ORBIT

Atmosphere	Standard
Pressure	1.021
Composition	Oxygen/Nitrogen mix
Orbital period	126.26 days
Rotational period	21d 19h 12m 15s

WATER

Water	Oceans
% water	78
% ice	10
% clouds	60

Description

Queen Alice's Star lies slightly less than twenty light years from Sol. Beowulf, the second planet in the system, is the system's sole habit-able world, with a human population in excess of 41 million.

Though classified as earth-like, the climate is, in general, harsher than Earth's. Beowulf receives almost exactly the same luminosity from its primary as Earth does from Sol, and the planet's low axial tilt, low orbital eccentricity, and short year combine to result in little seasonal variation of climate and temperature. However, the slow diurnal rotation allows for a day-to-night temperature range greater than might otherwise be expected. Rain and snowfall are heavy, especially at night. The slow rotation has a significant beneficial aspect: weak Coriolis forces mean the planet is not plagued by the severe hurricanes or typhoons (Coriolis storms) which afflict other watery, earth-like worlds. The monsoons are 80 to 100 hour periods of exceptionally heavy rain occurring just before local dawn and just after sunset during each planetary day.

The planet's surface is rugged, with both major continents dominated by high mountain ranges, many with permanent snow caps and large glaciers even in equatorial regions. The polar areas, occupying open ocean at both the north and south poles, are occupied by year-round ice caps or pack ice covering about 10% of the total ocean area.

Volcanism is extensive. The tidal effects resulting from the world's close proximity to its star, the orbits of its two satellites, and the periodic approach of the third planet in the system, Grendel, all combine to produce extreme tidal stresses, with resultant seismic disturbances and volcanism. Most mountain ranges on the planet still include a number of active volcanoes, and eruptions are frequent, both in the mountains, and among the numerous chains of volcanic islands.

Beowulf possesses two moons. Nagling, the outer moon, has an anomalously high density due to the higher concentration of metals and is the location of several British mining outposts and facilities. The inner moon, Hrunting, has a diameter of 5580 kilometers and a thin (.356 atm.) and highly corrosive atmosphere dominated by SO_2 and H_2SO_4. The source of these sulfur compounds is the numerous sulphur volcanoes on the surface, generated by intense internal heating due to the tidal effects of Beowulf. During each orbit, Hrunting flexes under the influence of tidal stresses, keeping its core constantly molten and the surface volcanoes active. With internal stresses generating extensive volcanism across the moon's surface, Hrunting shares many of the characteristics of Io, the innermost major moon of Jupiter. Like Io, Hrunting can be described as a moon which is continually turning itself inside out as flows of liquid sulfur from the interior submerge old surface features and literally remake the surface.
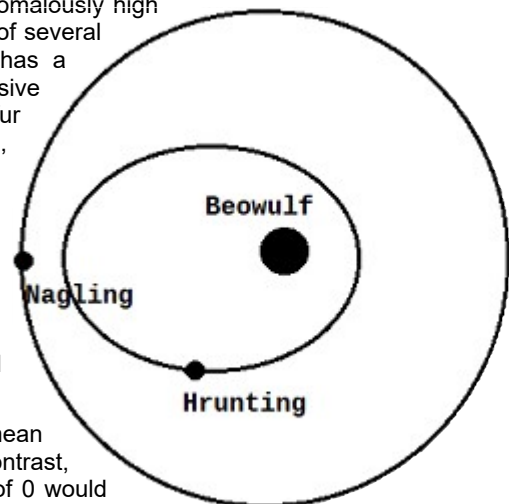
Hrunting is worth special note in its tidal effects on Beowulf. With a mean orbital radius of 279,426 km, it has an orbital eccentricity of .22. (By contrast, Earth's moon has an orbital eccentricity of only .05, where a value of 0 would indicate a perfectly circular orbit.) This means that during its 15.76 day period, its distance from Beowulf ranges from a periapsis of 216,542 km. (15.5 planetary diameters) to an apoapsis of 342,400 km. (25 diameters). The volcanism on both Hrunting and Beowulf is almost entirely due to this whiplash dance of moon and planet around a common center of gravity, which actually intensifies the tidal effects on both bodies.

By chance, 25 planetary diameters marks the distance fora planetary synchronous orbit of 21.8 days; a precession lock between satellite and planet insures that Hrunting always makes its closest passage (periapsis) over the same area of Beowulf... the shallow, archipelago-studded Rhadamanthine Sea between the continents of Alicia and Europe Neuve. This has a significant effect on marine tides in this region, as described below.

High Tide on Beowulf

Marine tides are a complex phenomenon on Beowulf. High tide, it should be remembered, occurs not only on the area of the planet directly beneath the body causing the tide, but on the opposite side of the planet as well. On Earth, the high tide to high tide cycle lasts twelve hours-twice each day-as the Earth revolves beneath the Moon.

On Beowulf, there are four major factors in the interplay of gravitational forces on the planet: the inner moon, Hrunting, with its eccentric orbit; the outer moon, Nagling; the sun; and the third planet in the system, Grendel. Depending on the relative positions of these various elements, tides may be higher or lower as they reinforce or counteract one another.

Hrunting is the most powerful tidal influence on Beowulf, raising tides of from 3 to 10 meters along the Rhadamanthine Sea coasts during its closest passage once every 8 standard (Earth) days.

Nagling has a regular orbit, and a combination of mass and distance which raises tides similar to those experienced by Earth. Beowulf's slow rotation makes this tide cycle a long one; the planet rotates almost exactly twice in one Nagling revolution of 44.14 days; high tides raised by Nagling occur once every 11 Earth days. Sword-tides occur when Nagling and Hrunting (named for swords associated with the Beowulf legend) reinforce one another. This occurs somewhere on the planet once every 88 Earth days, but over a specific point-e.g., the Rhadamanthine Sea and the inhabited coastlands-only once every 530 Earth days, or once every 1.44 years.

Queen Alice's Star is only slightly more than half as massive as Sol, but it is also less than half as far away from Beowulf as Sol is from Earth. Star-tides are raised twice each Beowulfian day, about eleven Earth days apart. It should be noted that these two 11-day cycles are almost in step, but not quite. The period from Star-tide to Star-tide is 3 hours, 24 minutes shorter than the period between Nagling tides. The two sets of tides reinforce each other only once every 22 days, when Nagling, Beowulf, and Queen Alice's Star are aligned.

Finally, the third planet out from the sun, Grendel, makes its presence felt less frequently. With an orbital period of 1.25 standard years and a highly eccentric orbit, it crosses Beowulf's orbit during its closest approach to Queen Alice's Star

once every 3.6 Beowulfian years. With the plane of its orbit inclined to the orbital plane of Beowulf, there is never any danger of an actual collision, but at times, Grendel can pass within 10 million kilometers of Beowulf, close enough to show a disk and raise tides of as much as ten meters above normal over a period of four or five weeks. Since more often than not, Beowulf is in a different part of its own orbit each time Grendel passes, an approach between Beowulf and Grendel close enough to raise significant tides occurs only once in every 21.6 Beowulfian years, or once every 7.46 Earth years. Grendel tides-those times when Grendel passes within 10 to 20 million kilometers of Beowulf, are rarer, occurring once every 259 Beowulfian years (89.5 Earth years).

The next passage by Grendel will occur in 2305, and the alignment of sun and moons-Sword tide will occur in the Rhadamanthine Sea during the height of the passage-will be much less favorable. It must be emphasized that the danger from high tides on Beowulf is not due to the violence of tidal flow as it is on some other worlds, such as Aurore (Eta Bootis IIc). The onset of high tide is actually quite gentle, due to the slow revolution of Beowulf through the tidal "bulge" of water raised by sun, moons, and Grendel. However, high tide submerges vast areas along the coasts, called "tide lands," for periods of time lasting up to one week.

The View From Beowulf

The inner moon, Hrunting, provides a spectacular sight in Beowulf's night sky, especially during close passage and the time of the Sword-tides. During its closest approach to Beowulf, Hrunting subtends an angle of 1.4 degrees, 2.8 times larger than Earth's moon appears from Earth. Even at its farthest distance, Hrunting is nearly 1.8 times larger than Earth's moon.

In appearance, Hrunting shares many characteristics of Io, Jupiter's innermost major satellite, which was once described as looking like "a diseased pizza." Sulfur compounds on its surface give the moon a mottled appearance of blended yellow, red and orange colors, with volcanic features appearing as black dots or splotches. Features normally associated with planetary satellites-craters, mountains, and maria-are absent. Though Hrunting is tidally locked to Beowulf and always presents the same face (as is the case with Earth's moon), the patterns of color can be seen to change from month to month as the surface literally changes itself. The reds and oranges are enhanced by the orange light reflected from Queen Alice's Star, and Hrunting is sometimes called "Bloodmoon" by the locals. Lightning, caused by the discharge of massive static charges which build up as sulfur particles gather in the atmosphere, create intense blue or white flashes which can be seen from Beowulf, especially at night. By day, Hrunting is a spectacular feature of the sky, but the colors tend to be somewhat pale, washed out by the light from Queen Alice's Star.

The outer satellite, Nagling, looks as large from Beowulf's surface as Earth's moon appears from Earth, subtending an angle of about half a degree. Its surface is less subject to seismic activity, though it, too, has a thin atmosphere, this one composed of inert gases. It has a more traditional appearance of dark marias and cratered terrain, though it still has a distinctly orange cast due to the color of the light reflected from Queen Alice's Star. A clear night sky with both Nagling and Hrunting in the sky at the same time can be dramatic and moving.

Queen Alice's Star appears 1.5 times larger than Sol does from Earth, though the overall brightness is about the same. The color is distinctly orange, which lends a subtle redness to the landscape. Vegetation appears darker, both from the difference in light and due to the fact that the local analogue of chlorophyll is a dark bluegreen, the better to capture the orange light for utilization by the plant. The sky, by contrast, has a distinctly greenish tint toit, and the sea appears to be various hues of blue-green and green, touched with orange gold.

Grendel, the world which periodically passes inside Beowulf's orbit, is usually a bright star of about magnitude -1 in Beowulf's night sky. During close passage, it is much brighter, with a magnitude of -6.5 or greater, over five times brighter than Venus appears at its brightest from Earth. When it lies within 20 million kilometers of Beowulf, it shows a tiny but clearly visible disk; it is expected that the Grendel passage of 2305 will afford Beowulfian colonists a superb if unsettling view of this rogue world, even to the naked eye.

Overall, the landscape on Beowulf is wilder, more rugged, and more forbidding than a typical wilderness landscape on Earth. Mountains, raw and young for the most part, dominate every continent except for the vast, mountain-locked desert plateau in northwestern Alice known as The Burning. Even near the equator, the highest mountains are ice-capped and dominated by glaciers.

The Beowulf Environment

The single most remarkable factor of Beowulf's environment is, of course, its long day. Slowed by Queen Alice's Star and-most especially-by eccentric Hrunting, Beowulf turns once in 21 days, 19 hours. Daylight, then, lasts for nearly eleven days, followed by almost eleven days of darkness. Heavy rainfall tends to occur, particularly in equatorial latitudes, during the 80 to 100 hours immediately after sunset. During a similar period just before sunrise, snow is common, though it melts quickly with the rising temperatures of the new day. Beowulf maybe the one Earth-like world in known space where the inhabitants routinely endure snow, rain, freezing temperatures and extreme heat, all in the course of a single dawn-to-dawn diurnal cycle.

Though Beowulf lies close to the optimum distance for a world within the Queen Alice's Star biosphere, the long periods of alternating night and daylight make for a greater range in temperature from day to day. In general, daytime temperatures in the latitudes of the British colony start at around 15°C. at dawn, and climb slowly through the next 16 days until they peak at nearly 40°C. Temperatures then decline as the sun slowly descends in the western sky. At night, temperatures can fall well below zero even in the tropics, and the cold is quite severe at higher latitudes.

Few terrestrial plant forms can adapt to Beowulf's extremes of daily climate, light and dark. A few hardy forms-mosses and lichens, Siberian conifers, and other shave made the transition. but the human population depends on local varieties of plant life to survive. Fortunately, there are no major biochemical problems; humans can eat most Beowulfian plants without ill effect, though there are some notable exceptions.

Beowulfian animal life, too, can be eaten by humans without harmful effects. And in a few cases, local fauna has discovered the same to be true about humans.

The Human Presence on Beowulf

Alicia

Name: Alicia; Political affiliation: European Federation; Date established: 2178; Population: 26 million; Capital: Heorot; Largest City: Aliceport; Surface/Orbit Interface: Scramjet; Orbital facilities: Terminal, Defense, Factories, Solar power satellites; Bases: Military and scientific; Economic base: Heavy Industry, Mining, Farming, Pelagriculture.

Europe Neuve

Name: Europe Neuve; Political affiliation: European Federation; Date established: 2196; Population: 15 million; Capital and largest city: Devereaux; Surface/Orbit Interface: Scram jet; Orbital facilities: Terminal, Defense, Solar power satellite; Bases: Scientific; Economic base: Farming, Pelagriculture.

Aliceport

This city, the largest on Beowulf, was, until 2279, also the capital of the British colony. It is a remarkable feat of human engineering, constructed on terraced steps cut into the face of Mount Alice. Aliceport's dockyard facilities lie in a shallow basin which has been walled off from the sea. A complex system of locks and gates maintains the water level inside the basin regardless of the level of the tides outside. Aliceport is harbor to a vast fleet of commercial shipping which plies the sea lanes along the Alician coast, throughout the Rhadamanthine Islands, and to the shores of Europe Neuve beyond. The huge harvester ships are too large to be worked through the locks into harbor, but they can generally be seen at anchor in the waters beyond the outer seawall, serviced by smaller vessels from the port.

A large spaceport occupies the broad, flat plateau above the city proper. Facilities include a two-kilometer long orbital catapult complex, as well as a small fleet of scramjet ground-to-orbit shuttles for passengers and cargo.
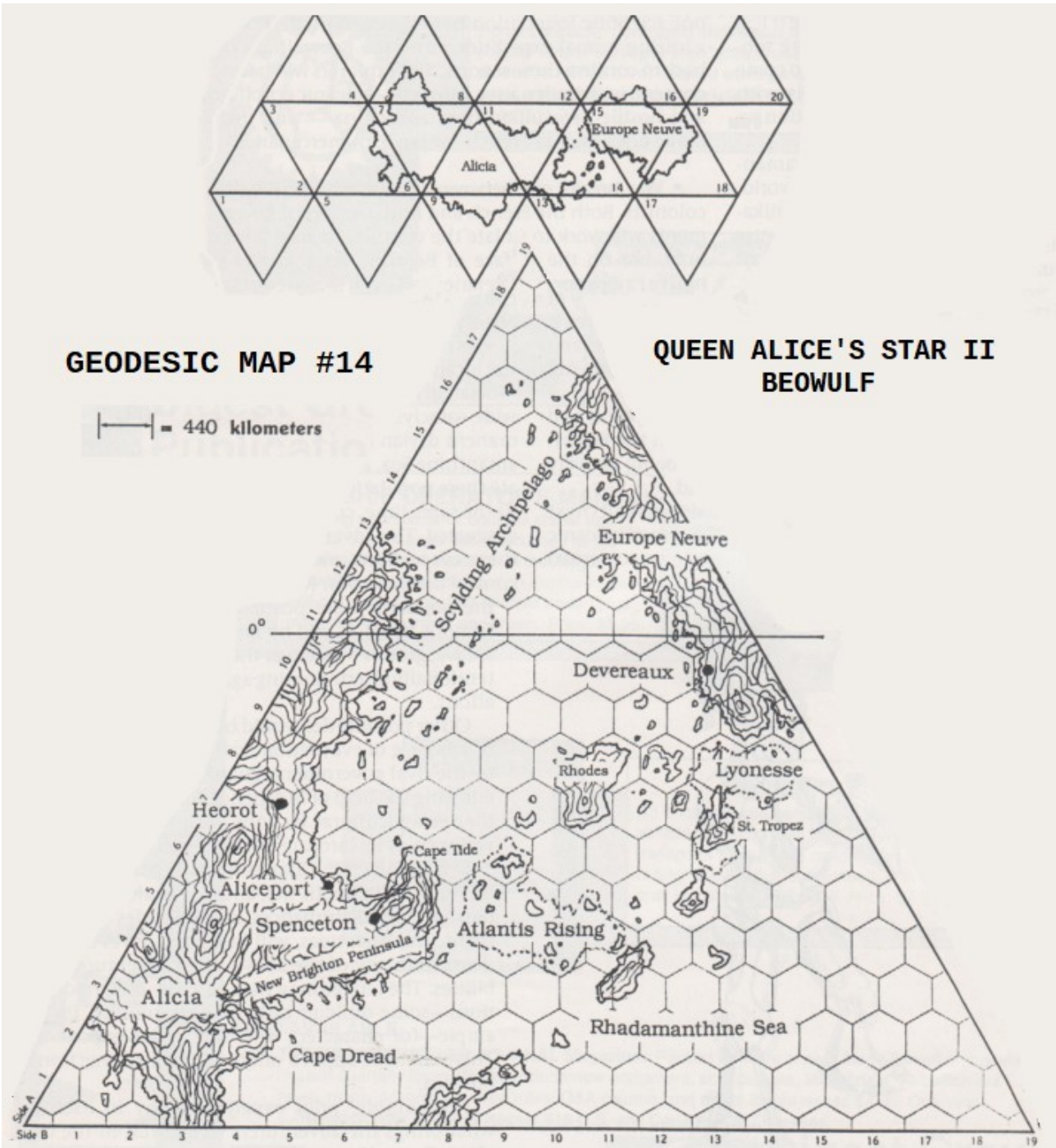
Atlantis Rising

One of several shallow areas exposed by falling sea levels during periodic low tide, the Atlantean Rise popularly referred to by the more dramatic name 'Atlantis Rising' surfaces roughly (very roughly, since the schedule is dictated by the variable relative positions of sun, two moons, and Grendel) every twenty to twenty-four standard days, remains above water for six to eight days, then submerges for another twenty to twenty-four days. During periods of exceptionally low tide -approximately once every ninety days the Rising may remain above water for as long as two weeks. The Rising is of particular interest to local scientists who are studying local flora and fauna adapted to Beowulf's tide cycles, and has attracted the attention of offworld xenobiologists. It, like other similar areas, is also the location of vast beds of sunweed and other marine vegetation of interest to the great harvester corporations of Beowulf. Sunweed beds are located and marked by corporate scouts when the plant mass is above water, then harvested a few days after the plant mass sinks below the surface.

A similar feature called Lyonesse exists off the coast of Europe Neuve. Access, however, is limited to French craft, and the region is carefully guarded by armed patrol craft.

Seacities

While Aliceport and some smaller towns are constructed well above the high tide line, with access to the sea through seawall basins and locks, many smaller settlements have taken a simpler approach, particularly on islands which may be 90% submerged during periods of high tide. Nearly ail island settlements are completely encased in bubble domes and include stores which allow them to remain more or less self-sufficient throughout the time when they are submerged. Airlocks allow personal and cargo subs to come and go, and tethered floating platforms, usually with landing facilities for aircraft, mark the city's location on the surface.

NOTE: Beowulf's shallow, island-dotted Rhadamanthine Sea is a popular sight for visitors to the world. Newcomers should be aware, however, that certain alkaline mineral salts dissolved in Beowulfian seawater causes severe dermatitis and skin eruptions in perhaps 30% of all humans exposed to it.


GEODESIC MAP #14

QUEEN ALICE'S STAR II
BEOWULF

| ⊢——⊣ = 440 kilometers

Time Scale

2164	Discovery of the planet Beowulf.
2227	Basic geographical tests carried out. High probability of Gravidium and other deposits suggested.
2230	Interest shown by Proxima Inc and Enertek Investments for mining of Beowulf.
2235	Homeworld rebellion. Enertek Investments fund revolutionary organisation, Proxima backs government.
2237	Rebellion crushed, Enertek Investments assets seized and Proxima rewarded with mining concerns.
2240	Mining interests of Beowulf rekindled after deposits of Gravidium dwindle from existing mines.
2241	Advanced survey team lands and establishes initial mining base on Beowulf. Planet is uninhabited although traces of extinct civilization discovered. Planet considered viable mining proposition. Authorities not alerted from Aliens ruins.
2243	12 machine manned sites established. Base one is manned by a small coordinating team led by Cpt Spalding.
2244	After many promising reports a period of 7 months pass without any word from the survey team.
2244	Passing Proxima freighter ordered to detour to send an investigative team to establish reasons for the communications breakdown...

Camp Overview

Landing close to the camp, the party's first impression will be that it appears deserted and overgrown, with no sign of life. The campsite covers an area below a rocky escarpment flanked to one side by a ships boat and to the other by a ruined structure (see photo). Various chairs, tables and survey equipment lay in ordered piles, three tents and a laboratory pod are the main features. The whole area is shrouded in an eerie silence. The air is still and the site is tinged by green lichen which seems to be growing on all exposed surfaces. As the dust whipped up by the ship settles, the onboard computer registers a breathable if somewhat rarefied atmosphere with no significant levels of toxicity.
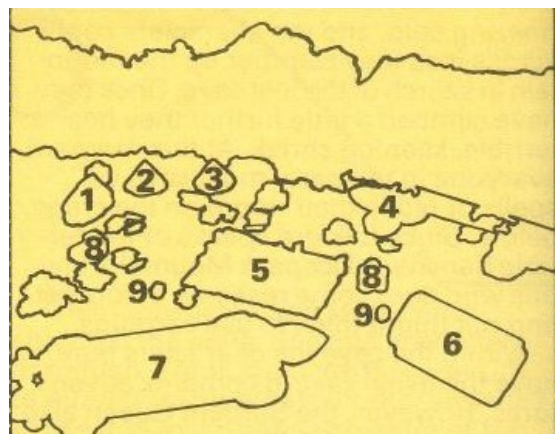
1. Large Tent

The contents are seemingly untouched a few empty food canisters are scattered about the floor. Cooking equipment is set up to the rear with rough communal seating around a collapsible table. Just inside the tent flaps is a desk and chair from the ship's pod on which is strewn various charts, logs, text books, and the medical aid kit.

Information Points:

A) Food canisters. They appear to have been opened recently. Contents analysis will reveal that decomposition is only about 3 weeks old.

B) Medical Kit. The box is open and the contents are in disorder; those with knowledge of first aid will note that the sedative and painkilling drugs are missing as is the drip feed and stand.

C) The Duty Rosta. This is on the table just inside the entrance and details group activities, shifts and works schedules. The Team personnel are:

- Hannah Ross, Technical Assistant
- Steve Cohen, Technical Assistant Frank
- Brand-Security, Supervisor
- Jem Briggs, Security Officer
- Marsh Gascoigne, Pilot and Engineer

Briggs' name has been omitted from the last three day entries, and that Brand is noted as sick.

2. Tent

Tent flaps are wide open revealing rough living quarters. Clothes, beer cans and personal effects litter the floor of the tent. There are two camp beds, on one of which lies the wasted body of Frank Brand. An intravenous drip hangs from his right forearm and dangles down to the ground. A broken plasma bottle and stand lie close to the bed. (SAN check, 1d6 loss if failed.)

Information Points:

A) The body of Brand is strapped to the bed, both hands and legs are bound to the bed frame.

B) The initial cause of death appears to have been blood loss. A closer examination will reveal a large gouge along the right side of the torso with considerable lacerations. The bed has few traces of blood. Neither has the ground.

C) Chemical analysis will show that the contents of the bottle was a strong sedative (from the medical kit).

D) Tags on the clothing show that this tent housed both Brand and Briggs.
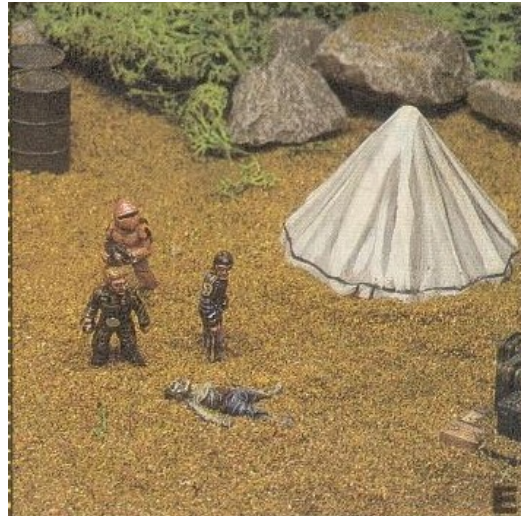
3. Tent

Part of the rigid steel frame is buckled. Slumped against a support bar is a body with its head resting on its knees (SAN check, 1d6 SAN loss if failed). Contents are two portable beds with personal clothing and effects, there are maps, technical equipment, journals and texts of a mining nature.

Information Points:

A) The body is Steve Cohen (name tag on his jacket).

B) Cohens' jaw bone and shoulder blades are shattered, fractured and displaced. The neck is broken and the clothing is badly torn.

C) Some of the vertebrae of the back are shattered showing that the body was thrown against the metal support pillar, with considerable force.

D) A pool of dried blood is around the corpse, and the fabric of the tent around the entrance is splattered with blood.

E) The tent appears to have been inhabited by the technicians Cohen and Ross.

4. The Ship's Boat

The ship is of an identical design to the landing partys'. Parked precariously all but 10 meters from the cliff face, an external examination of the ship will reveal that the front right hand landing foot is badly buckled. Vegetation and dirt partially cover the ships surface.

Information Points:

A) A successful listening roll will detect that faint humming noises emanate from the ship, suggesting that it is still powered.

B) The rear cabin door is shut tight and opens only if the emergency release is activated.

C) Once opened, the rear cabin area is exposed revealing a huddled body (SAN check, 1d61 loss if failed).

D) Closer examination shows that it is the body of Hannah Ross, one of the teams technical assistants.

E) Clutched in the left hand of the corpse is a bottle of capsules. The body is unmarked and the cause of death appears to have been a massive overdose of painkillers.

F) To characters with Pilot abilities it will be obvious that an abortive launch attempt had been made.

G) Primary ignition switches are on and control systems disarray. Warning lights indicate landing gear malfunction.

H) A primitive radar sweep system has been hastily installed and is operational and registering the presence of both landing party and their ship. The hailing tannoy is turned on (much to the alarm of those outside!).

I) The armory locker has been unsuccessfully forced, upon opening it (can be forced easily by two of the party) one rifle niche is empty.

Overview: The ship is fully operational requiring at least two days work with welding equipment to realign the buckled foot.
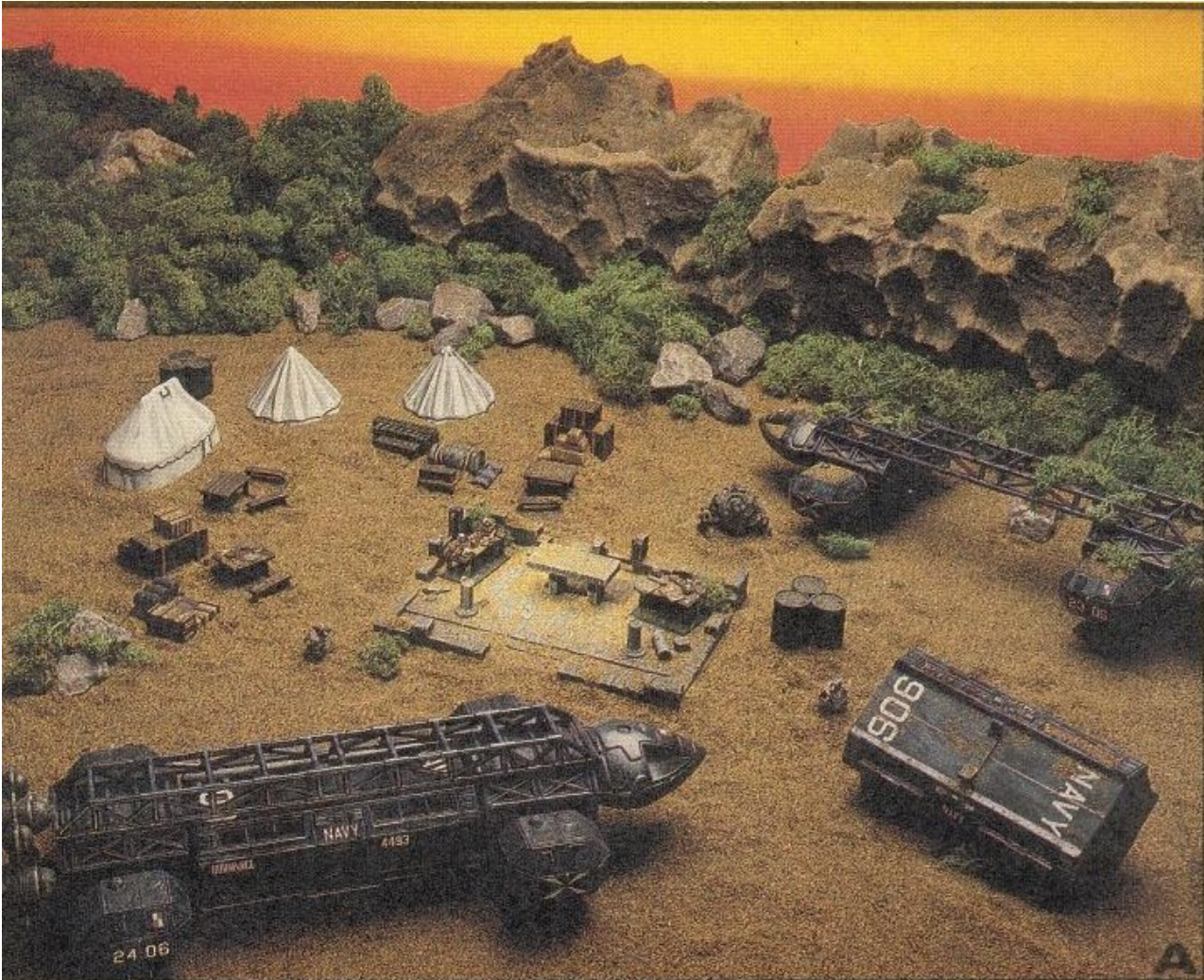
5. Temple

Constructed of rough hewed stone and with paved flooring, its low walls have been reduced through the ages. An altar-like structure stands at its center made of a dense smooth material, cold to the touch. Two tables have been erected on the site, various artifacts lie upon them, some in plastic bags. Hand tools are strewn around.

Information Points:

A) A successful spot throw at -20% around the temple will detect a circle of regularly placed black stones. As characters enter the area a breeze (chill) will pick up across the camp site.

B) Artifacts scattered on the table consist of numerous utensils, containers and bone carvings. (The players should be discouraged from too deep an analysis of these artifacts merely being remnants of an ancient and unknown civilization.) The books on the table are amateurish drawings of both temple and artifacts. There is a black stone placed on the table which is identical to those surrounding the temple area they are distinctly alien and of a completely different structure to the temple's material. Closer examination will reveal that the runes carved on the black stone are both crude and recent (a few months old).
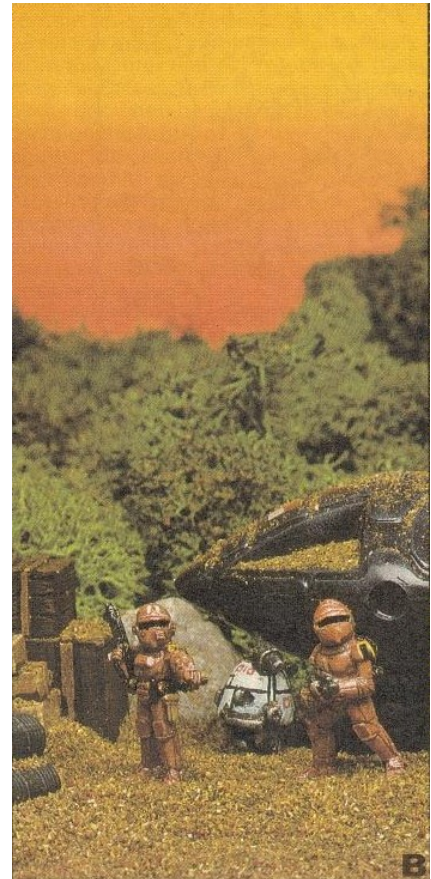
C) The altar is about chest height from the floor; it is approximately 2.5 meter long, with grooves running down its edges some 5 cm deep; a collection channel is cut into one corner. There is little vegetation visible around the site.

D) The whole structure is of a solid and sophisticated construction which has borne well the ravages of time.

6. Ship's Pod

Standard Proxima laboratory pod. It is awkwardly balanced upon a rocky outcrop. Despite the pod's legendary sturdiness its bottom right hand corner has been crumpled inwards. Only one of its four doors appears open and it is only accessible by climbing the rocks and lowering oneself down into the entrance.

Information Points:

A) Deep impressions in the soft soil surround the pod. They are angular in appearance, starting some 20 meters from the pod's present position.

B) The three closed doors emergency access buttons fail to respond emitting only a hiss, indicating that they are functional.

C) The outer surface of the pod is scarred with score marks. Gouges around both door and underside are of an irregular and indefinable nature. There are traces of carbon in small round indentations peppering the pod's surface.

D) Closer examination of the doors will reveal the fact that they have been welded shut, from the inside...

E) On looking through the pod entrance one can dimly see that the jumbled contents of the lab lie to the far end of the pod.

F) When illuminated, players will see a mass of smashed furniture and equipment; scattered papers and clothing partially cover two legs which protrude from the pile.

G) Exposing the body will reveal the headless corpse of Cpt Spalding (SAN check, 1d8 loss if failed).

H) Items of interest in the pod are some welding gear and canisters. No weapons of any description are visible.

I) The body's head appears to have been literally torn off, there is no sign of it in the pod.

J) In Spalding's jacket pocket is a PAD. This is the personal mission log of Spalding and details in note form the group's activities since November 26th 2243, dated Day 1. The entries are in the style of a detached professional brief and emotionless. The notebook is more a scientific log than a personal diary, obviously unofficial.

Day72	...malfunction of survey droids at Base 10, running routine checks to establish faults.
Day 77	am-security officers Brand and Briggs sent to establish nature of fault and possible repair.
Day 80	am-after absence of a day without communication. Brand returns alone in a state of shock, claiming that Briggs attempted to murder him... Brand sedated and stable. pm-… Brand's continual ravings unnerving the team, I am concerned for Briggs' safety; am considering contacting Proxima for back-up and Brand's evacuation and replacement.
Day 81	I had to rebuke Ross this morning for wasting company time with alien artifacts, (a circle of black stones she hadn't noticed before) and have been forced to put temple out of bounds, team is stretched with two personnel absent from work rota... still no sign of Briggs. I wonder if he'll return.
Day 82	Bases 10, 9, 6 all non-operative. Considering shutting down all subsidiary bases and concentrating efforts here... forced to sedate Brand due to his demoralizing effect on the team.

Day83   am-talked to Brand this morning... no charge...
             pm-we have been under attack for three hours now... must assume that rest of party dead... no food... no weapons... have taken all precautions I can... can only hope now...
             (final entry).

7. Player's Ship

See the Technology paragraph below.

8. Piles of equipment

The piles of equipment are all standard mining survey gear. Drill bits, sampling rods, explosives and detonators, some of which are open.

9. Service Droids.

Stand inactive around the camp; successful electronic analysis will show that the batteries are dead and they are in a considerable state of despair.

Game Master's Guide to Running the Scenario

The Game Master must always bear in mind that the mission has a series of objectives:

1.   Contact Spalding's Group.

2.   Establish the nature of the communications breakdown.

3.   If necessary pick up survivors.

4.   Re-establish communications and secure base and Proxima property.

Within the confines of the mission objectives players should be free to draw their own conclusions as to the base's fate. It should be noted that they should play within the framework given in the player character profiles. Some of the most important aspects of the scenario deal with the deterioration of Talos and the worsening working relationship with the rest of the group. Gritton will have to cope with both the mission and the inevitable clash of personalities.

The Events

The pace of the scenario will gradually build as clues to the disaster emerge. Once the warding circle around the temple is broken (simply by crossing it) the summoning of the Star Vampire will begin. Briggs' attempt to stop the party from breaking the warding should be flexible and used to speed up the pace if the party have been wasting too much time or are beginning to stray off the track. Soon after the sniper's appearance the Enertek rebels ATV will be picked up on the radar making straight for the base camp. They will arrive in 3 minutes time. If the radar is not manned then give the characters 30 seconds to react before the ATV bursts onto the scene without stopping. The rebels will make an attempt to warn the party. If fired on, they will simply drive through the camp and disappear into the distance at high speed. The Star Vampire is following closely; the rebels are simply attempting to put someone else between them and it, consequently they will ignore attempts at further communication, and just try to get 'the hell out'.

When the Star Vampire arrives at the base, its mode of attack will be to attack anyone visible in the open. If beaten back by any firearms it will cast a Finger of Death spell on the closest victim. Wise players will not stand and fight but will attempt to outwit the creature or try to escape. Note: there are explosives and detonators in the base camp.

The Destruction Of Spalding's Party

The initial survey teams had been correct in that an ancient civilization had once inhabited the planet, but they failed to identify evidence that remnants still roamed the planet. The Dan-A-thos cult fanatically worships strange alien gods and have dedicated their nomadic existence to the preservation of their sacred shrines, patrolling the planet's surface and offering sacrifice at the sites.

Prior to Spalding's arrival some survivors of the defeated Enertek Investments backed rebels had encamped. Unable to eke out an existence on this barren planet their numbers have dwindled. Uncertain of Proxima response to their presence they decided to avoid contact with Spalding's group. The events leading up to Base 1's destruction are much as Spalding described them in his personal log. The reason for Briggs' disappearance and Brand's loss of sanity was the witnessing of the tribe's ritual summoning of its god at Base 10 while they were checking the droid malfunction. Brand found his way back whilst Briggs hid terrified in the highlands. The tribe, in an attempt to track the two men, followed Brand's trail past Bases 9 and 6 destroying them as they went, then followed Brand back to Base 1 and at night placed a warding around the temple. Once broken their guardian was summoned to the site of violation, where it tore through the camp. After butchering Brand in his bed, and slaughtering Cohen as he awoke. The others ran for safety; Ross to the ship, Spalding to the pod and Gascoigne to the open country never to be seen or heard of again.

Spalding, without weaponry, attempted to seal the pod from the inside by welding the doors closed and escape the beast. After a prolonged assault the creature finally broke into the pod and seized Spalding... Ross was the last to die, locked in the ship with no food, or water. Unable to break into the weapons locker, she constructed a makeshift radar to detect the creature's presence. Constantly aware of its proximity she could no longer stand the pressure and, after an abortive-attempt to take off, committed suicide.

Technology

On board the player's Ship's Boat is a small vehicle, an ATP (All Terrain Platform). Capable of hovering up to 5 meters above the ground, the ATP is a purpose built military/civilian craft for rough terrain and short distance travel. Capable of carrying up to three persons, usually used for ferrying delicate technical equipment, it has no armament, although military variants carry both ground-to-air and air-to-air missile launchers. Targets in the vehicle should be fired at when moving at -20% chance to hit, when stationary at -10%. Its body is to all intents and purposes invulnerable to small arms fire, although the control panel can be easily smashed.

ATV = All Terrain Vehicle. Many variants of this vehicle are available-the Enertek Investments rebels version is of standard civilian type. Used for many tasks from VIP security to heavy duty haulage work. It has room for 4 crew, and has a top speed of 70mph.

On board the players' Ship's Boat: Standard on board computer; weapons locker with 6 ships rifles (as per Jem Briggs), medical kit with emergency drugs etc; basic sick bay (sleeps 6); emergency provisions for 3 weeks for 6 people; water purifier and 1 vacc suit.

The player characters could make a makeshift radar on board their own ship by making 3 electrical/mechanical skill rolls at 30 minute intervals. Pulling out the old radar and transplanting it to their ship, will take 45 minutes but will leave them without radar coverage for that time.

The Players

(Crew of the Freighter, SS Thatcher)

Talos Berik

AGE: 44

STR: 13; CON:16; SIZ: 12; INT: 12; POW:14; DEX: 15; BRA: 13; APP: 13; SAN: 50

Hit Points: 26

Skills: First Aid 75%, Listen 80%, Spot 75%, Track 70%, Hardware Mech 55%. Camouflage 70%, Hide 80%; Move Quietly 85%, Fast Talk 50%, Throw 90%.

Weapons: M44 TASER Pistol, 2 shots per round, 2d6+10 vs. CON, 75%; Bowie Knife 90%,1d6+1d4 damage (1 in each boot).

Armor: Personal Body Armor (PBA), 4AP.

Profile: Security co-ordinator for Proxima Mining Inc, Talos' unique abilities as a scout have been exploited to the full by Proxima. Security is always tight when rival companies compete for new sites. Talos' experience in the field has meant a constant, if unrewarding, supply of security work. During his fifteen years with the company, the ex-marine has become a shrewd judge of character, having met, arrested or totalised villains from every walk of life. Berik has the reputation of being a perfectionist, standing up to anyone who he feels threatens group safety. His clinical approach to the job has gained him immense respect from his colleagues. The trip to Beowulf is to be his last before planned retirement at the end of the year. Physically Talos remains capable but the responsibilities of work have aged him prematurely. Years of solitude en route to missions have resulted in a tense, easily excitable individual brooding and withdrawn. The mission to Beowulf represents the final barrier between him and the luxury of retirement; adventure is the last thing Talos needs...

Game Master Only Notes: Talos Berik is suffering from acute paranoia. Once the events begin to unfold, suspicions towards certain players will heighten... Through careful twisting of the actual plot line the Game Master should do his best to construct a reasonable mistrust between Talos and the rest of the characters. Talos' secret should not even be revealed to the player of the character.

Delia Wasp

AGE: 32

STR: 10; CON:13; SIZ: 11; INT: 17; POW:11; DEX: 14; BRA: 10; APP:17 SAN: 55

Hit Points: 24

Skills: Chemistry 65%; First Aid 85%; Data Analysis 60%; Medicine 75%; Psychology 55%.

Weapons: None.

Armor: None.

Profile: Medic. In many ways Delia represents the complete opposite of Talos; level headed, somewhat overcautious, preferring to maintain a low profile and unwilling to put herself in any physical danger. Although obviously intimidated by security, Delia will speak out against brash attempts to deal with matters medical. A former mortician with the Proxima Cryogenic Division she remains ever calm with the impersonality expected from a professional. The overall impression is that of a rather morbid individual less approachable than the good natured Cpt Gritton.

Game Master Only Notes: she is likely to be the first to detect Talos' basic instability (using her psychology skills).

Cpt Peter Gritton

AGE: 29

STR: 12; CON: 14; SIZ: 17; INT: 15; POW:13; DEX: 16; BRA: 11; APP:13; SAN: 75

Hit Points: 31

Skills: First Aid 50%, Listen 60%, Psychology 25%, Spot 50%, Hide 35%, Stealth 70%, Fast Talk 45%, Pilot Ship's Boat 55%, Drive ATP 40%.

Weapons: IMI-V Automatic Pistol, 3 shots per round, 1d10+2 damage, 55%.

Armor: None.

Profile: Gritton is inexperienced, with little active service to his credit. Having been in Proximas' employ for four years his knowledge is Largely theory. His rank has been forced upon him by the lack of experienced personnel aboard the diverted freighter. He makes up for his lack of practical skills with boundless enthusiasm. He is less than decisive and prefers to seek the advice of others. He does, however, display a natural flair for organization. Gritton appreciates the opportunity given to him and sees it as a chance to prove that he is official material.

He knows Talos reputation and will not let him undermine his authority.

Roger Needham

AGE: 26

STR: 11; CON:12; SIZ: 11; INT: 14; POW:12; DEX: 13; BRA: 12; APP:14; SAN: 60

Hit Points: 23

Skills: Electrical Repair45%, Mechanical Repair 50%, Operate Heavy Machinery 40%, Pilot Ship's Boat 90%, Drive ATP 70%, Listen 35%, Spot 50%.

Weapons: Automatic Combat Rifle, SA/A5/10, 2d6+2, 35%.

Armor: None.

Profile: Bored back-up pilot, irritated with the routine of day to day life in space. The one volunteer of the party, he is a lively individual, willing to contribute his ideas even when not asked.

Game Master Only Notes: Needham is the most flexible of the four. His role although not central is crucial, being the only all round technician and pilot.

Non-Player Characters

Security Personnel

Five individuals, use same stats.

STR: 11; CON:14; SIZ: 13; INT: 11; POW: 09; DEX: 12; BRA: 13; SAN: 45

Hit Points: 28

Weapons: IMI-V Automatic Pistol, 3 shots per round, 1d10+2 damage, 45%.

Armor: Combat Body Armor, 8AP.

Skills: Stealth 40%, Spot 60%, Listen 55%.

Notes: Under direct control of Talos, they trust him and will be reluctant to follow anyone else's orders. They should not act particularly independently and rely on clear (and simple) instructions from Talos (via throat mikes).

Ships Crew

Two individuals, use same stats.

STR: 10; CON:12; SIZ: 12; INT: 12; POW:10 DEX: 11; BRA: 12; SAN: 50

Hit Points: 24

Weapons: None.

Skills: Ship-handling (general maintenance) 50%.

Notes: Under Needham's command, they are little more than deckhands virtually useless for any non-ship activities.

Enertek Rebels

Four individuals, use same stats.

STR: 12; CON:15; SIZ: 14; INT: 11; POW: 10; DEX: 13; BRA: 13; SAN: 50

Hit Points: 29

Weapons: IMI-V Automatic Pistol, 3 shots per round, 1d10+2 damage, 50%.

Armor: Personal Body Armor (PBA), 4AP.

Skills: Stealth 55%, Listen 60%, Spot 50%, Drive APC 40%.

Notes: They have a Enertek ATV (see Technology) at their disposal. They will be very unwilling to stand and fight. If attacked they will return fire only for as long as it takes to effect escape. They are semi-uniformed with characteristic Enertek Investments insignia. The ATV will be recognized by Talos as standard rebel design.

The Star Vampire

STR: 30; CON:15; SIZ: 30; INT: 15; POW:14; DEX: 10; HF: 1/1D10

Hit Points: 45

Weapons: Talons, 40%, 1d6+2d6. Bite, 80%, 1D6 STR Blood drain.

Note: Read section in the Star Vampires for attack details. This hideous servitor is automatically summoned 1d6 hours after any individual breaks the warding created by the stone circle. It will attempt to rend all those in the area and will only withdraw when the party has either left or been destroyed. It also possesses the ability to use 'Finger of Death' spells to its POW limit but prefers to rip-up its victims.

Jem Briggs, The Sniper

STR: 12; CON:15; SIZ: 14; INT: 10; POW: 9; DEX: 16; BRA: 12; APP: 9; SAN: 0

Hit Points: 29

Weapons: Sniper Rifle (6 shots only) 75%, 3 shots per round, 2d10+4 damage.

Armor: None.

Skills: Listen 70%, Spot 70%, Stealth 65%, Forbidden Science 25%, Kick 30%.

Notes: Briggs is the last remaining survivor of the first expedition. Constantly on the run from both rebels and tribesmen, he has led the life of a scavenger stealing food from the base whenever he can pluck up the courage to do so. Hidden in the rocks he will open fire on the party if they venture too near the temple. Make sure the players have actually broken the warding around the temple before he fires! He knows its danger, and has seen the monsters (his SAN proves this!). If all else fails or he runs out of ammunition Briggs will run directly towards the temple in an attempt to stop the accidental summoning, screaming and gesticulating madly. He is long past caring about being rescued. If he is captured alive, at first he is just a gibbering wreck and is unable to make himself understood in any way. After a while and under sedation, Briggs will quieten down and begin a delirious, but coherent babbling, describing the summoning of the Vampire at Base 10, the nomads of Dan-A-Thos and their outrage at the 'desecration' of Base 1 and the danger of the Temple (see Game Masters explanation of the destruction of Spalding's party).

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Horror Roleplaying
In the 23rd century

NEW HORIZON

Questions and comments on our web-based Git-repository manager
https://gitlab.com/NHcthulhu/NewHorizon
always contains the latest release

NEW HORIZON 4.5

NAME _____

Race_____ Gender _____

Birthplace _____ Grav. field_____

Age _____ Height _____ Weight_____

Profession _____ Wealth_____

Employee _____ Rank_____

INSANITIES Temp. Insane_____ Indef. Insane _____

_____

_____

PLAYER _____

Characteristics & Rolls

STR _____	Effort roll_____	%
CON _____	Stamina roll_____	%
SIZ _____	Damage Bonus_____	
INT _____	Idea roll_____	%
POW _____	Intuition roll _____	%
DEX _____	Agility roll_____	%
APP _____	Charisma roll _____	%
BRA _____	Fortitude roll _____	%
MOV _____		

Hit Points

Major Wound_____

DEAD (–_____)

0	01	02	03	04	05
06	07	08	09	10	11
12	13	14	15	16	17
18	19	20	21	22	23
24	25	26	27	28	29
30	31	32	33	34	35
36	37	38	39	40	41

Skills

Combat bonus (____)
- ❑ Airborne Assault (01%) _____ %
- ❑ Brawl (25%) _____ %
- ❑ Garrote (15%) _____ %
- ❑ Gunnery (05%) _____ %
- ❑ Heavy Weapon _____ %
- ❑ Martial Arts (01%) _____ %
- ❑ Powered Armour (00%) _____ %
- ❑ Street Combat (05%) _____ %
- ❑ Zero G Combat (00%) _____ %

Communication bonus (____)
- ❑ Bargain (05%) _____ %
- ❑ Bribery (05%) _____ %
- ❑ Command (05%) _____ %
- ❑ Disguise (01%) _____ %
- ❑ FastTalk (05%) _____ %
- ❑ Intimidation (10%) _____ %
- ❑ Persuade (05%) _____ %
- ❑ Seduction (10%) _____ %
- ❑ Status (15%) _____ %
- ❑ Torture (15%) _____ %

Manipulation bonus (____)
- ❑ Armoury (01%) _____ %
- ❑ Combat Engineering (00%) _____ %
- ❑ Conceal (15%) _____ %
- ❑ Demolition (01%) _____ %
- ❑ Electronics Comm. (05%) _____ %
- ❑ Electronics ECM (01%) _____ %
- ❑ Electronics Systems (01%) _____ %
- ❑ Fine Manipulation (05%) _____ %
- ❑ Forensics (00%) _____ %
- ❑ Forgery (05%) _____ %
- ❑ Hardware (_____) _____ %
- ❑ Heavy Machine (01%) _____ %
- ❑ Sleight of Hand (05%) _____ %

Mental bonus (____)
- ❑ Administration (10%) _____ %
- ❑ Appraise (15%) _____ %
- ❑ Anthropology (05%) _____ %
- ❑ Archaeology (05%) _____ %
- ❑ Astrogation (00%) _____ %
- ❑ Astronomy (05%) _____ %
- ❑ Biochemistry (05%) _____ %
- ❑ Biology (05%) _____ %
- ❑ Chemistry (05%) _____ %
- ❑ Computer Operation (05%) _____ %
- ❑ Computer Program. (05%) _____ %
- ❑ Computer Security (05%) _____ %
- ❑ Data Analysis (05%) _____ %
- ❑ Field Fortifications (10%) _____ %
- ❑ First Aid (30%) _____ %
-   Forbidden Science (00%) _____ %
- ❑ Geology (01%) _____ %
- ❑ Hyper-Dim. Physics (00%) _____ %
- ❑ Law (05%) _____ %
- ❑ Medicine (05%) _____ %
- ❑ Occult (05%) _____ %
- ❑ Other Language (01%) _____ %
- ❑ Planetary Engineering (05%) _____ %
- ❑ Physics (05%) _____ %
- ❑ Psychotherapy (01%) _____ %
- ❑ Stardrive Engineering (00%) _____ %
- ❑ Starship Battle (00%) _____ %
- ❑ Strategy (01%) _____ %
- ❑ Streetwise (05%) _____ %
- ❑ Tactic (01%) _____ %
- ❑ Xeno-Archeology (01%) _____ %
- ❑ Xeno-Biology–Ecology (01%) _____ %
- ❑ Xeno-Medicine (01%) _____ %
- ❑ Xeno-Zoology (01%) _____ %

Perception bonus (____)
- ❑ Alertness (10%) _____ %
- ❑ Alien Environments (01%) _____ %
- ❑ Insight – psychology (05%) _____ %
- ❑ Listen (25%) _____ %
- ❑ Orientation (10%) _____ %
- ❑ Read Lips (01%) _____ %
- ❑ Recon (10%) _____ %
- ❑ Research (25%) _____ %
- ❑ Spot (25%) _____ %
- ❑ Survival (05%) _____ %
- ❑ Track (10%) _____ %

Physical bonus (____)
- ❑ Climb (40%) _____ %
- ❑ Combat Helicopter Pilot (00%) _____ %
- ❑ Combat Driver (01%) _____ %
- ❑ Combat Pilot (Atm.) (00%) _____ %
- ❑ Contragravity Harness (00%) _____ %
- ❑ Dodge (DEX x2) _____ %
- ❑ Drive (_____) _____ %
- ❑ EVA (05%) _____ %
- ❑ Freerunning (05%) _____ %
- ❑ Hide (10%) _____ %
- ❑ Jump (25%) _____ %
- ❑ Jump Belt (00%) _____ %
- ❑ Low/Zero Gravity Ops (10%) _____ %
- ❑ Marine Craft (10%) _____ %
- ❑ Parachute Assault (00%) _____ %
- ❑ Pilot Atmospheric (00%) _____ %
- ❑ Pilot Aerospace (00%) _____ %
- ❑ Pilot Spaceship (00%) _____ %
- ❑ Scuba (00%) _____ %
- ❑ Stealth (10%) _____ %
- ❑ Swim (25%) _____ %
- ❑ Throw (25%) _____ %

Sanity / Stability / Humanity

INSANE 0 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46
47 48 49 50 51 52 53 54 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72
73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 89 90 91 92 93 94 95 96 97 98

Power Points

UNCONSCIOUS 0 01 02 03 04 05 06
07 08 09 10 11 12 13 14 15 16 17 18
19 20 21 22 23 24 25 26 27 28 29 30

FOCUS _____

NEW HORIZON 4.5

Melee Weapons

Weapon type	Attack/Parry	damage	range	# attacks	length	hand	HP
❑ Fist (50%)	_____ / _____ %	1D3+db	touch	1	close	1h	n/a
❑ Grapple (25%)	_____ / _____ %	special	touch	1	close	2h	n/a
❑ Kick (25%)	_____ / _____ %	1D6+db	touch	1	close	0	n/a
❑ Head (10%)	_____ / _____ %	1D4+db	touch	1	close	0	n/a
❑ Brawl (25%)	_____ / _____ %	1D3+db	touch	1	close	1h	n/a
❑ Garrote (15%)	_____ / _____ %	1D6+db / round	touch	1	close	2h	n/a
❑	_____ / _____ %						
❑	_____ / _____ %						
❑	_____ / _____ %						

Firearms

Weapon type	weapon	ROF	damage	range	Ammo	Fail
❑ Handgun (20%)	_____ %					
❑ Shotgun (30%)	_____ %					
❑ Rifle (10%)	_____ %					
❑ Machine Gun (15%)	_____ %					
❑ Heavy Wpns (10%)	_____ %					
❑ Energy Wpns (10%)	_____ %					

Armor

Armor type	_____
AP	_____
ENC	_____
Rad. Shield	_____

Nanoware

Nanoware type	augmentation

Bioware

Bioware type	augmentation	SAN

Psionic

Talent/level		Range	Duration	PP
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			
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❑	_____ %			
❑	_____ %			
❑	_____ %			

Cyberware

Cyberware type	augmentation	SAN

Sorcery

Spell/level		Range	Duration	SAN
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			
❑	_____ %			

Luck

OUT OF LUCK 0 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 89 90 91 92 93 94 95 96 97 98 99

For space is dark
... and full of terrors

New Horizon is a game about humanity's spread into our solar system and the horrors we discover as we go there. It is an exciting mix of Blade Runner novel, Aliens movies, Lovecraftian horror and hard science-fiction.

NEW HORIZON
Core Rules 4.5