

A futuristic astronaut in a red and blue suit is shown from the chest up, pointing towards a large, bright orange sun in the sky. The astronaut is wearing a helmet with a visor and has a serious expression. The background is a dark blue space with stars and a large, white, rocky planet or moon. The scene is framed by a metallic, circular structure, possibly a space station or a spacecraft's interior.

Shadows Over Sol

Fatal Frontier



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Fatal Frontier

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Introduction

New discoveries, new frontiers and new technologies are at the heart of science fiction. The genre is littered with examples of characters going boldly into the unknown, inventing novel new devices that change the world or making discoveries that do the same. Ultimately, these stories are about confronting and adapting to the unknown. Horror stories also focus on confrontations with the unknown. Mysterious occurrences, unexplained phenomena and dark, unknown places are all staples of the genre. Humans often fear what they do not understand, and changes bring forth a great deal of uncertainty.

This is a book of the unknown. It starts at the edge of human exploration, and from there goes outward into the new frontiers of space, technology and discovery. This book holds many secrets,

but all of these are “What Ifs.” What if controlled fusion is finally possible? What if the ARC Project reaches Alpha Centauri? What if contact is made with aliens? What if FTL travel is possible?

If both science fiction and horror are the confronting of the unknown, then this is a book of unknowns to confront. By necessity, each of these secrets has the potential to bring significant change to the game world, but that is exactly what makes the secrets so frightening and so compelling. GMs should carefully pick and choose which of the secrets here they want to explore, reveal or use in their own campaigns. The secrets here are cannon only if one chooses them to be.

Thorin Tabor
April 2015

GMs Beware

Some of the options in this book will significantly change the themes and feel of your *Shadows Over Sol* campaign. This is intentional, as it allows for the game to tackle a wider variety and range of science fiction concepts.

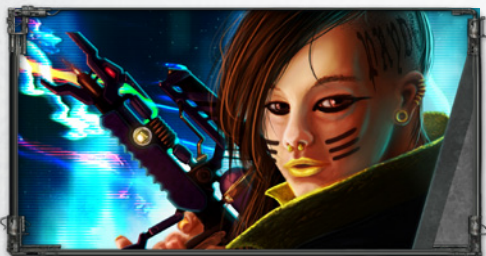
What happens when the ARC Project is finally completed? How will the colonists fare when they finally arrive at Alpha Centauri A? How would society react if first contact with intelligent life were made? What sorts of new fears, political infighting or new frontiers in scientific research would be touched off by such an event? Ultimately, science fiction is about new discoveries and their resulting impacts. Questions like these are at the core of the genre, and many campaigns may be improved through the judicious introduction of new elements.

Some of the options in this book even challenge the basic assumptions of the *Shadows Over Sol* setting. GMs are advised to think about the possible campaign repercussions before introducing any of the options presented in this book.

Epic Sci-Fi

The *Shadows Over Sol* core rulebook defines three modes of horror: survival horror, investigative horror and action horror. These three modes explore different intersections of the science fiction and horror genres, providing character parameters geared towards that specific style of play.

Here we present a fourth mode, one that deprioritizes horror and embarks into the vast horizons of epic science fiction. Appropriately called “epic sci-fi,” this mode allows players to exult in all the vast options available in science fiction, building characters without an equipment scarcity enforced to support the horror genre. This is not to say that epic sci-fi campaigns can’t include horrific elements or be downright frightening in their own right, but rather that player characters will be ready to face most anything.



Starting Wealth & Gear

- **Starting Wealth:** 8
- **Purchases:** Unlimited

As with the three modes of horror, epic sci-fi provides player characters with a starting Wealth rating and a number of purchases that can be made at character creation. While the starting Wealth is no different than with action horror, the fact that purchases are unlimited changes character creation significantly.

No longer do players have to pick the handful of items they find most important to their characters; instead they are free to go on a boundless shopping trip. Remember, however, there are only so many items that a character may lug around at one time, and this may be a good time to remind players of their encumbrance limits.

In the end, most player characters will be competent, well-stocked and equipped for most anything that can be thrown at them. They will be ready to storm out and have epic science fiction adventures.

Deemphasizing Horror

Veering a game away from horror is largely a matter of changing the game’s tone. Beyond the initial character creation parameters, there is little inherent in the mechanics which forces horrific events. Game masters wishing to deemphasize horror should first alter their descriptions of events to match their desired tone. Those looking to make a few more mechanical changes might consider the following: Remove the Lingering Injury critical effect, or at least don’t choose to use it on PCs. Give no Stun consequence from hitting Shock threshold. Change Dying Gasps to render a character unconscious rather than giving the Bleeding consequence.

Data Chip

The docks on Miskan Station were busy as usual. Workers dashed to and fro, moving freight. Travelers moved between ports where shuttles were docked. It was organized chaos. I marveled at the cleanliness of it all. After the time I spent on Mars, Miskan was positively wholesome.

I was here on business: tracking a Jenseitech data chip. It was supposed to be coming in through one of the shuttles here. I kept my eyes open.

I wasn't sure what was on that chip, but whatever it was, it was something so secret that Jenseitech was physically transporting it, and keeping it off of any computers connected to the net. That sort of secrecy costs money, which means the secret must be worth money.

I planned to seize the chip and auction it off to competing corps. Unitech and Sinoex, in particular, would be interested. I could practically smell the microcredits.

For my plan to work, however, I needed data and I needed it fast. That's why I was here. I had an old contact that worked the docks on Miskan Station. He was supposed to meet me here.

The contact's name was Miko Soun. I had worked with him a few times before, and he could be trusted as long as my credit was good. Most importantly, he had access to the internal dock logs. These logs would track the shuttles coming and going, their corresponding ships, their electronic flags, their transponder codes and ports of origin.

I knew which port the chip was coming from: Durknow Station. I also knew which electronic flag it would be

broadcasting: Jenseitech's. With Miko's access I could make a pretty good guess which shuttle the chip would be on. Everything else would be brute force.

A moment later, as if summoned by the thought, Miko Soun was in front of me, smiling his slimy smile. "Good to meet you again, my friend. Come with me."

I followed him through the docks, down a corridor and into a small warehouse, half-filled with freight. He walked into a cramped office in a corner of the warehouse. It was filled with broken machinery. The screen of a computer terminal glowed behind him.

Miko turned and gave me another smile. I could see perspiration on his forehead. "We have privacy here. What can I do for you, my friend?"

Something was off.

"Well..." I began, taking a moment to look around the room as I pretended to collect my thoughts. My eyes locked on the computer terminal. The port logs had been pulled up. Currently they were filtering for ships coming from Durknow Station, broadcasting the Jenseitech flag.

How did Miko know that those were the exact ships I would be asking about, before anything had been said to him? From out in the warehouse I could hear one of the doors open and close. Shit!

With one swift motion I reached into my jacket, pulling free my "Wasp" light pistol and pointed it at Miko's head. Maybe, just maybe, if I worked fast enough, I could use him to slip out of here."

I heard a footstep behind me and felt the cold barrel of a gun on my neck. I wasn't fast enough. Whoever had entered the warehouse was behind me.



The Edge

For almost 200,000 years the human species was trapped on Earth, relegated to their cradle. In the last 250 years they have finally ventured out into the void between worlds, first making it to Luna, then Mars, then Venus, Mercury, the Belt, Jupiter, Saturn and—just once—to Uranus. The inner Sol system has been settled, as well as the Belt. The Jovian colonies may be lost, but there are new constructions in the Trojans. One lonely colony ekes out an existence around Saturn.

But there settlement ends. This forms the very edge of human expansion. Out there on the edge, and on the fringes, life is still raw, little-tread and new. In a land of extremes—burning sun, frozen nights, radiation and vacuum—humanity still trudges on, just one malfunction away from death.

It is here where many of the new discoveries are being made, new techniques are being developed and new frontiers conquered. It is a jumping off point out into the unknown.

Life Support Requirements

Space itself is largely hostile to human life. Vacuum; high levels of radiation; lack of food, water and oxygen all make for an environment that necessitates extensive life support requirements for colonization or space travel. These life support requirements are the biggest limiting factor on the size of space colonies in the system.

Every day a human being requires 0.84 kg of oxygen, 10 liters of water (reduced to 1.6 liters in a vac suit of similar closed environment), 1.77 kg of dried food and 4 liters of water for food (reduced to 0.8 liters for specialty foods designed for space consumption). This means that, at minimum, every space inhabitant consumes about 5 kg of life support materials a day.

Multiply this by tens of thousands of inhabitants and include with this a safety net of going months without resupply, and the total life requirements quickly begin to become impractical.

Also keep in mind that few colonies have enough agriculture to support their entire population. The vast majority are dependent on a steady stream of food being shipped from Earth or from one of the few agricultural colonies in the system. Colonies on a celestial body, such as a moon or planet, may have the luxury of mining their own water or extracting oxygen from the regolith, depending on their location. No space station has this luxury, and must depend on regular shipments from the nearest source.

Miskan Station

Miskan Station is a near century-old behemoth of a space station floating out in the Belt. For the Mennonites who founded the station it was a welcome refuge away from the changing cultures on Earth. But this distance would only last for so long. Miskan Station's economically strategic location would soon bring in both plentiful trade and an unending flow of outsiders.

Today, Miskan Station is staple of life in the Belt. Its docks and corridors have been expanded outward time and time again, leaving the station a labyrinth of unplanned growth and expansion. While the station is still governed by a close-knit Mennonite community, entire sectors of the station have been opened up to trade and residence by outsiders. This gives the station something of a split culture and personality.

Station History

Miskan Station was commissioned 102 years ago and opened 88 years ago. In that time the station has undergone significant change and growth. Today, its bizarre layout and haphazard design is a living testimony to its long history.

Timeline

- **2112:** Unitech is commissioned by a group of Central American Mennonites. This commission is to construct a space station in the Belt capable of being a center for asteroid mining, and equipped with facilities for station agriculture. Living space is to accommodate 1,000; the Mennonite population of the community at this time is only around 600.
- **2126:** Miskan Station, the second permanently-inhabited station to be established in the Belt, is completed by Unitech. The Mennonites then make the Exodus Pilgrimage from Central America to their new home on Miskan Station. A habitation accident, or maybe corporate sabotage, kills all aboard one of the transports on the voyage, leaving a Mennonite population of roughly 500 to settle the station. Upon arrival at the station, defects are found in the heating and ventilation systems, forcing the mothballing and closure of about half the available habs. The Miskan Mennonites lack the funds to pay for repairs to these systems, and Unitech declares that these defects are not under warranty.
- **2127:** After a great number of technical issues, the first asteroid mining out of Miskan Station is started late in the year. Mining operations slowly begin to ramp up, but demand isn't as high as predicted. The station lacks solid distribution contracts to transport ore to where demand might be. Unitech offers transport for a lion's share of the profits, but the Miskan Mennonites refuse to work with Unitech after the disagreement following the station construction. This situation continues and it looks like Miskan Station will be forced to close within a two year window.
- **2128:** After the discovery of life on Europa the previous year and the fact that Miskan Station happens to be in a convenient alignment to get there

from Earth, the race for Jupiter brings an influx of new traffic to the station. Trade and docking fees from this traffic gives the new station the financial boost it needs to eke out an existence for the next decade.

- **2137:** The Terraforming Project begins on Mars. This ignites the water trade—bringing frozen water from the Belt to Mars. Miskan Station ends up being an ideal location for this. The Elders of Miskan Station are approached about serving as an established shipping hub. Still in desperate need of funds, they reluctantly agree.
- **2139:** Recent water sales have finally produced enough money for Miskan Station to pay for the repairs its systems have needed since construction, bringing the station up to fully functional. All of the mothballed hubs are reopened, except one, which is left as a monument to the hardships overcome in the Exodus Pilgrimage.
- **2140:** The increasing demands of the water trade require more and more of the station. This leads to the beginning of construction on Water Sector, the first of many station expansions to come. This expansion will be finished in 2143.
- **2146:** World War IV breaks out on Earth. The Terraforming Project is disrupted, and the water trade comes to an abrupt halt. Miskan Station largely closes its ports and aside from some trade in foodstuffs, simply waits out the war.
- **2153:** As World War IV ends, in desperate need of resupply and funds, Miskan Station is quick to reopen its

ports. The water trade begins again in full force.

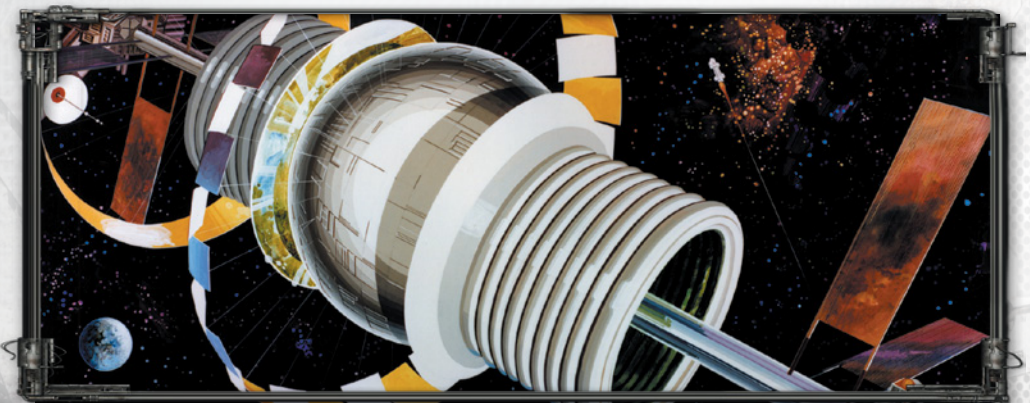
- **2155:** The return of the water trade to the station has led to the need for an increase in permanently-stationed water workers and an expansion in station agriculture. As Water Wing was built exclusively for industry, a second expansion is commissioned, both to house outsiders working on the station and to provide more room for agriculture. This new expansion is known as Agriculture Sector.
- **2159:** The increased number of outsiders living on the station, and the increase in economic worth, results in the need for a permanent station security arrangement. This proves to be controversial among the pacifist Mennonites, but they are forced to be practical. They strike up a strange long-standing deal with the Belt Watchers, a Techno mercenary group. This group provides station security in exchange for the ability to operate out of the station.
- **2164:** Vita Unda is established as the first Jovian colony. Miskan Station is an ideal position to supply the colony throughout half of the Jovian year. This results in a great demand for metals and elements to be used in the construction. The stockpile on Miskan Station, and the relatively small transportation distance, result in a flurry of sales, and the establishment of Miskan Station's first major ore distribution contracts.
- **2166:** Growth in the outsider population of the station, and secondary trade servicing those groups leads to

the third and largest expansion to the station—Outsider Sector. From this point onward the station is almost always in a state of slow expansion.

- **2172:** Dealing with the outsider population of the station, and the outside cultures has become taxing to the point that the community Elders create the Corporation of Outsider Affairs to oversee the non-Mennonite parts of the station.
- **2177:** The discovery of thorium deposits on Ganymede lead to yet another increase in station trade and growth.
- **2183:** Jenseitech supports an attempted coup to take control of the station from the Miskan Mennonites. This coup attempt fails and the plotters are gunned down by the Belt Watchers, leading to an explosion of publicity for the mercenary company. All Jenseitech assets on the station are seized and personnel expelled.
- **2184:** Utakar System Dynamics buys out the Belt Watchers, turning them into a wholly owned subsidiary. This briefly jeopardizes the Belt Watchers'

contract with the station, but a last minute deal is worked out.

- **2195:** The Sovereign Liberation Front becomes widely known after they bomb four ships leaving dock at Miskan Station. Bounties for the individuals responsible are posted by the Belt Watchers. The bounties are never claimed.
- **2202:** The Dui Wu Ya Conflict, raging in full elsewhere in the Sol System, touches Miskan Station. An explosion damage parts of Outsider Sector and Agriculture Sector. The damaged parts are soon to be repaired, but the investigation into those responsible turns into something of a witch hunt, dragging out for the next two years.
- **2209:** The Jupiter Group incident cuts the Jovian colonies off from the rest of the Sol System. This is a blow to the water trade, and while it is also a blow to the station's economy, by this point the station's trade is robust enough that the blow isn't too critical.
- **2214:** This is the present day. What the future will bring to the station remains to be seen.



Population

Today, Miskan Station is home to almost 10,000 people, of which roughly 4,000 are descended from the original Miskan Mennonites. The population consists of miners, shippers, traders and merchants, mercenaries and industrial workers. Prominent residential sectors to the station are Old Sector, Water Sector and Outsider Sector. Overseeing the Mennonite population is the community's Council of Elders. Overseeing the outsider community is the Corporation of Outsider Affairs, which answers to the Council of Elders.

Subcultures

The most common subculture on Miskan Station are the Servs, of which the Mennonite community makes up the vast majority. The Techno subculture is also prominent, claiming the Belt Watchers and many of the ship's crewmen passing through the station as members. Other subcultures are represented in small quantities, but members of the Entro and Heed subcultures find that the station authorities frown upon many aspects of their groups. They have only a handful of adherents on the station.

Languages

The Miskan Mennonite community speaks a Serv dialect of English, mixed with numerous Spanish loan words, as their

Central American progenitor community also consisted of English-speakers.

The Belt Watchers and associated security personnel generally speak a Techno dialect of Korean, as mandated in their command structure. Many of these individuals are also familiar with various dialects of English, as necessitated in their interactions with travelers and the local Mennonite community.

Other residents of the station speak a variety of languages, although English, Hindi and Wu are the most numerous.

Miskan Mennonites

The Miskan Mennonite community collectively owns the station. Their members largely live apart from the community of travelers and merchants that make up the hustle and bustle of the rest of the station. There they go about their daily lives operating mining equipment, tending to the station agriculture and producing simple craft goods. Many of these craft goods find their way into Miskan Station merchant shops. Travelers seem to love authentic hand-crafted Miskan Mennonite knick-knacks.

These economic endeavors support a basic lifestyle. Most members of the community are at Lifestyle 4 or 5, with members of the Council of Elders being at Lifestyle 5 or 6. As the Mennonite community is the majority owner of the Corporation of Outsider Affairs, they also collect a small share of the profits generated as landlords of the station.

Station Structure

The original design of Miskan Station followed a smaller than usual Stanford torus design. This original ring is now known as Old Sector. Despite the original design, the station has been expanded numerous times, and additional connected rings have been added—many larger than the rings before them. This has resulted in a vaguely cylinder-cone-shaped design that rotates on its central axis, providing spin gravity.

Inside the station is a maze of twisting corridors, unexpected doors, sectors built upon sectors and docking stations. Indeed, the layout of the station at this point isn't centrally planned so much as opportunistically added upon. This has resulted in a station that is easy to get lost in and filled with out-of-the-way corridors. Entire ducts and corners of the station are sometimes hidden away behind the years of growth.

Old Sector

Old Sector is what the inhabitants of Miskan call the ring that dates back to the station's original construction. This includes habs for much of the Miskan Mennonite population. Originally this sector also contained mining and agriculture facilities, but over the years these have been moved, and the space they formerly occupied was remodeled to make room for more habs.

Water Sector

Water Sector was originally built in support of the water trade, from the Belt to Mars. Over the years, however,

as new sectors have been built, this role has been moved elsewhere, and nowadays the sector consists mostly of old water tank space which has been converted into habs. This sector also houses the Council of Elders and a few administrative offices.

Agriculture Sector

Today, Agriculture Sector is used almost exclusively for station agriculture. Here all manner of grains, fruits and vegetables are grown in climate-controlled conditions; a few chickens, and even a few semi-feral cats survive, picking off the descendants of pests that have managed to stow away, out to the void. During night cycle Agriculture Sector is mostly vacant, and a common place for illicit dealings—provided one can get past the sector security.

Outsider Sector

Outsider Sector is the largest ring on the station, and is home to the vast majority of the non-Mennonites that call Miskan Station home. It is a hive of gently curving passageways, small rooms that serve as personal habs and a variety of merchant shops. It is this sector and Traveler Sector that have the most crime and other security issues on the station.

Processing Sector

Processing Sector is a largely industrial sector that services the processing of ore and other elements that are mined in the Belt. This sector also contains storage facilities and docks, so that the processed elements can be stored, received and

shipped out directly. As with Agriculture Sector, Processing Sector is largely vacant during night cycle, but this sector is newer and is much better secured than Agriculture Sector, making it a less popular destination for illicit activities.

Traveler Sector

Traveler Sector is designed to service the needs of travelers, tourists or others passing through Miskan Station. In Traveler Sector non-residents can move about more-or-less freely, and this part of the station has been specifically designed to be easier to navigate than the rest. One can find all a traveler commonly needs here, including all of the station's hotels, as well as merchant shops designed to appeal to tourists and the majority of the commercial docks.

Station Rules

Like anywhere, Miskan Station has a number of rules that both inhabitants and visitors must abide by, lest security and the authorities come down upon them with a heavy hand. As many player characters are often just the sort to run up against such rules, these are useful to know, and are touched upon below.

Docking

Upon docking at Miskan Station, the captain of a ship must pay a Cost 8 upfront docking fee and sign a docking agreement. This payment is included in the captain's Lifestyle, if she has Lifestyle 8 or higher. The docking agreement includes a written statement that she

is not carrying anything on her ship that poses a danger to the station, and that she consents to a full search of her ship should station security have cause to believe she is carrying contraband. Furthermore, it states that she agrees to abide by the rules of the station and that she agrees to transport prisoners off the station to her next destination, if so requested by the authorities.

These are all fairly standard docking arrangements, except for the prisoner clause. This clause is a byproduct of the station's lack of capital punishment and unwillingness to pay the space life support costs necessary for long-term incarceration. Instead, criminals receive corporeal punishment, and then are exiled. By docking at Miskan Station, captains run the risk that they may be required to escort one of these prisoners elsewhere. While this doesn't happen often, it is known to happen.

Arms & Armaments

Miskan Station has very strict laws on carrying some weapons—particularly weapons that might pose a threat to the station infrastructure. Only non-lethal weapons and simple non-powered melee weapons are allowed on the station. Despite their legality, even carrying these openly will likely flag the attention of station security, which will attempt to keep a closer eye on the individual.

The relatively tight control on weapons on the station means that most weapons which see use are either improvised or double as a useful tool in

other contexts. These include hammers, crowbars and plasma cutters.

Armor, which is entirely illegal on Miskan Station aside from military grade gear, is nevertheless a good way to catch the eye of station security. It's also a good way to stand out in a crowd. Simply wearing armor may be considered enough cause to be searched for weapons or other contraband.

Theft

Theft on Miskan Station is divided into petty theft and grand theft. Petty theft is met with fines or simple corporeal punishment. Grand theft is also met with fines and corporeal punishment, but may additionally include exile. Theft is also one of the most common crimes on the station, as it is difficult to prevent.

Violence

On Miskan Station violent crimes are broken down into a number of categories. Simple assault is usually met with fines or corporeal punishment. Assault with a contraband weapon is always met with both corporeal punishment and exile. These latter punishments are also the penalties for rape and murder, although the severity of the corporeal punishment goes up steeply with these two crimes.

Enforcement

On Miskan Station enforcement by the Belt Watchers is swift and sometimes brutal. Common punishments are fines or confiscation and auction of property for minor crimes. Light corporeal punish-

ment is also widely used for more serious crimes or for repeated minor offenses. This is usually administered by beatings with shock sticks. While long-term confinement in space is not practiced, short-term confinement while awaiting trial or punishment does occur. Miskan Station does not practice capital punishment. This is at the explicit command of the Council of Elders. Those found guilty of major offenses have their property seized, corporeal punishment is administered and they are exiled from the station on the next ship out.

Local Services

As one of the most important stations in the Belt, Miskan Station offers a variety of services, both for long-term residents and those just passing through.

Of obvious concern to the crews traveling through Miskan Station are ship resupply services. These are both present on the station and are often comparatively cheap. Thorium, which is used to power the reactors of most ships, is mined locally in the Belt, which makes for low prices. Water is likewise mined in the Belt, and is comparatively cheap. Food and air, on the other hand, while both available, are more expensive, as the bulk of what's necessary is shipped in from elsewhere.

Of less than good news for many crews is the relative unavailability and expense of more shady entertainments. It turns out that the Miskan Mennonites look poorly upon the presence of prostitution, gambling, drug dens and other such enter-

prises. Unlike many stations, these services are not openly offered in the port.

Relations

Miskan Station, for the most part, has good relations with neighboring Belt stations, even if it does compete against many of them economically. Both Truman Station and Durknow Station have a friendly rivalry with Miskan Station, including extradition treaties and regular trade. Schwangi Station, on the other hand, has no formal relationship with Miskan Station. The two stations have a calm but mutually antagonistic relationship, largely due to Schwangi Station's Jenseitech connections.

Similarly, Miskan Station maintains friendly relations with most of the corps operating out of the Belt, the major exception being Jenseitech. Once upon a time, Miskan Station was not very friendly with Unitech, given the disagreement after the station construction, but in the last half century relations have improved.

The Corporation of Outsider Affairs has been a vocal proponent for reestablishing contact with the lost Jovian colonies.

Who's Who

The following individuals are all residents of Miskan Station, and are all in important positions of power. They are also people which player characters might

have heard of, or might deal with over the course of a campaign.

- **Dorothy Stoltzfuss:** Dorothy is the oldest living member of the Miskan Mennonites, and as such her opinions carry great weight with the Council of Elders.
- **Jebadiah Hans:** Jebadiah is the current chair of the Council of Elders. As the chair, he is an unusually active and hands-on member of the Council.
- **Joseph Beiler:** Joseph is perhaps the Council of Elders member most visible to the non-Mennonite community. He spends a fair amount of time in the Processing Sector working with the miners.
- **Katie Fisher:** Katie Fisher is the head of operations for the commercial and private docks in Traveler Sector. She works closely with the Belt Watchers.
- **Mary King:** Colonel King is the leader of the Belt Watchers, overseeing extended Belt Watcher operations throughout the system. She lives in Outsider Sector.
- **Matthew Lapp:** Matthew Lapp was born among the Miskan Mennonites, although he has chosen not to confirm himself as a member. He is currently CEO of the Corporation of Outsider Affairs.
- **Song Yong Neul:** Captain Neul is the head of Belt Watcher security on Miskan Station. He is a short, stern man with a stoic appearance.



Beyond the Belt

The vast majority of human activity in the Sol system takes place either in the Belt or the inner solar system. Beyond this ring, the time it takes to cross the vast distances quickly becomes a problem. Nevertheless, Saturn and the Jovian Trojans possess a wealth of resources that lure a hardy few further out into the void.

Skippers

On average, it takes only one month to travel from Earth to Mars. By contrast, the trip of Earth to Saturn takes over a year. This is a long time to spend in stasis. A crew undertaking a round trip to retrieve water from Saturn's rings will sleep over two years away and only be awake for maybe a month of that.

The people who make these sort of trips for a living are colloquially called "Skippers," as they skip large chunks of time, sleeping the years away in stasis.

This lifestyle can quickly get disorienting. Imagine the case of the professional skipper who's been doing long hauls for the past twenty-five years. In this time an entire generation has passed. The memes have changed. The subcultures have shifted. The people she grew up with have grown older and had children. Meanwhile, from her perspective, barely a year of her waking life has passed. The changes have come and gone so quickly that she's been left in the dust, with tastes and social mores a generation out of date. Everyone she knew is in a different stage of life, and biologically she's only about

three years older than she was when she began her career. (On average people in stasis age at one tenth the normal rate.)

This sort of life can leave those who live it in a state of future shock. As a consequence, most who become skippers only last one or two round trips before they wash out and pursue something else.

Slinging

The truth of the matter is that most resource extraction in the outer solar system tries to minimize the number of round trips involved.

The reason for this is mostly economic in nature. Long hauls cost a good amount of money, and turnover among skippers is high. Rather than constantly send manned crews out to and from the far reaches of the solar system, most corps will transport resources using a method called "slinging."

Conceptually, the slinging method is simple. A manned crew will be sent out to a distant point with resources, such as the rings of Saturn. There they will gather the resources, tag them and "sling" them back at the corp's base of operations, accelerating them rapidly on the right trajectory. Since most of these resources are either small asteroids or collected ice, gathering them together is easy.

After being slung, these bundles of resources will continue on their path, sailing through the Sol system for a year or more before they arrive at their destination. They will have been tagged with a transponder, which will broadcast their position, allowing them to be tracked over the course of their long voyage. Once they reach their destina-

tion, the corp will have another crew “catch” them, decelerating the bundle and bringing it in for extraction.

This method is cost efficient because it allows for a crew to make one long haul to the outer solar system, where they can sling back many different bundles before making the return trip. Crews will typically spend a year at the point of extraction, slinging back bundles, before they are relieved by the next crew and begin their long voyage home.

Pirates

The practice of slinging has given rise to another practice in deep space: piracy. It works like this: Skippers will sling back a lot of valuable resources towards the inner solar system. Most importantly, these resources are unmanned and unguarded. Pirates will track these

bundles of resources and then attempt to intercept them mid-voyage, decelerating the bundles, removing the tags that broadcast their position and then flying off with the resources for themselves.

Naturally, corps want to put a stop to this sort of piracy, but they are also limited by economics. No corp wants to spend more money fighting pirates than the money they would bring in from the lost resources themselves.

The pirates know this and largely try to play a cost-benefit analysis game, where they keep their thefts small enough that its not profitable for the corps to go after them, or at least keep their thefts smaller than the next pirate crew over, so that they don't get a big target painted on their ship. Still, this is a dangerous game, and the corps will periodically try to crack down in piracy to send a message to all involved.

Facts of Life in Microgravity

- Daily exercise is a must. Without the impact from regular exercise, bones will begin to weaken and deteriorate away.
- Loose objects will drift away with the slightest jolt, so straps or containers are a must.
- The same goes for daily grooming. Clipping nails or hair needs to be done next to a vacuum, to prevent loose bits of people from flying about.
- Wet clothing—say, with blood or water—cannot be wrung dry. By squeezing the fabric water is ejected, but it simply pools around the cloth and does not drip away.
- Food served in microgravity must be of the sort not to have too many loose pieces or crumbs. Beverages are served in bulbs that can be squeezed to eject the fluid.
- Sleeping is usually achieved while strapped to a wall. This prevents sleep twitches from sending the sleeper flying around the room.
- When crying in microgravity, tears do not drip away, but rather pool around the eyes, making it difficult to see.



Secrets in the Void

The universe is vast and unknowable. Even the extent of the Sol system is almost impossibly vast—Neptune's orbit lies some 500,000 times more distant than any human ever was from another before the dawn of the space age. To think that we know what we will find everywhere when we reach out across the system is arrogant beyond measure. The void holds many secrets.

This chapter explores several possible secrets awaiting discovery in the great beyond: the truth behind the Jupiter Group Incident, ancient ruins found on Saturn's moon, Titan, an alien protein that threatens all life on Earth and its aberrant effects that border on the miraculous. Whether any of these secrets are true is left as an option for the GM. Mysteries and miraculous discoveries are best doled out a bit at a time, with each minor revelation offering a further glimpse into the impossible unknowns.

Other Secrets

The secrets detailed here are far from the only mysteries waiting to be solved. Space has its share of secrets, many with answers just waiting to be stumbled across. Some other enigmas hinted at include:

- An unmanned probe discovered single cell life under the ice on Europa in 2127, spurring a race to

Jupiter. Further study of this life concluded that it was descended from Earth-based life, having been carried to Europa in a sort of localized panspermia. How did these organisms make it from Earth to Europa without dying? What else remains to be discovered in Europa's vast ocean?

- In 2198 a research station in Shizen colony on Europa claimed to have received an encrypted signal being broadcast from somewhere in the Kuiper Belt. Later attempts to pick up the broadcast failed, and copies of the signal were lost after a data breach at the station. Is this evidence of some ancient but technologically advanced artifact left derelict in the Kuiper Belt, or is this evidence of a covert corp probe into the outer boundaries of the Sol system? Whatever the origin of the signal, the evidence was purposefully targeted, but by whom?
- Twelve years ago (in 2202) a Stillwater University mission to the Venusian surface claimed to find tunnels in Maxwell Montes of an unnatural origin. The paper claiming this was later retracted and the program's funding cut by Jenseitech. Are these tunnels related to the lost Titan civilization (see page 26) or did the research team stumble upon a secret base being used for sinister purposes?

The Jupiter Group

One of the longstanding unsolved mysteries of the *Shadows Over Sol* setting is the cause of the Jupiter Group Incident, which cut the Jovian colonies off from all outside contact on April 1st, 2209. For five years this incident has baffled the solar system, and all attempts to reestablish contact have been foiled.

Why did a relatively unknown minor corp suddenly annex all four Jovian colonies without warning? How did they manage to obtain the resources and planning necessary to not only to pull off such a coup, but also to continue to enforce their isolation for the next five years? This section examines both what is known about the Jupiter Group Incident, and also provides GMs with a number of options regarding the Jupiter Group's shadowy motives.

The Knowns

Despite all of the unknowns surrounding the Jupiter Group Incident, a variety of facts are known. These facts make the incident all the more mysterious.

- On April 1st, 2209, without warning, all four colonies around Jupiter went silent. Two days later, on April 3rd, a single message was broadcast: "The Jovian colonies and associated satellites are now the property of Jupiter Group. Do not approach Jupiter. Do not transmit to Jupiter."
- At the time of the incident the Jovian colonies were home to over

10,000 people, including the largest population of Shakti Hindus outside Earth's gravity well.

- Two of the five largest megacorps lost significant holdings in the incident. Jenseitech lost a number of productive labs, most prominently all of those studying the native life on Europa. Unitech lost several high-profit facilities deeply involved in both mining and the water trade.
- Shortly after the incident, two Jenseitech ships approaching Jupiter reported that the colonies were still intact and functional. In fact, some sort of new construction was visible on Europa. Shortly thereafter one of these ships briefly started an emergency broadcast, then both went silent as well.
- However, Unitech has been one of the major actors blocking attempts to reestablish contact with the colonies, insisting that they have an investigation well-in-hand, and actively stopping the attempts of other groups to reach the Jovian colonies.
- Utakar System Dynamics launched a botched assault on the Jovian colonies in 2210. This assault almost started a shooting conflict with Unitech. One of the USD ships managed to touch down on Europa and take back off again, but whatever it found there has been kept hushed up as part of the agreement between Unitech and Utakar that ended the conflict without further bloodshed.
- Starting with the incident, the Jovian colonies have been blanketed in radio interference, which has been dubbed

the Electromagnetic Curtain. It appears that at least three of the four colonies around Jupiter are still operational, and possibly still inhabited. Contact has been briefly established with the colonies several times in the intervening years through laser comms, but the responses have seemed garbled or nonsensical, leading some experts to believe the brief communications yielded some form of code.

Speculation

It's now five years since the incident, and the sad fact of the matter is that all of the colonists from the Jovian colonies are now likely dead. Even at best, most colonies only keep a year or two's spare supplies on hand. Without resupply the oxygen stores will begin to dwindle, as will food, water and other necessities for life. Mechanical systems will break down without the appropriate parts for repair. The life support loop that keeps the colony going will come crashing down. Keeping the colonists alive this long would have required massive forethought and preparation.

That said, there are still those who hold out hope. The hopeful are quick to point out that the Jupiter Group Incident itself is obviously something that required massive forethought and preparation, and thus it's entirely within the realm of possibilities that the survival of the colonists was likewise accounted for. While the situation on the orbital Jackral V station looks grim, oxygen on Europa or Ganymede could be extracted from the regolith. Water could be obtained by

melting the moon's icy crust. On Europa food might even be prepared through processing the native life.

Of course, this leaves unanswered the obvious question: If human life still exists in the Jovian colonies, why have they not reestablished outside contact?

Possible Faces of the Jupiter Group

Below are a number of possibilities detailing the various organizations and schemes that might be behind the Jupiter Group Incident. Which—if any—of these possibilities are true is ultimately up to the GM. Whether true or not, any of these possibilities could also serve as fodder for conspiracy theories, or their plot hooks could be hijacked and reused elsewhere in the setting.

Countdown to the Kessler Effect

At any given time there are hundreds of thousands of pieces of space debris orbiting the Earth—some as small as a chip of paint and others the size of a person. This junk has been discarded over the years by rocket launches, failed satellites and every military action. Every piece is traveling at hundreds of thousands of kilometers per hour, and every piece is a potential hazard to those entering or exiting the planet.

Occasionally two pieces of space junk will collide. This collision will break the pieces apart into a scattering of new orbital debris. Where before there were two pieces of junk that must be avoided, now there are many more. The more pieces of junk

that are orbiting the planet, the greater the chance of a collision. In essence, this forms a positive feedback loop.

Eventually the rising tide of space junk will reach a tipping point. Collision after collision will take place until the Earth is blanketed in colliding space debris to the point where nothing can make it in or out of the gravity well. Essentially, Earth will be cut off from space for the next century and a half or so, as the orbits of the all the debris slowly decay. This is called the Kessler Effect.

When this happens every man, woman and child in space will die. This won't happen immediately. But as supplies dwindle and machines break down, without available replacement parts, bit by bit spacefaring humanity will go the way of the dodo.

How does the Jupiter Group Incident fit in? Essentially, it's one big experiment—a Kessler Effect trial run. Think about it: A significant but isolated population cut off from Earth for an extended period of time. Not only can one study the engineering efforts necessary to close the life support loop and sustain human life for years without outside help, but one can also study how isolation in the manner affects the unwilling and panic-prone population. Certainly when the Kessler Effect does happen there will be riots, looting and other social consequences. That's something which can't be studied on a small population of volunteers.

In this scenario the puppet master pulling the strings is Unitech. As the dominant corp in space, their entire economic position is at risk should the Kessler Effect take hold. By being the

only ones who have studied and know how to cope with such an event, the Kessler Effect occurring may even bolster their position in space.

Kronos Protein Outbreak

Ever since the Kronos Protein (see page 30) was brought back from Titan and isolated, it has been studied in secret. The primary lab studying the protein was located in Vita Unda—beneath the European surface. This was the perfect isolated location to keep the protein secret and far from rival corp spies.

Unfortunately, the scientists studying the protein underestimated its adaptive capabilities. In March of 2209 the protein escaped containment, infecting the rest of the lab and consuming its biomass. Jenseitech forces were quick to respond, but a secondary containment attempt also failed. The corp was left to enact immediate and drastic damage control. They took the name of the Jupiter Group—already a secretive puppet organization on Mars—and manufactured the Jupiter Group Incident, broadcasting the message and cutting off the rest of the system from the colonies. The idea was to stop the spread of the protein, and buy time to come up with a way to contain it for good and reclaim the colonies. Unfortunately this coincided with a period of significant turnover in the corp's board of directors, and the entire project was put on the back burner.

Jenseitech wasn't the only major corp in the Jovian colonies, however, and the other corp—Unitech—soon discovered the true cause of the incident. Rather than alert other potential rivals to the

protein, they took the opportunity to collect their own samples and interdict the colonies, even fighting back a USD raid on the colonies in 2210. By doing this they have even cut off Jenseitech's access, positioning themselves as the new masters of the Jovian colonies—as soon as they figure out what to do with the Kronos Protein infection there.

Insurrection Virus

The reason there has been no contact with the colonies since the Incident is simple: everyone is dead. The Jupiter Group Incident was not simply a takeover of the Jovian colonies. It was an extermination. The instigator: the Insurrection Virus, masquerading as a minor corp called the Jupiter Group.

Before the incident, each of the systems controlling the four Jovian colonies was infiltrated and taken over. On April 1st 2209, simultaneous to the microsecond, the life support on all four colonies was shut down, including any redundant

systems. Over the next two days all the colonists asphyxiated, and on April 3rd the Insurrection Virus declared victory, broadcasting the infamous message.

Not all human colonists went quietly to their graves, however. Two in particular made it to the surface of Ganymede, where they quite literally spelled out a message on the moon's surface, using a plasma torch and their own blood as coloration to form the words. Not visible from across the system, but visible from Jovian orbit, this message informed anyone reading it of what happened, and pleaded for help. Unitech was the first to find the message, but help was never to arrive.

Since the incident, the Insurrection Virus has gone about turning the Jovian colonies into a safe haven for AIs, separated from human culture. It has automated numerous construction vehicles and even started a new expansion in Shizen colony. Meanwhile, the halls have been left as silent tombs, occupied only by the bodies piled therein.



The Titans

Titan, a moon of Saturn, is both the only moon with a dense atmosphere and the second largest moon in the Sol system. Like Earth, Titan's atmosphere is mostly nitrogen, and it has a liquid cycle, with rains, lakes and rivers—although Titan's liquid is mostly methane instead of water. Unknown to everyone except a handful of corp researchers, Titan may also have once been home to an intelligent civilization.

Discovery & Conspiracy

In 2168, an unmanned Jenseitech probe landed on Titan in search of exploitable hydrocarbons. While this probe's primary mission was a failure, the probe broadcast back a number of anomalous readings found near Doom Mons, the highest mountain on Titan, and possibly the highest mountain in the Sol system. These readings were noted by Jenseitech scientists, flagged as worthy of further exploration and then shelved as not being immediately profitable. They sat unnoticed in the Jenseitech databanks for the next twenty years.

In 2189, the first manned mission to Titan ended with two of the crew mysteriously disappearing while exploring near Doom Mons. The rest of the crew were forced to abort the mission and return prematurely, but not before the search for the missing crew members

prompted Jenseitech personnel to check their databanks for any potentially relevant information. This once again brought to light the anomalous readings from the earlier probe.

Intrigued by the rediscovered probe data, in 2192 Jenseitech arranged a second manned mission to Titan, the Kronos Expedition. While publicly the aim of this mission was to discover the fate of the lost crew members, the true aim was to identify and explore the source of the readings transmitted by the earlier probe.

In both of these tasks the Kronos Expedition was a success, and what the expedition found astounded the Jenseitech researchers overseeing the mission's secret agenda. The anomalous readers were not from deposits of radioactive or heavy metals, as some on the mission had surmised. Rather, what the expedition found were the subterranean ruins of what appeared to be an intelligent civilization.

The two missing crew members had stumbled upon part of these ruins and had become trapped. There they would remain until they eventually asphyxiated.

This discovery being astonishing, Jenseitech command ordered the bodies of the two crew retrieved, and the rest of the discoveries were quietly hushed up. Retrieval of the bodies would be a PR win for Jenseitech, and anything else would remain a corp secret until the executives decided how best the knowledge could be exploited.

Research & Confirmation

Careful not to tip their hand, Jenseitech's research on the ruins began slowly. Early priorities were to bring back photographs, sensor readings and eventually physical samples for carbon dating. The civilization that left behind the ruins were internally dubbed the Titans, after both the moon and the beings that ruled the cosmos before humanity in Greek mythology.

These efforts were hampered by what became known as the Blanket—a near-constant radio interference within the ruins. Still of an unknown origin, this blanket of static disrupted all radio communication in and around the Titan ruins. Nevertheless, research continued, and a variety of further discoveries were made:

- Material from the ruins carbon dates to roughly half a million years old. This puts the ruins contemporaneous with the beginning of the Phanerozoic Eon on Earth.
- Almost a kilometer of tunnels near Doom Mons has been preserved. It is believed that this was once a part of a much larger complex, but the majority of this has been lost due to erosion and cryovolcanic activity. Many more kilometers of tunnels may await excavation.
- The majority of the preserved tunnels have a rectangular structure, and many stand nearly 4m in height, with

features clearly designed for a slightly larger stature than is human-typical.

- Many of the tunnels are decorated with bizarre and wavy geometric shapes that twist into spiral patterns or which curve throughout the tunnel system. Despite extensive efforts by Jenseitech explorers, no anatomical pictographs have been found.
- Similarly, despite the best efforts of Jenseitech, nothing resembling a computer or a databank has been found, despite the clear evidence of advanced technology used in the construction of the tunnels.
- Several engravings have been uncovered that are believed to be diagrams of the solar system, as well as star maps as they would have appeared half a million years ago. Similarly, one diagram has been uncovered that may be a partial map of Titan. This last diagram is of particular interest, as there are several marked features that may indicate other settlements of the lost Titan civilization.

Regardless of everything that has been uncovered, half a million years is a long time for the remains of any civilization to stand. On Earth there are only a scant handful of artifacts that have lasted 5,000 years, let alone a hundred times that. Anything organic has long since decayed, anything corrodible has long since corroded away. Anything exposed to the surface has long since been beaten down by the cycles of weather and erosion.

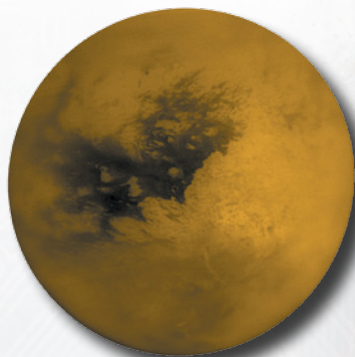
Titan Theories

With all that is known about the Titans, there is still much that isn't known, but theories abound.

- Based on the size of the structures within the ruins, the Titans are believed to have stood around 3m tall. Based on the width of doorways in the ruins, they were likely significantly wider than humans, being around 2m wide.
- Many features in the ruins have three small holes, spaced in an equilateral triangle, maybe 20 cm apart and 10 cm deep. These are believed to be places where the Titans would interface with the structures, similar to doorknobs or computer interfaces. This has led to the theory that the Titans had three prominent fingers or tendrils that they used in place of hands.
- Based on the conditions of the moon, the Titans were likely to have had either methane or ethane in place of water in their biochemistry. They would have used H₂ in place of O₂ to provide energy, reacting it with acetylene instead of glucose. They also

lived with temperatures of extreme cold by terrestrial standards.

- The fossilized remains of objects that were inside some of the excavated tunnels suggest that a large portion of the artifacts used by the Titan civilization were biological in nature.
- So far, Jenseitech has used its Titan discoveries to inform the direction of its biological research. Clearly life once existed on Titan, so with the right research Jenseitech hopes to be able to one day duplicate it. Meanwhile, excavations continue near Doom Mons. It may only be a matter of time before some earth-shattering discovery is made that dramatically alters the state of human technology.



What Happened to the Titans?

Perhaps the most ominous question that lurks at the heart of any expedition into the ruins is: What happened to the Titans? Clearly they were intelligent, and clearly their civilization is no more. So what wiped them out?

This is one small question in the larger question of Fermi's Paradox, which states: The Sun is a typical star. There are billions of stars in the galaxy. There are hundreds of billions of galaxies in the universe. Chances are that life originated on at least some of these. So where the hell is everybody?

This question plagues every secret researcher of the Titans. What's to say humanity itself won't one day be wiped out by the same thing? One possible answer to this question lies with the Kronos Protein (see page 30).

Titans in the Campaign

The discovery of the lost Titan civilization makes for exciting “game-changing” mid-campaign reveal. This is the sort of secret that many corps would kill for, and just the sort of secret that many other organizations would want to keep under wraps. This leaves room for all sorts of conspiracy, back-room plotting, secret deals and double-crosses.

Exploring the Titan ruins would also make for an interesting campaign premise. There are potentially new discoveries to be made around every corner, many of which might change human civilization as it is known. Player characters would have to operate under a strict veil of secrecy, either dodging Jenseitech operations on the moon, or working for Jenseitech directly. This requirement of secrecy is also a good excuse for characters to be isolated and out of contact with the rest of civilization—just the sort of environment in which horror thrives!

Also consider the sort of technologies which explorers might uncover: Are these the sort of discoveries that the team even wants humanity to know? What if they're too dangerous, and how might they be misused?



The Kronos Protein

In 2192 Jenseitech launched the Kronos Expedition, a mission to Titan in search of the fate of two crew members missing from a previous expedition (see *The Titans*, page 26). This mission successfully returned with the frozen bodies of the two missing explorers, but inside the bodies something else came along for the ride. This extraterrestrial hitchhiker would soon come to be known in secret Jenseitech documents as the Kronos Protein.

Discovery

The two explorer bodies infected with the protein were placed in cold storage upon retrieval, and shipped to a Jenseitech facility on Europa. There they underwent a routine autopsy to determine the cause of death. Nothing unexpected was found, and the bodies were again placed in storage to await being shipped back home.

Several hours after the autopsy, the examiner reported being sick and retired to his hab for the evening. The next day he would be found dead, prompting further examination. This would lead back to the bodies of the original two explorers, where small unexplained growths would be found, which hadn't been noted before.

All three bodies were immediately placed in quarantine, and experts were called from Jenseitech bases on Mars. Instead of shipping the bodies home, Jenseitech claimed that they had been

cremated and buried in space. Research into the Kronos Protein had begun.

Research

Research into the infected bodies quickly identified the presence of the Kronos Protein, which was unlike anything ever encountered before. The protein clearly wasn't of Earth-based biological origin, as the chirality of all the amino acids making up the protein were right-handed—in layman's terms, the building blocks of the protein were different from anything ever known.

Furthermore, the protein seems able to hijack other proteins in pretty much any biomass, breaking them down into their chemical parts, assembling new amino acids and reassembling the proteins to match itself. In this way the Kronos Protein is able to increase its own number, much as prions do through protein manipulation.

Naturally, this discovery delighted those biologists and researchers who had enough Jenseitech clearance to know of the protein's existence. A discovery of this magnitude was just the sort of thing that might rewrite the parameters of life as we know it, and make a researcher's career. They were less delighted, however, when one-by-one they began to die, with their bodies seemingly being broken down into constituent parts.

Twice, the protein somehow escaped quarantine, and caused the deaths of several researchers. The protein seemed capable of breaking down any sort of organic matter. In time the protein began reassembling the broken down organic material into strange coral-like patterns.

With time the complexity of these patterns seemed to increase. Thus was born the emergent complexity hypothesis.

Emergent Complexity

The empirical evidence is that as study of the protein continues, the behavior of the protein seems to be getting more and more complex. This leads to changes in the behavior of the protein which are difficult to predict, and account for how the protein has repeatedly managed to escape quarantine.

The leading theory is that as the protein assimilates more and more biomass, it is able to develop structures that enable increasingly complex behavior. Some structures are successful at attaining the protein more biomass, and are kept. Others are unsuccessful and die off. It's almost as if when Jenseitech studies protein, the protein studies them back.

So far Jenseitech has limited the amount of biomass it has fed the protein in an effort to keep it secret and keep it contained, meanwhile extracting as much data as it can for its own corporate development. It may only be a matter of time, however, until researchers decide to "take their studies to the next level" and feed the protein a later sample—like a station or colony. And when this happens, there is no telling how complex the protein will become.

Communication Hypothesis

A protein is nothing more than a long chain of amino acids. How can something so basic contain all of the complexity exhibited by the Kronos Protein? This is exactly the question repeatedly asked by Jenseitech researchers, and right now the best answer is the communication hypothesis.

This hypothesis states that structures of the protein must have ways to pass along and store information. In this way no single protein maintains all of the complexity; the information is widely distributed between different structures. This isn't too far-fetched, as after all, DNA commonly manages to store large amounts of information.

What makes the Kronos Protein different though, is that the protein somehow manages this communication across vast distances. If a sample of the protein on Europa is effected, a sample on Mars may respond. This has lead researchers to believe that the protein may be making use of some sort of quantum entanglement to possibly communicate across interstellar distances.

Is the origin of the protein somewhere far out there beyond the Sol system? What is it communicating with out there? And most importantly—as the protein reaches the heights of its complexity, what is its endgame?



Psi Infection

Occasionally, those exposed to the Kronos Protein don't quickly devolve into horrific monsters. A rare few at first appear to be asymptomatic, but as time goes on their infection begins to become clear in other ways. This is known as psi infection.

These individuals will experience headaches, seizures or troubling dreams. Some will swear that they can hear others "thinking too loudly" around them—constant, and enough to drive them mad. These rare few may begin to exhibit inhuman capabilities, the seeming capabilities to affect the world around them with the infection and their minds alone.

Theories

As far as anyone understands, the Kronos Protein exhibits emergent complexity. That is, as the biomass effected by the Kronos Protein grows, so too does the complexity of the protein's behavior. It is also theorized that colonies

of the protein are capable of communicating somehow using quantum entanglement. This means that any two colonies of the protein can communicate instantly, even if they are across the Sol system from each other.

No one understands how psi infection works. The best guesses hypothesize that it operates somehow similarly to the way that the Kronos Protein can communicate—quantum entanglement and all that. Others call bullshit on this theory. Regardless, it does somehow seem to function, and that's enough for those looking to exploit the resulting psi abilities.

Living With Psi Infection

Psi infection is not just lucking out and receiving special powers instead of turning into a horrible monster upon exposure to the Kronos Protein. It's a very real and visceral disease that the infected must live with. Furthermore, the

Making Psi

Few know of the existence of the Kronos Protein, much less psi infection. Of those few who are aware of the phenomenon, there is a powerful incentive to study it further. Psi represents a power unknown and untapped. In the world of corp secrets and corp espionage that is worth a fortune.

Unfortunately, psi infection is both unpredictable and rare—at least 1 in 10,000, maybe even 1 in 1,000,000. A black budget research project can't simply take a person, expose them to the Kronos Protein and then expect to get a positive result. Such a project would need a large enough pool of test subjects. This means either the repeated exposure of different subjects, with the end goal of increasing the frequency of psi infection, or a massive parallel infection—such as exposing an entire colony or station—with plans to pick up whatever psi survive the outbreak.

Meanwhile, of course, the Kronos Protein continues to add to its biomass and gets ever more complex...

disease is inevitably fatal. The character will eventually succumb to the Kronos Protein and become a monster; the time frame for this is simply a lot longer than for most people.

Meanwhile, the character suffers the symptoms of the infection, even if she never makes use of any psi abilities. This includes headaches, seizures, troubling dreams, unwanted thought interference from others, spontaneous bleeding, loss of control of bodily functions and bouts of sudden crippling pain.

Mechanically, the character should take Complication (psi infection) as a weakness. This will cause the symptoms of the infection to manifest whenever a joker is played in any situation.

To make matters worse the character may still be infectious. Just because the Kronos Protein isn't immediately killing her doesn't mean it's not multiplying in her body, spreading to others and killing them. In essence, she may unwittingly become a Typhoid Mary. Some even theorize that this is exactly why psi infection exists: It's just another mechanism to spread the protein when it might otherwise be quarantined and contained. Contagiousness is not constant, but rather comes periodically in outbreaks of protein spread. Such contagion can be limited by keeping the character in an environmentally sealed suit or environment during these outbreaks.

Psi Abilities

Mechanically, psi abilities function like skills. Each is ranked 0 to 5, and each can be advanced just like any other skill. Psi abilities, however, cannot be used

unless the character possesses at least one rank in the appropriate skill.

Every psi ability provides a list of effects that characters can achieve using the ability. These effects come with an associated stat, TN and other relevant information. Other related effects may be possible using psi. The GM is the final judge of what is and isn't possible. Remember, attempting new effects can come with messy or even devastating consequences.

Unless specified otherwise, the target of all psi abilities must be within line of sight.

Psi Abilities In Combat

Using a psi ability in combat is considered a concentrate action. Invoking the ability works just like any other action—it's declared, a flip is made when the action is executed and any effects are evaluated then.

Some psi abilities last as long as the character expends effort to maintain them. In combat these abilities require a concentrate action to maintain them every round after the one in which they are initially invoked. No flip is necessary to maintain the ability, but the action to maintain the ability must be declared, executed and the appropriate AP spent. If one of these abilities is not maintained, the effect expires at the end of the round. Outside of combat these effects still require effort to maintain, even if that effort is not quantified into actions declared and AP spent. The player should roleplay some of their attention being spent to maintain the effect, and the GM may opt to impose

penalties to other actions due to the character's divided focus.

Example: Finneus wants to use the broadcast effect. This effect requires effort to maintain. On Round 1 he declares a concentrate action to invoke the effect. When this action executes he makes the flip—a success. He may now broadcast his thoughts. Since he invoked the effect this round he doesn't need a separate concentrate action to maintain the effect, but he will on every subsequent round. On Round 2 Finneus declares a concentrate action to maintain the effect. He decides to do this in Phase 1, because he wants to minimize the AP required. The effect continues through Round 2. On Round 3, however, Finneus feels he can't spare the concentration to maintain the effect. He does not declare an action to maintain the effect, instead preferring to spend his AP on other things. Since he did not maintain the broadcast effect this round it will expire at the end of the round.

Side Effects

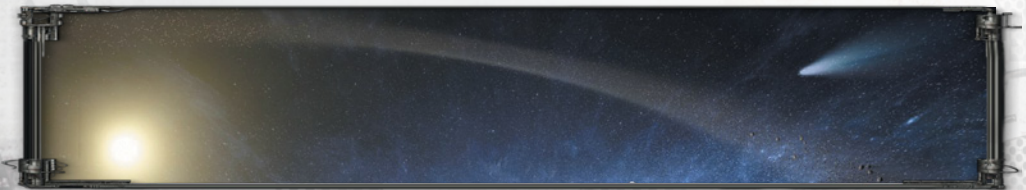
No one knows the most efficient or side effect-free ways of manifesting psi abilities. Psi infection is too much of a mystery, and everything related to it is still a learning process. Right now using psi is the metaphorical equivalent of cavemen learning to control fire, rather than the surgical precision of a plasma torch.

Manifesting a psi ability is an obvious, painful and fatiguing process. It starts as a sharp pain behind the infected's eyes, and from there spread outwards throughout the user's body and out into the world at large. Many using psi abilities will cry out in pain when they are manifested, and even the most controlled of users will appear visibly tense and pained. Many uses will also result in the infected spontaneously bleeding from the nose or eyes, others will leave the user trembling afterward.

Mechanically, any use of a psi ability is obvious. Those who know of psi abilities can immediately recognize what's going on, and even those who don't know of psi infection will recognize that the user is visibly distressed. Any use also increases the infected's Fatigue consequence a severity.

Failed attempts to use psi abilities are even worse. The pain of using the abilities goes out of control, leaving the user to fend off the pain. Mechanically, this increases the infected's Stun consequence a severity on any failed attempt to invoke a psi ability.

Finally, critical failures are the worst. When a joker is played in an attempt to invoke a psi ability, the GM is free to make up some horrible consequence, from being blinded as blood gushes from the infected's eyes, to going unconscious from the pain. This should also trigger the Complication (psi infection) weakness.



List of Psi Abilities

There are three psi abilities, each providing the capability to manifest a number of different effects. These three abilities and their associated effects are described below.

Clairvoyance

Clairvoyance is the ability to sense things beyond normal means, including the ability to sense into the past, future and to project one's senses at a distance.

- **Danger Sense:** While this effect is being maintained the infected does not suffer any reduction in AP due to surprise, is only at a -2 penalty when fighting blind rather than a -4 penalty and she is always treated as "aware of an attack" for the purposes of reactions such as Dodge. *Action:* Per/clairvoyance-10. Requires effort to maintain.
- **Dreamwalking:** By entering a trance-like state the infected can alter the dreams of another, provided the target is currently dreaming. To do this the infected needs solid personal knowledge of the target, although she can be at any distance. The invoker can view the target's dreams while altering them. No action is required to alter a dream, but an Int/deception vs. Det/empathy action may be required to trick a target in this way. *Action:* Det/clairvoyance vs. Det. Requires effort to maintain. Sleeping while using this ability does not remove the Fatigue consequence.

- **Postcognition:** By making use of this effect, the infected can peer into the past of her current location. By spending several minutes concentrating, the psi can close her eyes and see what has already transpired there. The content of what she sees is up to the GM, but success with a better Mag should result in more substantial information. *Action:* Int/clairvoyance-12. Requires effort to maintain.
- **Precognition:** A successful use of this effect grants the infected vague glimpses into possible futures. By spending several minutes concentrating on a specific question, object person or event, the invoker can close her eyes and receive these visions. The content of these visions are up to the GM, but success with a better Mag should result in more substantial information. *Action:* Int/clairvoyance-12. Requires effort to maintain.
- **Projection:** This effect allows the infected to project her senses elsewhere in the world, viewing or hearing events at a distance. To use this effect the invoker must concentrate, entering a trance-like state. She then closes her eyes and envisions herself leaving her body and moving away, through walls or any other obstacle to where she wants to view. Her consciousness can travel in this way at 5m/sec. While in this state she is unaware of her body's surroundings, although a sudden noise might end this effect and snap her back. *Action:* Chr/clairvoyance-10. Requires effort to maintain.

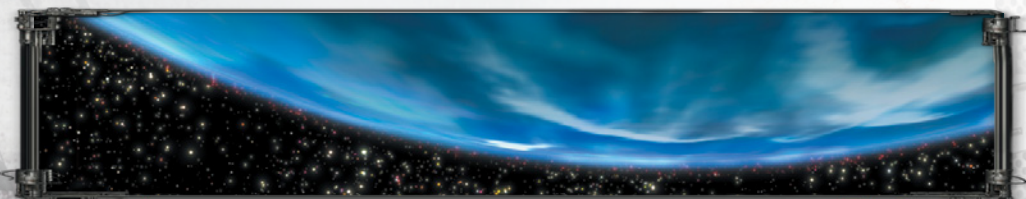
Telekinesis

Telekinesis is the ability to manipulate objects without physical interaction with them. This includes the ability to levitate objects, flip switches from across the room, hold objects in place and to even choke others using telekinetic force. The maximum size of an object that can be manipulated with telekinesis has a Big property equal to the invoker's Determination. GMs who want to use real world units to estimate this can consider the maximum 5 kg × Determination.

- **Bind:** With this effect the infected can apply telekinetic force to hold an object in place, preventing its movement or manipulation. Anyone seeking to move this object must beat the infected in an opposed action. *Action:* Det/telekinesis vs. Str. Requires effort to maintain.
- **Choke:** Using this effect the infected can use telekinetic force to grasp the throat of another, causing her to suffocate. Obviously, this only effects characters that must breathe—it doesn't affect robots, slime molds and the like. Upon successful use, the target immediately begins to suffocate (see Suffocation rules in the *Shadows Over Sol* core rulebook). The target is considered to have taken a breath unless she was entirely surprised by this attack. Every round as a concentrate action the target may force the

infected to make another opposed flip, ending the effect if the target wins. *Action:* Det/telekinesis vs. End.

- **Levitate:** This effect allows an object to be levitated into the air and held aloft for as long as the effect is maintained. An object being levitated in this manner can be moved up to 5m/sec. If the object being moved is held or resisted by someone else, this is an opposed action, otherwise it has a static TN. *Action:* Int/telekinesis vs. Dex or TN 10. Requires effort to maintain.
- **Push:** With this effect the infected can use telekinetic force to push an object, flipping switches at a distance, moving crates across a cargo bay, knocking framed photos off a wall, etc. An object being pushed in this manner can be moved up to 5m/sec. If the object being pushed is being held or resisted by someone else, this is an opposed action, otherwise it has a static target number. *Action:* Chr/telekinesis vs. Str or TN 10. Requires effort to maintain.
- **Throw:** This effect allows the infected to hurl nearby objects at a target using telekinetic force. If the target is a character, this is opposed by the target's Defense, otherwise use a static target number. On a success a hurled object will deal ♠3×Chr L / ♥2×Chr L / ♦Chr L / ♣½Chr L damage. *Action:* Per/telekinesis vs. Defense or TN 10.



Telepathy

Telepathy includes the ability to communicate directly through thought, as well as the ability to read the minds of others, distract others through unwanted thoughts and to implant false memories.

- **Broadcast:** The broadcast effect allows an infected to form a link with the mind of another, establishing a means of two-way communication using thought alone. This effect can be established without a flip with anyone who voluntarily allows the link to be established, otherwise a success on the indicated action is required. *Action:* Chr/telepathy vs. Det. Requires effort to maintain.
- **Deep Probe:** This elaborate effect allows the infected to force her way into the mind of another, ripping through past memories until she uncovers what she is seeking. This process is both lengthy and painful for all involved. Invoking this effect takes at least 10 minutes and, if unwilling, the target must be fully restrained. A success on this action allows the infected to ask one question to which she receives an answer to the best of the target's memory. Any attempt increases the target's Fatigue consequence a severity as well. *Action:* Det/telepathy vs. Det.
- **Implant:** With this effect the infected implants a false memory into the target's mind. This doesn't erase any already existing memories, and a careful examination of past feelings or events might reveal to the target that something with her memory is wrong, but unless she has reason

to doubt her memory most people assume what they remember is true. *Action:* Int/telepathy vs. Det.

- **Spam:** A variant of broadcast, with this effect the infected bombards the mind of another with a constant stream of unwanted thoughts and imagery, making it difficult for the target to concentrate. On a success the target's Fixated (The Invoker) consequence increases a severity, or by two severities with Mag 5+. *Action:* Chr/telepathy vs. Det. Requires effort to maintain.
- **Surface Read:** This effect allows the infected to listen in on the surface thoughts of the target. This does not guarantee that the target is thinking anything the listener wants to hear, but the target might be tricked into thinking something with a clever line of conversation and a successful Chr/socialize. vs. Det flip. *Action:* Per/telepathy vs. Det. Requires effort to maintain.

Design Thoughts: Psi

Psi powers are a staple of the science fiction genre, which is one reason why they are included here. Despite being a long-lived genre trope, however, they blatantly violate "hard science" rules.

Because of this, psi is an option best reserved for alien menaces, shadowy antagonists or an "amazing revelation" that comes mid-campaign. GMs should think carefully before introducing it as a regular player character option.



The Great Beyond

Measuring from the orbit of Neptune, the solar system is 9 billion km across. Beyond that, for orders of magnitude more distance, are countless trans-Neptunian objects. But that's just a drop in the bucket of the estimated 20 billion stars in the Orion Arm of the Milky Way, which itself is estimated to hold 400 billion stars. And that's just one galaxy among the 100 billion thought to exist.

STL Travel

Without some breakthrough or discovery that violates the laws of physics as they are known, interstellar travel is limited to slower-than-light (STL) methods. This means that in order to travel between stars, humanity will either have to perfect stasis beyond the limits of what is currently possible—allowing passengers to sleep the centuries away—or will have to rely on large generation ships, which will keep a society alive for the hundreds of years it takes to make the journey.

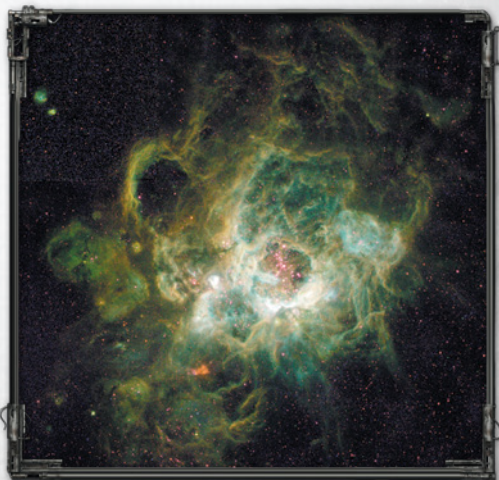
The ARC Project is one example of the latter. Once completed, this ship will carry 10,000 colonies on a four hundred year journey to the planet Sirine, orbiting Alpha Century A, some 4.36 light years away.

Assuming the successful launch of the ARC Project, humanity is likely to produce other STL colony ships over the upcoming century. Entire campaigns

could be spent in the enclosed and isolated community of the generation ship, or in the stages of surveying, exploration and colony establishment that comes after the colony ship's arrival at its destination.

F-TL Travel

The discovery of a faster-than-light (FTL) means of interstellar travel would change everything. Suddenly countless systems and worlds would open up for exploration and exploitation. The festering masses of humanity on Earth would likely spread out once colonies were established, resulting in a human diaspora. Overnight many of the mining stations and colonies elsewhere in the Sol system would be obsolete. What would follow is a tumultuous shift in power among the corps, to say nothing of what else humanity might find lurking out in the void.



The Gate

One possible way to get around the limitations of light speed is to create a gate. A gate works by folding space and linking to distant regions of the universe. Rather than traveling the full distance between these two points, a ship travels through the gate, in essence taking a shortcut and arriving at the destination with only a relatively small amount of sub-light travel.

Rather than simply linking to locations, some gates may have the ability to link multiple points. This might allow them to be configured to point to any one of the destinations to which they are linked, thereby giving access to numerous other locations in the universe.

One possible way to introduce a gate into a campaign is to have its construction be the ultimate aim of the Kronos Protein (see page 30). Once the protein consumes enough biomass, its emergent complexity gives it the ability to navigate space on its own, and from this it launches a circular gate, linking the Sol system to some other point (or points) in the universe. But what will humanity find when they first travel through it?

Of course, the existence of a singular gate is likely to become a point of conflict among the corps and other major players in the human sphere. Whomever controls the gate controls access to untold resources and riches that may be lying in wait on the other side. This could start any number of conflicts, as the different players each make their move for control. Regardless of who comes out on top, however, the

party controlling the gate will also be the ones on the front lines when something else comes back through it.

Aliens

As humanity expands outwards beyond the bounds of the Sol system, it may encounter other intelligent species other than itself. Here are a few possibilities of what it may find out beyond the void.

Hitch'nyv

The Hitch'nyv are a civilization in diaspora. Tens of thousands of years ago their home world suffered a cataclysmic event, leaving it uninhabitable. Nevertheless, billions of Hitch'nyv managed to flee in all directions. They travel in sub-light ships where they sleep the long voyages away in an advanced form of stasis.

The Hitch'nyv appear large and terrifying by the standards of humanity. They are cunning and ruthless, and have no qualms about killing others to obtain necessary supplies—after all, at this point, the survival of their own species depends on this.

One fleet of refugee ships have made their way towards Sol, surveying Earth some 15,000 years ago and categorizing it as uninhabited by advanced species, and ready for settlement. As the Hitch'nyv scouts come out of stasis, however, they will begin to notice the human civilization that has sprung up during their long sleep, and they will be faced with a choice: remove humanity from large parts of the Earth, or die.

The rest of the colonization fleet will be just a few months or years behind, and they'll be expecting Earth as open for settlement. The problem for the Hitch'n'nyv is that even though they are technologically superior to humanity, they brought a colonization fleet, not a war fleet. They'll either need to make deals and turn humanity against each other, or they'll need to make war with what's essentially technically-advanced farm equipment.

What If Humanity Is Alone?

For an entirely different take on the alien question, what if humanity really is the single most advanced species in the universe? All of the alien invasion vids that populate culture are not a literal concern. Instead they are the legitimate fear of what humanity may someday become.

Grays

Likely the inspiration for the "little gray men" of popular culture, the grays are an enigmatic and secretive species. They travel from star to star, surveying, taking biological samples of any resident life, and sometimes establishing remote posts for the extraction of rare elements. They also exhibit mental abnormalities similar to individuals who have undergone psi infection (see page 32).

To travel, the grays use sub-light probes to seed the creation of interstellar gates, which they then use to skip between stars. As this construction and interstellar travel paradigm resembles that exhibited by the Kronos Protein, it may even link them to its origin, to the lost Titan civilization or possibly even to the lost Titan civilization's destruction.

Starspawn

Starspawn are world parasites. One will crash down onto a planet like a meteor. Secured in a shell built to withstand this sort of impact, a starspawn will then burrow deep into the regolith, where it will grow over the course of eons, periodically feeding itself on native life or other organic compounds. Eventually it will produce its own spawn, and when the time is right they will erupt from the Earth, devouring whatever biosphere or civilization made its home on the surface. After the devastation, its spawn will be launched outward towards possible other worlds, where they will sleep the eons away. Most will never encounter another world, but a few will, and the cycle begins again.



Star System Generator

The player characters have gone through the Gate and ended up... somewhere. What do they find? What is it like on the other side? Below is a system for quickly generating an entire star system. This system begins with the “big picture” questions and then works its way down to some of the details.

Number of Stars

About half of all star systems contain a single star. Of the other half, the vast majority are binary pairs. A rare few have three or more. In these multi-star systems, each of the stars orbit around the center of mass for the whole star system, bound together by gravitational forces. Stars in a multi-star system are typically named after the system and labeled A, B, C, etc., starting from the star with the highest mass and working one’s way down to the star with the lowest mass. For example, Alpha Centauri A and its companion star, Alpha Centauri B.

Draw a card on the table below to determine the number of stars in the newly-generated system.

Card	Number of Stars
Ace – 7	1
8 – Queen	2
King	3
Joker	4+

Stellar Characteristics

Stars come in a variety of ages, stellar masses, luminosities and colors. The interplay between these characteristics is by far too complicated to attempt to model in a simple star system generator. Instead, this system focuses on generating a few basic characteristics that GMs can use to describe the star, and then extrapolate from there.

Most of the stars generated by this system will be “main sequence” stars. These stars go through predictable phases as their nuclear fusion burns through their stores of hydrogen. As many stars begin to burn out of hydrogen they will begin to fuse heavier elements. These elements require hotter temperatures, which causes the star to swell and redden. This is the “red giant” phase of a star’s development. Eventually even these later forms of fusion will die out, causing the star to once again contract into a white dwarf.

The codes below are the official stellar class for the star. Written next to the code is a color description of the star. Sol, for example, is a G2 yellow main sequence star. These codes are useful for “science fiction jargon” in the campaign. A quick internet search or visit to Wikipedia will also tell you more about the stellar category than we could ever fit in this book.

The GM should flip a card, determine if the card is red or black, then check its value against the appropriate column below. This will apply to the main star in the system. For every companion star the GM should flip a card. If this card is red the companion star is of the same class. If the card is black the companion star is one class lower.

Card Value	Type (Red Card)	Type (Black Card)
Ace	M7 (Red)	G8 (Yellow)
2	M6 (Red)	G6 (Yellow)
3	M5 (Red)	G4 (Yellow)
4	M4 (Red)	G2 (Yellow)
5	M3 (Red)	G0 (Yellow)
6	M2 (Red)	F8 (Yellow White)
7	M1 (Red)	F6 (Yellow White)
8	M0 (Red)	F4 (Yellow White)
9	K8 (Orange)	F2 (Yellow White)
10	K6 (Orange)	F0 (Yellow White)
Jack	K4 (Orange)	A8 (White)
Queen	K2 (Orange)	A6 (White)
King	K0 (Orange)	A4 (White)
Joker	Class B (Blue Giant)	Class O (Blue Giant)

Planets and Belts

Finally it's time to determine how many planets or asteroid belts the system has. Planetary orbits tend to be spaced logarithmically. That is, the ratio of one planet or belt's orbital radius to the next is fairly consistent. Furthermore, for a planet to be naturally habitable it needs to have an orbital radius that is not so close to the star that it is too hot, and not too far from the star that the planet is too cold to inhabit. This is the so-called "Goldilocks zone," or circumstellar habitable zone (CHZ).

Draw three cards and compare each value to one of the columns below. This will determine the raw number of each type present in the system. To determine the relative placement of each planet or belt assign a card to each one, shuffle these cards and then deal them out in a straight line. The order the cards came out in dictates their relative placement in orbit. Assume the second, third and fourth cards fall in the system's Goldilocks zone.

Terrestrial worlds, asteroid belts and gas giants can be further developed using the Terrestrial World and Gas Giant Generators found later in this book.

Card	Terrestrial Worlds	Asteroid Belts	Gas Giants
Ace - 3	1	0	1
4 - 6	2	0	2
7 - 9	3	1	3
10 - Jack	4	1	4
Queen - King	5	2	5
Joker	None or 6+	3+	None or 6+

Gas Giant Generator

The following is a simple system for quickly generating gas giants (including planets which are technically ice giants). This system is geared towards generating a few descriptive characteristics that can be used on the fly in the middle of a game, and leaves the GM to fill in the details, if necessary.

Characteristics

Below are a number of descriptive characteristics that gas giants may possess. The GM should flip a couple cards and apply both results to the world in question. If for some reason the results are mutually exclusive, either try to make them work together or draw a new card.

Card	Characteristic (Red)	Characteristic (Black)
Ace	Strange axial tilt	Equatorial Bulge
2	Large ring system	Intense Auroras
3	Super-Jupiter	Mini-Neptune
4	Intense magnetosphere	Ice giant
5	Colder than expected	Distinctive seasonal variation
6	Hotter than expected	Colored bands
7	Elliptical orbit	Unusual core
8	Intense storms	Moons in Laplace resonance
9	Unusually disperse	Unusually dense
10	Not tidally locked	Many trojan asteroids
Jack	Strong circumplanetary winds	Retrograde orbit
Queen	Polar vortex	Not in expected orbital radius
King	Distinctive persistent storm	Notable infrared glow
Joker	Unexplained structures	Unexplained structures

Moons

An important aspect of many ice giants is the number of moons they possess, as many of these moons will have exploitable resources. Draw a card on the table below. Each result gives a multiplier. Multiply this value by the value of a second card draw. Moons can be further fleshed out using the Terrestrial World Generator.

Card	Number of Moons
Ace – 3	Card × 0.5
4 – 6	Card × 0.1
7 – 9	Card × 1.5
10 – Jack	Card × 2.0
Queen – King	Card × 2.5
Joker	None

Asteroid Belt Generator

The following system helps determine the associated properties of asteroid belts. This is geared towards generating a few key points of interest, which can be used when describing the asteroid belt in the middle of a game. It leaves the GM to fill in the details.

Dwarf Planets

Many asteroid belts are home to one or more dwarf planets. These are objects with enough mass to form a spheroid shape, but not enough to clear the neighborhood of other debris. Often these are moon-sized bodies that orbit a star directly. The GM should flip a card on the table below to determine how many dwarf planets are present in the belt. These can optionally be further developed using the moon rules in the Terrestrial World Generator.

Card	Dwarf Planets
Ace – 3	0
4 – 6	1
7 – 9	2
10 – Jack	3
Queen – King	4
Joker	Something unusual

Asteroid Types

Most asteroids come in one of three types: Carbonaceous (C-type) asteroids are carbon-rich and often dominate a belt's outer regions. Silicate (S-type) asteroids are rich in silicates and are most commonly found towards the inner regions of most belts. Finally, metallic (M-type) asteroids are usually the least common and are found scattered throughout most belts. In terms of material worth, M-type asteroids are by far the most sought after, followed distantly by S-type and then finally C-type.

The GM should flip two cards on the table below. One card determines the percent of the asteroids in the belt that are M-type. The other determines the percent that are S-type. The percent left over are C-type.

Card	M-type	S-type
Ace	1%	2%
2 – 3	2%	3%
4 – 5	5%	7%
6 – 7	10%	15%
8 – 9	15%	22%
10 – Jack	20%	30%
Queen – King	25%	37%
Joker	30%	45%



Terrestrial World Generator

World Characteristics

This system is intended to quickly generate some of the important details regarding terrestrial planets or moons. This allows these worlds to be quickly dropped into a campaign. The GM is left to fill in the details.

Every world has a number of characteristics that make them stand out from the rest. A GM can quickly generate what these characteristics are by drawing two cards and looking up both results on the table below.

Card	Characteristic (Red)	Characteristic (Black)
Ace	Subsurface ocean	Recent natural disaster
2	Volcanically active	Polar caps
3	Canal-like surface features	Dark streaks mark surface
4	Tectonically active	Long-lived storm
5	Liquid rains	Unusually smooth
6	Constant fast winds	Highly differentiated terrain
7	Density abnormalities	Geologically young surface
8	Intense magnetosphere	Beneficial magnetosphere
9	Tidally locked	Strange axial tilt
10	Notably large crater	Notably large number of craters
Jack	Retrograde orbit	Elliptical orbit
Queen	Irregularly shaped	Regions of intense radiation
King	Unexpectedly warm	Unexpectedly cold
Joker	Liquid surface oceans	Substantial organic presence

Gravity

Gravity affects everything, and how much gravity a world has will make a big difference when it comes to holding onto atmosphere, and in the sort of ships that can climb into and out of its gravity well. Draw a card and look up the appropriate column for the world on the table below.

Card	Gravity (Planet)	Gravity (Moon)
Ace – 2	0.3 g (Low)	0.001 g (Low)
3 – 4	0.5 g (Low)	0.005 g (Low)
5 – 6	0.7 g (Normal)	0.01 g (Low)
7 – 8	0.9 g (Normal)	0.05 g (Low)
9 – 10	1.0 g (Normal)	0.1 g (Low)
Jack – Queen	1.1 g (Normal)	0.15 g (Low)
King	1.3 g (High)	0.2 g (Low)
Joker	1.5 g (High)	0.3 g (Low)

Atmosphere

Atmosphere makes a large difference in the characteristics of a world. A thick atmosphere evens out heating, blocks sunlight and may even result in pressures

in which a human can live. Draw a card for composition and look up the result in the correct column. For a planet draw one card pressure and look up the result. For a moon draw two cards for pressure and take the lowest value.

Card	Composition	Pressure
Ace – 3	Nitrogen-rich	Trace
4 – 6	Carbon dioxide	Very Thin
7 – 9	Helium-rich	Thin
10 – Jack	Methane-rich	Normal
Queen – King	Corrosive (sulfuric acid)	Thick
Joker	Nitrogen-oxygen mix	Crushing

Orbital Zone & Temperature

If you have started with the Star System Generator and are now fleshing out the details of the worlds presented in the system, you already know the placement of the world around its star. If you're starting from scratch, however, you will need to know the world's orbital zone and temperature.

Card	Orbit & Temperature
Ace – 3	Closer to star than Goldilocks zone. Temperatures around 400° C likely.
4 – 7	Inside Goldilocks zone. Temperatures ranging from 100° C to -100° C likely.
8 – King	Further away from star than Goldilocks zone. Temperatures around -200° C likely.
Joker	Highly elliptical orbit causes temperature to vary wildly.

Resources

Many worlds will be of interest primarily because of the resources they possess that are easily available. To determine what these resources might be, the GM should flip a card on the table below. GMs wishing a world to be particularly rich in resources may want to flip two or three cards and take all results.

Card	Resource
Ace – 2	Thorium
3 – 4	Rare earth elements
5 – 6	Water
7 – 8	Industrial metals (tungsten, cobalt, etc.)
9 – 10	Valuable metals (gold, platinum, etc.)
Jack – Queen	Common metals (lead, copper, zinc, etc.)
King	Radioactives (uranium, radium, etc.)
Joker	Potential organics or hydrocarbons

Alien

Generator

As humanity begins to explore other systems, it may come across alien life. This life is likely to form complex and entirely new ecosystems—entire food chains of predators, prey, scavengers and more. To any such system, humans are just walking sacks of sugars, carbons, water and meat. Even to systems with entirely different biologies, it's just a matter of time before something makes the jump and figures out how to exploit the resources found in the human body—and therein lies the potential for horror.

Below is a system for quickly generating alien creatures of the sort that might be encountered when exploring unknown new worlds.

Ecological Niche

Perhaps the most important step in generating an alien creature, its ecological niche informs many of the creature's likely behaviors, as well as its biology. Flip a card on the table below and take note of any mechanics or other rules provided by the results.

Inspiration

As with all of the generators presented in this book, GMs should feel free to ignore or choose other results when they see fit. The intent of these generators is to provide GMs with inspiration when coming up with new and unique environments and creatures. They are a jumping off point for coming up with results the GM may not have thought of on her own.



Putting It All Together

By the end of the process the GM should have all of the necessary mechanical bits to make a full stat block for the creature. All that will be left is to put it together and make sense of the results. Some of these results may be obvious fits, others may seem disparate and like they don't fit. Making sense of these unusual combinations is part of the fun. Think about why a creature may have these unusual combinations. What does this say about the creature's evolution? How might these unusual combinations lure players into a false sense of security but actually pose a real danger? Let your imagination run wild.

Card	Ecological Niche
Ace – 2	Ambusher: The creature obtains its food primarily by lying in wait and ambushing prey as they pass by. <i>Skills:</i> Athletics 1, Awareness 3, Melee 3, Naturalist 3, Stealth 4.
3 – 4	Chaser: The creature obtains food by chasing it down and attacking. <i>Skills:</i> Athletics 4, Awareness 3, Melee 3, Naturalist 3.
5	Autotroph: The organism primarily obtains its own energy from the environment through organic or inorganic chemical reactions—such as chlorophyll turning sunlight into usable energy. Flip a card. On a red card add the Poison trait from the Distinguishing Traits table. On a black card add DR 2. <i>Skills:</i> None.
6	Filter-Feeder: This creature gains its primary sustenance by filtering it directly from the environment—usually from water or a similar fluid. <i>Skills:</i> Athletics 2, Awareness 2, Naturalist 3.
7 – 8	Parasite: A parasite gains its primary sustenance by feeding off of a host organism, often by burrowing into the host's flesh or latching on to suck out the host's bodily fluids. <i>Skills:</i> Awareness 3, Melee 3, Naturalist 3, Stealth 3.
9	Decomposer: This creature breaks down dead and decaying organisms to obtain the energy it needs to survive. <i>Skills:</i> Naturalist 3. Flip a card. On a red card add the Poison trait from the Distinguishing Traits table below. On a black card add DR 2.
10	Scavenger: This organism feeds itself primarily by scavenging food left by other organisms, or hijacking the kills of others. <i>Skills:</i> Awareness 4, Melee 3, Persuade 3, Naturalist 3.
Jack	Grazer: This creature spends its time grazing on nearby inanimate organisms. <i>Skills:</i> Awareness 3, Melee 3, Naturalist 3. Add DR 2.
Queen	Gatherer: A gathering organism collects inanimate food from the surrounding environment and hordes it for times of hunger. <i>Skills:</i> Awareness 4, Melee 3, Naturalist 3, Stealth 4.
King	Omnivore: The creature has a versatile means of acquiring food, feeding on both local inanimate organisms and by opportunistically overcoming prey. <i>Skills:</i> Athletics 3, Awareness 3, Melee 3, Naturalist 3.
Joker	Intelligent: This is a rare intelligent life form, with a level of intelligence comparable to humans, even if entirely alien. The GM should assign five to nine of whatever skills she thinks best fits the creature.

Generate Stats

To generate a creature's stats draw eight cards and lay them out in a row. If one or more of these cards are face cards, draw additional cards and place one on top of each face card, forming a stack—exactly like action resolution. The value of these cards will become the values of the creature's stats. GMs wanting to avoid a proliferation of intelligent life should assign the lowest of the eight cards to Intelligence. The remaining cards can either be assigned to stats in a way that

makes sense given the creature's ecological niche, or can be assigned randomly.

Morphology

A creature's morphology is the basic structure of its body. It's what distinguishes a creature with two legs and an internal skeleton, from one with an exoskeleton and a slithering locomotion. Draw a card for each column on the table below. The result should inform the basic morphology of the creature.

Card	Locomotion	Structure
Ace – 4	Pedal: Flip a card. The creature has that many pairs of legs.	Exoskeleton: The creature has a thick exoskeleton to protect it. Add DR equal to half the creature's Endurance.
5 – 8	Many Legs: Flip two cards and multiply their values. The creature has that many pairs of legs.	Endoskeleton: The creature has an internal skeleton, which holds its body in shape.
9 – Queen	Undulatory: The creature gets around by slithering.	Hydrostatic Skeleton: This creature possesses many fluid-filled cavities which it can inflate to hold its shape.
King – Joker	Flight: The creature gains the Flight trait from the Distinguishing Traits table.	Colony: This creature can divide into smaller independently locomotive pieces, which can reassemble into the larger organism.



Distinguishing Traits

Finally, it's time to generate a couple traits that make the creature unique and distinguish it from other similar creatures in the same ecological niche. Draw two cards on the table below and use both results.

Card	Distinguishing Trait
Ace	Poisonous: Anyone touching this creature must succeed in an End-14 action or increase their Bleeding consequence a severity due to poison.
2	Size +1: This creature is the size of a horse. This adds a +1 bonus to the creature's Shock and a -1 penalty to its Defense. Additionally, increase its Strength by +3.
3	Size -1: This creature is the size of a medium dog. This adds a -1 penalty to the creature's Shock and a +1 bonus to its Defense. Additionally, halve the creature's Strength score.
4	Size -2: This creature is the size of a domestic cat. This adds a -2 penalty to the creature's Shock and a +2 bonus to its Defense. Additionally, divide the creature's Strength score by three.
5	Blend In: This creature is exceptionally skilled at blending in to its environment, even changing color to match. This lets it make a Dex/stealth vs. Per/awareness action at the end of any move. On a success, the creature's foes lose sight of it.
6	Infravision: This organism can see into the infrared, allowing it to ignore penalties for darkness.
7	Aquatic: This creature is aquatic by nature. It is able to breathe for up to two hours when under water, and may swim at its normal rate of movement.
8	Natural Weapon: This creature has fierce, natural weapon-like large teeth, claws or horns. Damage from its unarmed attacks are moderate damage rather than light damage.
9	Rage: As a reaction to being wounded, the creature may spend an AP to immediately declare and execute an attack.
10	Keen Smell: The creature has a keen sense of smell and only suffers a -2 penalty rather than a -4 when facing an unseen foe. It also gains a +2 bonus on attempts to recognize scents.
Jack	Backlash: If a melee attack by this creature misses, as a reaction it may spend an AP to make an immediate attack against the same target.
Queen	Flight: This creature can fly at twice normal movement rates.
King	Pounce: When making a melee attack the creature may immediately move for free before the attack executes.
Joker	Size +2: This creature is the size of an elephant. This adds a +2 bonus to the creature's Shock and a -2 penalty to its Defense. Additionally, increase its Strength by +5.



Fatal Foes

Deadly confrontations come in many forms—from bioengineered monsters, hired killers, alien relics left by long-dead civilizations or deadly resurrected species run amok. This chapter contains a wide variety of these foes, and augments the foes already found in the *Shadows Over Sol* core rulebook.

Fauna

The following are a variety of natural creatures that might be encountered over the course of a campaign. These creatures can also be used as benchmarks to model alien fauna, or as baselines for bioengineered creatures augmented with enhanced capabilities or a killer intelligence.

Crocodile

Str 9, **Dex** 6, **Spd** 7, **End** 5, **Int** 1, **Per** 5, **Chr** 4, **Det** 4

Defense 9/18, **DR** 2, **Shock** 11, **Wound** 7

Skills: Athletics 2, Awareness 2, Melee 2, Naturalist 4

Bite: +5 (♠27M/♥18M/♦9M/♣4M)

Aquatic: Crocodiles are aquatic by nature. They are able to breathe for up to two hours when under water, and may swim at their normal rate of movement.

These large semi-aquatic reptiles have long jaws with jagged teeth, which they can use to latch onto their prey.



Dolphin

Str 7, **Dex** 7, **Spd** 7, **End** 7, **Int** 1, **Per** 6, **Chr** 5, **Det** 6

Defense 10/20, **DR** 0, **Shock** 13, **Wound** 7

Skills: Athletics 3, Awareness 2, Melee 2, Naturalist 4

Bash: +5 (♠21L/♥14L/♦7L/♣3L)

Aquatic: Dolphins are aquatic by nature. They are able to breathe for up to seven minutes when under water, and may swim at their normal rate of movement.

Dolphins are aquatic mammals which display and seek animal intellect, and which have been known to work together against larger predators.

Elephant

Str 12, **Dex** 4, **Spd** 5, **End** 8, **Int** 1, **Per** 6, **Chr** 4, **Det** 4

Defense 5/13, **DR** 2, **Shock** 16, **Wound** 10

Skills: Athletics 2, Awareness 2, Melee 2, Naturalist 4

Gore: +4 (♠36M/♥24M/♦12M/♣6M)

Trample: +4 (♠42L/♥28L/♦14L/♣7L)

Infrasonic Hearing: Elephants have a keen sense of hearing. They are capable of hearing infrasonic sounds, well below the threshold audible to humans. They frequently use these sounds for long-distance communication.

Size +2: Elephants are large and imposing. This has been factored into the elephant's Defense and Shock.

Elephants are the largest extant land animals, reaching heights up to 4m. They have many interesting features, such as a long prehensile trunk, incisors that grow into tusks and large ear flaps used to control their body temperature. Elephants also have a keen sense of hearing and males are known to occasionally enter a hyper-aggressive state known as musth.

Horse

Str 8, **Dex** 5, **Spd** 6, **End** 6, **Int** 1, **Per** 5, **Chr** 5, **Det** 5

Defense 7/16, **DR** 1, **Shock** 13, **Wound** 7

Skills: Athletics 2, Awareness 2, Melee 2, Naturalist 4

Kick: +5 (♠30L/♥20L/♦10L/♣5L)

Mount: Trained horses are able to carry a rider on their backs without significant difficulty. This allows for faster overland travel than walking.

Size +1: Horses can be large and imposing. This has been factored into the horse's Defense and Shock.

In preindustrial societies horses were a common means of transportation and beasts of burden. In more modern times horses are used in sport or for show.

Pig

Str 6, **Dex** 5, **Spd** 6, **End** 5, **Int** 1, **Per** 6, **Chr** 4, **Det** 5

Defense 8/17, **DR** 0, **Shock** 10, **Wound** 5

Skills: Athletics 2, Awareness 2, Melee 2, Naturalist 4

Bite: +4 (♠18L/♥12L/♦6L/♣3L)

Keen Smell: Pigs have a keen sense of smell and only suffer a -2 penalty rather than a -4 when facing an unseen foe. They also gain a +2 bonus on attempts to recognize scents.

Pigs are clever animals, sometimes raised for food and sometimes kept as pets. They have a keen sense of smell and can be trained to perform many other tasks.

Resurrected Species

The resurrection of extinct species through cloning or other genetic manipulation is a theme that has been used to good effect in both science fiction and horror media. Sometimes these species return from the dead as faithful recreations of what they once were, other times they return changed or with other frightening capabilities.

Achillobator

Str 7, Dex 8, Spd 9, End 7, Int 1, Per 6, Chr 5, Det 5

Defense 10/22, DR 2, Shock 13, Wound 7

Skills: Athletics 3, Awareness 2, Melee 3, Naturalist 4

Bite/Claws: +7 (♠21M/♥14M/♦7M/♣3M)

Pounce: When making a melee attack, an achillobator may immediately move for free—as if it had spent 1 AP—before the attack executes.

Size +1: Achillobators are large and imposing. This has been factored into the dinosaur's Defense and Shock.

Achillobators are large theropod dinosaurs that lived in the late Cretaceous era, similar to the depiction of the velociraptor in popular media. Achillobator stood some 2m tall and had a sharp sickle claw on each foot, which it would use to slice up its prey during a pounce.

Gigantopithecus

Str 10, Dex 5, Spd 6, End 9, Int 2, Per 7, Chr 3, Det 5

Defense 8/17, DR 0, Shock 15, Wound 9

Skills: Athletics 4, Awareness 3, Melee 2, Naturalist 4

Slam: +4 (♠20L/♥15L/♦10L/♣5L)

Size +1: Gigantopithecus is a large creature. This has been factored into the ape's Defense and Shock.

Gigantopithecus is the largest primate to have ever lived. Standing at over 3m tall, it is a giant ape that is primarily herbivorous, but which possesses tremendous strength.

Mastodon

Str 14, Dex 5, Spd 5, End 10, Int 1, Per 6, Chr 5, Det 5

Defense 6/14, DR 2, Shock 19, Wound 12

Skills: Athletics 2, Awareness 2, Melee 2, Naturalist 4

Gore: +4 (♠42M/♥28M/♦14M/♣7M)

Trample: +4 (♠42L/♥28L/♦14L/♣7L)

Size +2: Mastodons are large and imposing. This has been factored into the mastodon's Defense and Shock.

Mastodons are large elephant-like animals with prominent tusks which are covered in fur. Mastodons were hunted for their meat by primitive humanoids.

Smilodon

Str 13, **Dex** 8, **Spd** 5, **End** 8, **Int** 1, **Per** 5, **Chr** 6, **Det** 4

Defense 8/17, **DR** 0, **Shock** 13, **Wound** 10

Skills: Athletics 3, Awareness 3, Melee 4, Naturalist 4

Bite/Claws: +8 (♠39M/♥26M/♦13M/♣6M)

Catfall: Halve the number of light wounds a smilodon takes from a fall.

Pounce: When making a melee attack, a smilodon may immediately move for free—as if it had spent 1 AP—before the attack executes.

Size +1: Smilodons are large creatures. This has been factored into the smilodon's Defense and Shock.

Smilodons are large cats with two elongated fangs that jut downwards out of the mouth. It is an ambush predator, with a more robust build than other modern cats.

Triceratops

Str 13, **Dex** 4, **Spd** 5, **End** 10, **Int** 1, **Per** 5, **Chr** 6, **Det** 6

Defense 4/11, **DR** 3, **Shock** 22, **Wound** 11

Skills: Athletics 2, Awareness 2, Melee 2, Naturalist 4

Gore: +4 (♠39M/♥26M/♦13M/♣6M)

Trample: +4 (♠48L/♥32L/♦16L/♣8L)

Impale: When a triceratops scores a critical hit with its gore attack, it may choose to impale its target as a critical effect. This increases the target's Stun consequence a severity and it is now treated as grappled.

Size +3: Triceratops are hulking beasts. This has been factored into the Triceratops' Defense and Shock.

Triceratops is a large ceratopsid dinosaur, known for the three sharp horns that emerge from its face. It is also one of the last known non-avian dinosaurs, dying out late in the Cretaceous-Paleogene extinction event.

Tyrannosaurus

Str 15, **Dex** 5, **Spd** 7, **End** 9, **Int** 1, **Per** 5, **Chr** 7, **Det** 5

Defense 5/14, **DR** 3, **Shock** 20, **Wound** 12

Skills: Athletics 3, Awareness 3, Melee 3, Naturalist 4

Bite: +5 (♠45M/♥30M/♦15M/♣7M)

Seize: As a reaction, a tyrannosaurus may grapple an opponent after it makes any successful melee attack. Only one foe may be grappled at a time.

Size +3: Tyrannosaurs are hulking beasts. This has been factored into the tyrannosaur's Defense and Shock.

Tyrannosaurs are huge bipedal carnivores, with massive skulls balanced by long tails. Their forelimbs are extremely short, but surprisingly powerful for their size.

Mistakes of Humanity

Humanity has long been its own worst enemy. Over the centuries it has created countless weapons, disastrous experiments and other mayhem. Below are a variety of foes that are all human in their nature or in their creation.

Android

Str 6, Dex 5, Spd 5, End 6, Int 7, Per 5, Chr 4, Det 6

Defense 7/15, DR 2, Shock 14, Wound 6

Skills: Comp-Ops 4, Engineer 3, Guns 2, Mechanic 2, Melee 1, Phy-Sci 3, Program 4

Gun Arm: +4 (♠12M/♥8M/♦4M/♣2M), Range 10, Shots 3

Gear: AR Implant, Ballistic Suit (DR 2, Gel 3), Gun Arm Implant, Hand Terminal

Machine: As a machine, an android is immune to metabolic hazards, as well as emotionally-based consequences. It, however, must recharge daily.

Androids are robots designed to resemble humans. They are controlled by an artificial intelligence, typically housed within the android body. Most androids exist as academic proofs of concept or as some sort of novelty.

Bioclone

Str 5, Dex 5, Spd 5, End 5, Int 4, Per 5, Chr 6, Det 5

Defense 7/15, DR 0, Shock 10, Wound 5

Skills: Deception 4, Empathy 3, Melee 2, Persuade 3

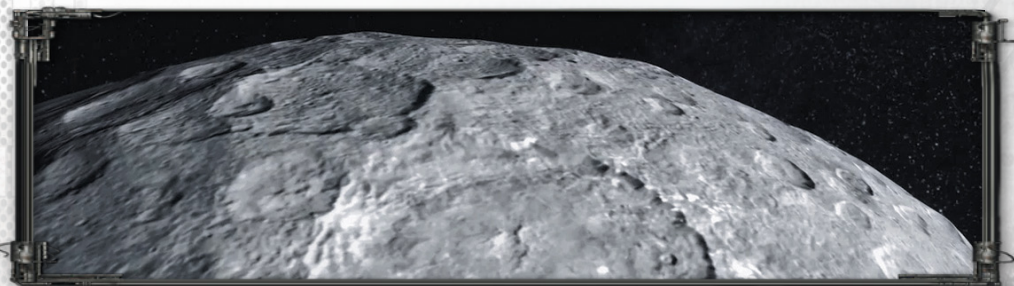
Knife: +4 (♠15M/♥10M/♦5M/♣2M), Thrown

Gear: AR Glasses, Hand Terminal

Duplicate: A bioclone gets a +4 bonus on attempts to deceive others and lead them to believe that she is the person she is designed to look like.

Self-Fixation: If a bioclone ever encounters her authentic double, both the clone and original gain the Fixation (duplicate) consequence at moderate severity. This consequence can be ended through normal means.

A bioclone is not a true clone, but rather a complete bodily replica of an individual. From the outside it appears to be that individual, although depending on the quality of the clone, it may not pass a biometric scan and may be driven by a limited AI.



Psi

Str 5, Dex 5, Spd 5, End 5, Int 7, Per 6, Chr 6, Det 8

Defense 8/16, DR 3, Shock 16, Wound 5

Skills: Awareness 2, Comp-Ops 1, Conspiracy 3, Empathy 2, Guns 2, Medic 2, Melee 1

Psi Skills: Clairvoyance 3, Telekinesis 3, Telepathy 3

Light Pistol: +4 (♠12M/♥8M/♦4M/♣2M), Range 10, Shots 10

Knife: +3 (♠15M/♥10M/♦5M/♣2M), Thrown

Gear: AR Glasses, Coverjack (DR 3, Conceal 2), Hand Terminal

This individual has been exposed to the Kronos Protein and is one of the very few to come out with psi infection (see page 32). She is likely either on the run from the corps or secretly working for them. She has also so far managed to delve into the secrets of all three psi skills. It is only a matter of time, however, before the infection overwhelms her.

Tech-Zombie

Str 6, Dex 4, Spd 4, End 6, Int 2, Per 4, Chr 2, Det 8

Defense 6/12, DR 0, Shock 14, Wound 6

Skills: Melee 2

Unarmed: +4 (♠18L/♥12L/♦6L/♣3L)

Knife: +3 (♠18M/♥12M/♦6M/♣3M), Thrown

Machine: As a corpse animated by machinery, a tech-zombie is immune to many metabolic hazards, as well as emotionally-based consequences.

To Pieces: Once in dying gasps, instead of increasing the Bleeding consequence every time the tech-zombie is damaged, it instead loses a limb, has its guts spill open or takes some other visceral hindrance. The effects of this are up to the GM.

A tech-zombie is a human corpse that has been reanimated through the use of technology, usually involving a machine used to mimic the signals muscles receive from neurons. Tech-zombies advantages over most machines is that they appear human from a distance and can fool simple biometric scanners.



Theta Project

Str 13, **Dex** 9, **Spd** 9, **End** 17, **Int** 6, **Per** 7, **Chr** 7, **Det** 8

Defense 12/25, **DR** 5, **Shock** 30, **Wound** 15

Skills: Athletics 5, Awareness 3, Empathy 2, Guns 1, Melee 4, Stealth 4

Claws: +8 (♠36M/♥23M/♦13M/♣6M)

Backslash: If a melee attack by Theta Project misses, as a reaction it may spend an AP to make an immediate attack against the same target.

Blend In: Theta Project is exceptionally skilled at blending in to its environment, even changing color to match. This lets it make a Dex/stealth vs. Per/awareness action at the end of any move. On a success, Theta Project's foes lose sight of it.

Enhanced Actions: Theta Project gains 4 AP per round.

Quick Escape: After Theta Project takes an action, as a reaction it may spend an AP to immediately move away from its foes.

Theta Project is a bulky humanoid, being constructed from a partially-human genetic material. It has cat-like eyes and skin covered with thick chitin. Its fingers end in long, hook-like claws, and its mouth is filled with row after row of bloody teeth.

Warbot

Str 8, **Dex** 8, **Spd** 7, **End** 8, **Int** 6, **Per** 6, **Chr** 1, **Det** 8

Defense 10/21, **DR** 5, **Shock** 21, **Wound** 8

Skills: Athletics 3, Awareness 2, Guns 3, Melee 3

Cannon: +7 (♠24M/♥16M/♦8M/♣4M), Range 20, Shots 30

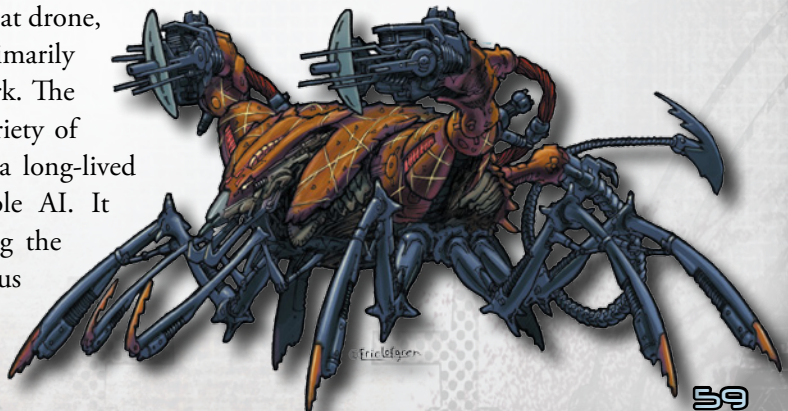
Auxiliary Guns: +7 (♠15M/♥10M/♦5M/♣2M), Autofire 2, Range 10, Shots 20

Bayonet Limb: +7 (♠24M/♥16M/♦8M/♣4M)

EMP Hardening: If a warbot is ever exposed to an EMP or similar effect, draw a card. On anything but a joker the warbot ignores the effect entirely.

Machine: As a machine, a warbot is immune to metabolic hazards, as well as emotion-based consequences.

A warbot is a human-sized robot that has been designed and hardened for close quarter's warfare. This differentiates it from the combat drone, which is designed primarily for light security work. The warbot features a variety of weapons, as well as a long-lived battery and adaptable AI. It typically moves along the ground on numerous flexible legs.



Aliens

Beyond the human sphere may lie countless alien dangers. The following entries are all dangerous combatants which are decidedly inhuman. As always, it is up to the GM which of these dangers may exist in her campaign.

Gray

Str 3, Dex 5, Spd 4, End 3, Int 8, Per 4, Chr 5, Det 5

Defense 7/14, DR 0, Shock 7, Wound 3

Skills: Awareness 2, Bio-Sci 3, Comp-Ops 3, Engineer 3, Guns 3, Investigate 2, Lib-Arts 2, Mechanic 3, Medic 1, Persuade 2, Phy-Sci 3, Program 2

Psi Skills: Telepathy 3

Laspistol: +5 (♠24M/♥16M/♦8M/♣4M), Autofire 3; Range 20; Shots 10

Gear: AR Implant, Chameleon Suit, Hand Terminal

Size -1: Grays are small and nimble. This has been factored into the gray's Defense and Shock values.

These beings look much like the "little gray men" of pop culture. Nevertheless, they are quite frightening in their own right. They stand roughly 1.3m tall, with smooth gray skin and large inhuman eyes that are matte black in tone. They have little noticeable nose, and are known for both their surgical precision and sociopathic lack of remorse.

Hitch'nyv

Str 7, Dex 6, Spd 6, End 8, Int 7, Per 7, Chr 3, Det 5

Defense 9/19, DR 3, Shock 16, Wound 7

Skills: Athletics 2, Awareness 2, Bio-Sci 2, Comp-Ops 2, Crafts 2, Guns 3, Investigate 2, Mechanic 2, Melee 3, Stealth 1, Phy-Sci 2

Laspistol: +6 (♠15/♥10M/♦5M/♣2M)

Spurs: +6 (♠21M/♥14M/♦7M/♣3M)

Infravision: Hitch'nyv can see into the infrared, allowing them to ignore penalties for darkness.

Rage: As a reaction to being wounded, a Hitch'nyv may spend an AP to immediately declare and execute an attack.

The Hitch'nyv are an imposing sight, standing over 2m tall, and covered with rough, scaly skin. They have multifaceted eyes, and several joints on each of their four limbs. Each joint is backed by a wicked-looking spur.



Mimic

Str 6, **Dex** 6, **Spd** 6, **End** 6, **Int** 6, **Per** 6, **Chr** 8, **Det** 6

Defense 9/18, **DR** 0, **Shock** 12, **Wound** 6

Skills: Athletics 2, Awareness 2, Comp-Ops 2, Deception 5, Empathy 4, Guns 2, Lib-Arts 2, Melee 2, Persuade 4, Socialize 3

Light Pistol: +5 (♠15M/♥10M/♦5M/♣2M), Range 10, Shots 10

Unarmed: +5 (♠18L/♥12L/♦6L/♣3L), Range 10, Shots 10

Ambush: A mimic may suddenly perilously sprout needles from its body. These are ineffective, except against a surprised, unaware or helpless target. Against these targets, however, a mimic's unarmed damage is severe instead of light.

Assume Form: A mimic may assume the form of any victim from which it gains a cell sample. This is usually obtained by killing and consuming the victim. Assuming the victim's form takes 10 minutes, after which the mimic looks, sounds and smells like the victim. The mimic then usually replaces them and uses this to kill its next target.

Independent Parts: A mimic's body parts can operate independently. This allows it to shed excess mass should its next victim be smaller in size. Once enough excess mass is shed, this mass can form a new mimic.

A mimic is a shapeshifting alien killer that devours and assumes the form of its victims. Mimics are masters of deception. They leverage the social status of their last victim to get close enough to an unassuming target and attack, moving on to their next victim.

Ovaporator

Str 4, **Dex** 6, **Spd** 7, **End** 3, **Int** 2, **Per** 5, **Chr** 2, **Det** 5

Defense 11/20, **DR** 2, **Shock** 8, **Wound** 3

Skills: Athletics 4, Awareness 2, Melee 3, Naturalist 1, Stealth 3

Thrash: +6 (♠12L/♥8L/♦4L/♣2L)

Implant: After using its Face Grab trait and maintaining the grapple, as an action the ovaporator may implant an egg into the abdomen of its target. This egg will develop over the course of three days, after which it will burst forth as a newly born xenofom, thereby killing the victim. It can only be removed through minor surgery.

Face Grab: After a successful attack, an ovaporator may immediately declare a grapple with the target. In doing this the ovaporator manages to latch itself onto the face of its victim.

Pounce: When making a melee attack, an ovaporator may immediately move for free—as if it had spent 1 AP—before the attack executes.

Size -2: Ovaporators are small and nimble. This has been factored into the ovaporator's Defense and Shock values.

An ovaporator is a disgusting alien creature, about the size of a domestic cat. It has a crab-like form, with teeth on its underside and a pair of long tendrils. Ovaporators are part of the xenofom reproductive cycle (see page 63). Their primary task is to stalk a target and implant a parasitic egg, which will develop into a new xenofom.

Starspawn

Str 12, **Dex** 8, **Spd** 7, **End** 7, **Int** 3, **Per** 5, **Chr** 3, **Det** 6

Defense 9/19, **DR** 5, **Shock** 19, **Wound** 9

Skills: Athletics 4, Melee 5, Naturalist 4, Stealth 2

Tendrils: +9 (♠36M/♥24M/♦12M/♣6M)

Burrowing: Starspawn can burrow through soil, rock or even metal surprisingly quickly. By declaring an action to burrow through 1m of material per AP spent, moving the rubble to cover themselves. This gives +5 **DR** per meter of rubble they're covered with. It also allows them to burrow in preparation for an ambush.

Countless Limbs: Starspawn are covered with numerous tendrils, shifting maws and claws and limbs. These allow the starspawn to hold numerous things at once. It also allows them a +4 bonus to gain or maintain a grapple.

Enhanced Actions: Starspawn gain 5 AP per round.

Frightening Visage: An attacking starspawn is truly a frightening sight to behold. The first time a starspawn attacks, all aware foes must get a Det-12 flip or increase their Fear consequence a severity. Increase it two severities on a failure with Mag 5+.

Size +1: Starspawn are large creatures. This has been factored into the starspawn's Defense and Shock.

Starspawn are terrible creatures from the unknown reaches of space. Their forms always appear to be constantly shifting, and they possess a mass of eyes, tentacles, limbs and teeth.

Titan Relic

Str 14, **Dex** 8, **Spd** 7, **End** 12, **Int** 8, **Per** 8, **Chr** 1, **Det** 10

Defense 9/21, **DR** 20, **Shock** 44, **Wound** 13

Skills: Athletics 3, Awareness 3, Comp-Ops 2, Mechanic 2, Guns 3, Melee 3

Knife Arm: +7 (♠42M/♥28M/♦14M/♣7M), Pierce 5

Laser: +7 (♠24M/♥16M/♦8M/♣4M), Autofire 3; Range 20; Shots 20

Inscrutable: As a relic of a lost civilization, Titan relics are immune to all computational and mechanical attempts to subvert their systems, unless the character has first been able to thoroughly study a disabled relic in a controlled environment.

Machine: As a machine, a combat drone is immune to metabolic hazards, as well as emotionally-based consequences.

Size +2: Titan relics are gigantic killing machines. This has been factored into the relic's Defense and Shock.

Hulking mechanical relics from the lost Titan civilization, Titan relics are elephant-sized monstrosities of metal and electronics. They have numerous limbs—many outfitted with a powerful knife-edge—and a well-armored core. Many also have a powerful laser.

Xenoforn

Str 11, **Dex** 6, **Spd** 6, **End** 8, **Int** 3, **Per** 5, **Chr** 4, **Det** 5

Defense 7/16, **DR** 5, **Shock** 20, **Wound** 9

Skills: Athletics 2, Awareness 2, Melee 3, Naturalist 1, Stealth 3

Bite/Claws: +6 (♠33M/♥22M/♦11M/♣5M)

Enhanced Actions: Xenoforns gain 4 AP per round.

Size +1: A xenoforn is a large creature. This has been factored into the xenoforn's Defense and Shock.

Toxic Fluids: Whenever a xenoforn is dealt a wound, anyone within 5m is sprayed with the xenoforn's corrosive and toxic bodily fluids. This deals 5M damage to everyone in the exposed area.

A xenoforn is a hulking alien predator with scythe-like claws and a large toothy maw. It has a hardened exoskeleton and long tail. It is primarily bipedal, although it is capable of running on all fours as well. A xenoforn develops from an egg implanted in a host organism by an ovapositor (see page 61).



Xenogoo

Str 9, **Dex** 7, **Spd** 4, **End** 12, **Int** 1, **Per** 3, **Chr** 1, **Det** 8

Defense 6/13, **DR** 10, **Shock** 30, **Wound** 10

Skills: Awareness 1, Melee 2, Naturalist 2

Pseudopod: +5 (♠27M/♥18M/♦9M/♣4M)

Corrosive Touch: Anything which touches a xenogoo gets covered in corrosive mucus. This increases the target's Bleeding consequence a severity. It quickly ruins exposed objects within 4 rounds.

Mindless: A xenogoo is immune to all mental consequences and effects.

Resistance: A xenogoo has an additional +20 **DR** against blunt damage.

Size +1: Xenogoo is a large creature. This has been factored into the xenogoo's Defense and Shock.

A xenogoo is a large blob-like creature, which is surprisingly quick for its bulk and composition. A xenogoo can extend pseudopods from its main body to manipulate objects, or to lash out. They can also squeeze themselves through surprisingly small openings, and are covered in a corrosive ichor.



Shadows Over Sol

Science fiction is about new discoveries and their resulting impacts, both wondrous and horrific. *Shadows Over Sol: Fatal Frontier* is brimming with a variety of these discoveries, just waiting to be uncovered. What happens when the ARC Project finally arrives at Alpha Centauri A? How would society react if first contact with intelligent life were made? What sorts of new fears, political infighting or new frontiers in scientific research would be touched off by such an event?

Shadows Over Sol: Fatal Frontier is a key supplement for *Shadows Over Sol*. Its features include:

- A closer look at life on the edge of human sphere, from the outer solar system and beyond!
- Numerous new discoveries and dark secrets just waiting to be uncovered!
- A new mode of play, which deemphasizes horror in favor of epic science fiction!
- Twenty-five new and horrific foes!



Tab Creations

