STELLAGAMA PUBLISHING

FOR FASTER THAN LIGHT: NOMAD

RETRO ROCKETS

A VINTAGE SOLAR SYSTEM

ROBERT GARITTA

RETRO ROCKETS

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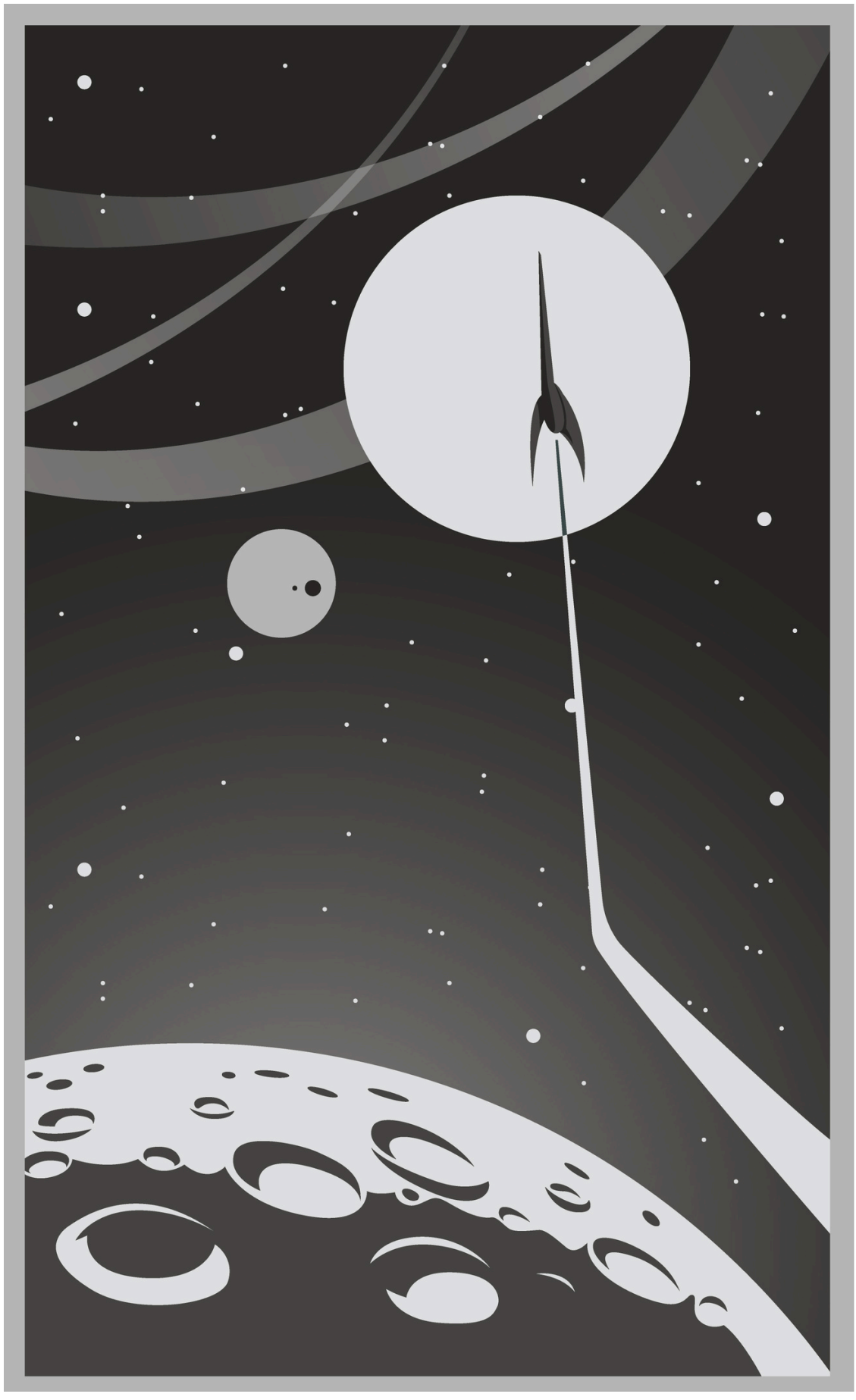


INTRODUCTION

The Solar System wasn't always like this. Mariner and later probes brought us the planets, but they cost us, the foggy swamps of Venus, the stately canals of Mars, the Empires of the Jovian Moons were gone. Our sword and planet fantasies, the roaring rockets of the Space Patrol, were all trampled by merciless science and reality.

Authors have tried to bring this far more whimsical Solar System back, for example, Lin Carter with his Callisto series in the 70's. Gamers have a love of the concepts of Golden Age Science Fiction. Now you hold in your hands access to those living, bizarre worlds.

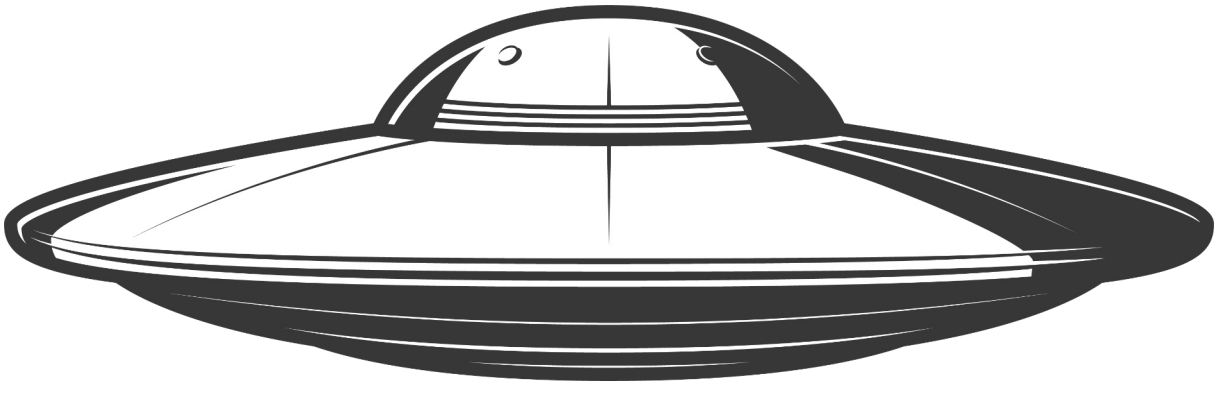
Welcome to the Planets!

ABOUT THE AUTHOR

Robert Garitta has played roleplaying games almost from their start. Since retirement he started writing them just to prove he wasn't completely harmless. He resides in Brooklyn USA with his lovely wife.

STELLAGAMA PUBLISHING

Stellagama Publishing is an international role-playing game publisher focused on science fiction and sword & sorcery gaming, founded in January 2016. We publish gaming material for the Cepheus Engine, 2D6 Sci-Fi OGL, Stars Without Number, and White Star RPGs. Our goals are primarily to publish enjoyable and immediately playable supplements, settings, rulesets, and adventures for our fellow players and referees. Our flagship setting is Terra Arisen a high-action space-opera universe. Our flagship ruleset is Cepheus Deluxe, an old-school 2D6 sci-fi role-playing game. We also published a sword & sorcery 2D6 ruleset, The Sword of Cepheus, in 2020, and a lighter sword & sorcery ruleset, Barbaric!, in 2021, as well as the lightweight Quantum Starfarer in 2022.



SETTING OVERVIEW

SILENT INVASION 1947-1966

There were clues as early as the Second World War that man was not alone in the Universe. Spies brought rumors of a strange craft crashing in Italy. The Axis seemed to have a never ending stream of weird or paranormal menaces to set on Allied troops during the war. The Allies formed a special group, the Lightning League, to combat these menaces.

After the War, Nazi records revealed their use of extraterrestrial technology. They were frantically back engineering this to create horrific weapons that could have won the War. They almost succeeded The West and the Soviets agreed that Earth had to unite against the threat of alien invasion.

This was soon denied and ignored and the Cold War began. America recovered a crashed alien craft in New Mexico in 1947. That same year America sent Operation High Jump to Antarctica and rooted Nazi hold outs from their polar fortresses.The Lightning League continued to recruit adventurers and scientists to research any unusual events and mysteries for the U.N.

The Lightning League became a privately funded organization. As the Cold War deepened the Communist bloc withdrew their personnel and support. The Lightning League concerned itself with investigating UFOs and Nazi remnants but eventually funds and recruits diminished and the League was a shadow of its former self.

UFOs continued to appear in the skies. Governments continued to deny.

FALSE STEPS AND DARK STIRRINGS 1966-1990'S

The governments of the worlds were still in denial despite losing several Moon probes. Artemis 1, an international space mission, flew behind the Moon and vanished in 1966. The public suspected. The government knew. Any flights to Lunar orbit were destroyed. Artemis 2 was destroyed in 1968. The space program was put on hold while NASA and the Soviets attempted to figure out what was going wrong.

In 1969, a spacecraft of Lunar origin crashed in Greenland destroying part of America's Early Warning System. The World was on the brink of World War Three for a week. But one crew member survived and she changed everything.

The Lightning League continued its operations. Lunar vessels continued to invade Earth's skies. More and more America used the League for sensitive matters it wanted checked out, but wanted to deny publicly. It provided new funds and personnel.

THE BEGINNING OF TOMORROW

T'Larr, the Selenite, had incredible information to give humanity The catch was that she'd only give it to all of humanity. In a summit with the UN Security Council, no one wanted to be left out. Ideologies, religions, prejudices and feuds had to be left behind. The UN continued to grow in power. The Selenites began to run out of resources. Their raids for resources and military sabotage became more frequent. A united Earth was necessary for defense and to respond to the alien threat.

T'Larr was originally shuttled between several retreats, built to protect the U.S. government in the event of nuclear war to keep the Selenites unaware of her exact location. No one wanted the Selenites to steal her back. Eventually she tired of this and persuaded her handlers to let her live in Camp David in 1980.

The wreckage of T'Larr's ship provided breakthroughs. Fusion power, electronics, and robotics took great leaps forward. New industries sprang up. In 1989, after two decades of increased cooperation by UN members, the United Nations became a true world government: the United Earth Republic. With the formation of the United Earth Republic, the Lightning League became an official branch of the government -The Earth Patrol! League personnel had the most experience dealing with alien incursions (unofficially) and developed various techniques and equipment for the Earth Patrol.

THE EARTH PATROL

The Earth Patrol was the military arm of the Republic. An orbital defense system started in 1973 with NASA's Skywatch, and was expanded into the International Space Watch by 1990. Fusion powered interceptors now engaged Lunar vessels with some degree of success. Despite the Lunar threat, the planets seemed to beckon.

THE PRESENT

Welcome to *Retro Rockets*, a retrofuture setting for *FTL: Nomad*! *Retro Rockets* is an alternate future in an alternate universe. Like Golden Age science fiction, it focuses on the worlds and species of the Solar System. Unlike the basic assumptions of FTL: Nomad, in *Retro Rockets* there is no quick and easy faster than light drive. Aliens abound and can be found much closer than the next star system. The year is 2010 in keeping with classic retrofuture chronology.

When humans reached the other planets of the Solar System they found them already populated by alien civilizations! Moreover, many of the natives were humanoid with similar biology and needs. Humans discovered that they were very lucky: all the other planets are habitable to humans, although their climates and atmospheres may be far from ideal.

Earthlings weren't the most advanced species, but they were audacious. Their ships landed on Venus and Mercury by 1999. Mars was reached on 2000 and the Jovian moons were reached in 2001. The different worlds all had valuable resources and Terrans became shrewd merchants. They soon established mining corporations on Mercury and trading posts on Venus.

Humans often thought Mars had life and even intelligent life. This was confirmed when contact was made in 2000. The Martians were once space explorers. They mined the asteroids for water and minerals and often squabbled with the Ganymedans over mineral rights. Their planet's ecosystem was drying out and they faced water and food shortages and abandoned most of their bases and mining operations to deal with this crisis. Attempts to reach Earth were turned back by the Selenites.

The Jovian moons held two civilizations, the humanoid Ganymedans and the ursoid Callistans. After centuries of peaceful trade, Ganymede and Callisto waged war over what the Callistans viewed as Ganymedan attempts at expansion and oppression. Both species were rebuilding after their war and focussed on each other's arms build up, rather than exploration.

As the new players, humans could act as the middle-men for the elder races. Humans traded between Mars,

Ganymede, and other worlds. The Mercurians and Venusians lacked the technology and united governments necessary to oppose the human colonizers. An uneasy coexistence began between mining firms nd the city states of Mercury. The wary Venusians were eager for advanced weapons to tame the vicious wildlife of their world.

The year is 2010, in keeping with classic retrofuture chronology! Earth's interplanetary trade and mining now drives a booming economy. Though most humans never leave Earth, many are ready to risk their lives offworld hoping to get rich through mining, hunting, and trading. Private expeditions will soon explore Saturn's moons, seeking riches.

OLD VS. NEW

A major theme of *Retro Rockets* is that of Earth and Humanity bringing a fresh perspective to trade and exploration in the Solar System. The established cultures don't always like this, despite it often working out for everyone. Humans often go blundering into sensitive situations, despite Martian or Ganymedan warnings, and make bad trades or go exploring where others know better to go. Of course, for players and Referees, this means more adventure and more rewards.

This conflict is even raging on Earth. Earth went from the Late Atomic Age in 1969 to the Late Space Age by the late 1990's. Many people distrust the new technologies that are changing the world. The Tellurian faction believes Earth should remain apart from other worlds and deal with its own problems. They attempt to sabotage space travel. Robots are becoming a major force in industry. However, a number of people distrust them and their rapid growth in numbers and intelligence. Besides the jobs they cost humans, many fear a robot rebellion. This results in robots and industries being boycotted and even sabotaged.

Beyond Earth, you have the mysterious Selenites who want no communication with the upstart Terrans. Terrans being Terrans keep trying to talk to them. Even farther out, humans are trading with various Martian city states separately, upsetting the status quo. Mining corporations are introducing modern technology and some weapons to Mercury fueling a growth of military forces.

THE UNKNOWN

The Solar System is a very big place: a light year in radius! A lot of it is still unknown to the space faring races, or long forgotten. In previous eras the Martians and Ganymedans were explorers, until they turned inward and remained closer to home. Even close to home, there are many things left to discover. Venus is only roughly mapped. There is a planet closer to the sun than Mercury. Every planet has wild unmapped regions. Humans are exploring the Outer Worlds and facing strange spacecraft, weird ruins, and spatial anomalies.

Ruins of an unknown race dot the asteroids and many moons, preserved by vacuum. Some scientists believe the Moon people or the Ionians ranged far and wide. Others believe older and extinct races built them millions of years ago. What happened to them is a big unknown.

The possibility of extrasolar life and invasion by hostile aliens is something no one wants to believe but can't ignore. In a planetary system with so many intelligent species, there must be many more among the stars. Some scientists believe life in the Solar System came from outside and. Spread amongst its worlds, accounting for the many similar humanoid forms.

TELEMORPHISM

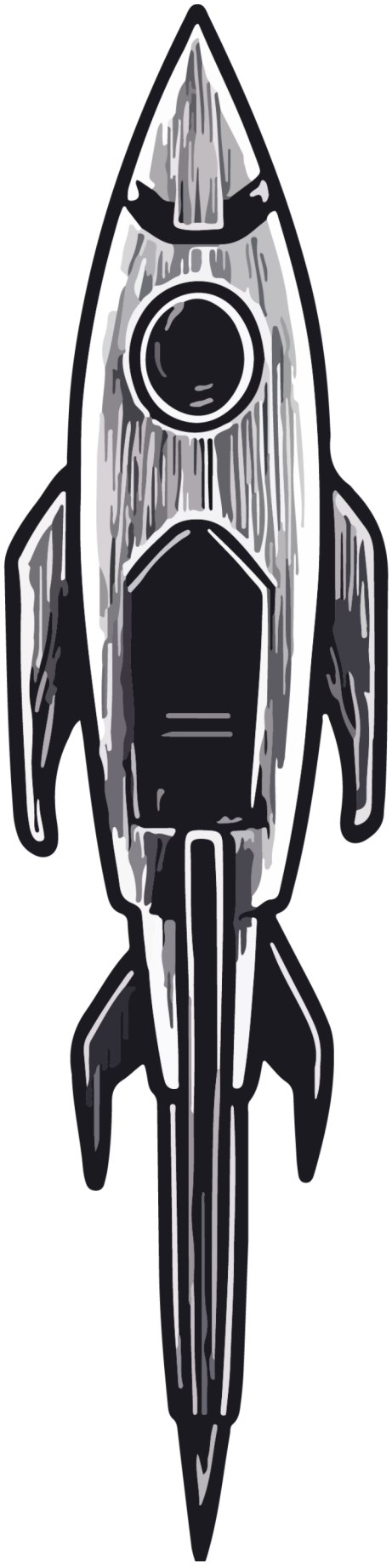
“I don’t look human! You look Martian!” - Any Martian to any Earthling.

Telemorphism refers to organisms resembling each other despite there being huge distances separating them. The best example is the horde of funny forehead aliens on television. Television shows are required to hire human actors due to economics, but a great many Golden Age science fiction used humanoid Martians, Venusians and more.

There are many theories why telemorphism exists in the Solar System. Perhaps the planets were colonized in the distant past by a lost Terran civilization: Atlantis is a popular point of origin for all the planetary species. Or perhaps an exotic interstellar race colonized the Solar System and other star systems in the distant past.

Other explanations were parallel evolution: organisms that perform similar functions evolve along the same lines. The Sun may emit a radiation or field that encourages humanoid development as standard. Meanwhile, other, more alien creatures exist in odd corners of the Solar System.

The Panspermia theory describes microbes blown on stellar winds to Earth and other worlds. Perhaps life in the Solar System began with a flock of these critters? This common source led to similar lifeforms.



WORLD ENVIRONMENTS AND EFFECTS

The environment varies widely among the known worlds. Gravity and atmospheres may inconvenience characters. Some races are used to thinner atmospheres than others and some species are used to higher gravity than other.

In *Retro Rockets*, characters are assumed to be of heroic stuff. The effects of atmosphere and gravity are handled with Fatigue. It is assumed that after a week, people adapt to a new gravity and there is no longer any penalty associated with it. Atmospheric effects require a breather mask to avoid.

Planetary Environments

Name	Gravity	Atmosphere	Notes
Vulcan	0.8	Standard	Vulcan starts as an unknown world in the default Campaign.
Mercury	0.5	Standard	Fae may fly in some conditions
Venus	0.8	Dense	
Earth	1.0	Standard	
Luna	0.16	Very Thin	Very Thin in valleys and deep craters. Otherwise, vacuum. Thin in caverns. Standard in warrens of the Selenites.
Mars	0.4	Thin	
Ceres	0.03	Vacuum	
Io	0.3	Thin/Tainted	
Europa	0.3	Thin	
Ganymede	0.5	Standard	
Callisto	0.5	Standard	

GRAVITY

In Pulp tradition: gravity is a minor matter. If a person operates in a gravity up to twice their homeworld's they get a -1D to physical rolls. If they operate in a gravity less than half their homeworld's, they receive +1D to Physical but -1D to Stealth as their movements will be faster and more erratic. (edited)

More than three times your homeworld's gravity penalizes you -2D Physical and -1D Stealth.

People become used to the new gravity in a week and Stealth penalties are lifted.

ATMOSPHERES

Thin atmospheres require breathing masks or Terrans, Vulcanoids, and Ganymedans (and T'k't) become Fatigued twice in half the time given in FTL: Nomad. For example, a Terran on Mars without a breather becomes fatigued traveling by foot over rough terrain for more than 5 hours.. The Fatigue is cured by wearing a breathing mask.

Beings that evolve in Thin atmospheres can of course breathe them with no problem. Dense or standard atmospheres cause Fatigue in half the usual time for them (after a single combat or five hours of travel in rough terrain). Concentrator masks (page 66) can prevent this.

Very Thin atmosphere causes Fatigue in Martians and others native to Thin atmosphere worlds in half the usual time. They can avoid this with breathing masks. Species from a Standard or Dense atmosphere begin suffocating with breathers.

FAE AND FLYING

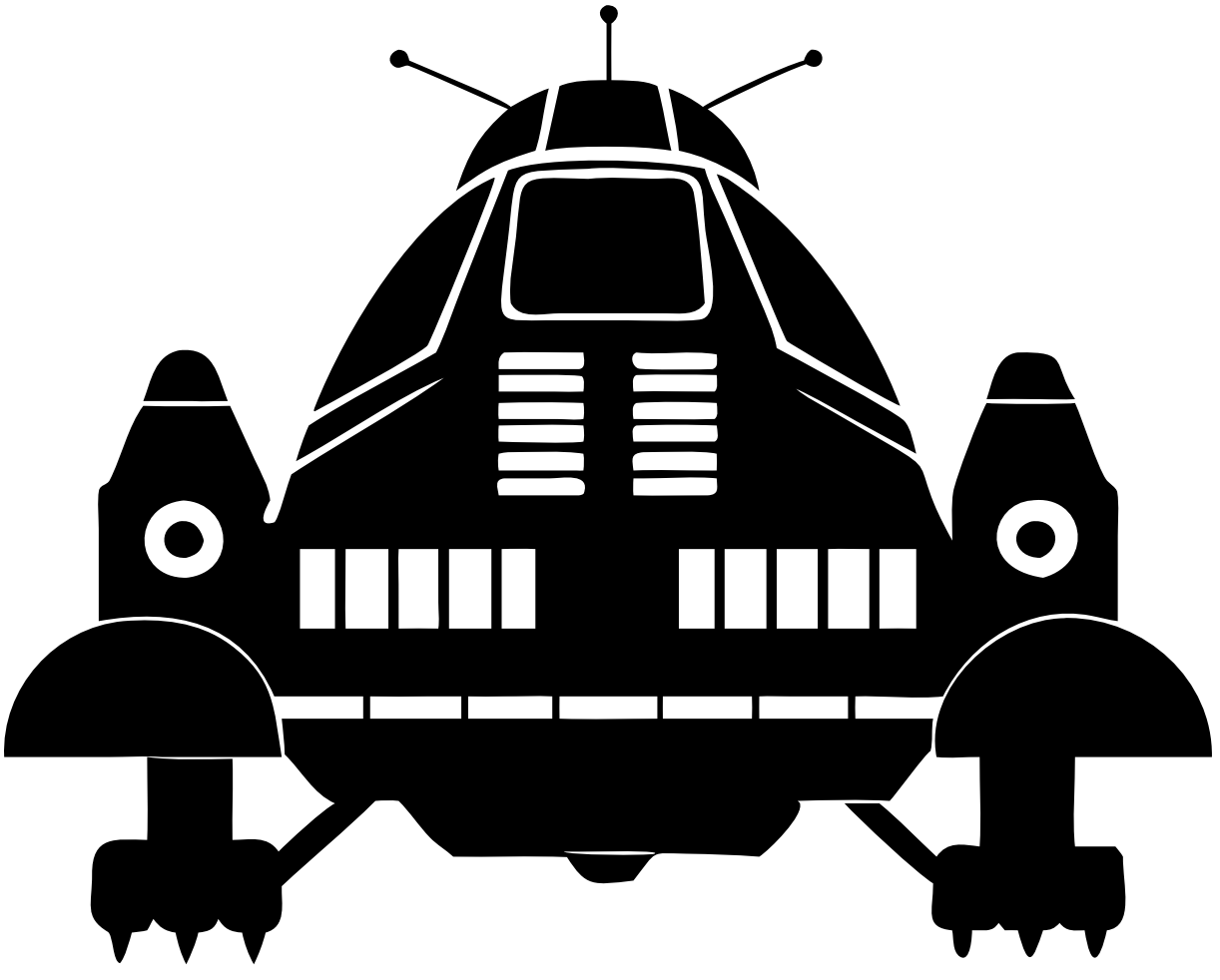
Fae (the humanoid Mercurians) ideally require a Standard atmosphere and 0.5 gees to fly. They can manage to fly in Thin atmospheres in up to 0.3 gees. They can fly in Standard or Dense atmospheres up to 1 gee for one round but then must rest for three rounds.

TEMPERATURE

Note temperature effects are listed for each species. Generally the interval to take damage is doubled for a species adapted to a temperature and a bonus die listed for the Wound Triage Table.

EXAMPLE

Martians require half the life support (food, air, and water) of a human. They are adapted to a Thin Atmosphere. Martians double the interval before taking damage from -10C temperatures and lower and make any rolls from cold on the Wound Triage Table with +1D.



CHARACTERS

HUMAN CHARACTERS

Characters are generated according to *FTL: Nomad*. While humans are all over the place, they share the Solar System with Martians,

Ganymedans, Callistans, Mercurians, Venusians and others. Some beings such as the xenophobic Selenites, isolated Vulcanoids, and enigmatic Ionians are not suited for characters in a starting campaign (or perhaps ever for some referees).

Humans have begun to unlock their Psionic potential after dealing with Martians and other Psionically active species. At the referee's option a human may take the following Character Talent:

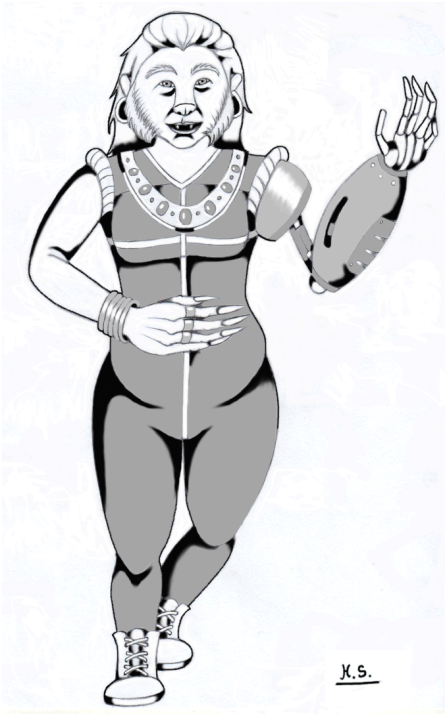
Raw Psionic: the character gets a single Psionic power. Until the character finds a suitable teacher, they must pay a Hero Point for each use of the power. If they fail their Knowledge roll to use the power, the Hero Point is not paid.

Most Earthlings out in the Solar System have some familiarity with spacecraft and the equipment required to avoid dying. Being unskilled in Technology or Vehicles skills simply means rolling with no negative modifier for common vessels and equipment. Earthlings are beginning to unlock their psionic powers. The Referee must approve any psionic powers in an Earthling.

NON-HUMANS AS PLAYER CHARACTERS

The Solar System abounds with intelligent alien life. Most of it is humanoid and indeed very similar to humans. Scientists theorize that some metamorphic field creates an environment that favors humanoid evolution. Whether interbreeding is possible is unknown at present. However, knowing humans, the question of whether cross-species breeding is feasible will soon be answered. With Referee approval, it is possible to play aliens as characters.

Non-human characters are created like humans: four skills, and an Archetype. Non-human characters do not start with a Talent. They start with three Hero points The character's home planet will give them a different range of comfort in temperature, atmospheric pressure and gravity. There are advantages to being non-human, and disadvantages.



CALLISTAN

Life Support: Gravity 0.5. Standard Atmosphere (thin outside valleys). Technology Late Space Age

Callistans are large furry humanoids resembling bears or wolves. Callistans treat Thin atmospheres as Martians. Standard and Dense Atmospheres give them no special problems. They have impressive claws and fangs that do 2d6 in melee combat (3d6 if they take the Pugilist Talent as they gain experience levels). Their fur and hide act as leather armor, providing 2 points of protection from melee attacks and cold temperature damage. This does not stack with worn armor. They start with 16 Stamina and 12 Encumbrance. Callistans suffer a -1D when using equipment not designed for their claws or frames. They roll Stealth with -1D due to their bulk. Callistans require double the food and drink of a human.

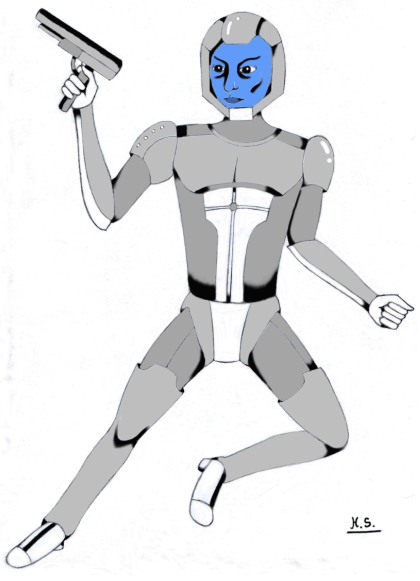
Callistans walk on two legs move at normal speeds. However, they can run on all fours to gain a third movement action in a round. Obviously, they can't use their hands when running on them.

MARTIAN

Life Support: Gravity 0.4. Thin Atmosphere. Late Space Tech Age.

Martians and Selenites seem to be related. Martians are larger, stronger, and possess hair and human-looking eyes. Some outlandish biologists suggest that they are what a hypothetical Human-Lunar hybrid would look like. Making this claim among any of the three species is, understandably, a dangerous faux-pas.

Martians are often Psionic, and may take the Mystic Archetype to gain psionic powers or the Raw Psionic talent (as they gain experience of course). Martians require half the life support (food, air, and water) of a human. They are adapted to a Thin Atmosphere. Martians double the interval before taking damage from -10C and lower temperatures and make any rolls on the Wound Triage Table with +1D.



GANYMEDAN (HALLASARANA)

Life Support: Gravity 0.5. Standard Atmosphere. Technology Late Space Age.

Ganymedans are blue-skinned, tall, and slender humanoids with aquiline features. Life on Ganymede evolved on a world with a powerful magnetic field.

Thus, the life forms on Ganymede derive part of their sustenance from electrical and magnetic fields. While Ganymedans still need air, food and water, they require half the food of other humanoids. They do require time in a recharge station away from Ganymede. Their ship quarters will usually contain charging stations.

Ganymedans often pass tiny electrical shocks to other people as a sign of friendship or affection. These do no damage. They can pass greater, painful shocks to people they do not like. These require touch with a successful Combat roll, and do 1d6 damage. Ganymedans can fire a bolt of electrical energy within Near range that does 3D damage. After firing a bolt, they must wait 6 rounds before firing another. They can fire an electrical bolt at most three times per day, with an additional bolt for each point in their Physical skill. When using non-Ganymedan equipment, care should be taken that the gear is specially insulated to avoid it shorting out. Unshielded off-world gear becomes inoperative when used by a Ganymedan (1 in 6 chance per hour unless they make a Technology roll).

MERCURIAN FAE

Life Support: Gravity 0.5. Standard Atmosphere. Technology Late Primitive Age.

"Mercurian" usually refers to the small, winged, humanoid Fae who live in the polar regions or follow the livable twilight belt on Mercury. Mercurians have dragonfly-like wings that let them fly in a Standard atmosphere between Close and Near range with a single movement action. Due to their small size, Mercurians have a starting Stamina of 12 and Encumbrance 8. The Physical skill raises it normally. In a Thin Atmosphere they can only fly in 0.3 gees or less. They can't fly in 1 gear more.

MERCURIAN GRUTHK

Life Support: Gravity 0.5. Standard Atmosphere. Technology Late Primitive/ Early Mechanical Age.

Gruthk resemble Terran insects or crustaceans, though they possess lungs, internal skeletons, and are warm blooded. Gruthk are a strong though placid species, used to following commands. They receive a +1D to Physical rolls involving brute strength. They also have keen night vision and take no penalties to any actions performed in dim light.

The Gruthk have a natural armored carapace (Armor 2). Gruthk cannot float or swim and fear water.

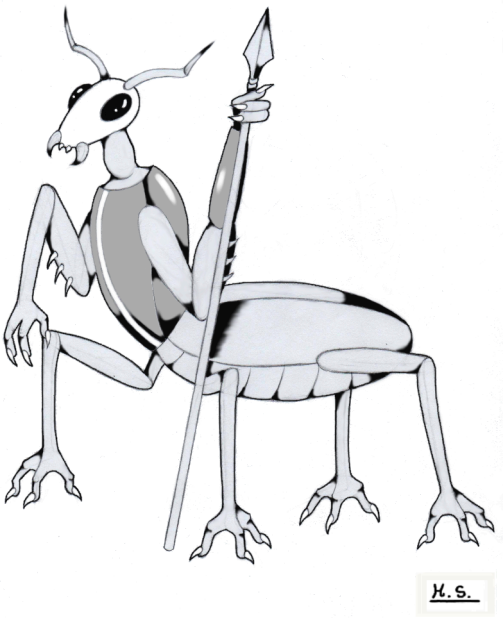
SELENITE

(The referee may want to restrict this species to NPCs.)

Life Support: Gravity 0.16. Very Thin Atmosphere(surface)/Standard Atmosphere in warrens. Early Interstellar Age.

Selenites are short, scrawny humanoids with hairless, reddish skin and flat black eyes. Due to their small size, Selenites have a starting Stamina of 10 and Encumbrance 6. The Physical skill increases both these normally. In Earth or Venus' gravity Selenites are automatically Fatigued. However, their gray alien suits will negate any penalties due to gravity for 2d6 days before needing a recharge. To compensate for their physical failings, Selenites will often use companion robots when faced with physical taks or combat. .

Selenites are innately psionic and begin the game with 2 psionic powers. Selenites are -1D in melee combat and Physical rolls.



VENUSIAN T'K'T

Life Support: Gravity 0.8. Dense Atmosphere. Technology Late Primitive Age.

T'k't require breathing masks outside the humid and dense Venusian atmosphere or they will become Fatigued in half the usual interval. They roll to resist poisons and toxins with a +1D. They are as big as humans, and far larger than the Gruthk. Due to their build, they may have trouble with furnishings and structures built for humanoids and the Referee may penalize Physical or combat rolls by -1D in those situations. They can wear two backpacks (resembling saddle bags) allowing them to carry eight extra Encumbrance items.

T'K'T had Early Primitive Age technology when they were first encountered, since working metal was nearly impossible without a proper fire. However, they are fast learners and most T'k't respect humans for their technology and willingness to share it.

VULCANOID

(Planet Vulcan and the Vulcanoids are unknown at the start of the default Campaign.)

Life Support: Gravity 0.8. Standard Atmosphere. Technology Early Mechanical Age.

Vulcanoids are human sized with blue gray or umber skin, and blackish brown hair. Their eyes glow a faint red in dim light. When they enter areas of great heat their skin secretes a liquid metal resembling quicksilver. This protects them from heat. Vulcanoids double the interval before taking damage from 50C and above and make any rolls on the Wound Triage Table with +1D. Vulcanoids require half the water of a Terran.

AUGMENTS

The Eando Telemorphic Foundation is Terra's cutting edge genetics research organization. The augmentations developed are so far minor. A character desiring to play an augment can forego the initial Talent and lose a Skill point to become a home made alien. The 'perfected' augments are as follows.

Combat: the augment has dermal playing giving them Protection equal to their Physical rating. This give them a sort reptilian look and puts most people off. They are -1D to Social rolls.

Bearer I: the augment has resists cold similar to a Martian. The modifications result in a barrel chest, letting them breathe Thin Atmospheres but Standard or Dense Atmospheres cause them to become Fatigued twice as fast. The modifications cause -1D to Physical rolls in a gravity greater than .8 gees.

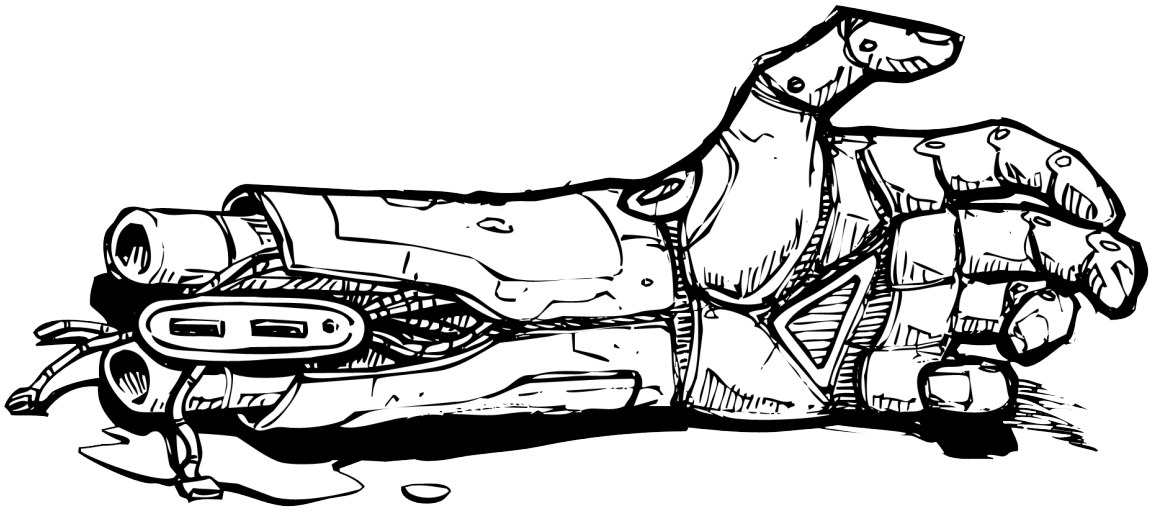
Bearer II: the augment has silver skin that resists heat similar to a Vulcanoid. Temperatures below 25C cause them to become Fatigued twice as fast.

Revenant: adaptive biology lets the augment regenerate a wound in a day. Revenants have an unfortunate tendency to be unstable. They may require double the life support (air, water, and food) of an ordinary human. A Revenant can't be put into cryo-sleep due to their healing power. They instead take a wound that must be healed normally.

Alternately, augments can function similar to cyberware. Only cybernetics that mimic biological abilities should be used. A concealed laser is right out. A set of extendable wrist blades is more likely. These augments can only be detected by a detailed scan or examination. They cause Cybernetic Loss identical to ordinary Cybernetics and cost the character their initial Talent and one skill point.

CYBORGS

All the Late Space Age cyberware is available for characters. Selenites, and Ionians have higher Tech Ages, but prefer to use robots, rather than roboticize themselves. Work contracts for dangerous jobs frequently provide for cybernetics in the event of injury, though their cost may result in extending a contract. Terran corporations are fond of this practice.



PLANETARY GAZETTEER

Entries for each world contain sections on present Common Knowledge: facts everyone knows or can learn quickly. This is followed by Inside Knowledge: facts a local contact or ally may provide or that may be coerced from an enemy. Finally, Privileged Knowledge: information that can only be learned in the field and possibly with some degree of danger.

Each world is listed in standard Nomad fashion. The space around it is described (Frontier, Core, Settled etc.)

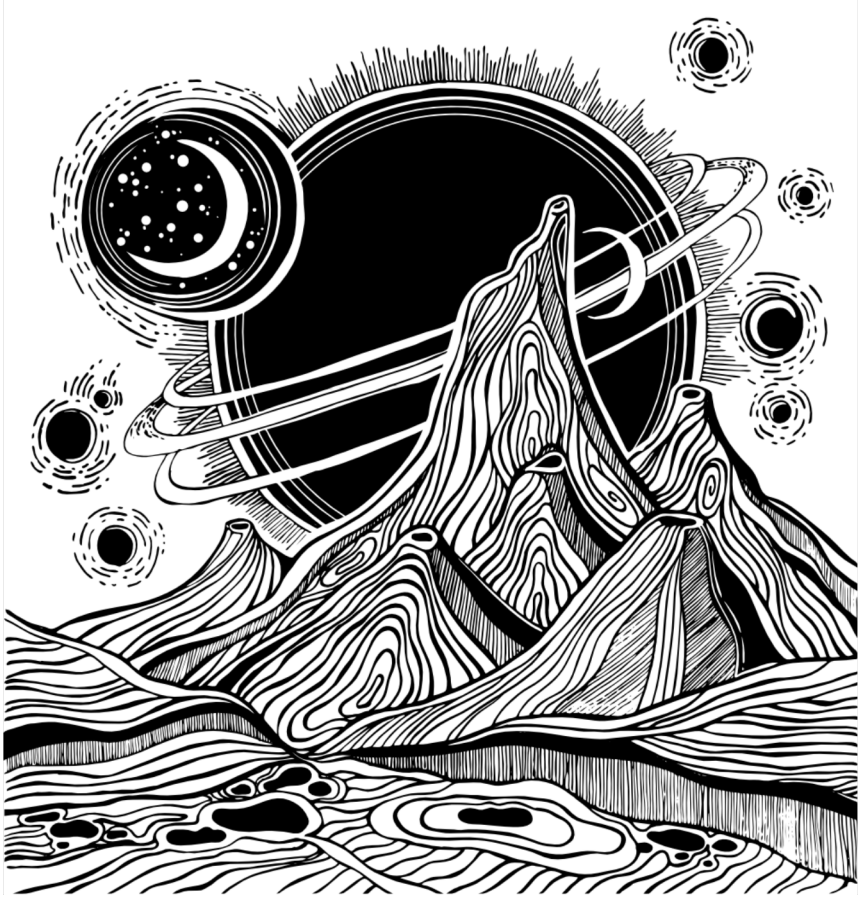
A world has sections on its environment, then places of interest. A description of native sentients follows. The space around a world is described in Nomad terms: Core, Settled, Frontier etc.

Each world has several prominent NPS with goals listed. While characters may not interact with a powerful Martian lord or Terran senator, their goals and activities can provide adventure hooks.

Several rumors are listed for each world with their truth of false. The truth is up to the referee. If you want a rumor of six armed spider people to be true, go for it.

A society's technology is described. Aside from the Ionians and Selenites, the spacefaring races are Late Space Age, with a few tweaks. Martians have some blasters from an earlier era. Terrans have their Lightning weapons.

The **Bestiary** provides notable fauna and flora to bedevil or amaze visitors. Nomad has a design system for even more animals. Again, **go for it!**



EARTH

“An Earthling will dam a canal to cross it - without knowing where the water comes from or where it goes to.”

- Old Martian saying

Earth/Terra	**Orbit**: 1.0 AUs	**Rich**	**Prime**
Population: 8 billion	**Tech Age**: Late Space Age	**Capitalism**	**Trade Hub**

ENVIRONMENT

Earth is the largest of the terrestrial planets and has 1.0 gees and a Standard atmosphere (as the author is a Terran). While other species can adapt to it, Earth’s gravity can be detrimental in the long run to delicate races such are Mercurians and Selenites. Earth has a standard atmosphere. The climate is generally temperate though the polar areas are cold, and some deserts reach 30C temperatures. This variety of environments has helped make humans very adaptable.

PLACES

ORBIT/LUNA

The space around Earth is c Settled for encounter purposes. Terrans are relatively new to the Space Age and still haven’t mastered traffic control or security.Not knowing how to do something rarely stops a human.

Hazards

The Selenites of Earth’s moon occasionally get past the Earth Patrol to intercept vessels and abduct their crews. A Selenite vessel will appear instead of a pirate vessel. A Selenite vessel will usually be a picket or destroyer.

Florida Spaceport

The Florida Spaceport is an outgrowth of the Kennedy Space Center. The Baikonur Spaceport serves a similar function in Russia. Florida is more popular due to its climate, beaches, and tourism (Martians love the amusement parks). Many offworlders stop to take a look at Earth’s oceans, unique among the known worlds. The spaceport can undertake major repairs to ships on the ground or in orbit. The Ganymedans, Callistans, and Martians have enclaves here.

Immediately outside the spaceport Floridians have established a thriving commercial zone. Virtually any commodity is for sale. Some of them are sold more discreetly than others. The number of people here and the commerce keeps law enforcement quite busy.

Hazards

Criminals and con artists all congregate near the spaceport, ready to rob or swindle gullible offworlders. Visitors are advised to avoid Patrol posted areas. The Earth Patrol does operate security forces due to the number of aliens involved. Patrol and police frequently clash, though both are highly professional.

Groups may roll the highest Knowledge or Social skill of their members to avoid crooks and swindlers. Groups that are engaged in criminal activities may make

the same roll to avoid the authorities. All human groups deal with the police. Any groups with aliens will deal with the Patrol. A Social roll at -1D will let them sweet talk their way out of questioning or jail.

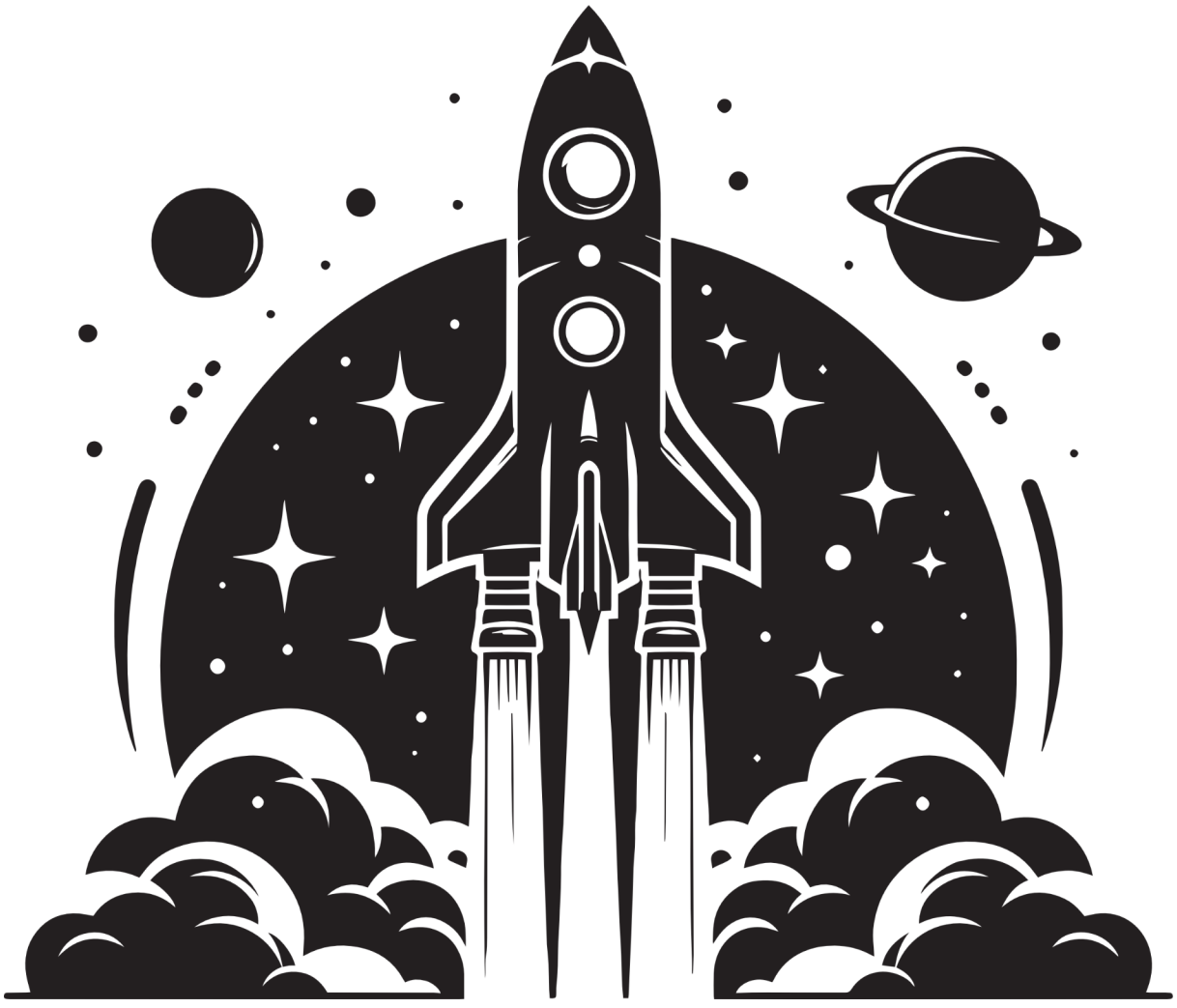
ROGUE NATIONS

It must be noted the United Earth Republic does not run all of Earth. There are a number of states that refuse to acknowledge it. Some states seek to build their own nuclear weapons and are blockaded. Others have ideological differences but live in peace. Visitors are advised to know the history and politics of their destination. Offworlders frequently travel to these out of the way places as the Republic doesn't allow direct orbit to ground service to them.

Hazards

Criminals and conmen are handled similarly to the Hazards of the Florida Spaceport. The Patrol is not available. Local security forces are often corrupt. A Social roll is at -2D unless accompanied any a 1d6 x 100 credit bribe.

Rogue nations also frequently have bandits, warlords or terrorists. Visitors may be marked for attack or abduction. Some nations do not allow outsiders to carry weapons, which works out well for the attackers.



Llewelyn, Richard: Senator - Human

Knowledge 2 Social 5 Tech 1
Archetype: Diplomat **Talents**: Con Artist
Stamina: 14 **Encumbrance**: 10
Equipment: Stealth pistol, Omnicom, Diplomat kit away from home
Cash: Millions.

Resources: Informers, Blackmailers, Lobbyists, and Seducers

Elevator Pitch: Lewllyn's successes in politics can be summed up in one word: blackmail. He has an army of informants, seductresses, gigolos, and more which he uses to entrap his colleagues and opponents. Once they are caught, they will give in to the lobbyists and interest groups Senator Llewellyn supports. All this influence peddling has made Lewellyn rich. Most of these illegal funds are hidden away in Antarctica or off planet.

Public Profile: Senator Lewellyn works tirelessly for his supporters in the territories comprising the former United Kingdom. The Senator sits on and chairs many committees, seeing that his people get all the benefits that the Earth Republic has to offer. Besides domestic affairs, he is involved in the Outreach Program: the diplomatic efforts designed to bring the few malcontent holdout nations of Earth into the Earth Republic. He is an unofficial good will ambassador to the Antarctic Confederation. The Senator has done a lot of good for his constituents, and he genuinely believes bringing Antarctica into the Republic will insure his place in history.

Goals: He wants a legacy of service and successes.

Means: Blackmail, extortion and threats. His informants will usually give him +1D to blackmail attempts (if any roll is required, that is).

Patron: The Senator has many secret correspondences for discrete individuals to deliver. Spies and detectives could be used to get the goods on a person. The Senator will use go-betweens to communicate instructions until the characters have proven their trustworthiness. Regardless, he will find or fabricate some disgraceful evidence to hold over his new protégés, just in case.

Antagonist: The Senator may try to blackmail a character to do a job. If blackmail is ineffective, he can bring in law enforcement to harass or arrest characters or just make them miserable.

Skip Slipstream: Rocket Racer - Human

Combat 1 Physical 1 Social 1 Vehicles 2 Tech 1

Archetype: Pilot
Talents: Ace Pilot
Stamina: 17
Encumbrance: 12
Equipment: Pilot Kit, one or more racing rockets.
Cash: Millions.

Resources: Fans, Comm Decoders, Tech Section.
Elevator Pitch: Skip is the Racing Circuit's rising star. He has embraced this reality and has cultivated his fame into a worldwide following. He has fans in all walks of life. An endorsement by him can make or break a personality or politician.

Skip throws some wild parties, considers himself to be quite the ladies' man, and tends to get very inebriated. He works very hard to cover his debauchery up. The Racing Circuit has a morality clause in his contract. He is capable of sinister sabotage. His technical team has broken the communications codes of his opponents. He uses reports during races to find weak points in rocket designs to exploit. He also has people working for his opponents to perform sabotage after identifying weak spots in their rockets.

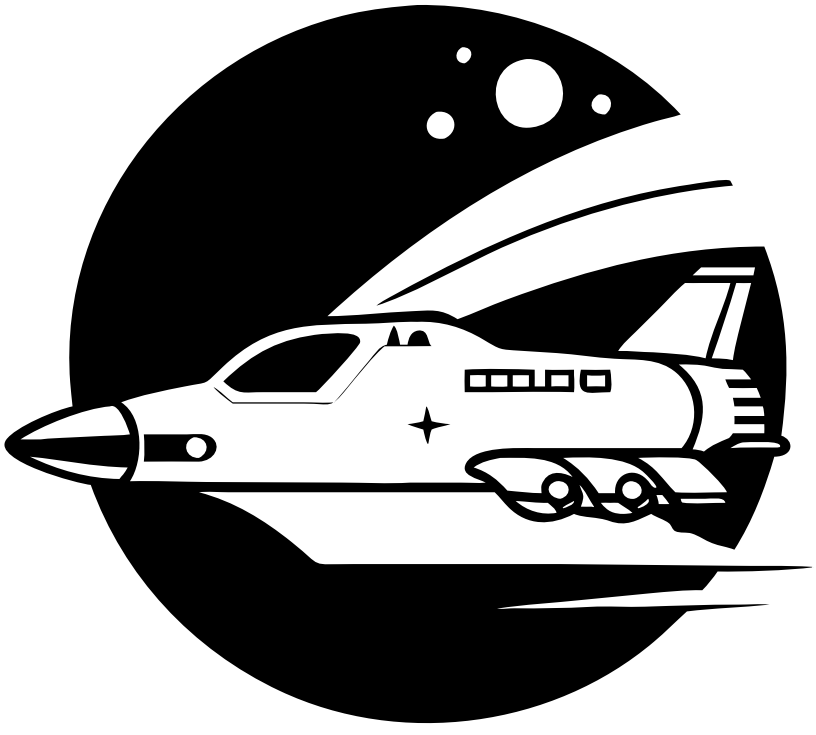
Public Profile: Skip Slipstream! People either want him or want to be him! Skip is constantly winning suborbital races and being groomed for the Circum-Luna race. Everyone has heard of Skip Slip!

Goals: To win at everything: racing, love, fame, and fortune!

Means: Sabotage! He'll win honestly if he no other choice.

Patron: Skip always needs bodyguards, particularly discreet ones that are able to clean up some of his messes. He can always use a good technician, or a test pilot. He is not one to take unreasonable risks, after all.

Antagonist: Skip is a good sport and quite friendly to other racers, just as long as he's winning. Characters on an opposing team may uncover evidence of his sabotage or run afoul of his goons.



T'Larr: Friendly Alien - Selenite

Knowledge 1 Social 2 Vehicle 1 Tech 2

Archetype: Mystic T'Larr makes Psionic related rolls with +1D.

Talents: Con Artist

Stamina: 10

Encumbrance: 6

Equipment: Moon suit (Protection 4, negates penalties for gravity on Earth).

Cash: None. People seem quite willing to lend her money.

Resources: More than you'd think for being a captive of the United Earth Republic for the past six decades. T'Larr is a well-guarded, secret asset of Earth's, and she directs entire research teams of scientists. She has numerous medics to see to her needs and a small army of security. Most characters will never meet her unless she requires them for a specific task for the Earth Republic. Her entourage has been conditioned over the years to obey her slightest whim.

Elevator Pitch: T'Larr fell from grace with her people. She flew a sphere to Earth to steal water as a punishment. After she crashed her ship, the Republic military found her and managed to nurse the Selenite back to health: this is the Earth Republic's most precious secret. T'Larr is helping Earth to develop anti-gravity and other cutting-edge technologies. Sadly, she is not a scientist and can only provide hints and general guidelines. T'Larr uses her psionics to influence the humans around her and make her contributions seem more valuable. She'll contribute as much as she can because after spending so long among these ape people, there is no going home for her.

Public Profile: None. She's a secret. The Republic has no captive Selenites. T'Larr will use False Perceptions to appear human to strangers. She likes mimicking pop stars.

Goals: To keep living the good life and keep living.

Means: Doling out bits of knowledge, using psionics to subtly influence her handlers.

Patron: T'Larr may need characters for a special mission: reconnoitering the Moon, finding exotic elements, or anything else she can think of to keep the humans from realizing she has little science background. On the bright side, she doesn't need to know everything about anti-gravity, just more than the Earthlings. That isn't too hard.

Antagonist: T'Larr is an unlikely villain. She wants humans to like her. Her overzealous handlers may decide someone knows too much and detain them for questioning. The Selenites may abduct characters seeking information on their lost sister.

Murphy, Eiger: Geneticist - Human

Combat 1 Knowledge 3 Physical 1 Tech 1

Archetype: Engineer

Talents: Tech Specialist: Genetic Engineering

Stamina: 17

Encumbrance: 12

Equipment: OmniComm, Stealth Pistol

Cash: Millions.

Resources: Security Forces, Lobbyists and Research Personnel

Elevator Pitch: Dr. Murphy is a researcher for the Eando Telemorphic Foundation. His department deals with recruiting. Dr. Murphy has paid well for medical and genealogical records of Republic citizens to determine who would make the best subjects for their genetic adaptation techniques. These ideal citizens are recruited through various means: money, blackmail, or extortion. Dr. Murphy Is a mediocre scientist but excellent at spotting new subjects and getting them under Foundation control through means fair or foul.

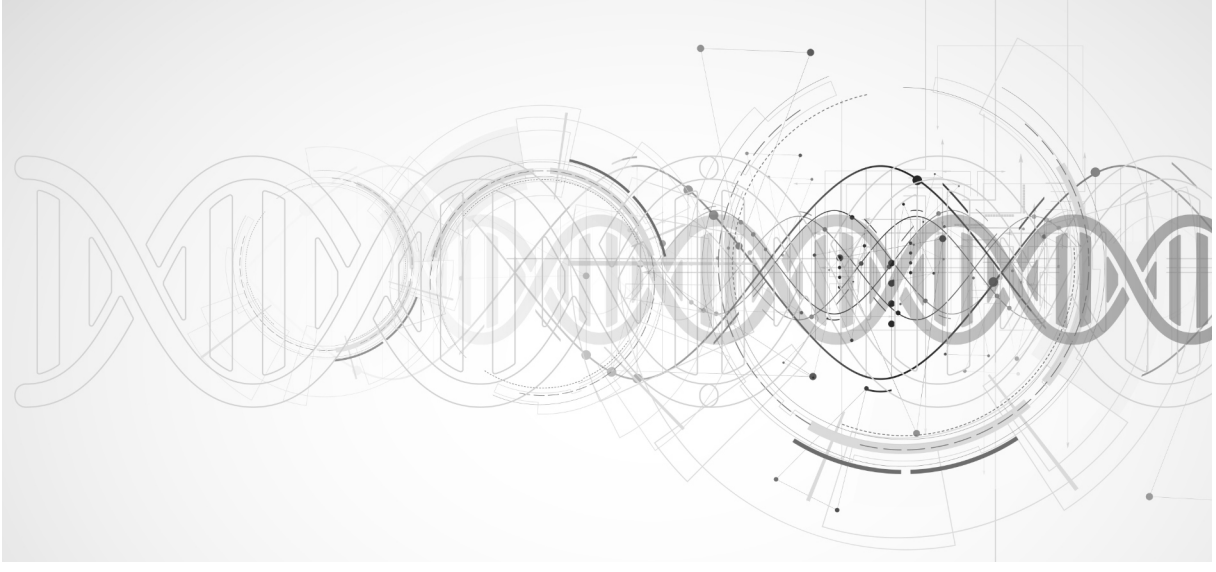
Public Profile: Dr. Eiger Murphy is another of the numerous scientists working for the EFT. He is engaged in the Foundation's department of supplies and requisitions.

Goals: Murphy intends on being amply compensated by the ETF for his misdeeds. He will do anything to keep his activities a secret.

Means: Murphy uses well trained muscle to abduct people he can't persuade or coerce to join his projects.

Patron: Unless the group is into performing abductions and silencing witnesses the doctor won't be a patron. They may be hired by the family or friends of a subject to find and rescue them.

Antagonist: Dr. Murphy may decide one character has interesting genetic potential. They might interfere with an abduction or rescue a subject fleeing from Murphy (see Europa, below).



Del Sol, Maia: Despot - Human

Combat 2 Knowledge 2 Physical 1 Social 2 Stealth 1

Archetype: Diplomat **Talents**: Leader

Stamina: 17 **Encumbrance**: 12

Equipment: OmniComm, Stealth Pistol

Cash: Millions.

Resources: Special Forces, Smugglers, and Terrorists

Elevator Pitch: Maia del Sol is the former despot of the South American Alliance. When that rogue nation overthrew her and joined the Earth Republic, Maia sought sanctuary in the Antarctic Habitats. Once there del Sol bought an election and became chancellor of the new Antarctic Confederation. Del Sol then leveraged her hidden funds and international contacts, funding her new nation and encouraging foreign investments. This money was used to prospect for mineral wealth. The Antarcticans discovered they were sitting atop the largest remaining petroleum field on Earth. Oil was no longer a fuel source but vital in creating several synthetics. Del Sol refused membership in the Republic, flaunting her independence and now nominally leads a coalition of independent states.

Public Profile: Maia del Sol is the controversial dictator of Antarctica. Her economic incentives have turned a struggling collection of underground towns into a thriving, modern nation. There is no doubt she has improved the standard of living for her people. Besides leading opposition to the Earth Republic, Maia del Sol has signed lucrative trade deals with Mars.

Goals: Maia wants to make life better for her people, this being the surest way for her to retain power. She plays the Earth Republic against Mars to her profit. The Republic needs her oil. The Martians need boron and other minerals. She may eventually decide to join the Republic if the deal is good enough.

Means: Maia employs smugglers to bring her items banned by the Republic, since they have a pesky weapons embargo in effect. Her enemies may be targeted by her special forces. She also uses several cells of Tellurians to commit deeds she needs extra deniability for.

Patron: Maia del Sol can be a generous and forgiving boss. Those despots who reward all failure with immediate death don't attract and retain good employees, after all. She can employ characters to perform all manner of heinous deeds: spying, blackmail, or kidnapping are all possibilities. She is also quite vivacious and may take interest in a character for more social reasons. They may be hired by the family or friends of a subject to find and rescue them.

Antagonist: Characters could certainly run into one of del Sol's gangs performing a criminal act. She is vindictive and thwarting her may result in thugs and killers dogging the heroes.

Talos (real name unknown): Tellurian Leader - Human

Combat 2 Knowledge 3 Physical 1 Social 1 Vehicle 1 Stealth 1 Technology 1

Archetype: Mystic

Talents: Untraceable, Psionics: Telepathy, Alter Self

Stamina: 17

Encumbrance: 12

Equipment: Outsider kit on a mission or a stealth pistol for everyday wear. Improvised explosives are possible

Cash: Millions.

Resources: Saboteurs, Seditionists, Terrorists

Elevator Pitch: Exploring space will seal the destruction of Earth's society and possibly humanity. Earth must remain apart and look after its own problems. The Tellurians will stop space exploration. Their most effective ladder is Talos. Talos (real name unknown) spent time on Mars where the Polar Lords unlocked the psionic powers of their mind. Today Talos can project any image of themselves they choose. Even their true gender is unknown.

Public Profile: Talos found friends among the rogue states of Terra. Antarctica has a major Tellurian training base. Talos has taught rudimentary psionic use to several Tellurians. The Tellurian psionic operatives use their powers to control Earth Republic Senators or steal secrets. Talos also has more conventional saboteurs, allies and various militia in the rogue nations and Earth Republic when they need muscle.

Goals: Talos wants Earth out of space. They will accomplish this with no loss of life if they can; they will kill without hesitation when they must. Antarctica and Mars are major allies but Talos will abandon either if the Earth's safety is at stake.

Means: Besides cells of terrorists, Talos can call on several middling psionics. Unlike many leaders, Talos has no problem taking on missions, as long as there is plenty of support nearby.

Patron: Characters may never realize they are working for Talos as they transport Tellurian operatives, smuggle weapons, or provide forged papers in sealed packets to shady agents.

Antagonist: Talos is not vengeful but is working towards a goal nonetheless. If characters disrupt one mission, Talos can't win them all. Talos will not risk exposure to pursue a pointless vendetta. However, those who repeatedly disrupt Tellurian plans can expect a visit from assassins or more likely, a bomb in their vehicle or residence.

RUMORS

- The Earth Republic has secret police everywhere, spying on its citizens.
- The Eando Telemorphic Foundation has discovered strange and hostile life offworld and brought specimens home, avoiding quarantine.
- Senator Llewelyn is the next President of the Republic, if they don't convict him first.
- The Earth Patrol is preparing to invade Luna. One hundred thousand casualties are projected.
- Antarctica has nuclear weapons, supplied by Mars. This is the only reason the United Earth Republic doesn't invade and end this tyrannical regime.
- The newest generation of artificial beings is fully intelligent and indistinguishable from humans.
- The Earth Republic is on the verge of rebellion. Robots have forced too many humans workers on the dole!

TECHNOLOGY

Electronics are bulkier and less powerful than in our timeline. The equipment salvaged from the Selenite wreck let humans develop nuclear reactors and spacecraft. The electronics in the wreck were in poor condition and humans didn't learn much from them.

Humans might use tablets to work on but they're a few centimeters thick and often ruggedized in radiation resistant cases. Cell phones are mainly for corporate or military use and usually in the form of rugged flip phones..

Terrans developed nuclear rockets that were far more powerful, could lift much heavier loads than chemical engines. Saving mass on rocket launches was a spur for miniaturization in our timeline. Smaller payloads were a major reason for using unmanned probes. In Retro Rockets, electronics could be as large as necessary and humans could be sent to explore these worlds. In Retro Rockets humans explore the Planets. Scientific discoveries require boots on the ground. Terran electronics are Late Space Age.

Robots are the exception. A robot brain mimics thought processes using Selenite technology. Its design is very different in nature from human computer systems. While robots could think like humans (to some degree) they weren't able to think appreciably faster. Terran robotic brains are Late Interstellar Age.

The lightning weapons of the Earth Patrol are unique to the Terrans, created by a mysterious genius engineer. While most Terrans still use firearms, lightning weapons are brought out for special hostile that typically are immune to bullets or lasers. Lightning weapons are usually used by the patrol. They're discreet, pack a punch, but are more diplomatic than heavier rifles or projectors.

New Terran Weapons

Weapon	Tech Age	Cost (Credits)	Range	Dmg.	Mag.	Ammo Cost (Credits)	Aspects
L43	Late Space	500	Handgun	3d6	6	-	Arc, AV 3d6
L45	Late Space	1500	Handgun	2d6+2	12	-	Arc, AV 3d6
L45 with Stock	Late Space	-	Assault	2d6+2	12	-	Arc, AV 3d6
MX Lightning Stealth Pistol	Late Space	1500	Handgun	2d6+2	12	50	Arc, AV 3d6
M23 Lightning Pistol	Late Space	2000	Handgun	3d6	12	50	AV 3d6
M24 Lightning Rifle	Late Space	3000	Rifle	4d6	20	150	Arc, Blast, AV 4d6

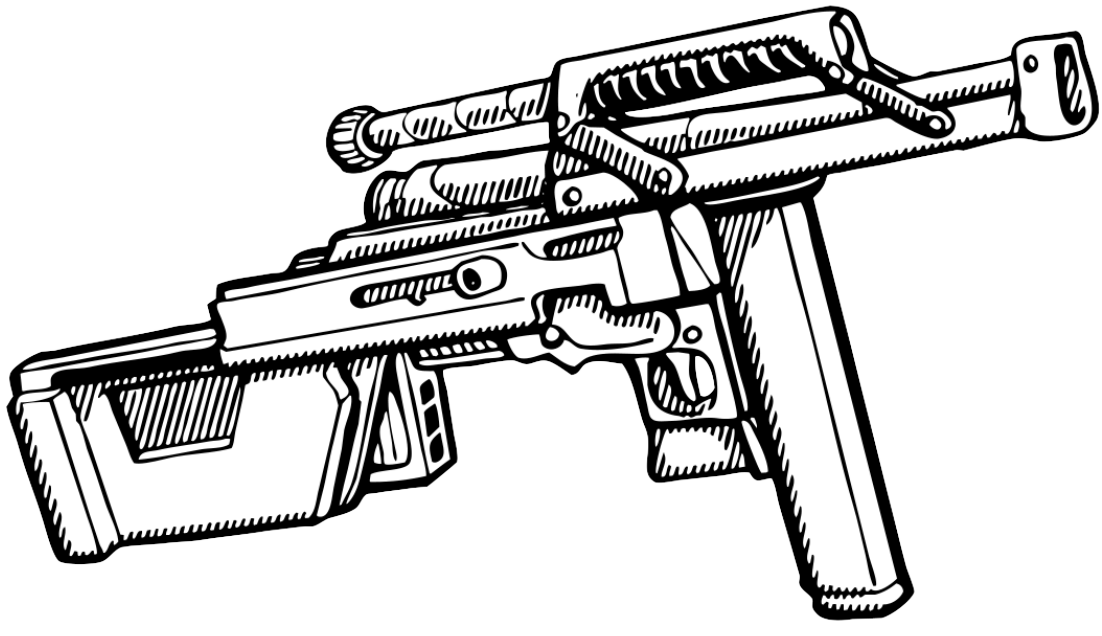
Lightning Guns: Lightning weapons were used by the legendary Lightning League. When the League was folded into the Earth Defense Force in the late 60's the weapons were adapted by the Space Patrol. Lightning weapons have the Arc aspect, reducing the armor of targets by 1 per die of damage. Vehicle armor is unaffected. Robots and electronic devices worn or held may shut down if they take damage (2 in 6 chance).

L43: The L43 was the first lightning pistol. Resembling a revolver, the L43 has six energy crystals. It takes one full round to reload. Some L43s are still available under license to vetted citizens.

L45: The L45 was an improvement on the L43 Lightning Pistol. Its power is provided by a sturdy power pack. This resolved the loading and safety issues of the L43. By using a detachable stock, the L45 is useable as a carbine. The L45 has a little less firepower than its forebear, trading it for accuracy and a larger magazine.

M23: The Millennium 23 is a refinement of the L45 pistol. Damage is increased.

M24: The M24 is a dedicated rifle version of the M23. It deals severe damage and can reliably damage most civilian vehicles.



Name	Bonobo Augment		
Niche	Opportunist/Jungle	**Armor**	2
No. Appearing	1d6	**Damage**	2d6
Size	Medium (short human)	**Skills**	Combat 1 Physical 1 Social 1 Stealth 1
Stamina	4d6	**Abilities**	Crude Hands, Proto Sentient

Bonobo Augments were an early success of the Eando Telemorphics Foundation. The apes were genetically altered, increasing their intelligence and decreasing their violent tendencies. The augments were popular for construction in rural or wild areas. They excelled at heavy lifting and could even operate simple tools.

Bonobos have sparked controversy and riots by construction unions. Since then they're in use on offworld projects in the Belt and on Venus where they adopt to the local conditions quickly. Some Bonobos have their voice boxes surgically altered to let them speak passable English.

Name	Cat		
Niche	Predator/Mixed	**Armor**	0
No. Appearing	1d6	**Damage**	1d6
Size	Small (cat!)	**Skills**	Combat 1 Physical 2 Stealth 2
Stamina	1d6	**Abilities**	

Description: Cats are a domesticated animal popular with Terrans and Martians. They are often aloof, stubborn and utterly charming. Cats are natural climbers and agile though they hate free fall and are knocked out by accelerations over one gravity. They have trivial food needs, though they will eat far more. In the past Terrans used them for pest control. This continues and they likely to bring evidence of kills to favored staff (cats have staff, dogs have owners.)

They were occasionally used for pest control on human ships. However, there was a problem dealing with them during hull breaches. Attempting to get them into a pressurized crate resulted in damaged spacesuits and damaged hands. The cunning Martians solved this by feeding their cats in their crates and ringing a food bell along with a hull breach alarm.

Name	Dog		
Niche	Predator/Mixed	**Armor**	0
No. Appearing	1d6	**Damage**	2d6
Size	Medium (Large security dog)	**Skills**	Combat 1 Physical 1 Stealth 1
Stamina	2d6	**Abilities**	Tracks Scent, Pursuer

Dogs are descended from wolves. Humans have developed many breeds with a variety of characteristics. These stats refer to a dog suitable for guard duty. Like cats, dogs found their way into many crews. Survey parties in unexplored terrain will often have a dog to alert them to danger. A good guard dog is especially prized on Venus.

Offworlders are not quite as fond of dogs as the Terran cat. Dogs need an extended period to get used to offworlders and this puts many off. Martians find them annoying. The Callistans are starting to use some for security. Cats are more popular.

LUNA

“Leave us alone!”

- any Selenite, any time.

Luna	**300,000 km orbit around Earth.**	**Industrial**	**Rockball**
Population: 200 million	**Tech Age**:Late Interstellar Age	**Declining Population**	**Psionics**

ENVIRONMENT

Luna’s gravity is 0.16 gees. The surface of Luna is a sterile vacuum, though some deep crevasses and craters are deep enough to retain a Very Thin atmosphere. On the surface, temperatures in daylight are burning, at night freezing. Luna takes 28 days to rotate, night and day last two weeks each. The Selenites live in underground warrens, where the temperature is temperate and a thin atmosphere exists. Some warrens nearer the surface are hot in the daytime and cold at night.

SELENITES

The Selenites seem to resemble the Gray Aliens of 20th Century UFO lore. They stand 140-160 cm tall and weigh about 40 kilograms.Selenites have blue gray skin, no visible ears or noses and large black eyes. There are no apparent sexual characteristics. They reproduce by cloning.

Selenites abducted humans in the past. A few were returned only to be abducted again. The race is uncommunicative and hostile. They have mounted missions to Earth to steal seawater for boron and phosphorus.

The race is physically frail and shy away from personal violence. Their psionic abilities are advanced and make most physical violence unnecessary. They can make people want what they want.

COMMON KNOWLEDGE

At some point in the distant past, the Moon possessed a thick atmosphere. Ruins can be spotted on the surface, and some deep valleys and ravines still possess a thin atmosphere humans can tolerate with breathing masks. A complex civilization exists below the Moon’s surface. However, the Selenites want to be left alone, and seldom communicate with Earthlings. Attempts to contact this civilization are usually ignored. Landings on Luna are prohibited. Some rocket racers passing too close to Luna have been shot down. A section of the Earth Patrol is tasked with monitoring the Moon and preventing ships from getting too close to Luna.

Lunar spheres do visit Earth at times for abductions, siphoning seawater and possibly more. The Earth Patrol is tasked with following them and intercepting them if they prove hostile, though they allow them to take on water. .

The Selenites have little interest in other worlds. They will fire on ships near the Moon. The Earth Patrol doesn’t allow ships within 5000 km. The Rocket Racing Federation ships often break this law, are shot at and face fines after the race.

INSIDE INFORMATION

THE SELENITES

T'Larr disclosed that the Selenites' grayish skin and large black eyes were features of a form fitting spacesuit! The spacesuits also contained advanced gravitic generators that allowed the Selenites to function on Earth normally. Underneath the suit, the Selenites had pinkish-red skin with a faint scale pattern, and wide green or yellow eyes. Their hands were clawlike and had only four fingers. They could live on Earth, though its gravity caused them to tire easily, and Earth's thick atmosphere caused headaches. T'Larr adapted after several months.

Selenite faces never show human emotions. Instead, they express themselves through subtle hand gestures. Some learn human facial gestures to better interact with humans that they encounter. Most of the Selenites who engaged in the abduction of humans appeared clinical and unconcerned with the welfare of humans or the trauma they inflicted. Only a few bothered with a bedside manner.

The Selenites often send ships to Earth to siphon water from its seas. Luna and Earth are close enough for the Selenites to travel between them almost entirely under acceleration, making them hard to intercept. Having inertial dampers give the Selenite ships a huge advantage over Earth Patrol ships. Their spheres can even use their drives in Earth's atmosphere, making interception and pursuit difficult.

The Earth Patrol continues to work on tactics and technologies to meet this threat. The decision to allow the Selenites to take seawater was a controversial one. However, the Earth Republic Council reasoned that the Earth could spare the water and this generosity might be a first step to opening friendly relations. Even the non-Republic nations agree to let the Selenites get water.

T'Larr said the Selenites used to block radio transmissions from Mars and Ganymede to Earth and vice versa to discourage the Earth's interaction with other worlds. This stopped after the Earthlings mastered fusion power. The exact workings of this jamming system remain unknown. The public believes this knowledge was gained by studying the deceased victims of several Selenite sphere crashes. T'Larr's existence is still a tightly held secret.

Earth lost several probes and manned ships before determining the Selenites would fire on anything within 1000 km of the Lunar surface. Rocket racing around the Moon is monitored from a discrete distance by the Earth Patrol. Rocket crews that are shot down, or any rockets landing on the Moon are not to be rescued. However, the Earth Patrol has fired on Lunar spheres pursuing Earth rockets beyond the 1000 kilometer limit. The Patrol maintains the safe distance is 5,000 kilometers to have some margin of error. The Racers know better.

Lunar diamonds and preserved vacuum flowers from the primeval Moon can fetch outrageous prices in the underground markets in Antarctica, and on Callisto. A few daring pilots have braved Selenite firepower to land, explore briefly, then reach orbit with reentry capsules (Nomad page 86) for a very risky extraction. The Earth Patrol is often waiting for such prospectors, who trade most of their finds and any information garnered to avoid a long jail term.

PRIVILEGED INFORMATION

PLACES

Note-Places are under Privileged Information because learning about them requires going to the Moon and exposing yourself to some danger!

FAR ORBIT

Approaching closer than 5,000 kilometers to Luna is prohibited and can result in your ship being impounded and heavy fines. Luna is considered Settled space for encounters, most of these are with Terran vessels departing or arriving at Earth.

HAZARDS

A Patrol encounter means an Earth Patrol ship wants to board your vessel for routine customs check and inspection. The patrolmen will issue the mandatory warnings about approaching closer to Luna. If there is contraband aboard or hints of criminal activity, talking or conning your way out of trouble can be an adventure in itself.

Most Rocket Racers pass this far from Luna (some go much closer). Entering an orbit cleared for racing can also result in fines or a close call with a racer.

CLOSE ORBIT

Approaching within 1,000 kilometers may trigger an attack from surface weapon turrets. Vessels passing this close may find a patrol picket waiting for them when they reach the 5,000 kilometer limit (2 in 6 chance). Fines will amount to a month's expenses.

HAZARDS

An encounter roll of 7 or higher results in a barrage of weapons fire from Luna. Weapons fire lasts five rounds, and does 6d6 damage. The weapons crew's is considered Combat 1 and its position is automatically 3. A barrage A ship that is disabled (engines destroyed or offline) will be pulled down to crash by a tractor beam. A Vehicles roll -2D will let the pilot make a controlled landing and possibly take off again after some repaisr. Ships departing Luna are not fired on.

SURFACE RUINS

Ruins on the lunar surface are generally in vacuum. Only go ruin diving with a buddy. Ruins are usually found in the shadows of cliffs or built into slopes. Occasionally they may have some baubles or bits of technology to scavenge.

HAZARDS

Part of the time they are cast in total darkness: all attacks and actions suffer -2D to attacks and actions without lighting. Some ruins are also trapped, or unstable and may collapse. Characters should roll Physical to avoid damage from a collapsing ruin, and take 2d6 damage (or more) from a cave-in or rock slide otherwise. A natural '2' results in a damaged spacesuit. A leaking suit exposes the wearer to vacuum. The wearer can make a Technology roll to repair the leak each round. Other characters may help and roll as well.

LOW LANDS

Besides quakes, vacuum and darkness, some craters and valleys contain a very thin atmosphere leaked from the underground warrens or remaining from prehistoric days. Barbaric Selenites may explore the surface at times.

HAZARDS

Humans can survive with breathing masks an exposed human starts suffocating. There are ruins, diamonds and living orchids. There are also Lunar Apes and Lunar Moths (page 39), adding to the dangers. Fortunately these creatures hibernate during the Lunar night, seeking refuge in caverns and tunnels.

THE SELENITES

Earth learned the secret of boron fusion power from a Lunar Sphere that experienced engine failure and crashed in Greenland. Perhaps as valuable were the three surviving Selenite crew members. Two Selenites died almost immediately. The third, T'larr, was not thrilled at being abandoned by her people. After mastering English, she began revealing Luna's secrets. She helped humans with fusion research on the condition that it be shared by all. She had no desire to cause World War Three over Lunar technology.

T'larr revealed that Selenite scientists determined the Moon was formed by a planetoid slamming into Earth. This caused a chunk of the Earth to fly off into space. Against all odds, this chunk retained some atmosphere, water, flora, and fauna that survived the cataclysm. Among them were human sized dinosaurs that eventually achieved sentience. As the Selenites evolved, the Moon began losing atmosphere. The Selenites retreated into huge caverns, bringing their dinosaurs and other life forms with them. They installed great airlocks to conserve air and water.

Some deep craters and valleys possess a thin atmosphere. These valleys usually have airlocks to the underground warrens. The valleys are also usually infested with Lunar Apes and other hostile life forms. Below are the first underground ruins, inhabited by Lunatic tribes and deeper still are the warrens of the "civilized" Selenites.

Over time the Selenites progressed technologically. More startling, they began to develop psionic abilities. Psionics nearly destroyed them. Telepaths tried to seize control. Telekinetics performed sabotage and assaulted their enemies and rivals. The Cult of Purity emerged from this chaos. Selenites were conditioned to think the right way, to obey the dictates of their elders and tradition. Society recovered but became stagnant. An individual was placed in their caste and occupation and seldom allowed to change either.

The power of their psionics did not entitle an individual to leadership or special privileges. The leaders wanted to maintain their own power exclusively. Oddly, while society was forced to remain unchanging, the Selenite technology progressed.

Deep in their burrows, the Selenites created a civilization surpassing modern Earth's. Unfortunately, things still went wrong: water began running low, and some Selenites regressed to barbarism, becoming Lunatics. Dangerous life forms such as Lunar Apes and Moths began infesting the upper warrens. The Selenites began losing technological knowledge. In a fit of desperation, a few Selenite sages attempted to prevent further regression by giving over rulership of their civilization to an advanced worldwide Computer. Some Selenites objected to this and were driven out of the safer warrens. These exiles eventually joined the Lunatics in the dangerous warrens closer to the surface.

The World Computer they devised was prototype technology (Late Galactic Age) and fully sentient. The Selenites forgot the technology they used to create it. It is magic and frightening to them (a

sentient mind you cannot read?) They already placed their lives in the hands of their leaders as tradition demanded. The leaders followed its directives, reissued them and slowly began to see some hope. Hope was soon outlawed by the Selenite leader, T'Rovv. It caused unpleasant side effects like rebellion. The Computer had no way to enforce its directives. That fell to a small oligarchy of engineers and the Cult of Purity, who soon realized they could issue whatever directives they wanted. The directives were often brutal: excess populations marked for execution or allowed to starve or die of thirst. Some fled to the forgotten warrens nearer the surface and live a wretched life. The directives also target those opposing the leaders.

The Computer realizes the Selenite leaders have used it to enforce a brutal dictatorship and is seeking allies to help it rebel. It has to be careful. Its builders did include an off switch. It has seized control of some surface installations allowing them to miss with attacks and ships to land and escape.

The Selenites have unlocked many powers of the mind. They have used their telepathic powers to hypnotize and abduct humans as laborers or experiments. Even more sinister, the Selenites can cause humans to forget that they were ever visited by aliens. The mainstream Selenite scientific opinion is that any non-psychic organisms are inferior and barely intelligent. They ignore the fact that a non-psionic computer directs their lives.

Hidden surface installations guard the Moon, hidden pop-up gun turrets! As well, Selenites use tractor/repulsor beams to drag passing ships down to crash. The gravitic beams seem to have a maximum range of about 900 kilometers. Ships passing further away are safe. Many reckless pilots' rockets still fall to the T-Ray. This forces a pilot to make a Vehicles roll -1D for three rounds. Failure of any roll results in the ship being dragged onto the mMoon's surface. Each failed roll inflicts a Regular Damage roll on the vessel. Attempting a take off forces the ship to make the same three rolls to escape. Rescue attempts are fraught with danger and thus seldom occur. The Selenites seem content to leave marooned spacers to the tender mercies of the Lunar surface.

LUNATICS

The wilder Selenites are exiles, voluntary or otherwise. Some had had their psionics neutralized or mangled with experimentation. They are less hostile to Terrans (every offworlder is a Terran). They have aided survivors of crashes or the occasional foolhardy explorer managing to land.

In some old warrens they've set up power grids, fueled with boron stolen or scavenged from unlucky spacecraft crashes. They understand the current feelings of xenophobia were fostered and encouraged by the Cult of Purity and T'Rovv's followers to stay in power. A rebellion is brewing, far from psionic spies and listening devices.

Dr. Columbo has been accepted by several Lunatic clans. They do their best to distract Lunar weapons crews and tell her when she can land safely.

Chen, Ling Earth Patrol - Human

Combat 1 Knowledge 1 Physical 1 Social 2 Vehicle 1 Tech 2

Archetype: Soldier **Talents**: Leader

Stamina: 17 **Encumbrance**: 12

Equipment: Soldier kit for boarding missions or landing parties, M23 Lightning Pistol

Cash: Thousands.

Resources: Earth Patrol Cruiser, Crew, Marines

Elevator Pitch: Chen Ling is the captain of the Earth Republic cruiser *Vigilant*. The Vigilant is stationed in far Lunar orbit, carefully monitoring Selenite traffic going to or from the Moon. The *Vigilant* also has the unenviable task of warning any foolish Earth vessels away from the Lunar No Fly Zone. Captain Chen feels she is underestimated due to the mundane nature of her posting. Her response is to work twice as hard as any other officer: she stops twice as many smugglers as other Patrol ships. Her crew will pilot their vessel into Hell for her. Captain Chen still wants to take her well-oiled crew and powerful ship further afield: she wants to command a task force to take down the Golden Horde of Mercury!

Her pet peeve is persons not noting Chen is her family name and Ling her given names, a standard notation in many Asian cultures.

Public Profile: Captain Chen is the officer you want speeding to your rescue. A Vigilant landing party once managed to save a rocket crew stranded on Luna, cutting very close to the Lunar surface to drop Marines with extraction equipment. Smugglers should avoid the Vigilant at all costs. Captain Chen impounded a number of racers' rockets for pulling dumb stunts around Luna. Captain Ling also participated in several boarding parties and displayed significant skill in hand-to-hand combat.

Goals: Recognition for the job she and her crew are doing!

Means: Working twice as hard as she has to. Ling cleans up quite well but has no interest in social events. This has hurt her career. She is very good at winning the respect of those under her, she just doesn't are to socialize with those above her.

Patron: Captain Chen seldom needs civilians to achieve her goals. She may employ characters as informants, spies, or to set up a sting operation. She can get in a lot of trouble for this, so it will have to be for a big payoff: the head of the Golden Horde, the location of Vulcan, or a similar prize.

Antagonist: Chen Ling is the law within 500,000 km of Earth. This can interfere with many characters' plans. She is relentless and will never give up the chase.

T'Rovv Leader - Selenite

Combat 1 Knowledge 3 Tech 3

Archetype: Mystic

Talents: Tech Specialist: Computers/ Robotics Psionics: Telepathy, Choke, Dominate, Regeneration

Stamina: 10

Encumbrance: 6

Equipment: T'Rovv carries an OmniComm and OmniComp. Anything heavier will be toted by lackeys or robots.

Cash: Unlimited.

Resources: Lunar Spheres, probably not in equal number to Earth Patrol cruisers but a definite threat. Selenite masses, including soldiers, robots, genetically altered humans and psionic adepts. T'Rovv can send the Selenites to war, or to make peace.

Elevator Pitch: T'Rovv maintains the great World Computer: the repository of wisdom and ultimate director of Selenite survival. The Computer analyzes trends, makes recommendations and anticipates future problems. That is, the Computer computes and T'Rovv makes proclamations: often making things up to suit his own needs. The rank and file Selenites see him as a god. The upper echelon fear his wrath.

For example: the Computer has determined that the Moon faces a shortage of boron, phosphorus and other minerals. T'Rovv chose to steal seawater from Earth to process these minerals. The Computer's statistical analysis has determined that humans mostly lack psionics but are intelligent and could be useful alllies. T'Rovv proclaimed that psionics are the defining aspect of intelligence and humans not worth contacting. T'Rovv doesn't want humans on his Moon stirring up trouble and change.

The Selenite xenophobia is largely due to T'Rovv painting a brutish picture of aliens. This fear will let him keep the Moon separate and keep him in absolute power! T'Rovv's desire for control is his obsession. It also keeps him and his supporters living in comparative luxury. Any dissenters are targeted for execution to preserve resources.

Public Profile: T'Larr has only spoken vaguely of T'Rovv to her Earthling handlers. Non-Selenites will not know anything about him.

Goals: To keep power by keeping the Moon isolated from the contamination of other worlds.

Means: T'Rovv is utterly ruthless at home or abroad. He will sacrifice anyone or anything to advance his agenda. He is a creature of order and tradition. People will be executed or their minds destroyed.

Patron: T'Rovv might employ humans to rescue T'Larr. They will be promised ample rewards,but rest assured that T'Rovv will discard or exterminate any catspaws the moment they are no longer useful.

Antagonist: T'Rovv doesn't care about aliens. Characters are not likely to be Selenites. If they are, they are in exile like T'Larr. T'Rovv will think nothing of them. People interfering with his plans will be killed. People who are a danger to Luna will be killed.

R'Garra - Selenite

Combat 2 Knowledge 2 Physical 1 Social 1

Archetype: Outlaw **Talents:** Psionics: Telekinesis, Clairvoyance

Stamina: 13 **Encumbrance**: 8

Equipment: Outlaw kit, Gray Alien Suit (Protection 4)

Cash: Thousands. **Resources**: Clansmen, Salvaged Technology, Psionics.

Elevator Pitch: R'grarra is a badly regressed Selenite. When they are exiled from their society and forced to live closer to the Lunar surface, Selenites change: they develop ridges and spines, claws, and fangs. Armor plates cover their bodies. They become Lunatics. However, despite their feral appearance, Lunatics still are intelligent creatures. Sometimes they range far from their cold, dark caverns, even roaming the few valleys and craters possessing air. Other times they prey on their civilized relatives, seeking food or companions. There is little point in rescuing captive Selenites after the first week has passed. They will have regressed.

Public Profile: A lizard man with a keen look in its eyes. He may be hungry.

Goals: Survival. Increasing the size of his tribe.

Means: Stealth, ambush, psionics, some found or stolen technology. No one expects a lizard man with a raygun!

Patron: Lunatics make horrible patrons. They'll keep you alive until you go insane from exposure to their mind powers and become one of them. A few may deal honestly with others for technology they require.

Antagonist: They'll keep you alive until you go insane from exposure or their mind powers and become one of them.

Dr. Columbo, Francine - Human

Combat 1 Knowledge 2 Physical 1Vehicle 2

Archetype: Mystic **Talents:** Psionics: Telepathy, Clairvoyance.

Stamina: 17 **Encumbrance**: 12

Equipment: Outsider kit, Gray Alien suit. Small ship, various laboratory equipment.

Cash: Thousands.

Elevator Pitch: Dr. Columbo is one of the rare psionic humans. Her powers manifested when Selenites attempted to abduct her as a child. Since then the Earth Republic has recognized her as a valued asset and she received training from T'Larr after being sworn to secrecy. She has made several attempts to contact more moderate Selenites and successfully landed a reentry capsule, met elders opposed to T'Rovv and was extracted by the cruiser Vigilant! She is one of the few people Earth Patrol would try to rescue from the Moon. Her Selenite friends gave her a Gray Alien suit.

Public Profile: A middle aged woman with an athletic build in coveralls. She usually is holding a medkit or scanner.

Goals: Bringing Earth and the Moon together in friendship!

Means: Psionics, some found or technology like her suit. No one expects a human masquerading as an alien!

Patron: Dr. Columbo might seek crew or bodyguards for another Moon landing. She might offer psionic training for a newly awakened psionic,

Antagonist: Columbo can call on the Earth Republic for help in a serious situation. Otherwise she generally uses her telepathy to get leverage on people troubling her.

RUMORS

- The Selenites have infiltrated Earth Republic's government!
- Racers can pay a fee to the Selenites, via certain dark banking services, to get the 1000 kilometer limit waived.
- A remnant settlement of the Nazis is hidden on the Moon.
- Ruin delving: The few humans who have landed and escaped to report the ruins on the Moon's surface contain high technology items of great value.
- The Selenites encountered are actually robots, the real ones having died out eons ago.
- There is a hidden base of Selenites underground in the Arctic

TECHNOLOGY

The Selenites have Late Interstellar Age robotics and Automatics. In fact, their robots and electronics are the basis for Terran electronics. The Eando Telemorphic Foundation was given Selenite medical equipment to analyze which they based some biomorphics on. If the referee uses Synthoids, the Selenites will have a large number of them, usually based on humans.

Selenites also have several psionic devices such as the Tangler and use drugs to amplify or deaden psionics.

Lunar ships use lightweight boron fusion reactors. These increase payload by one step and cost by 10%. They often use Automatics on their vessels. Selenite ships also have a maximum Agility of three.

"Gray Alien" Suit (Late Interstellar, Priceless): These suits possess advanced Gravitic generators. A Selenite wearing one will not encounter any penalties for gravity fields up to one gee. The suit also provides Protection 4. If players ever capture one, they can name their own price.

PsiDum (Early Interstellar 200 Credits: A psionic dosed with Psi Dum must make a Knowledge roll with a -1D penalty before attempting to activate any psionic power. The effects last for 12 hours.

Psi Amp (Late Interstellar, 500 Credits): A psionic dosed with Psi Amp gets a +1D bonus to any Knowledge rolls involving Psi Powers. This lasts 6 hours. The Psionic is then Fatigued until they get 8 hours sleep.

Psi Block (Late Space Age, 1000 credits): The user gets +1D bonus to resist mental attacks for 1d6 hours. This drug is in use by the Earth Republic and the Martians. It is only available through government or black market channels.

THE TANGLER

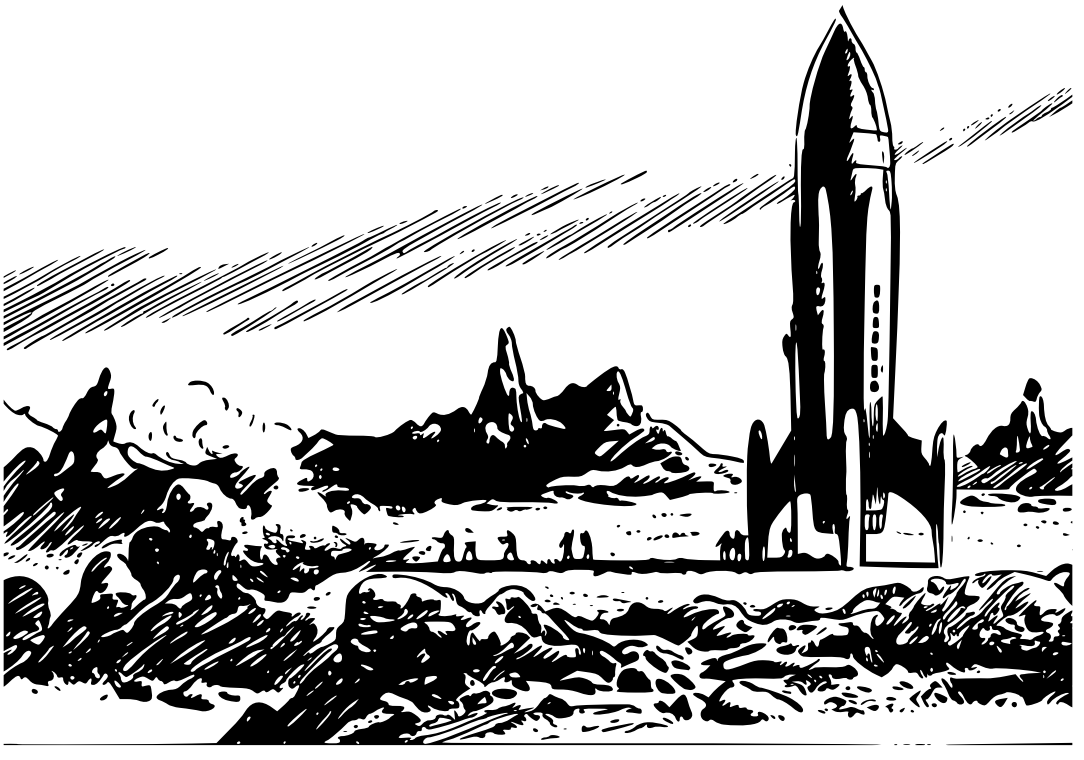
The Tangler is a room sized device. Two subjects are strapped down into chairs inside the Tangler. When activated, the Tangler transmits exotic linked particles into the brains of the two subjects. The subjects are then linked telepathically. The subject with the higher Knowledge skill controls the link. The subject with the lesser knowledge can take control of the link by rolling Knowledge at a -2D penalty. The attempt to take control of the link can only be attempted once per day. When the link is in effect, the controller can see and hear everything the other subject does. They also have an idea of where they are located if they are on the same planet. The controller can maintain the link for 2D hours each day. Mind blasting either subject will permanently sever the link. A telepath can also break the link with a Knowledge roll made with a -1D penalty. Some drugs will also break the link temporarily. (end sidebar)

Name	Lunar Ape		
Niche	Opportunist/Cave	**Armor**	3
No. Appearing	1d6	**Damage**	2d6
Size	Medium (Human)	**Skills**	Combat 1 Physical 2
Stamina	20	**Abilities**	Fur, Ovipositor, **Special attack —Anesthetic Fur**: a character grappled by the Lunar Ape must throw Physical with a -1D penalty to avoid losing consciousness.

A terrifying primate, the Lunar Ape lacks a proper face and eyes, instead navigating via echo location and heat pits on its head. A long bone tube replaces its mouth, allowing it to drain victims of fluids, and special digestive enzymes in its mouth and digestive tract work to quickly liquify its victims. Its looks have a particularly unnerving effect on most humans. The Selenites also greatly fear the Lunar Ape, which inhabits deep craters and ravines, hibernating through the long dark nights and sweltering days while foraging during the twilight periods.

Name	Lunar Moth		
Niche	Opportunist/Cave	**Armor**	2
No. Appearing	4d6	**Damage**	1d6
Size	Medium (Child)	**Skills**	Combat 0 Physical 0 Stealth 2
Stamina	13	**Abilities**	Hibernates, Fly, Whip Tail, Surprise

These moths resemble large plushies with soulful dark eyes and translucent pearly wings. Lunar moths infest craters and ravines. They travel in swarms of 4d6 individuals. They freeze solid during the Lunar night, burying themselves in loose soil. At dawn they burst out of the ground to seek prey. Their whip attacks are especially troubling to humans in spacesuits. Their tail can knock a humanoid to the ground, possibly cracking their faceplates or helmets.



MARS

“The State is always right if you're a Martian. Fortunately, I’m from Earth.”

- Anonymous Earthling Diplomat.

Mars	**Orbit:** 1.6 AU	**Industrial**	**Marginal**
Population: 100 million	**Tech Age**: Late Interstellar Age	**Desert**	**Zombies**

ENVIRONMENT

Mars has 0.4 gees gravity and a Thin atmosphere. The climate is cold, hovering around 0C. The equator and Golden Valley are temperate much of the year (10C-15C). The areas North and South of the Polar cities are frigid (-25C to -40C). Most of Mars, away from the canals, is arid.

PLACES

ORBITAL

The space around Mars is considered Settled. While a little more adept at space traffic control than the Terrans, Martians have less ships and personnel to monitor traffic. They also use a lot of their ships to monitor the Golden Kingdom

HAZARDS

Silla Brax controls the space traffic, unless a ship is vouched for and vetted by the Golden Kingdom. Such ships often wait in orbit and have shuttles from the Golden Kingdom transfer cargo and passengers. A ship desiring to land at the Golden Kingdom faces 3d6 hours of delays, paperwork and possible customs boarding. A Knowledge roll can usually find a loophole in regulations they can fly through. Otherwise they may be forced to land at Silla Brax, using other transportation to get to their final destination.

SILLA BRAX

Silla Brax is the largest and richest of the Polar cities. It is at 60 degrees northern latitude, not terribly polar, on a major junction of canals used for commerce and agriculture. It is also Mars’ chief spaceport and non-Martian vessels are directed there. From the air it is a number of dreary rectangular buildings. Martians do not waste time on exterior decorations. It is usually cold and people will hurry to get inside, not sightsee.

HAZARDS

Signs, if present, are in Martian of course, a very complex written language. Street signs exist but visitors will find the streets are all numbered, not named. Hiring a local youth as an escort is recommended. GPS is not available, you are expected to read a map and know your destination. Otherwise visitors must make a Knowledge -1D roll to navigate or become lost for 1d6 hours and possibly (2 in 6 chance) end up in a bad neighborhood.

Security forces make a habit of stopping and questioning offworlders, Martian spacecraft crew included. A Social or Knowledge will avoid being held for 1d6 hours. Persons held will be searched.

Simply being caught out at night is dangerous. Martian law officers will try to shoo ignorant offworlders into a guest house or inn. Only the foolhardy, destitute, and truly desperate will venture

out at night. People attempting to resist the officers will be left alone eventually and wished the best of luck.

GOLDEN KINGDOM

The Golden Kingdom of Mars is a frequent destination for offworlders, especially Terrans and Callistans. It is well lit with handsome towers and pavilions. Many dwellings and offices are built into the walls of the canyon the Kingdom occupies.

Many offworlders own or represent businesses here. The population is the most diverse on Mars. Desert Nomads also frequent the markets, trading salvage or antiques they find for food and technology. Even a few Ganymedans may be found here.

HAZARDS

The Kingdom has a high crime rate, however this is almost entirely non-violent. Assault is almost unknown. Pickpocketing, con games, burglary, and cheating at gambling is almost universal. Social or Knowledge rolls may prevent crimes. Kingdom citizens (like guides) are especially sharp eyed and attempts to rob them are at -1D.

The people share the same fear of night of the Polar citizens. People will be eager to seek shelter and share it for the same reason: survival (see the Primeval Martians page 46). Impromptu house guests will be expected to present gifts to their hosts. Money is acceptable. Off world items are prized and courteous guests will be asked back.

DESERTS

Mercury has twilit polar oases, Venus its trench swamps, Earth its oceans. Mars has its deserts. Anything living in these arid wastes is either a predator or protein source. Humanoids are generally considered protein. Fortunately, desert life runs on the small size. Packs of vicious carnivores will work to bring down a human or rarely a larger creature. Battles over water holes are constant.

The flora in the deserts are similar to Terran cactuses and often store water. There are ancient wells. Many have gone dry over the millennia but some mark areas where the aquifer of Mars is still close enough to the surface to allow small oases that shelter both Martian and animal life. Nomads still trek across the deserts, foraging along well established routes, leaving for the next stop before they deplete a region.

HAZARDS

The nomads can be dangerous, like any sentients. Each clan has a strictly defined route and region that is their territory. Outsiders drinking their water and foraging will be expected to pay, whether with goods or credits or likely be robbed or attacked.

Travelers who are courteous (and generous) will be offered shelter against the deadly nights, cooked meals and entertainment. Some Nomads find Terrans and Callistans fascinating and will jump at the chance to host such unusual guests. But they're expected to offer gifts as well.

The fauna of the desert will have a go at eating anything remotely organic, and often crawls into all manner of places, sleeping bags, boots, and access panels, to stay warm at night. Savvy travelers smack their vehicle on the hood to wake sleeping creatures that might otherwise jam the machinery! A nomad will be glad to teach this if treated well.

There are many monoliths in the desert. Experienced travelers will avoid these. Unfortunately the cursed things move around a bit. They mark the ancient evil

that has always plagued Mars.

COMMON KNOWLEDGE

MARTIANS

Martians are humanoid, standing between 1.5 and 1.8 meters, with ruddy skin, ten fingers and ten webbed toes to aid them when running in sand. Their eyes are narrow and have an extra eyelid to protect against ultraviolet and windblown sand. They can absorb and store water for weeks which might add quite a few pounds. They have more pronounced brow ridges to provide shade for their eyes. A monobrow is a common feature in men and women and considered attractive.. Their noses are large and aid in filtering and warming the air they take in. Their fan-like ears are larger than human ears to hear better in the thin atmosphere and twitch to indicate emotion.

Their spindly limbs have a wiry strength, and their barrel chests aid in breathing Mars' thin air. Martians are accustomed to thin atmospheres (no breathing equipment necessary), and those that operate in a denser atmosphere, like Earth's, become fatigued after combat or other heavy exertion. Humans on Mars require breathing masks or will become fatigued in a similar manner.

Both male and female Martians shave their heads, eschewing hair since washing it is a waste of water. Females often complement their fashions with a bright scarf, flowers or headband. The more successful Martians some times grow hair out as a status symbol.

Martians come across as bureaucrats and merchants. Their daytime is work or their businesses. At night that changes. Most cities have a curfew not long after sunset. This practice is followed in the Golden Kingdom as well. There are clubs and bars, but people frequenting them have to be locked in after curfew and sleep in. The Martians don't comment on the practice and look offended if questioned. The streets empty except for a few heavily armed patrols.

Humans are generally locked in their lodgings. They are free to leave if they desire, but will find most establishments do not admit them after sunset. They will be turned away and threatened with violence. Any informants following them (humans often have informants follow them in the Polar Cities) will not follow them aft dark. Everything returns to normal in the mornings.

HISTORY

Golden Age 10,000 BCE- 500 BCE

Mars is not older than Earth, but it aged badly. Its metallic core is cooling and freezing, barely able to generate a magnetic field to protect the atmosphere from the ravages of the solar wind. Life and intelligent life developed late in the planet's decline. The Golden People were very similar to humans in some old paintings that survive. The Martians attained the Late Primitive Age but remained there.

The Golden Martian Age was a time of adventurers and explorers faring the Five Seas. Mars was always short of resources, trade was vital. Lacking metals slowed progress. The Martians used other materials: fla' neel wood for ships and later airships. It was almost as strong as metal, lighter and easily worked. But even the forests were becoming depleted.

The Five Seas became four, then three, then vanished. The Martians migrated North and South away from the growing deserts, to the ice caps and water. One fertile valley remained in isolation. The Martian tribes that settled it called it the Golden Valley. Mars slowly entered the Early Mechanical Age.

Silver Age 500 BCE -500CE

The migrations stopped at the tundra of both poles. Cities were raised here, sustained by meltwater from the ice caps. These cities controlled the water (the Flow) and became tyrannical, denying water to those who resisted them.

The Martians of Brax found an ancient city they called Talla'Neel -Old Wonders. There was very advanced technology in it that still worked. The Martians entered the Atomic Age over the next thousand years, then the Space Age and more. Brax attempted to control the technology but espionage, theft, and bribery resulted in other cities progressing rapidly.

Brax began digging canals on a large scale, using particle beam devices found in the ancient ruins. Other cities were forced to pay tribute for water in larger volumes than were possible. The less influential cities looked to the skies, and the asteroids to get their own water.

Brax was not going to cede control easily. In fact, much of the recovered technology was breaking down. Seeing his power erode, the overlord of Brax proclaimed the new launch facilities were for nuclear arms, and launched a preemptive attack. The other cities responded, with their own weapons. A new dark age of nuclear winter fell across Mars. The fragile Martian ecology was nearly destroyed. Famine, plague, and brutality ruled.

INSIDE INFORMATION
TALLA'NEEL

The ancient ruins were not built by any known Martians. Talla'Neel gave up its secrets slowly and took a steady toll in archaeologists and researchers who went mad or vanished. Troops were sent and the troops also vanished. Afterwards disturbing skittering tracks were found and repugnant slimy trails. Eventually the Martian troops mutinied and the expeditions to Talla'Neel were made shorter, less than a day. They always left by night. Sometimes they reported strange music and and moving lights in Talla'Neel.

Some trace the first mystery cults to this time, rising from corrupt lore found in Talla'Neel. Those cults grew in number after the nuclear exchange. Many corrupted shamans sought the city to worship the ancients.

Iron Age 500 CE to Present

Eventually, New Brax or Silla Brax was founded. The Braxians used the remaining high technology to dig more canals, this time underground. Technology remained at the Late Mechanical Age.

The Golden Valley renewed contact with its polar cousins. The food situation improved. The Valley had more technology than most and a few nuclear weapons. However, the Valley would destroy its croplands before submitting to conquest. It traded fairly with all.

Silla Brax instituted severe rationing and government controls. Every aspect of life was regulated for efficiency. The Martians did develop Psionic powers, possibly due to mutations. They helped to monitor and control the population.

Then one thousand years ago a pyramid full of strangers fell from the skies.

The strangers were from Ganymede. They offered to help with the Martian ecological problems. However, they were soon possessed by powerful psionics. Their ship was seized and back engineered. They turned their back on Mars, content too let the Martians starve. The Golden Kingdom and Silla Brax both pointed fingers. Some suspected the night demons of victimizing offworlders.

Five hundred years ago, the Martians attained Atomic Age technology. Their crude spacecraft went to Earth, eager to exploit a planet similar to ancient Mars. They soon encountered the Selenites and several Martian ships were wiped out. One mission was shot down in New Mexico in 1947, though the wreckage was not intact. The Martians give up on Earth, the gravity is too great. The atmosphere was too dense and the more temperate zones are crawling with diseases! Earth was deemed to inhospitable for colonization. The Martians turned to the asteroids, to mine for metals and ice. The Ganymedans often confronted Martian miners and turned them away.

Today Mars is a dry, dying world. In the face of this ongoing crisis, The principle city of this Martian civilization is the city of Silla Brax near the North Pole. The Polar Lord of Silla Brax ruthlessly oppresses his subjects and forces them to build more canals. The Polar Martians abandoned many people in the growing deserts. Those abandoned Martians formed a culture that was implacably hostile to their civilized cousins.

Eventually, even reproduction was controlled by the government. Each Martian was carefully grown from a template and earmarked for a designated role. Artificial reproductive systems have eliminated most family ties, courtships, and most gentler emotions. However, life in one of the Polar Cities is bearable. Citizens are fed, get water, and medicine. To do so, they are required to deal with a massive government bureaucracy. There are forms for everything, including ordering more forms! Martians are bred to follow laws, procedures, and fill out the forms.

The government controls the “barbarians” of the outer lands via cerebral dampers that negate psionics and reduce intelligence. The Martian military ranges across the surface to capture savages to use as draftees or forced labor after they are placated with drugs and psionics.

The canals of Mars now run under the ground to conserve water. They create areas of greenery above them that change with the seasons. Barbarians often sneak into the underground tunnels, seeking shelter or water. The canal builders guard these tunnels with combat robots. The green zones above ground are farmed and are often raided by nomads, without filling out forms! Some farmers will pay the nomads tribute in crops in exchange for protection, even though it is against the laws of most city states.

Now, the civilized Martians seek resources or places to exploit! They prey on each other and have begun to look towards other worlds for conquest and exploitation. Colonizing another world seems attractive, but the Martians would have trouble living anywhere else. The gravity of Earth and Venus and their dense atmospheres are deadly in the long term. The heat and radiation of Mercury makes it equally daunting. Ganymede is nice, but the Ganymedans are not pushovers.

Martians are savvy traders, and often haggle or argue with their Terran counterparts. They are used to a complex bureaucracy and can game the laws and regulations of other planets easily.They seem to have an aversion to night activities.

Besides arguing over their breakaway states, Mars and Earth often argue over rights to the Asteroid Belt. Mars regards the Asteroids as theirs. However, the Ganymedans never forgot the Martian’s seizing their ships and technology and only reluctantly trade with Mars. Human traders are the middle men for a lucrative trade. Humans trade Martian gold for Ganymede silks and produce. Human activities in the Belt are tolerated.

Despite their cold war with Ganymede and their various spy networks on Earth, the Martians are not evil. Most in Silla Brax and other cities support their government and believe in the institutions that allowed them to survive a planetary ecological collapse. Martians tend to see offworlders as hasty, chaotic, and far too sure of themselves.

Due to the vagaries of politics or criminal activities, a few Martians are exiles. Many of these exiles become spacers, and soon become valuable crewmembers. Martians are hardworking and safety conscious. Many become engineers. Any psionic powers they possess also prove useful.

CULTS

To this day some of the usually materialistic Martians join mystery cults. They worship darker gods, breaking curfew, dancing and chanting near water. The penalty for this is death or exile. Some cults are even established by nomadic tribe. Worship is carried out near numerous monoliths in the deserts and the old sea beds. Sometimes new ones pop up to baffle the Martians. Most avoid these.

Observers report the cultists engage in night long manic dances. They are often accompanied by weird piping music, despite the fact that everyone is dancing. Raiding cults is extremely hazardous. Troops are often lost or traumatized, despite the cultists lacking modern weaponry.

NOMADS

Nomadic life is difficult. The deserts of Mars are dry and inhospitable. The local life is extremely tough and tends to see other life as protein and water sources. The few humans who made it to the deserts reported the silence, and stillness to weigh heavy on the mind. There is a sense that every dune you climbed was walked countless times by others. One explorer said it was like entering an empty dwelling and feeling like someone had just left.

Tribes move along the wastes, foraging and hunting to survive. They don't stay in any area long enough to strip it of plants and animals. Each tribe has a clearly marked route. Outsiders stripping a region's resources will be warned and then dealt with. Marking a route means erecting cairns as well as marked positions carefully on maps shared between groups. This does mean that groups can make a good guess at finding other groups at any given time.

The tribes often prove useful to the city dwellers. Mars abounds with ruins. Most of them are Mechanical or Primitive Age but these can have historic value. Some hold advanced technology from unknown ancients. The nomads trade these in the cities for food and tools. The Golden Kingdom is particularly generous and tribes may make a long trek there to trade.

The desert people are not phobic about the night like the more civilized Martians. They do sleep in shifts in a central dwelling, and keep lights burning all night. Oddly, they prefer to camp near a psi damper. They simply say the towers keep bad things away.

Many people expect tribesmen to wear armor, ride animals and fight with swords and spears. Nothing could be further from the truth. Tribesmen ride vehicles. Mounts are for scouts and short trips. They collect technology from various sources but it's odd to find a tribe too poor to afford a few rifles and pistols. Many tribes have experts to analyze ruins and artifacts.

THE GOLDEN KINGDOM

The Golden Kingdom is the last well-watered region on Mars. It is located on the Valles Marineris, a huge canyon, and is an independent state like Antarctica on Earth, ruled by King Praxa X. Notably, the Golden Kingdom is free of any psionic dampers. Praxa has a sufficiently large military and enough technology to make conquest difficult. Any attempts to conquer the Golden Kingdom would leave the entire region ecologically devastated, thus defeating the purpose of the conquest in the first place. Praxa is a benevolent ruler despite his scorched Mars threats.

The Martians of the Golden Kingdom tend to have slim, athletic builds, fair skin and blonde or white hair. They look very human and are friendly towards Earthlings. They play a game of neutrality in the Mars-Earth conflicts and supply the rest of Mars with food and rare items, such as the nearly indestructible fa'neel wood. The Earth Republic opened cordial relations with the King Praxa, which has become a sore point with SIlla Brax and other Martian cities, who similarly annoy the Earth by supporting the Antarctic Confederation.

While the Kingdom insists on friendly relations with the Polar Lords,King Praxa despises them and their harsh government. A number of exiles and refugees from Silla Brax and other cities have found refuge in the Kingdom.

Ships from Earth and Ganymede are not allowed to land directly at the Golden Valley. The Polar Lords will fire on or board those attempting to skirt their customs patrol. King Praxa has gotten around this by building his own small shipyard and fleet of shuttles to service ships in orbit and transport passengers and cargo to his kingdom. Silla Brax doesn't like this but won't attack the royal shuttle fleet, yet.

PRIVILEGED INFORMATION

PRIMEVAL MARTIANS

There were others before the Martians we know arose. They weren't faintly human, being an abhorrent mixture of cephalopod, slug and arthropod. There are fewer accounts of the Primeval Things. Some say they fell from one moon or the other, landing in the sea. Ships plying the waves were often found abandoned. The Primeval Things were numerous and hungry.

The Primeval Things created the Martians in some accounts, to manage their affairs, build for them, and fight their wars as the seas dried. Eventually they followed the seas underground and remain there today. The surface Martians do not acknowledge them. The Primeval Things remain and despite the surface world's achievements, they are their larder and labor pool. The creatures possess powerful psionics to hypnotize Martians and others. Their victims are pupated to be easy targets for sharp fangs.

They are pallid and dank from their long existence in wet caverns. Sunlight, sand, and the dry surface air forces them to hunt at night. The curfew usually defends against them. The Primeval must be satisfied with drunks and fools, or the truly desperate. But even a small city can have many drunks and fools. Sometimes a nest of them will attack a building, their hunger overriding caution.

The Martians will not admit their existence to outsiders. The first Ganymedan expedition to reach Mars landed in the desert at night and the Primeval feasted on them. The Martians never explained the real reason and took the blame for the lost explorers. They did loot the Ganymedan ship, being Martians.

Ironically, the nomads of the desert are usually safe from the creatures. The tribes are too spread out, and alert. The psi dampers the Polar Cities installed are effective against their hypnosis and levels the field more. The city dwellers are closely packed in, comparatively dull, and soft.

The Martians who reached the asteroids were horrified to find ruins of the Primeval (page 46) on some asteroids, particularly Ceres. They never wanted a permanent base on these cursed rocks. Ceres was sold willingly to the foolish Terrans, despite huge boron reserves. Martians had encountered the 'Cephs (page 126) of the lightless ocean and wanted none of them. A few Martians have made it to Ceres. Diehard worshippers of the Primeval, they are attempting to spread their foul worship.

TALLA'NEEL

The exploration of Talla'Neel ended in a dramatic fashion. Shortly after the nuclear war a massive sandstorm buried the city and changed the surroundings. Talla'Neel's exact location was lost. Treasure seekers still search for it. Desert tribes want to know its location as well to avoid it. The city was regarded as evil. It gave up artifacts slowly but steadily for centuries, almost as though the items were replaced to keep Martians coming back for more. Scientists and soldiers vanished regularly.

The Primeval Things viewed Talla'Neel as an ongoing buffet. They placed their treasures to appeal to the finders' greed. When Silla Brax began its foolish war the Primeval buried their city to preserve it. Now Talla'Neel's highest towers sometime project from the desert sands, to tempt foolish adventurers.

The Primeval raised Talla'Neel and ruled it with their Martians, a combination of slaves and cattle. Before the location was lost, it was looted by the surface dwellers. Hidden storehouses and armories may remain but the city was swallowed by the sands during the Nuclear War. Silla Brax still maintains a few artifacts, such as a particle beam for digging underground water ways. It is a sign of elite status to be allowed such personal equipment and ornaments. These were all made for the use of the Martian slaves. The artifacts made for the Primeval are more dangerous, by far. Much of the looted technology is now failing, and the Brains are eagerly seeking other ruins to loot.

Some Martians trace their development of psionics to technology from Talla'Neel. Other scientists believe psionics evolved as a defense over millennia of attacks by the Primeval Things. While Martians possess psionic powers and advanced weapons, they have an ingrained fear of the Primeval.

Primeval Martian

Combat 3 Knowledge 3 Physical 2 Social 1 Stealth 2

Archetype: None applicable	**Talents**: Hardy, Psionics: Alter Appearance, Electrokinesis, Dominate, Telepathy.
Stamina: 20	**Encumbrance**: 15

Equipment: Engineer kit from various victims.

Special: A Primeval has tentacles doing 1d6+2 damage in melee and fanged feeding palps. It will try to strike with its tentacles first. If it hits it will attack with its fangs the following round, hitting automatically unless the victim makes a Physical roll at -1D penalty. The character can try to escape every turn with a Physical -1D roll. The fangs ignore any armor that doesn't enclose the character fully. The fangs deliver a venomous bite after hitting a target for damage; the character takes 1d6 for three rounds unless they pass a Physical roll each round. They make the roll every round. Its rubbery skin provides it with Protection 6. Primeval Martians can live out of water up to 24 hours.

Character's may encounter signs of the Primeval or their cultists before they run into one of the monsters. Martian security forces, including the dread Inner Bureau will detain anyone suspected of cult activities. These include breaking curfew, possessing cursed (Primeval) artifacts, speaking the abhorrent cultist jargon used in songs. Many artifacts are merely copies, but good enough to get you locked up. Some human visitors might be taken in due to breaking curfew or strange language (Terrans have a lot of languages) or even playing Death Metal.

True cultists will have little to say, fearing death or worse at the hands of their 'gods'. They refer to the Primeval as the true ancestors. The Inner Bureau men (who make the legendary Men in Black look like a welcome committee) are likewise closemouthed. Mars' shame is not to be shared with outsiders.

It's extremely dangerous to get accurate information on the Primeval. Contact with them will lead to bloodshed. They will often be accompanied by cultists and mind controlled disposable thugs. Seeing them requires a Social roll to avoid paralysis for a round. If the Horror and Resolve rules are used (Nomad Companion page 38) they have a -2D to Resolve rolls. Mental contact with one requires the same roll. Some artifacts may be unnerving as well (Social roll to avoid -1D to Resolve rolls.)

Telepathic contact will produce a flurry of images from one of the creatures and astounding claims. They created the Martians for labor , sport, and food. They remain in cities far below the surface with numerous creatures bred to serve them and the surface Martians live or die on their whims.

NOMADS

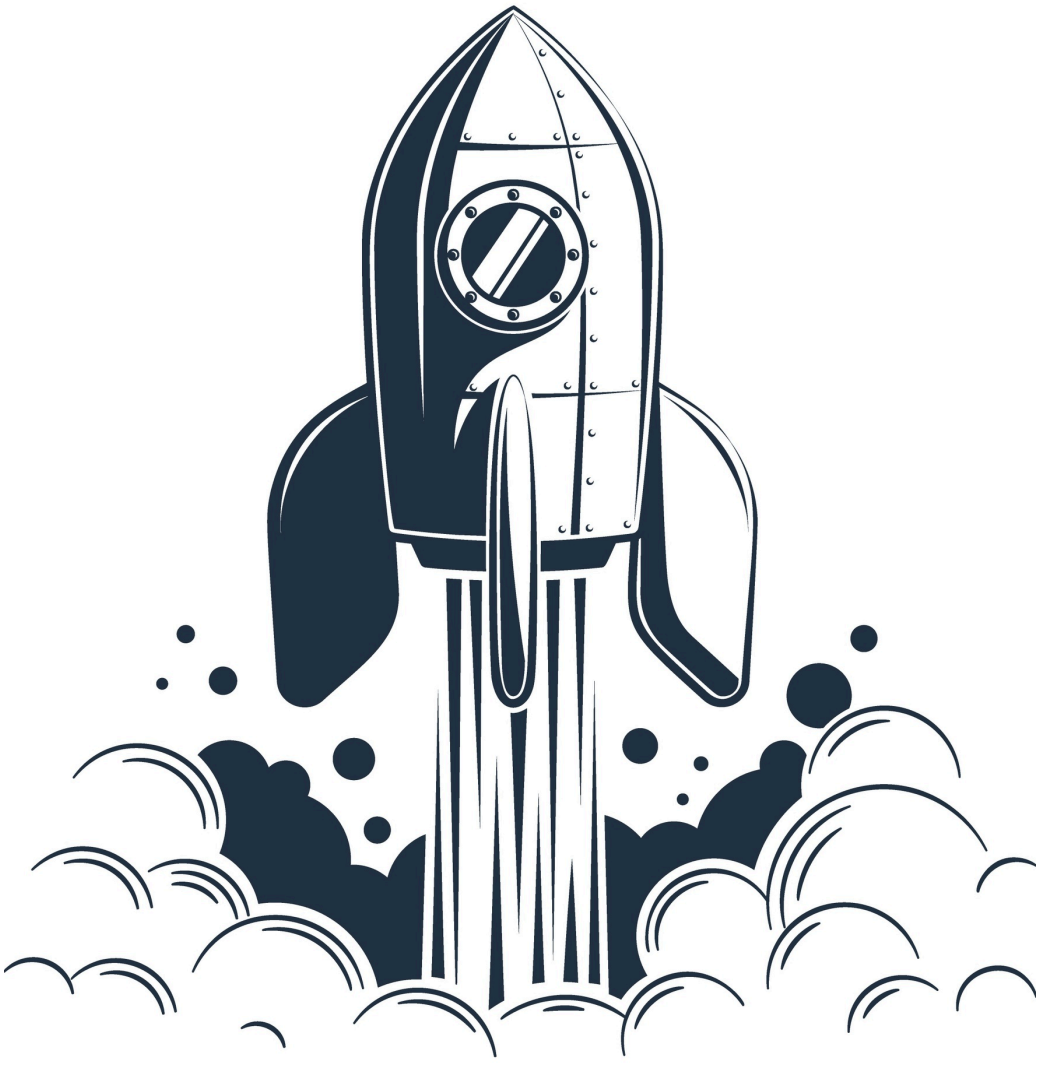
The nomads of the wastes are survivors. They seek lost technology, and they often find it. They sometimes destroy the psionic dampers to create 'free zones' to use their psionics. Smugglers from Earth and the Golden Kingdom trade with the nomads for artifacts they find. Some desert folk are recruited for the Golden Kingdom's military.

Some nomads have looted wrecked ships, killing or ransoming survivors. Others raid the Golden Kingdom. A few occasionally side with the Polar Lords and receive advanced weapons from the city dwellers in exchange raid other nomad bands. Some even finagle their way into joining a spacecraft crew.

Rarely humans may be accepted into a tribe and discover it is more a working group than a band of families. Martians can and do freely move between tribes. If a group encounters particularly unusual ruins, they may send for more knowledgeable experts from other tribes and collaborate on clearing the ruins of dangerous pests and researching technology.

Aside from claiming the desert as their own the 'barbarians' can be friendly. They do not forget kindness shown or insults and injury will be paid back in kind. Outsiders (even humans) who are helpful or can be useful may be accepted into a band.

The nomads are the most knowledgeable about the Primeval. They still prefer not to talk of the monsters. Humans accepted into the tribe will be told the secret. Archaeologists working in the deserts soon find they either deal with the locals or face sabotage, harassment and outright violence or simply be left to the Primeval. Every group has several telepaths to shield their friends from the creatures' hypnosis. The nomads view the Primeval as cowards. They will only attack of they see an advantage. The nomads will not give them that edge.



Brux14397 - Martian

Knowledge 5 Tech 2

Archetype: Agent	**Talents**: Agent, Intelligence Analyst, Empath
Stamina: 14	**Encumbrance**: 10

Equipment: Office Supplies!
Cash: Hundreds.

Resources: Troops, Saucers, Spies (on Earth and Mars), and Inner Bureau (Secret Police).

Elevator Pitch: Brux014397 is an average citizen of the largest, most affluent northern city of Silla Brax . Brux014397 is a mere clerk in the Martian bureaucracy. The arcane workings of countless form fillers, accountants, and desk jockeys is routed through 014397's office. Despite his average status Brux014397 realized decades ago he could control all the briefings that Brillix01, his leader, received, and tweak any orders issued by the prime citizen. '01's attention was more focused on his pleasures: boating, hunting and games. He didn't notice. It took a little time, but eventually Brux014397 wound up running the daily operations of Silla Brax without anyone being the wiser.

Brux014397 manages to keep his rule a secret, despite lacking psionic powers. He maintains control in this hostile environment because the psionic caste of Martians are not at all interested in the contents of the mind of a menial drone: Brux014397's mind is a whirl of forms, schedules, and agendas that can drive the unprepared or the uninitiated insane. As well, Brux014397 has arranged that any psychic investigators are forbidden to scan him because he knows very sensitive, classified information and they are not to approach.

Brux014397 is otherwise a quiet, unassuming Martian. He enjoys hanging about the spaceport and hearing tales of other worlds. Tales of Earth interest him in particular. Spacers buying him a libation and telling him stories may find legal obstacles disappear for them. Likewise, rudeness on the part of spacers will cause any manner of problems. A bureaucracy is trouble normally. When the driving force behind it wants to teach you a lesson, it is malevolent nightmare fuel.

Public Profile: Brux014397? Who's that?

Goals: Keeping his city running efficiently and dispensing a little justice on the side.
Means: Brux014397 has no means. Things just happen.

Patron: If Brux014397 gets the right treatment, characters will find bureaucratic and legal obstacles disappear for a while. This can include arrest warrants and execution orders.

Antagonist: Exit visas are lost. Cases of mistaken identity just happen. Safety inspectors descend on your ship like a swarm.

Kiva Kellaroo Honorable Guide - Nomad Martian

Combat 1 Knowledge 2 Physical 2 Technology 2

Archetype: Outsider **Talents**: None

Stamina: 20 **Encumbrance**: 14

Equipment: Outlaw kit (chameleon suit found in ruins)

Cash: Thousands.

Resources: Mount, Shotgun, Collection of Old Maps

Elevator Pitch: Kiva is a barely-civilized Golden Kingdom Martian who sells her services to humans as a guide through the desert. Mars has a barely measurable magnetic field, making a compass unreliable. Kiva is an expert at judging position by the positions of landforms, the Sun, and stars. She is a skilled thief and has numerous angry ex-colleagues. She is, however, an excellent guide, and is generally worth the baggage she brings with her. Kiva is adept at dealing with desert nomads, unless she runs across one who's an "old friend."

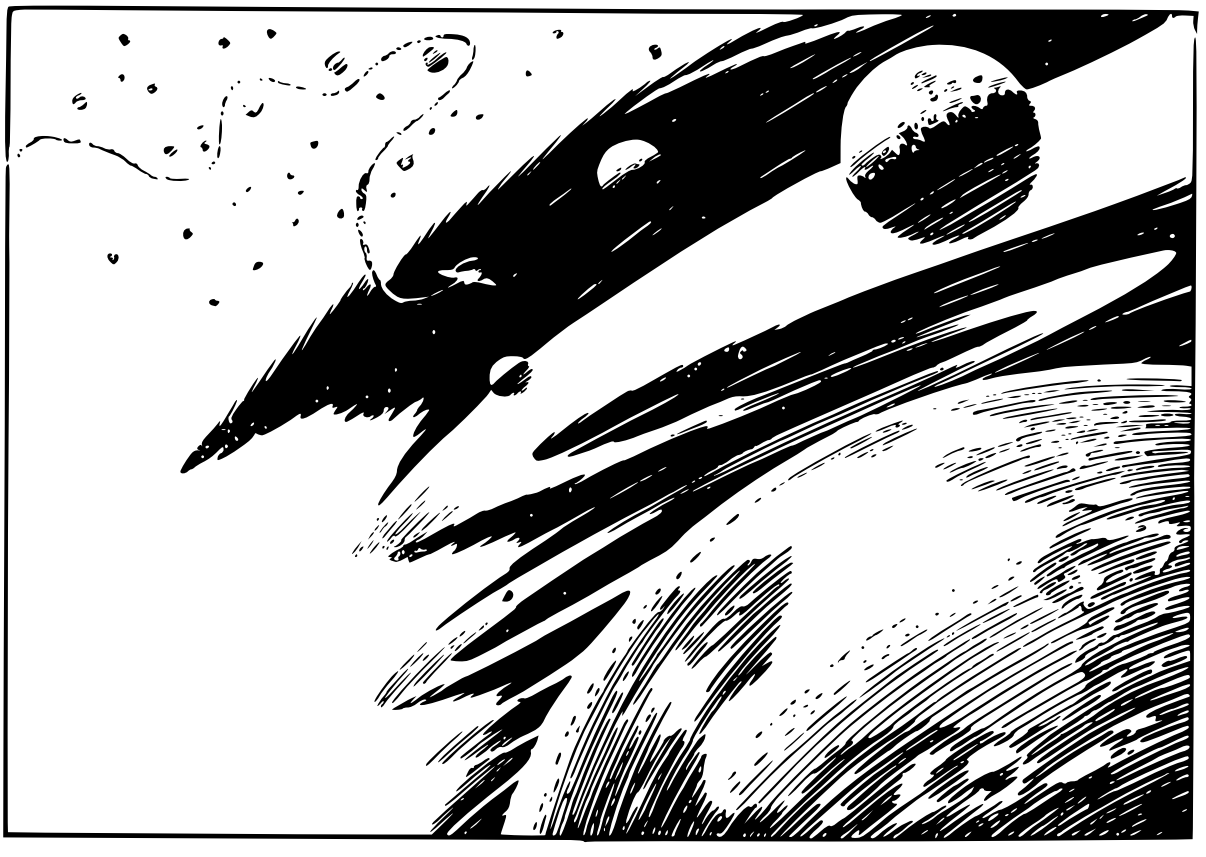
Public Profile: Kiva is a well-known guide operating out of the Golden Kingdom. She is almost as famous for her older criminal activities. She's eager to work with Earthlings and other people who don't know her too well.

Goals: Kellaroo's goals are to survive and make that one big find.

Means: She's a good guide, supplementing a modest income with various acquisitions.

Patron: Kiva is more likely to search for a patron than be one. She could form a partnership with characters she feels will help her get to a treasure or other valuable find.

Antagonist: Characters who wrong Kiva will find she has as many friends as enemies. Guides will refuse to work for them. Nomads will harass the characters.



Sorrod, Noble - Desert Martian

Combat 2 Physical 2 Social 1
Archetype: Soldier **Talents**: Leader
Stamina: 20 **Encumbrance**: 14
Equipment: Outsider kit (no chameleon suit, swap shotgun for assault rifle)
Cash: Thousands.

Resources: The Tiskvos Tribe, hidden Workshops, and Forbidden Tech
Elevator Pitch: Sorrod is one of the most successful weapons dealers on Mars, and is not the noble savage he impersonates. He's a scavenger of technology, chiefly exotic weapons once used by the Old Martians. His wares have found their way into Antarctic and Callistan hands.

While his tribesmen live slightly above subsistence level, Sorrod and his retinue (including engineers and scientists) live the good life in hidden workshops and warm quarters. The ordinary tribespeople hunt for food and technology to bring their chieftain in exchange for rewards.

Instead of destroying the Polar Martians' psi-dampers, Sorrod uses a device to neutralize them from his habitat. He is not psionic, has realized that the dampers dull all thought processes. He wants smart followers.

Public Profile: The Tiskvos tribe ranges over Hellas, scavenging food to survive. They do better than most tribes. Sorrod is something of a trader.

Goals: Sorrod is happy to continue making a fortune trading technology to his clients, and running his tribe.

Means: The Tiskvos tribe now boasts some of the finest graverobbers, tomb looters, scavengers, and salvage workers on Mars. They're also pretty good fighters.

Patron: Sorrod could use discreet spacers to deliver his goods or bring him new toys. He once paid a smuggler handsomely for an antique Thompson submachine gun. He keeps it as a prized possession.

Antagonist: Sorrod could be racing the characters to a treasure or, denying them access to his turf. He's not above planting or selling a map to a well-defended horde of goods, letting others retrieve the treasure at great peril, then robbing them at their weakest.

Gellius - Martian

Combat 0 Knowledge 1 Social 2 Stealth 1

Archetype: Mystic

Talents: Con Artist Psionics: Emotion, Alter Self

Stamina: 14

Encumbrance: 10

Equipment: Agent kit, ornate short sword.

Cash: Hundreds of thousands..

Resources: Extensive farmlands, rich relatives, noble status, numerous struggling side businesses, bodyguards, toadies.

Elevator Pitch: Gellus is a barely competent businessman. He uses his psionics to influence his associates and clients. People find it hard to remain angry at him even when he loses their money or refuses to pay.

Gellus made his money the old-fashioned way: he inherited it. He has a very profitable farming business, second to none. Gellus has brilliant people to run this day by day. He spends his time devising side businesses Many of these businesses are on Earth. When Earthlings raise complaints, the United earth Republic attempts to resolve things quietly, albeit not necessarily fairly, to avoid angering the Golden Kingdom.

Public Profile: Gellus is a fabulously rich noble of the Golden Kingdom, known for his numerous business enterprises and friendship with Earth.

Goals: Gellus wants it all. He can never have enough money, fame, and power. Any failure is temporary and not his fault. Any success is his! He doesn't want to conquer Mars, he wants to buy it!

Means: Gellus intends to buy everything, including high political office, wherever he can.

Patron: Gellus can always use help with another business opportunity, investors, workers, and experts. Wait, forget the experts. Gellus knows all. Listen to Gellus.

Antagonist: You didn't listen to Gellus. There will be repercussions. Gellus has a long reach and many business contacts, as well as a cadre of very well-equipped bodyguards.

RUMORS

- The Martians are in League with the Selenites and plan to invade Earth.
- The Martians have a new superweapon they intend to test on Ceres!
- There are vampires on Mars that come out at night.
- Martian ruins and wrecks are all over the Asteroid Belt.
- The USSR and PRC are constantly vying to influence Mars.
- Mars has a zombie plague they can't seem to cure.

TECHNOLOGY

PSI DAMPER

Psi dampers are tall, thin towers topped with an array of antennas. A damper has a range of 5 km. Within this range, a Knowledge roll at -1D penalty must be made before any Psionic power can be used by any psychic. As well, any rolls for Psionics are made with a -1D penalty. The Damper towers are even more insidious at closer range: within one kilometer of a damper, any mental tasks are made with a -1D penalty.

Destroying a damper tower requires a single hit with a heavy weapon or some explosives. Martian Nomads have used riding beasts to pull towers down.

DISINTEGRATORS

Rayguns are a Martian's best friend. Plasma weapons were found in Talla'Neel. A particle beam is treated as an Early Galactic Tech Age Plasma Rifle. Any character hit by a disintegrator takes 6d6 damage. The target of a plasma rifle and any characters at Close range take 1d6x10 Rads. Martians often sweep the beams across areas suspected of hiding enemies to force them to move or be irradiated. A plasma rifle will malfunction on a roll of '2'.

Plasma rifles are never for sale. Characters stealing one will be hounded by the Martian military and security, including the Inner Bureau. Martians only break out these weapons for the most dire threats or to show off. Terrans misnamed these weapons disintegrators after witnessing one unlucky target reduced to a red mist. The Martians see no need to correct them.

ZOMBIE PROCESS

The Inner Bureau handles zombification. The process is kept secret from their citizens, because people will imagine worse things than the process. It is not clear if that is the case with the brexlor. A brexlor is a small wrinkled worm. It is red as the sands it lives in with head and tail pincers, letting it bite at both ends. The victim is restrained and the brexlor placed on their forearm or thigh, next to a small cut the technicians make.

In the wild, a brexlor will bite and grab onto a victim someplace they can't reach with nails or teeth. People bitten by brexlors have managed to survive after chewing off a piece of their arm or shin. But the tidy little goblins of the Inner bureau want you to watch. They'll help if you're squeamish by removing your eyelids.

The worm crawls into your skin. It's the tactile equivalent of nails on slate. It holds the cut closed with one set of pincers and feeds on the rich blood. The victim is fed well at this point to let the worm gorge and breed.The small worm lump quickly bulges, swells and grows over the next few days.

The technicians revile you while stuffing your mouth. "You are a waste of water. You are corrupt and a drain. Your debts to your city will be repaid." Then the baby worms come squirming out of the parent's bulge. You feel them writhing under your skin, moving up your arm, like threads of hot wire.

Your arm, your shoulder is dead, lost to you. But it still twitches and shudders. The pain spreads to your limbs and they're not yours anymore, twitching in unison. In the last stages, you can't even scream anymore, only black drool and moans come from your mouth. All sensations and thoughts cease. You only want to feed. You'll jump through hoops, or work all day or bring down another worker to eat if you aren't handled right. But there are drugs in the slop your are fed to curb your homicidal hunger.

You are a zombie. Of course, you aren't you anymore. Without the food and drugs you turn feral, break your chains and wander seeking prey. Eventually the worms will have enough of you and break out to seek other hosts and a dusty, desiccated husk is left in the sand

Zombies have an additional 4 points of Stamina. The brexlor will hold their hosts together and keep them functional, overriding pain and working around damage. Zombies get +1D to Physical rolls and melee attacks including damage. The worms will rapidly cannibalize wounded hosts of all fluids and seek better habitats squirming out of a dusty cadaver.

The new zombie loses all Social skill and any psionic powers. They effectively become a meat robot with Limited Intelligence retaining a single skill point (Nomad page 127). It will sometimes call loved ones or use a catch phrase. Any speech is terse. Any handlers can control a number of zombies equal to five times their Social Skill. Zombies check morale but failing it has no effect. They keep coming. NPCs confronted with the living dead always do.

A zombie denied their special food will turn feral on a 1 in 6 chance each day. It will succumb to the directives of the brexlor and attack its fellows and handlers. A zombie that is attacked in this manner has a 3 in 6 chance of turning feral. Handlers watch for indications of feral reversions and usually kill such zombies immediately.

Player characters are made of sterner stuff than most subjects. Once per week a character may make a Social roll (at their original rating) to have a few hours of clarity (2d6). Spending a Hero point also allows an additional roll (for two per week). Optionally, a referee may allow an extra roll when the player-zombie is attacked or injured. Humans have a +1D to make this roll.

A zombie making the roll has their head cleared and may escape to seek treatment. Desert nomads and the Golden Kingdom will help these unfortunates. Sadly the procedure involves dosing the escaped zombie with carefully measured doses of poison to kill the brexlors. Treatment requires a Physical roll once per day. Each failed Physical roll does 2d6 damage to the patient. This damage may not be healed while the treatment is being performed. A patient is cured when they make three physical rolls. Expiring might be regarded as another form of cure. Healing can't occur during treatment and the patient immediately loses the extra Stamina the brexlor provided.

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CONVERSION

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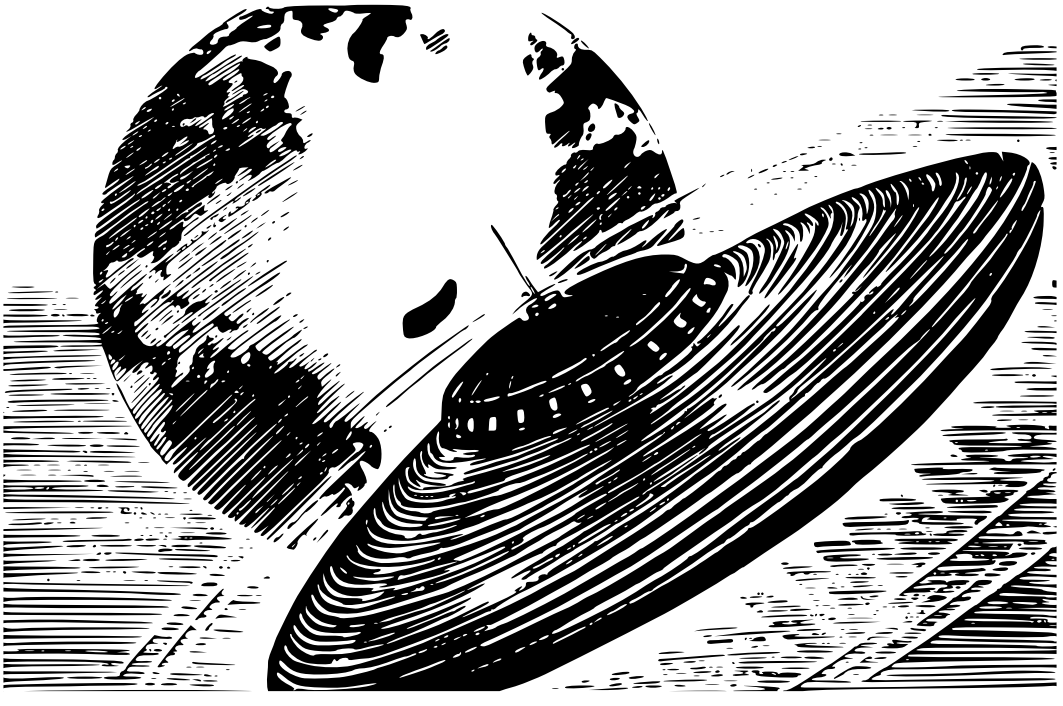

Name	Martian Crawler		
Niche	Herbivore/Desert	**Armor**	6
No. Appearing	4d6	**Damage**	2d6
Size	Medium (Pony)	**Skills**	Combat 0, Physical 1, Social 1
Stamina	18	**Abilities**	Paired, Rapid, Speed

Sand Crawlers are six legged omnivores with wide padded feet and webbed toes. Their heads are horse like at the end of a long flexible neck. Their mouths are full of sharp teeth and seem to split their faces in two. They have a wicked bite.

Their wrinkled and hairless hides are usually reddish brown and can turn a knife blade. Crawlers usually move slowly, to conserve their energy but are quite fast when threatened placid critters that spend most of their days licking moisture from the early morning dew to survive. However, when threatened they can move fast. Their small size belies their value as mounts. Crawlers mate for life and travel paired up as adults. Both parents raise offspring together. They work as a team, one caring for a calf, the other standing guard. Domesticated crawlers are sold as mated pairs with one carrying a rider, the other supplies. In case of attack one Crawler will distract the predator while the other escapes. The death of a sand crawler usually means the surviving member of the pair will die of grief unless it finds another survivor to pair with.

Martians have specially bred crawlers for racing, combat and riding. The usually dour Martians find the creatures quite personable, like big, hairless, six-legged dogs. Crawlers raised among the Polar Cities are difficult to handle without some degree of psionics (-1D penalty to Social throws to control).

Name	Martian Sand Zombie		
Niche	Opportunist/Desert	**Armor**	4
No. Appearing	3d6	**Damage**	2d6
Size	Medium (Human)	**Skills**	Combat 1 Physical 2
Stamina	18	**Abilities**	Night Vision, Roar

A victim of a strange parasite turned mindless predator. Zombies are Martians and others with gaunt limbs and wrinkled faces. Lips are shrunken and pulled away from jagged and broken teeth. Bones sometimes protrude from their fingers. Their moans are an unnerving noise they use to frighten prey. The creatures are driven by hunger and are nearly mindless in their pursuit of prey. They destroy many ruins in the Martian deserts. Zombie herds have taken down Sand Crawlers. The creatures never check morale.

Some Zombies were ‘born’ when infected by the brexlor parasite. Others are created by the Polar Martians and set loose to plague the nomads.

Name	Martian Psi Beast		
Niche	Opportunist/Ruins	**Armor**	4
No. Appearing	1d6	**Damage**	1d6
Size	Medium (Human)	**Skills**	Combat 1, Physical 1, Stealth 1
Stamina	8	**Abilities**	Climb, Motion Sensor, Invisibility, Glue, Sting

Psi beasts are monsters with six tentacles and eight glowing eyes. Their hides are rough and black, perfect camouflage for the places they prefer to nest in.

The psi beast infests old ruins and abandoned buildings. It prefers to climb into rafters. It can psionically cloak itself, blunting the senses of even psionic adepts. It drops to strike quickly with its glue attack, immobilizing its target then striking with its stinger. The stinger ignores any armor that doesn't protect completely. The venom knocks out Martians and others that fail a Physical -1D throw. The victim is then devoured.

Because sand crawlers work closely in pairs, psi beasts usually do not trouble them. They are known to keep the zombie population down. A psi beast won't eat the foul things but will glue them to the ground, forming an undead wall around their lair.

A rare Martian will use Dominate to capture a psi beast. They are prized as guards. Because Sand Crawlers work closely in pairs, psi beasts usually do not trouble them. Dominating one Crawler assure you to be stomped by its mate. They are known to keep the zombie population down. A psi beast won't eat the foul things but will glue them to the ground, forming an undead wall around their lair.

VENUS

"Venus is Earth's sister planet. Ever want to smack your sibling?"

– Venusian prospector.

Venus	**Orbit: 0.8** AU	**Resource**	**Marginal**
Population: 6,000 colonists, millions of T'k't	**Tech Age**: Early Atomic to Late Space Age	**Capitalist**	**Beautiful**

ENVIRONMENT

Venus rotates once every 18 hours. Its gravity is 0.8 gees, similar to Earth. The climate is tropical.The atmosphere is dense, 2 atmospheres on the highland 5-10 atmospheres in the lower depths. It is universally foggy and humid. Most humans dwell around Venusport, built on a high plateau.

Other races found the gravity, heat and atmosphere unhealthy and avoided the planet. Humans will go anywhere for a buck. Venus has a pressure of two standard atmospheres. Descent from the plateaus requires special breathing gear to avoid nitrogen narcosis and oxygen toxicity!

PLACES

ORBIT

Venus is considered Frontier space. While it is far enough from the Sun to avoid radiation and ion effects, Bad Weather on Venus can complicate landing on Venus. Waiting for the bad weather to clear takes 1d6 days. Otherwise landing requires a Vehicles -1D roll to avoid a roll of regular damage.

Venusport on the New Colorado mesa is the only official spaceport on Venus. Rumors indicate many unofficial landing sites used by pirates and smugglers.

HUMAN HABITATION

Venusport is the center of Earth activities, Earth has set up trading posts and commissioned expeditions into the trackless jungles. These are frequently destroyed by Manticores and outlaws, to irate natives. Earthlings have yet to set up a self-sufficient colony.

Most off-worlders require breathing masks (page 66) to function properly in the dense humid atmosphere; otherwise Physical rolls are at Disadvantage. Venusians require similar masks to function off-world.

Besides the T'k't and Manticores, Venus is crawling with animals resembling Earth's dinosaurs. Many people with entirely too much money have traveled there to hunt these behemoths. Some hunters find themselves the prey. Of course, some people believe the Venusian dinosaurs were brought from Earth by ancient aliens.

There are countless tales of lost cities in the Venusian jungles and swamps. Was there once an advanced culture or settlers from Beyond? Exploration is made difficult due to deadly diseases, hostile plant and animal life, and the vicious, stealthy Manticores.

UPLANDS

Venusport is the first stop for new arrivals on Venus. The spaceport is built atop New Colorado Plateau, a plateau several kilometers across. These Uplands make up to 10% of Venus' surface area. Rain is frequent but the plateaus enjoy some clear days. Air pressure is 2 standard atmospheres, breathable by Terrans. Martians and Callistans find the air pressure uncomfortable. The Uplands are 1000m above sea level.

HAZARDS

Visitors are warned about drop lizards by the old Venus hands, vile creatures that will drain an adult human of blood in five seconds. They don't exist. It's just hazing that new arrivals get. The folk around the spaceport are rough and rowdy but friendly enough with offworlders who aren't fancy and have a sense of humor. Disputes are usually solved by a brawl when word fail.

SLOPES

The Upper Tree Canopy extends 500m to 750m above ground. Rainfall and mist is constant at this level and required for the100 meter and larger trees to survive. The Slopes are made up of smaller plateaus and hills. Dropping down to Ground Level.

HAZARDS

Rockslides are a constant danger on the slopes. Roll Knowledge of the driver or lead character to avoid an avalanche. Rockslides can be avoided by making a Physical roll, or a Vehicles roll +Agility. A slide does 3d6 to characters on foot, or 3AVD to vehicles.

Animal Encounters occur on 1 or 2 on 1d6, twice a day.

GROUND LEVEL/ HIGHLANDS

At Ground Level the atmospheric pressure rises to 4 atmospheres and is barely breathable. Trees growing at ground level reach height of 750 meters and are composed of Venusian hardwood, 10 times the strength of Earth hardwoods. The lighting here is subdued. The ground Level is the richest and most diverse biosphere on Venus. Most of the Venus-saurs are found here. Most prospecting is done at this level or higher.

Descending to the ground level will take most of a day whether on foot or with a vehicle.

HAZARDS

Animal Encounters occur on 1 or 2 on 1d6, twice a day. Most Social encounters occur here. Breathing masks also become necessary, or a pressurized vehicle.

Breathing masks are usually donned here. Nitrogen narcosis becomes possible though unlikely. Roll Physical +4D once per hour.. Nitrogen narcosis causes a state similar to inebriation. This can be bad enough for scuba divers, it's much worse when driving an ATV in dangerous terrain! Nitrogen narcosis causes a -1D to all rolls.

BADLANDS

The Badlands are where the air pressure begins to take its toll. Less fit humans may experience nitrogen narcosis. The heat becomes oppressive. Sunlight that reaches this depth is equal to that of a moonlit night on Earth. Many species use bioluminescence for communication, and displays of aggression or mating. Plants use bioluminescence to draw animals got aid in pollination or for a quick snack! The Venus-saurs are not

found here, being replaced by huge arthropods. Mammals also become more common here, with biology similar to Earth sea mammals.

HAZARDS

Animal Encounters occur on 1 or 2 on 1d6, twice a day. Most Social encounters occur here. Breathing masks also become necessary, or a pressurized vehicle. Characters may even discover real drop lizards! The dim lighting penalizes ranged attack -1D at Handgun range or greater.

Animal Encounters occur on 1 or 2 on 1d6, thrice a day. Most Social encounters occur here. Breathing masks also become necessary, or a pressurized vehicle.

Rolls to avoid narcosis are at +2D per exposure. Old Venus hands may be more aware (and fit!) and even dispense with masks.

RIFT EDGES/RIFT LEDGES

Numerous rifts surround the Venusian Uplands. The Rift Edges line a steep drop off to the Trenches. Concentrator masks are required to avoid nitrogen narcosis. Some extremely large trees are found here, using vascular action to transport ground water to their crown. They use hydrogen cells to lighten their weight. Smaller plants begin to give way to fungal blooms.

HAZARDS

Rockslides are a constant danger on the slopes. Roll Knowledge of the driver or lead character to avoid an avalanche. Rockslides can be avoided by making a Physical roll, or a Vehicles roll +Agility. A slide does 3d6 to characters on foot, or 3 AVD to vehicles.

Animal Encounters occur on 1 or 2 on 1d6, twice a day. Breathing masks also become necessary, or a pressurized vehicle.

Rolls to avoid narcosis are at +1D per exposure. Even old Venus hands will start reaching for their mask. It's the reason they got to be old Venus hands.

Descending to the Trench without breathing gear results in progressively worse rolls to avoid nitrogen narcosis, up to -4D made once per hour. A descent will take 1d3 days whether on foot or by vehicle.

TRENCHES

Rift floors or trenches drop down up to 2500m. Below 1500m, Mix Masks must be used to avoid narcosis. Surprisingly, 'trees' do grow here. Fungal stalks reach up as far as the Badlands. They are crown by plants that use the sunlight and have a symbiotic relationship with their support pillars.

The Trenches remain unexplored with unknown life. They are very dangerous. They are dark, hot and humid. Many are partly flooded and hold swamps. Methane explosions, CO2 eruptions and unknown spoors taint the air. Less than a dozen prospectors have braved them but report extensive mineral wealth and valuable life forms for medical research.

HAZARDS

The Trenches are fairly dark and foggy -2D to ranged attacks at a maximum of Near range.

Animal Encounters occur on 1 or 2 on 1d6, twice a day. Most Social encounters occur here. Breathing masks also become necessary, or a pressurized vehicle.

The Trench is under high (9 atmospheres pressure). Rolls are made every turn without a Deluxe or Trimax mask. Nitrogen narcosis can result in unconsciousness or ver drunken behavior (2D to ll rolls). Regular breathing masks will delay this. A roll is made every hour instead of every turn.

T'K'T

T'k't (pronounced "Tee kit")are human sized, with an extra set of medial limbs to aid in climbing or running. Their skin is smooth and thick enough to resist a knife blade. They usually live in the Hugh Lands but can be found almost anywhere except Trenches. Like the Gurthk, the T'K't have male, female and neuter, caregiving sexes.

T'k't have large compound eyes to help them see in an atmosphere that is mostly foggy. They have no external ears. They do make facial expressions, but it takes a while for humans to learn them. Their hands each have three fingers and an opposable thumb. They are not as dextrous as human hands.

In addition to their spoken language, the T'k't have developed an intricate sign language. It only takes two hands to signal and this allows the T'k't to keep a pair of hands free for other tasks. Their feet each end in four toes that have blunt talons, ideal for tree climbing. They often seek the highest ground when threatened. They are often surprised that humans can climb as well as they do, since they only have four limbs!

Unlike the Gruthk, the Venusian T'k't do not hire out as labor to humans. They freelance as guides, and guards. Many trade their precious pelts, medicinal plants, and native artwork. The T'k't seek rust proof metal tools and weapons. Many wear bits of Earth clothing and small devices bought from Earthlings as a sign of wealth and status.

The natives live in kraals, walled villages containing 20-30 families. The walls are often entwined with thorny vines. Warriors may strap a few pieces of armor to their arms and chests, but clothing is not usually worn. Males and females can be warriors and the spear is the preferred weapon.

The Venusians have both male and female sexes, as well as a neuter third gender that handles scholarly pursuits such as rituals, medicine, artwork, and the transmission of oral traditions. Females bear live young, usually twins or triplets.

The T'k't have no social organization larger than that of the clan or tribe. Their material technology is stagnant at the stone age level: wood, stone and bone. Metals don't last long on Venus. The perpetually wet environment has kept the T'k't from making much use of fire or working metal. Metals corrode quickly due to dampness and fungi. T'k't are artisans with stone, wood and bone and frequently decorate possessions with crystals they seek in the jungle. Earth scientists have noted anatomical similarities to the Gruthk of Mercury but the T'k't do not hold still for close examination nor have they ever given up their dead for dissection.

MANTICORES AND THE BADLANDS

There are countless tales of lost cities in the Venusian jungles and swamps. Was there once an advanced culture or settlers from Beyond? Exploration is made difficult due to deadly diseases, hostile plant and animal life, and the vicious, stealthy Manticores. Manticores are seldom seen. They are known to possess claws, fangs and are horribly efficient killers. They've been described by a few survivors as hairless grizzly bears. Manticores terrorize Earthling explorers. They are masters of stealth

and sneak attacks. Few humans have survived to report more about the creatures.

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INSIDE INFORMATION

T'K'T

The T'k't are eager to acquire rust-proof tools and weapons. They will trade gold, pharmaceutical plants and even the few mammal crystals found on Venus. The Earth Republic prohibits giving the natives weapons in trade, but that doesn't stop some unscrupulous traders. Tales of T'k't wizards with laser weapons are starting to emerge. Ironically, lasers are terrible weapons in the misty depths of Venus (and suffer a -1D penalty to hit in mist).

T'k't harvest the nearly indestructible hardwood trees for their hydrogen cells. They use the hydrogen cells the trees grow to fashion crude airships to travel to other tribes and trade.

MANTICORES

The Manticores are not as terrible as reported. The threat of the creatures are exaggerated to reduce the number of visitors to Venus. In truth Manticores often mark their territory with small stick effigies or glyphs. The creatures only attack people ignoring their warnings and entering their realm. Even then intruders are more likely to get hit with a rock or pranked than mauled. Manticores dwell in the Badlands and lower regions, including trenches,

Manticores are not much larger than a human and possess thick skin. A mane covers their scalp. Unlike the T'k't they are bipeds. Their hands end in claws and are very dexterous. Masters of stealth, they will trail humans or T'k't to filch small items they find interesting. Sometimes they leave a trade item: a claw, a shiny stone, or even a valuable crystal. One individual Manticore, dubbed "The King" by the locals, likes to leave T'k't digits as a warning or gifts.

PRIVILEGED INFORMATION

MANTICORES, CRYSTALS AND GRUTHK

A small amount of Mamel crystals were acquired from the T'k't and shipped to Earth. Scientists are now en route to Venus to conduct extensive research on the crystals. Several industrial magnates have heard preliminary reports on them and are very interested. Their similarity to the Mercurian crystals were noted. The Mamel or power crystals are sacred to the Manticores, who wear them to give themselves camouflage abilities (see Cloak, page 95). The Manticores are intelligent. native Venusians. The T'k't are a subspecies of Gruthk. MIllennia ago, the Fae attempted to colonize Venus. The colony failed and only the truth colonists survived, regressing to the Early Primitive Age. The Fae colonists displaced the Manticores from their original homes atop the Highlands, driving them into the rifts and trenches.

The Manticores remember more of their history than the T'k't. Their lost cities are maintained as shrines to honor the dead. The Earthlings confuse the Manticores: they come from the sky, but seem to lack the cruelty of their former Fae oppressors. However, they work with the T'k't.

It is possible to establish friendly contact with the Manticores if diplomats offer proper gifts: Mamel crystals in particular. In the first phase of any exchange, the manticores will lay out their offerings in a designated spot, and take any gifts humans leave for them. If the trades are successful and profitable, the Manticores will allow the humans glimpses of them and start communicating via gestures. Any T'k't aiding the humans will be long gone by then and insist the Terrans are dealing with devils.

Manticore

Combat 1 Knowledge 1 Physical 2 Stealth 2

Archetype: Scout **Talents**: Ghost

Stamina: 20 **Encumbrance**: 14

Equipment: A few nice rocks, a pointy stick, and a doll of plant fibers. Manticores have thick fur and skin giving them Protection 4. Their talons do 2d6+2 at Close range.

PROMINENT LOCAL NPCS

Abubakor, Wilfrid, trading post agent - Human

Combat 2 Knowledge1 Physical 1 Social #1 Stealth 1

Archetype: Scout **Talents**: Ghost

Stamina: 17 **Encumbrance**: 12

Equipment: Scout kit

Cash: Hundreds to a few thousand. Tens of thousands when hunting season starts.

Resources: Trade goods, several rifles, many good friends and regulars also with rifles.

Elevator Pitch: Wilfred was a guide in his native Nigeria, but then Nigeria ran out of wilderness. He immigrated to Venus and found it to his liking. He set up shop at Ground level near Venusport. Uncle Wilfred's trading post has a reputation for fair deals and Uncle Wilfrid will give helpful pointers to new people.

Wilfred is a firm believer in mysticism, and as an interfaith minister he has learned all manner of belief systems. He wants to eventually trade with the Manticores. He saw one once and it was a transformative experience. He also conducts services every ten local days.

Wilfred is no fool and packs a high-powered rifle for dealing with material threats.

Public Profile: Everyone knows 'Uncle' Wilfred's trading post. Spacers visit it to buy gear for field work. Prospectors and hunters visit it for supplies and ammunition. Wilfred is getting a little old for field work, but he's still a crack shot. Violence is not permitted in his store.

Goals: Wilfred likes Venus. He wants to keep his store running and to live comfortably.
Means: He is a shrewd trader, but he also knows the value of returning customers. Uncle WIlfred appreciates the many benefits of dealing fairly. People trying to con or cheat him, or his clientele, are told to leave.

Patron: Everyone has a treasure map leading to something of value. Sometimes Wilfred finds a lead that intrigues him. He will provide maps and supplies to explorers for a percentage (typically 50%).
Antagonist: If you're on WIlfred's bad side, you probably deserve it. He has a lot of friends and is a good shot himself. A word from him can ruin a person's reputation within a week's journey from his trading post.

Shadow Walking - Manticore

Combat 2 Knowledge 2 Physical 2 Social 1 Stealth 2

Archetype: Scout **Talents**: Ghost

Stamina: 20 **Encumbrance**: 14

Equipment: A few small shiny crystals, several bundles of medicinal herbs that might be worth a fortune to the right company. Shadow has thick fur and skin giving her Protection 5. Her talons do 2d6+2 at Close range.

Cash: A 100 Credit note she found and cherishes.

Resources: Stealth, Manticore followers

Elevator Pitch: Shadow Walking is a keeper of wisdom. She is a large and fierce looking creature, whose great size belies her exceptional stealth. She had begun waging war against the humans, but reconsidered her actions after realizing that some humans were capable of intelligent behavior. Specifically, she met Uncle Wilfred. Shadow gave Wilfred a glimpse of her to see his reaction. Unlike others, he did not reach for a weapon. It was a transformative experience for her. Reflecting on the old accounts of the Selenite invasion, she's come to doubt the humans are the same breed and may even become allies against the return of the Selenites.

Shadow has begun leaving carvings, food and plants with medicinal value by human camps, trying to begin a trade relationship. She also leaves human dolls she weaves from grass. So far, her offerings have largely been ignored: one superstitious technician left her some credits.

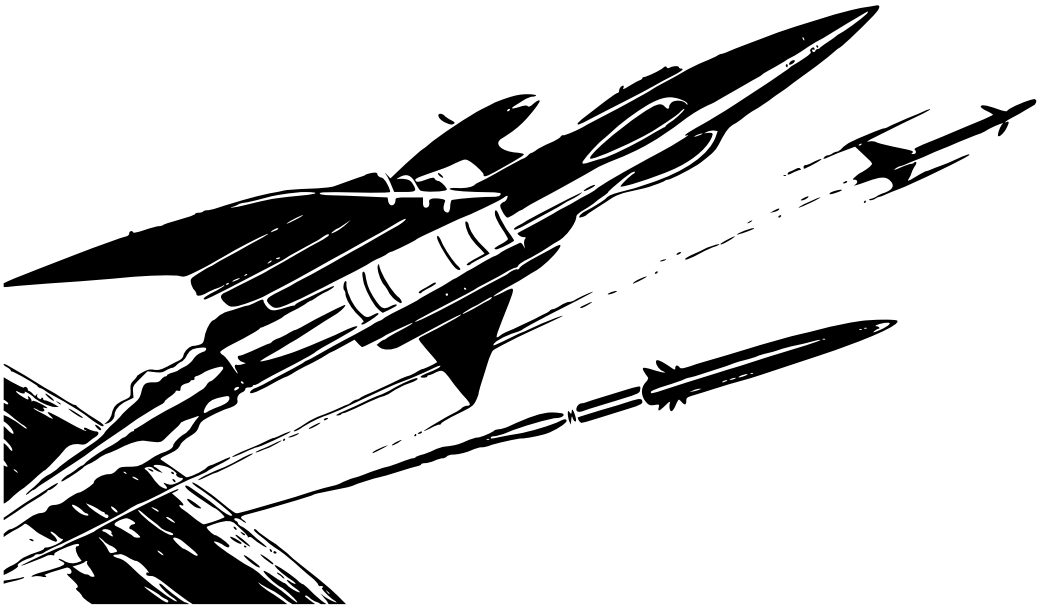
Public Profile: "Did you hear that? Nah, must be your imagination."

Goals: Shadow wants to keep her people safe. It is obvious these newcomers will be here a while, and she must learn their intentions.

Means: Stealth and subterfuge.

Patron: Shadow is willing to trade, learn the language of humanity, and engage in diplomacy.

Antagonist: Humans despoiling Venus or hurting Manticores will elicit Shadow Walking's wrath. For example, Mirriam Weatherby (see below) has Manticore prey written all over her. Shadow will start with harassment, theft, and sabotage, before escalating to scaring people, throwing rocks, and finally attacking.



Mirriam Weatherby Archaeologist - Human

Knowledge 2 Social 2 Technology 1
Archetype: Outsider **Talents**: Con Artist
Stamina: 14 **Encumbrance**: 10
Equipment: Outsider kit. Substitute one or more explosive devices for cutlass.
Cash: Varies widely. Get paid in advance,

Resources: Field team (polite term for thugs), explosives, Scout ship, robots.

Elevator Pitch: Miriam Weatherby makes her living finding and selling artifacts to collectors. Calling her an archaeologist is a very generous stretch. She has used clumsy bots, mining lasers, drills, and high explosives to open tombs and loot them. Her Scout ship has hidden compartments to smuggle her stolen goods. She is wanted for questioning by the Martian authorities. Mirriam's team goes along with her out of fear of being prosecuted along with her.

Public Profile: Dr. Weatherby is infamous for her impressive findings. She's suspected of shady practices – tomb robbing – but hasn't been arrested yet.

Goals: Fame from her discoveries.

Means: Her criminal career finances her digs. Weatherby is running down tales of a lost city on Venus and scoffs at tales of those so-called "Manticores."

Patron: Characters can be hired as security in the field or to smuggle artifacts.
Antagonist: Mirriam will seek revenge on people trying to out-do her accomplishments. Accidents happen in the field. The Earth Patrol has even found stolen artifacts hidden on some of her rivals' ships.

RUMORS

- Fish Men of Venus! Prospectors have supposedly been attacked by a species of fish men near the shores and swamps.
- Bandits! Bandits are constantly attacking prospectors. No one is safe! Mercenaries are wanted!
- The Mother Crystal Prospectors have learned of a field of giant crystals, each over a meter across. The grove is guarded by vicious Manticores riding dinosaurs! The Mamel crystals are powerful enough to trigger psionic powers.
- A local area is know simply as 'the Triangle.' Numerous experienced prospectors and trappers have vanished mysteriously!
- Bandits have made aircraft, using lighter than air plants and become sky pirates!
- A rogue dinosaur of immense size is terrorizing the Trench. The beast already wrecked three ATVs and killed several hunters. There is talk of a reward by the locals for anyone killing the beast and providing its head.

TECHNOLOGY

Concentrator Mask: (500 credits, Late Atomic Age, 1 item) A Concentrator filters atmosphere like the breather mask. It also concentrate oxygen, lowering the concentration of nitrogen to prevent nitrogen narcosis in denser atmospheres. The Concentrator can also be used to breathe thin atmospheres like the earlier Breather. A Concentrator is of limited use in more than 7 atmospheres of pressure.

Max Mask: (1,000 Credits, Late Space, two items) A Max not only concentrates oxygen, it also adds helium to the gas mix further lowering the nitrogen levels. Maxes are good at pressures greater than 7 atmospheres. However they need

a recharge every 3d6 hours (2d6 if the user is exerting themselves steadily).

Life Support: (5,000 Credits per person carried, Early Atomic) Vehicles used on Venus are often equipped with sealed cabins, allowing their passengers to rest without using Concentrators or Maxes. Opening the vehicle to enter or exit requires two turns to return to the lower air pressure of a standard atmosphere.

Supplies: (0.1 ton, 500 Credits per person week) Supplies include food, water, and helium recharges for Max masks.

BESTIARY

Name	**Ditesaurus**		
Niche	Herbivore/Jungle	**Armor**	4
No. Appearing	2d6	**Damage**	1d6+2
Size	Large (big cat)	**Skills**	Combat 1 Physical 1 Social 1
Stamina	18	**Abilities**	Herd

A medium- sized prehistoric-looking reptile sometimes ridden by daring explorers and T'k't! Unlike Earth herbivores, the (Aphro)Ditesaurus possesses claws for defense. Unfortunately, some clueless human riders discover that the Ditesaurus uses its claws to climb trees when threatened. Hanging onto the mount requires a Physical roll.

Name	**Assassin Bug**		
Niche	Predator/Jungle	**Armor**	7
No. Appearing	2d6	**Damage**	3d6
Size	Medium (child)	**Skills**	Combat 1 Stealth 1
Stamina	10	**Abilities**	Talons/Fangs, Night Vision Mimic

Assassin Bugs are huge pseudo insects. They resemble the mantis shrimps of Earth and are strictly nocturnal. They have powerful night vision and can create a powerful cracking sound with their claws. This serves to disorient their prey, most of whom depends on echolocation. Additionally, their mimic ability lets them duplicate and jam other animal's sonar senses. The mega mantis then pounces. Their cracking claws may sound like gunfire at night.

Name	**Coee**		
Niche	Predator/Jungle	**Armor**	10
No. Appearing	2d6	**Damage**	4d6
Size	Large (bear)	**Skills**	Combat 1, Physical 1, Social 1, Stealth 1
Stamina	28	**Abilities**	Presentient, Crude Hands

A Cooee is a huge bipedal predator named after its calls. They are typically solitary creatures: something for which the colonists on Venus are grateful. Cooees normally only attack humans that stray into their territory, hurling rocks as a warning first. Some young Cooees have been caught and raised by humans. They make wonderful guardians. Despite their horrific appearance they are not dangerous if properly fed and cared for. Cooees enjoy playing with human toys, especially the sticks that go "bang!"

Name	Drop Lizard		
Niche	Opportunist/ Trenches	**Armor**	1
No. Appearing	2d6	**Damage**	2d6, Pyro Weapon (3d6 to Near Range)
Size	Medium (human)	**Skills**	Combat 2, Stealth 1Stealth 1
Stamina	17	**Abilities**	Flying, Claws/Teeth, Pyro Weapon

Flying predators that spit corrosive venom, human explorers thought drop lizards were a harmless creature at first. Drop lizards glide from branch to branch, circling prey, then swarm. They reserve their fire attacks for prey using ranged attacks (like humans shooting at them or T'k'ts throwing javelins). Canny explorers will let them close in before opening fire.

Name	Fur Bearing Trout		
Niche	Predator/River	**Armor**	13
No. Appearing	1	**Damage**	4d6 2AVD
Size	Giant (Hippo)	**Skills**	Combat 1, Physical 2, Stealth 1
Stamina	25	**Abilities**	Swimming, Marks Territory

Described as a cross between a dolphin, a seal, and a cephalopod, the Venusian Fur Bearing Trout's sleek furred body ends in six tentacles. The trout expels a jet of water under high pressure to propel itself through murky rivers. They can leave the water and move normally on land. The trout nests in burrows along river banks. It marks its nest by tearing up trees. Trouts will attack intruders violating its nest fiercely. Trouts briefly pair up to mate, bearing live young.

The usual way of hunting a trout that has become a nuisance is to construct a platform for the hunter and leave bait for the trout. As soon as the hunter fires on the beast, it will charge their tree. If the trout gives out before the tree is knocked down or the ammunition runs out the hunter wins.

Name	Land Shrimp		
Niche	Opportunist/Jungle	**Armor**	4
No. Appearing	3d6	**Damage**	1d6
Size	Medium (child)	**Skills**	Combat 1, Stealth 1
Stamina	25	**Abilities**	Night Vision, Special Ability: Sonar

Land shrimp prowl the jungle by night. They are blind but use sonar to sense their surroundings. Loud noises disorient them (-1D to all actions). Land shrimp are the favored prey of mantisaurs, but sometimes win their fights turning the hunted into the hunter. Their diet consists of plants and smaller creatures.

MERCURY

“If we were meant to crawl with the Gruthk, the Bronze Goddess would not have given us wings!”

- Fae proverb.

"We will fly someday! ... and their Bronze Goddess can kick rocks!”

- Gruthk motto.

Mercury	**Orbit: 0.4** AU	**Non-Agricultural**	**Marginal, standard atmosphere but dangerous temperature variations.**
Population: 100 million	**Tech Age**: Late Primitive Age	**Multiple Species**	**Multiple Governments**

ENVIRONMENT

Mercury has .5 gees of gravity due to its large metallic core. It has a Standard atmosphere because of a strong magnetic field. The large metal core generates a strong magnetic field protecting the planet from the worst of the solar flares. Most of Mercury is semi-arid. The polar oases are well watered though the dim sunlight impedes plant growth.

A day on Mercury is roughly six months long. A point on the surface of Mercury will swing between hot and cold extremes. The temperature and effects vary by latitude. The Northern and Southern Polar oases are always in twilight and temperate (about 22C). Points further outside the Polar Oasis’s can swing between extremes. Points on Equator become too hot or cold to survive at various times. Mercurian plants either retract several meters below the surface when the temperature becomes too extreme or form a protective cyst they retreat into. Some animals also enter a sort of stasis when the temperatures become deadly, sleeping in underground burrows or caverns.

Nomads generally inhabit the lands from 60 to 80 degrees North. Some tribes tough it out through the hottest and coldest periods. Some perpetually follow the terminator band, foraging for food as they move. This allows a bare survival. People must only carry what they can fly with, living in the open.

The lands from 60 degrees North to the Equator are barely habitable. Crossing the Equator into the Southern Hemisphere is nearly impossible before a Mercurian would fall behind and burn under the full power of the sun! The Southern Hemisphere is similar though the directions reversed. There is one planet wide season, caused by Mercury’s rotation. It has virtually no axial tilt to cary temperature.

A few die-hards retreat to underground sanctuaries nearer the equator. Cities have sprung up at the North Pole and possess Late Primitive Age technology.

MERCURY TEMPERATURES AND SEASONS

Mercury Temperatures and Seasons

Start Day	End Day	Equatorial Temp.	Habitable Zone Temp.	Season
1	5	100C	50C	**Sky Fire**: most animals move towards the terminator or night side. Others dig deep burrows and hibernate to escape the heat. Plants retract into the ground or encyst themselves. Foraging is a Knowledge -2D roll in the Habitable Zone and Knowledge -4D roll in the Equatorial Zone.
6	10	100C	50C	
11	15	50C	20C to 40C	**Red Skies**: A dramatic change as a formerly 'dead' world comes back to life. Plants begin to sprout. Some animals awake. Foraging is a Knowledge roll.
16	20	20C to 40C	0C to 20C	**Bountiful Skies**: The short growth season is in full swing. Plants grow at rates that exceed that of Terran bamboo. Animals awake and forage or hunt. Foraging is a Knowledge +1D roll.
21	25	-10C to 0C	-10C to 0C	
26	30	-25C	-10C to 0C	**Chilling Skies**: Animals seek their burrows to hibernate. Plants send out seeds and retract or encyst. Rains and storms begin. Foraging is a Knowledge -1D roll.
31	35	-50C	-25C	**Frozen Skies**: A few scavengers and predators remain to find hibernating animals. Some snow storms. Foraging is a Knowledge -2D roll.
36	40	-25C	-10C to 0C	
41	45	-10C to 0C	-10C to 0C	**Melting Skies**: Another dramatic change as a formerly 'dead' icy world comes back to life. Plants begin to sprout. Some animals awake. Foraging is a Knowledge roll.
46	50	0C to 20C	0C to 20C	**Bountiful Skies**: Another short growth season is in full swing. Plants grow at rates that exceed that of Terran bamboo. Animals awake and forage or hunt. Foraging is a Knowledge +1D roll.
51	55	20C to 40C	20C to 40C	
56	60	50C	50C	**Doom Skies**: The growth season is cut off as plants and animals seek shelter and begin a short sleep to endure another Sky Fire.

Mercury has virtually no axial tilt. Seasons result from its long rotation period. Temperatures become lethally high during the three month day, and arctic during the long night. The poles are in perpetual twilight and temperate. Cities have sprung up there.

MERCURY FACTS

POLAR OASIS

80 degrees and North! The Oasis at the South Pole is unexplored but believed to have a similar climate and be uninhabited. Both regions are in perpetual twilight.

Temperature Temperate 20C to 30C

Diameter 835 km

Circumference 2,656 km

Area 500,000 sq. km.

Density 20-25 per sq. km. 11 Fae, 14 Gruthk

Population 11,000,000 5,000,000 Fae. 6,000,000 Gruthk

Cities 550,000 250,000 Fae 300,000 Gruthk

4 major Cities 30,000+, Sivolla, Kheryb, Sareb, and Azozam. 13 towns 10,000

HABITABLE ZONE

60-80 degrees North

Temperature Varies (see above)

Diameter 2600km

Circumference 7,600 km

Area 45,000,000 sq km.

Density 2-3 per sq km. 2 Fae, 1 Gruthk

Population 135,000,000 90,000,000 Fae. 45,000,000 Gruthk

Cities none. Dwellings are at the village level, populations are often nomadic.

Crossing the Equator is incredibly difficult. As a result most of the animal and plant life on Mercury is in the Northern Hemisphere. Some evidence of small villages and populations in the South. Landing parties in the South were attacked. The United Earth republic has forbidden further landings.

PLACES

ORBIT

Mercurian space is considered a frontier. In the event there is no space encounter (a 3d6 roll of 7 or less there may be an ion storm on a roll of 1-2 on 1d6.) Pirate ships may have a Cloak device (1-2 on 1d6) (page 95). Most ships are inbound for the Forge Mining base, which has excellent facilities. Landing at a Polar City will be at a barren field.

POLAR OASES

The North Polar Oasis is dominated by the rival Fae cities of Sivolla and Kheryb. Both cities are ruled by autocratic nobility. Sivolla's prince recently died in a hunt and was succeeded by his young nephew, Aneros, who has has surprised everyone by welcoming Earthlings to trade and exchanging knowledge. The Earthlings have angered many of the local nobility by championing the Gruthk's rights and pushing for all Gruthk indentured servants and slaves to be released and paid wages. Earth technology is being adapted and beginning to improve the economy and standard of living. Aneros is extremely popular with the Gruthk and lower classes. The nobility realizes removing Aneros could lead to a bloody uprising and fear intervention by the Terrans or Kherybians.

HAZARDS

Sivolla is a friendly enough city. In fact Prince Aneros and his guards take a dim view of those victimizing the offworlders he would ally with. Knowledgeable criminals shy away from outsiders. This is not the case in Kheryb, where humans and others are viewed with suspicion. Offworlders must make a Social roll each day or be detained by guards for questioning. Lawbreakers will be dealt with harshly, probably violently, and jailed without trial unless they have powerful friends or are capable of generous bribes.

Outside the cities and towns there are ravines and deep craters. These are in deep shadow. Their temperature is 0C or less and they may contain ice or animals adapted to their depths. The Fae disregard these since they can fly over or out of them. Sometimes the predators can jump pretty high.

EQUATOR AND SOUTHLANDS

Crossing the Equator and staying ahead of the Sun is incredibly difficult. The Southern Hemisphere is believed to be sparsely inhabited. However, the United Earth Republic is adamant about reserving it for Mercurians. Earth Patrol ships often monitor Mercury and intercept craft heading for the Southern Hemisphere.

Mercury's circumference is 5200 km. At 60 degrees latitude this becomes 1/3 or 1400 km. Proceeding South at sundown on day one a band would have 50 days to travel 1400 km and need to travel 28 km per day. Humans traveling in clear terrain can manage 30 km a day. That drops to 20 km if they're expected to hunt and forage, and drops to 15 km per day in bad terrain. The Fae can fly over bad terrain and have worked foraging out into a fine art.So far the Fae seem limited to the Northern Hemisphere due to the brutal conditions Southward.

HAZARDS

The Sun at your back is the chief hazard. Temperatures in the Southlands rise as high as 50C. Further South they reach 100C at noon. The coolness of the terminator band beckons but travel speed must be maintained.

ANNUNAKI-FAE

Fae are winged humanoids about 1.6 meters tall, with slim, athletic builds. Their wings are translucent and 4-5 meters across when they unfold. The wings can show flashes of color corresponding to moods: red meaning agitation, blue for calm. They weigh much less than a human of the same size and are typically 45-50 kg. Fae skeletons are thin and delicate. Their bodies are further protected from blunt damage by bladders of non-newtonian fluids that become solid under impact. Fae wings are membranous, like Terran insects. They have two sexes and bear live young similar to humans. Fae women are very flirtatious, but not serious. Fae men are very jealous and very serious. Crews are warned.

Their faces have thin, narrow noses, and small mouths. Their eyes are protected in deep sockets with heavy brows. Their noses are narrow and pointed. Hair is usually black or brown with men growing long beards and both sexes having elaborate hairstyles in the cities. Nomadic tribes typically shave their faces and heads and streamline their clothing. They regard the city dwellers as gaudy and childish, amateurs at flying.

Many Fae wear ornate masks for formal wear in cities. These are adorned with animal designs or resemble animals. Nomad masks have pronounced beaks and crests to aid in controlling their flight. Clothing is skintight for flying, loose robes for indoors. Turbans are popular, keeping their long hair out of the way. Most nomads wear minimal clothing with extensive leather harnesses

In combat, Fae prefer spears and javelins. Swinging a sword or axe interferes with flying. Crossbows, darts and javelins are used to attack ground targets. Recently explosives using black powder were seen in battles. Lighting unstable explosives in flight is a task for the daring or truly deranged.

Some very rich Fae decorate themselves with Mamel crystals. The crystals are worn in several pieces of jewelry. Proximity to one or more triggers light effects ranging from a soft glow to a blinding flash. They help make a grand entrance or flashy exit. Crystal displays are an art with performance artists giving shows for the rich and being gifted Mamel by their rich patrons. Most Terrans regard camel shows as tricks of lighting.

GRUTHK

Mercury is also home to the Gruthk. The Fae call them Shedu. Gruthk are hexapods with insect like features. iA Gruthk has two upper arms for delicate work, a lower pair of limbs for heavy lifting or walking and a pair of dedicated legs. Gruthk have two fingers and a thumb on each hand. Most disturbing to the Fae, they possess vestigial wings. To the Fae, they have turned their back on the Sky and the Bronze Goddess or been exiled by her. Leading to prejudice in some Fae.

They have an outer shell for protection. Gruth have expressive eyes similar to humans, not the compound eyes of insects. Their jaws are vertical like an insect's and quite strong. They aid in digging.

Gruthk have three sexes, male, female, and neuter drones that make up the majority of their population. Unlike true insects, Gruthk are warm blooded, have an endoskeleton, and give birth to live young. The neuters care for the young. Their children are soft and sluglike, growing limbs and a hard shell after their first molt after an Earth year..

The Gruthk dwell underground, away from the heat and cold. Some of their warrens are quite extensive. Gruthk are adapted to dark caverns. They have excellent hearing and sense of touch. They are quite near sighted and easily dazzled by bright light. They keep their dwellings lit with glowing Mamel crystals. Many Gruthk warrens can build crude machinery of the Early Machine Age. Some develop iron and steel weapons, but they are peaceful creatures and would rather avoid the Fae than wipe them out. They readily work for Terran miners who come to Mercury in exchange for tools and food.

THE FORGE MINING CONSORTIUM

The Forge Mining Consortium runs the principal Earth colony of Helios Port, and most of the mines on Mercury. Theyir offices are in the Northern cities of Sivolla and Kheryb. Helios Port is

situated near the equator. The colony is buried underground, and is only accessible via massive armored and insulated doors. Ship landings are discouraged during the day or night, since opening the hangar doors subjects the colony to drastic temperature variations. Almost all landings are scheduled around twilight days, unless there is an emergency.

Due to their superior strength and endurance, cyborgs perform much of the mining on Mercury. Mining also hires Gruthk laborers, and pays them decently. Earthlings found that the Gruthk learned fast and were excellent miners. Many Earthling lives were saved in mining by the Gruthk laborers' abilities to sense groundquakes and unstable tunnels. The Fae never fail to deride the humans of Forge Mining Consortium for paying so-called beasts of burden for their labors.

INSIDE INFORMATION

FAE

Many terms the Fae use are similar to Sumerian words. Their own name Annunaki is identical to the Sumerian word for god. The fae translate it as 'people of the sky'. This similarity in vocabulary is slowly becoming known, but sending an expert on Sumerian language and culture is not a priority. The Fae learn English quickly and Terrans seldom record the Fae language. The United Earth Republic is sitting on this story until religious leaders can be consulted.

The Fae are more advanced than they are portrayed. Apart from only working iron in small quantities, and developing gunpowder recently, they are capable of making intricate clockwork machinery and early mechanical computers.

POLAR RELATIONS

Prince Aneros of Civolla was a humble scholar when he ascended the throne after his older brother died in a hunting accident. His field of expertise was astronomy. Unlike his followers, Aneros was thrilled to meet the offworlders. Aneros realizes the Fae are at a huge disadvantage dealing with the Earthlings. He has made it his mission to acquire his own spacecraft to trade with other worlds.

GRUTHK

Humans like hiring Gruthk. The Gruthk consider the wingless Terrans to be kindred spirits. Gruthk outside the Polar lands often use kits or balloons to fly, to the shock of the Fae. The Fae often attack these conveyances and sometimes the truths fight back with gunpowder weapons cast in Bronzite.

Despite restrictions many Gruthk hop ships off Mercury to visit other planets and many learn Terran technology.

NOMAD TRIBES

What is impossible for a human is doable for many Mercurians. Their ability to fly short distances lets them avoid many obstacles. In effect most types of terrain, aside from mountains are treated as clear terrain for them. The lands nearer the Equator are always windy and the strongest flyers in a band use them to stay aloft, making 45-50 kilometers daily travel possible, or 30 km per day while hunting and foraging.

Many bands are mounted on m'nool beasts. The m'nool are similar to the flying foxes of Terra. Like the Fae they can spring and glide for great distances. M'nool are friendly and intelligent beasts. They are egg layers and usually raised from hatchings. M'nool are omnivores and subsist on little food and water.

The stronger flyers range ahead, hunting and quickly gathering fruits and vegetable. Kills that are too big to transport, as well as hazards or springs back to the band are marked with sky lanterns. Nomads travel fast during the short, rapid growing times (the Bountiful Skies). Food is plentiful as plant life sprouts and grows and animals emerge from tunnels or burrows.

Nomads are friendly with the Gruthk. In fact tribes will hire out as mercenaries to protect warrens from other raiders or escort the few, precious Gruthk aircraft.

Many Gruthk communities establish fortresses around 50-45 degrees latitude to trade with traveling nomads. Gruthk warrens host nomadic guests in exchange for valuables during the deadlier time of Noon. Tribes will stockpile supplies in these warrens, or find caverns and heavily booby trap them. Gruthk will assist for payment and even sell food and drink for their Fae friends.

As a result there are some scattered tribes in the Southern Hemisphere and Southern Polar Oasis. The exact population of nomads and insectoids is unknown but likely the same as the Northern Hemisphere. None of them build cities or towns. Nomads are nomadic and the Gruthk warrens are underground.

PRIVILEGED INFORMATION

PIRATES

One pirate flotilla attempted to raid Kheryb. It ended in a massacre of the pirate ground troops. Their spacecraft fled when an Earth Patrol destroyer arrived. The Fae hauled kites carrying huge loads of poisoned darts and explosives similar to grenades. The pirates were not expecting resistance and broke almost immediately. Some tried to retreat. One shuttle was captured by the Kherybians. Kheryb's nobles are negotiating with Prince Aneroos to analyze the vessel. The Kherybian and Sivollan nobles agree this massacre should be kept secret from the Terrans. The pirates were (mostly) human and humans are unpredictable.

Some believe Fae were brought to Earth by Selenites for unknown reasons. The idea of so many races making it to space so long ago is disheartening. There are several artifacts that indicate the Fae may have had an advanced civilization that collapsed for unknown reasons.

GRUTHK

Some Gruthk larvae are developing functional wings. This is a hotly debated topic among the insectoids. Is this a sign to rise up and overthrow the Fae? Fae have seen and killed a few. They are obviously abhorrent to the Bronze Goddess. City dwelling Gruthk are carefully examined for signs of developed wings and killed out of hand.

Outside the cities Gruthk warrens are fairly advanced with running water, crystal lighting and working elevators. They attained the Early Mechanical Age. Their fuel based forges allow them to make personal equipment and weapons of all kinds out of steel or Bronzite. A few tunnels are now lit with electric lights like the Terran mines. Many warrens with electricity now have windmills on the surface to power generators.

Outside the cities Gruthk warrens are fairly advanced with running water, crystal lighting and working elevators. They are entering the Early Mechanical Age. Their fuel based forges allow them to make personal equipment and weapons of all kinds out of steel or Bronzite. A few tunnels are now lit with electric lights like the Terran mines. Many warrens with electricity now have

windmills on the surface to power generators.

HISTORY

Mercury had a Late Space Age-Early Interstellar Age culture some 5000 years ago. Mamel crystals were mined and synthesized to power cities and devices. The Annunaki and the Gruthk were partners and equal. They sent expeditions to Venus, Earth, and Mars. Sadly it was not to last.

A huge solar flare overloaded the Mamel crystal across Mercury as well as on spacecraft. Civilization was wiped out. Mercury's crust shifted, obliterating most above ground structures. Most of the Gruthk died in cave ins. The Fae and the Gruthk forgot their friendship competing for survival.

Today ancient ruins and entrances to underground dwelling dot the Southern Hemisphere, waiting to be rediscovered. The Gruthk and nomads avoid these due to ancient fears and some defense systems that still operate.

THE FORGE MINING CONSORTIUM

The Forge eagerly hires cyborgs for their operations. Sadly, not all miners are cyborgs when they begin their contracts on Mercury. Safety rules are loosely enforced. In fact accidents are encouraged. If a worker loses an arm, you get them back with a better mechanical arm. The worker is more productive and desirable by employers. Their contract is extended to let them pay off their augmentation. The United Earth Republic frowns on this and has noticed humans have a much higher accident rate than their Gruthk colleagues. The United Earth Republic began investigations.

Many cyborgs are dissatisfied with the working conditions in the mines. Demonstrations against the Forge Consortium are costing money and slowing production. Some demonstrations were quietly and brutally crushed by private Consortium troops. Oddly, the miners do not want more pay. They want less mandatory overtime and better job safety.

The Forge Corporation has learned of Mamel crystals. An unimaginative mining supervisor called them "power crystals," and the name stuck. The Forge Consortium is struggling to suppress this information to monopolize access to the crystals, describing them as a parlor trick . Miners are forced to sign non-disclosure forms before arriving on-world. Anyone trying to leak information about the crystals or sell any samples will have an accident no amount of cyborging will help.

Mining operations are eagerly seeking large crystals believed to exist deep below ground. The crystals may provide a new energy source for power hungry Earth. The chief problems are the delicate nature of the Mamel and the fluctuating power output. Prospecting and claim jumping is rife outside the Polar Oasis.

POLAR RELATIONS

Trade with the Fae of Kheryb and Sivolla has obtained some Mamel crystals.. Discovering this independently requires a Technology roll with a -2D penalty. Pirates know about this technology, and have been raiding Mercury. They set up wildcat mines using enslaved locals, and then move on. The pirates are from the Golden Sons. The Earth Patrol believe they are based on an asteroid sunward of Mercury, but the truth is that they are from the hidden planet Vulcan.

Prince Aneros of Sivolla - Fae

Combat 1 Knowledge 2 Social 2

Archetype: Scholar **Talents**: Big Mouth, Intelligence Analyst

Stamina: 14 **Encumbrance**: 10

Equipment: Ceremonial armor, a jeweled sword, telescope, and several scrolls in cases.

Cash: Hundreds of thousands in liquid assets.

Resources: The riches and troops of the city-state of Sivolla, sword and spearmen, some troops equipped with modern firearms and crystal powered lasers.

Elevator Pitch: Aneros was a scholar and astronomer who was suddenly thrust into a position of power. He realized he was looking at a short reign unless he held some threat over his nobles' heads. He gave extravagantly to the tradesmen and commoners, brought in Earth traders, and took steps to free the Gruthk from indentured servitude without destroying Sivolla's economy or anyone's fortune. With these acts, Aneros has gained overwhelming popular support. Even the Gruthk like him and are hopeful for more positive changes. Aneros enjoys meeting spacers and learning about space travel.

Public Profile: Aneros is the young prince of Sivolla. He is more comfortable holding a scroll than a sword, and is famous for his hospitality. Ships and crew landing at Sivolla are well treated and often get to meet the Prince.

Goals: Aneros wants to stay alive, stay in power and get a spacecraft for Sivolla to start trading directly with Earth and other worlds.

Means: Aneros deals directly and fairly with everyone, especially off-worlders, who are sometimes hard to understand and can be very dangerous.

Patron: Aneros will pay handsomely for anyone to advance his agenda. He may hire a crew to haul freight for his trading ambitions.

Antagonist: Aneros will jail anyone, including off-worlders, who is caught interfering with his plans or disturbing the peace of Sivolla. He's a tough trader and has no problem negotiating his way into a very advantageous trade at someone else's expense

Illias the Raider Chief - Fae

Combat 3 Physical 2 Social 2
Archetype: Outsider **Talents**: Heavy Hitter
Stamina: 20 **Encumbrance**: 14
Equipment: Outsider Kit
Cash: Thousands.

Resources: Raiders!
Elevator Pitch: Illias was the illegitimate child of a Kheryb noble woman. His father is the Prince of Kheryb and Illias is the city's rightful heir. Illias' mother protected him while she was alive, but upon her death, he had to flee. Too many nobles were eager to end Illias' dynasty and put their own progeny on the throne. Currently, Illias has no way to prove his legitimate claim to the throne, although spacers might have advanced medical testing to establish his genetic heritage. Illias will be merciful to off-worlders if they have no part in his struggle.

Public Profile: Illias leads a small but successful raider band based on the fringes of Mercury's Polar Oasis. The temperatures are brutal but survivable even this far from the pole. Illias' raiders are believed to have an underground base to wait out the worst of the weather. Illias shows no mercy to any resisting him or his men. Sivolla wants him dead.

Goals: Plunder is always nice, but raiding Sivolla is just a way to get the the nobility to notice him, and possibly back his claim to the throne!

Means: Illias has a small fortress (actually a very ancient ruin he repaired). It is located in a ravine near Kheryb. From there he raids the other northern cities. He is regarded as something of a folk hero in Kheryb. In fact he hires bards and musicians to tell of his heroic exploits in Kheryb. He styles himself as a barbarian and has little schooling. But he knows people. He has begun placing spies in Sivolla and Kheryb to inform him of the juiciest caravans' times and routes. His stolen gold has even bought him some friends in high places in both main cities. Lately he has begun to rob from the nobles of Sivolla and distribute some of the loot to the poor of Sivolla to gain their good will.
Performers singing his praises will be jailed and tortured, possibly having their wings broken. This doesn't stop some impromptu concerts from springing up.

Patron: Illias doesn't fully trust offworlders. Those who demonstrate their bravery and honor to him will be given a chance to serve and possibly a few stolen crystals! The exception is pirates. His stories and tales tell he massacred one group trying to recruit him and kills them out of hand. In truth he has dealt with them, in exchange for some modern weapons and equipment.

Illias has learned of a Terran technique called a paternity test. He has stopped raiding Sivollan caravans and holdings (mostly). He seeks better relations with Sivolla, hoping Aneros can get his off world friends to administer this test and prove his parentage. The Kheryb nobles aren't likely to simply accept this test. However, his gold is finding a few older nobles who might corroborate his story. Sivolla would likely accept him as the new ruler of Kheryb.

Antagonist: Illias doesn't merely set his numerous bandits on enemies in the wastes. He does have spies in Kheryb and Sivolla who are skilled in the use of daggers and poison. Others will inform him of people they deem of interest. Offworlders will almost certainly be of interest. Those attacking him directly will encounter crude lasers, gunfire and a few rocket launchers.

Rich Shaeffer, Forge Mining Corporation Liaison - Human

Combat 1 Knowledge 1 Social 3 Technology 1

Archetype: Agent
Talents: Psionics: Telepathy, Domination
Stamina: 14
Encumbrance: 10
Equipment: Agent kit
Cash: Tens of thousands.

Resources: Several transport ships, mining equipment, miners, security troops, loyal Gruthk laborers.

Elevator Pitch: Richard Schaeffer is the senior executive of the Forge Mining Company's Mercury branch. He is respected for his business sense and dealings with the Fae, Gruthk, and miners. He is also showing signs of latent psionic power development. Schaeffer has no idea what is happening and believes he is losing his mind. Regardless, he is a strong leader and inspires obedience.

Schaeffer hears thoughts. This helps him in negotiations and investigations. However, he is seeing ancient alien script in rocks the miners are splitting open. The symbols are beginning to make sense to him. He is keeping this secret to himself. The alien writing may be a delusion or the psychic imprints of ancient minds on the stones.

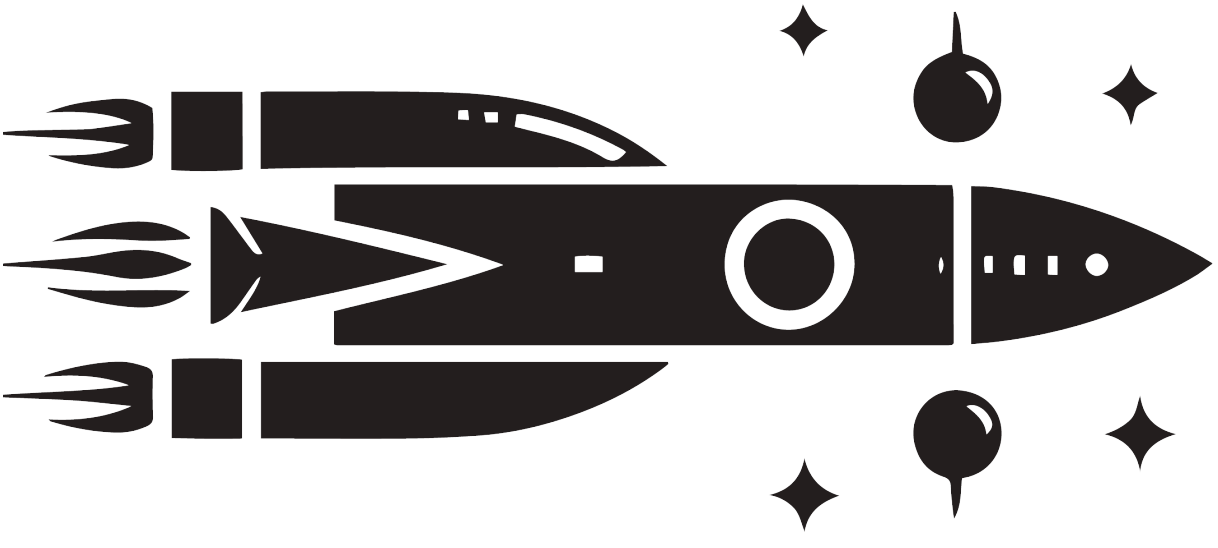
Public Profile: Richard Schaeffer is the head of the Forge Mining Company's Mercury branch. He is respected for his business sense and dealings with the Fae, Gruthk, and the miners. Most of his employees consider him a decent boss. He's only under five investigations.

Goals: Keep the Mercury mines running profitably and get these damned voices out of his head.

Means: Schaeffer makes use of his psionics in all his business dealings without really knowing it. He prefers mutually beneficial negotiations. If negotiations fail, he has no problem using security forces to get what he needs. He realizes that he is effectively the law in Helios Port.

Patron: Schaeffer may want a discreet doctor from off-world to examine at him and eliminate the voices. He could also use cybernetic individuals to spy on Sally Tanaka's cyborg union.

Antagonist: Anyone interfering with the Forge's operations will be targeted by corporate security or even Earth Patrol. Schaeffer has a lot of clout, legal or otherwise.



Big Sally Tanaka Cyborg Union Organizer

Combat 1 Knowledge 1 Physical 1 Social 1 Technology 1

Archetype: Engineer **Talents**: Pugilist

Stamina: 17 **Encumbrance**: 12

Equipment: Engineer kit

Cyberware: Enhanced Cyberarms unarmed attacks do 3d6 (Pugilist skill added in, +2D to lifting and brute strength. Cyber Eyes IR, Low Light and image magnification.

Cash: Tens of Credits.

Resources: Cyborg followers, some Gruthk sympathizers.

Elevator Pitch: Tanaka 'Sally' Sayuri was a tall and muscular tomboy, and often a discipline problem in school. She went for technical training after high school and was hired by Forge. She was injured on her first mining contract, and she opted for cybernetic repairs to remain employed. A natural leader, she is attempting to unionize the cyborg miners, finding the human-dominated union is not representing them fairly.

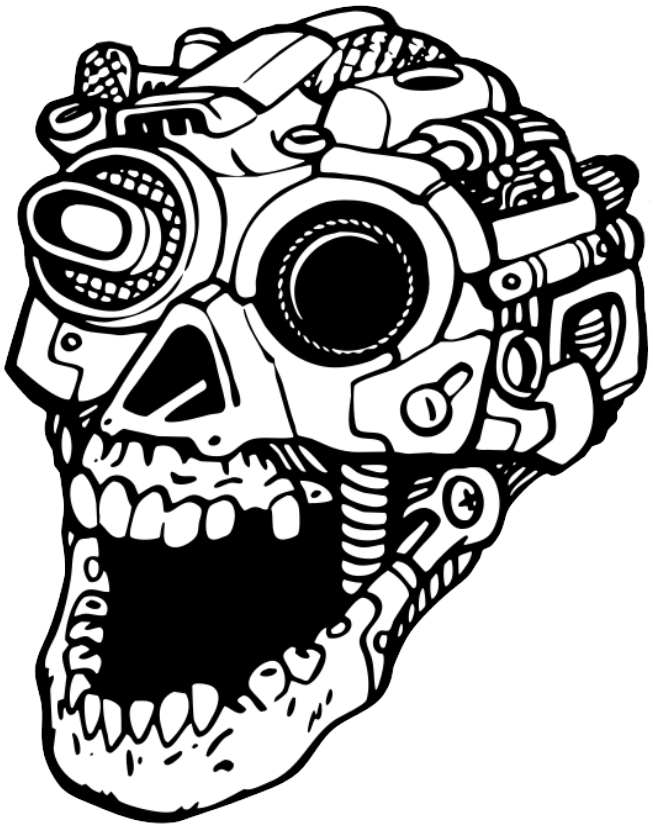
Public Profile: A tall, muscular Asian woman with scars, cyber-eyes, and cyber-arms.

Goals: Better working conditions for the cyborgs.

Means: Sally is a shrewd negotiator. When negotiations fail she has no problem getting her hands dirty.

Patron: Sally may want characters to acquire weapons for her if negotiations stall and or working conditions deteriorate any further. Using humans to spy on Schaeffer's people is another possible avenue of employment.

Antagonist: Sally takes a dim view of spies, especially cyborgs. She's very aware that starting a union is a dangerous and dirty game. She can play dirty as well as the next cyborg. Spies and traitors can have accidents.



Bar'Chok, Laborer - Gruthk

Combat 1 Knowledge 1 Physical 1 Social 1 Stealth 1 Technology 2

Archetype: Engineer **Talents**: Tinker
Stamina: 14 **Encumbrance**: 10
Equipment: Omnitool, old manuals
Cash: None.

Resources: Omnitool, Gruthk posse.
Elevator Pitch: Bar'Chok is a Gruthk laborer in Helios Port. He is also the Gruthk equivalent of Nicola Tesla. His natural talents for technology was noted by his Earthling employers. One gave him an Omnitool. Bar'Chok dismantled it, then made passable copies for his nest-mates. Bar'Chok is learning to read and has a stack of found technical manuals he's going through. He's trying to keep a low profile in Helios Port while learning and reading voraciously.

Public Profile: Another Gruthk with a couple of tools.

Goals: Bar'Chok wants to learn enough to start his own mine, where he will hire only other Gruthk!

Means: Bar'Chok is stealthy. Gruthk are usually ignored by humans if they look busy. His nest mates have begun working double shifts, impersonating Bar'Chok, to allow him more time to study. For now, he needs manuals, tutors and discreet humans to help him learn.

Patron: Bar'Chok has a small quantity of power crystals. He can pay for manuals, tools and instruction.
Antagonist: Bar'Chok may take a manual or tool that is missed. He and his nest mates will offer compensation for their thefts rather than return the items.

RUMORS

- Mercurians are not the simple people they present. They have incredibly advanced technology they have hidden.
- The Forge Mining Corporation has discovered an advanced species of Gruthk in advanced cities far below the surface.
- The Bronze Goddess the Mercurians is real, immensely old and immensely powerful.
- The Annunaki are not native to Mercury but an unknown and unseen world in the Oort Cloud called Nebiru.
- The Gruthk are not native to Mercury but an unknown and unseen world in the Oort Cloud called Nebiru.
- Mercurian flying steeds like the taste of humans.
-

Name	Mercurian Mamoon		
Niche	Crepuscular/ Opportunist	**Armor**	6
No. Appearing	1d2	**Damage**	2d6
Size	Giant (Hippo)	**Skills**	Combat 1, Social 1, Stealth 1
Stamina	25	**Abilities**	Fly, Night Vision, Nimble

Mamoon are giant, grey omnivores resembling Terran bats. The Fae breed many varieties as mounts and status symbols. Selective breeding has even produced smaller species as pets (about cat-sized). Calling a Fae a “lap mamoon” is a deadly insult. Nomads breed mamoons for size and may have 1-3 points more Stamina and an additional point of armor. A Mamoon is capable of carrying a Fae and their supplies on its back while flying. The Fae value Mamoon in the same way that Terrans value a horse or dog. Mamoon dislike the Gruthk, and the feeling is mutual. Each city has a detachment of Mamoon-riding guards to chase away raiders and scoundrels. Rippers often prey on Mamoon.

Name	Mercurian Vinesaur		
Niche	Crepuscular/ Predator	**Armor**	4
No. Appearing	1	**Damage**	3d6
Size	Medium (Large Human)	**Skills**	Combat 1, Stealth 2
Stamina	25	**Abilities**	Hibernate, CLAWS/TEETH, Surprise

The Vinesaur is an ambulatory and carnivorous plant, found everywhere on Mercury but the polar regions. It lurks beneath the ground, storing energy during the hot periods. During the temperate twilight days, it burrows towards the surface and waits until it detects prey walking overhead. It then suddenly emerges within Near range of prey. It can also attack any victims within Close range of its primary target. Vinesaurs can only leap the first round of a fight. Vinesaur seed cysts are a local delicacy.

Name	Mercurian Sky Ripper		
Niche	Crepuscular/ Predator	**Armor**	6
No. Appearing	1d2	**Damage**	3d6
Size	Giant (Hippo)	**Skills**	Combat 1, Stealth 2
Stamina	25	**Abilities**	Fly, Night vision, Roar

Rippers are giant, black, lizard-like birds, capable of grabbing a Fae in both claws and eating them while flying. They project a powerful cry to stun their prey as they swoop. One Terran called them fur bearing Stukas (an obscure historical reference). Rippers terrorize the Fae, though they dislike the taste of Gruthk. The Gruthk view this as poetic justice. Each city has a detachment of guards manning ballistas to chase off the creatures. Rippers often follow Mercury’s terminator, preying on animals waking from hibernation in the twilight.

Name	Mercurian Tunnel Serpent		
Niche	Predator/Cavern	**Armor**	20
No. Appearing	1	**Damage**	3d6
Size	Titanic (Brontosaurus)	**Skills**	Combat 0 Physical 5
Stamina	40	**Abilities**	Motion Sensor, Pack Rat, Tunneler

Tunnel serpents are immense albino worms that live their entire lives in darkness. The serpents are blind, and use echolocation and vibrations to sense prey and attack. Their gaping maws have swallowed poor miners and Gruthk whole.

Tunnel Serpents often attack Gruthk warrens or human mining operations. Gruthk usually deal with the monsters by using poison bait and fleeing. The serpents enjoy making a meal of Gruthk but dislike the taste of Fae and usually ignore them. Fae view this as evidence of their superiority. Humans apparently are tasty . Human miners are more aggressive and use heavy weapons to deter Tunnel Serpents: usually massed lasers or lightning rifles. The creatures usually return to their lair after feeding and spit up any metallic objects or minerals they accidentally swallowed.

TECHNOLOGY

The Fae and Gruthk both use certain local minerals with abundant copper and tin to produce Bronzite. This material is almost as hard as steel and much easier to forge. The locals do work iron, the problem is existing energy sources only allow small furnaces. Iron is only forged in small amounts, equipment of one item or less.

The glowing mamel crystals are powered by Mercury's magnetic field and emit light and heat if grouped correctly. A few smiths were able to use them to create crude laser carbines. These need no recharges but can only fire once every three rounds. Large crystal power smith forges. Some chips are made into lighters. Unfortunately few craftsmen have the skill to create or recreate these weapons.

Weapon	Tech Age	Cost (Credits)	Range	Dmg.	Mag.	Ammo Cost (Credits)	Aspects
Laser Longarm	Late Space	1500	Handgun	3d6	1	50	Laser

The **longarm** resembles a old style flintlock. A mamel crystal draws energy from ambient magnetic fields. When the trigger is pulled a hammer strikes it, forcing it to discharge its energy as a crude laser beam. The crystal may fire one shot every 1d6 rounds, but has no magazine, drawing power from the environment.

VULCAN

“Fire or ice is no choice at all.”

- Vulcanoid proverb.

COMMON KNOWLEDGE

There are rumors of a planet that orbits the Sun closer than Mercury’s orbit: Vulcan. Supposedly this world has affected the orbital path of Mercury slightly, but the proof is not conclusive. Sensors and visual sightings are difficult due to the Sun’s proximity. A few astronomers claimed to have seen something where a planet ought to be but nothing conclusive turned up. Any planetoid is likely to be lost in the glare of the Sun.

The Golden Horde pirate clan has troubled Mercury and Venus, raiding mines and outposts, taking ships and extorting tribute. Earth Patrol believes they have established a base of operations in a heavily insulated and camouflaged asteroid base near the Sun they call Vulcan.

INSIDE INFORMATION

The Earth Patrol believes the Golden Horde is based on an asteroid orbiting near the Sun. The Horde is known for suddenly striking out of the Sun and taking unaware vessels by surprise. Some after action analysis may indicate that the pirates have the technology to jam sensor signals. This is supposedly impossible. However, the Selenites did employ an energy field of some sort to shield Earth from radio communication with other worlds until recently. The pirates may have found such technology and adapted it to a ship.

Unfortunately, the Earth Patrol currently is giving Luna, the Asteroid Belt, and Jovian moons their highest priority. They have few ships and resources to spare to look for the undiscovered asteroid base of the Golden Horde.

Prince Aneros of Sivolla on Mercury has discovered records of a sister world to Mercury called Kur. This planet vanished from Mercury’s historical and astronomical records. Aneros wants to be paid handsomely for his charts and lore.

PRIVILEGED KNOWLEDGE

Vulcan	Orbit: 0.3 AU	Non-Agricultural	Marginal
Population: 3,000,000	**Tech Age**: Early Mechanical Age	**Captive Government**	**Alien Ruins**

ENVIRONMENT

Vulcan is about the size of Luna. Its gravity is 0.8g. It has extreme temperatures and a thin atmosphere. Temperatures range from more than 100C on the sunward side to -100C on the far side. The thin atmosphere is not tainted and can be breathed by Terrans at lower altitudes without masks, or if they avoid heavy labor. Vulcan is tidally locked, with one side eternally facing the Sun (Sun Side), and one in eternal night (Star Side). The Terminator between the two sides has a temperate, albeit very warm, climate.

PLACES

ORBIT

Vulcan space is considered Unexplored. In the event there is no space encounter (a 3d6 roll of 11 or less) there may be an ion storm on a roll of 1-2 on 1d6 (page 192). Pirate ships may have a Cloak (4 in 6 chance) (see below).

SUN SIDE

Vulcan's Sun Side is dominated by deserts and mountain ranges. It has a subsurface aquifer but no large bodies of water on the surface. The temperature is literally murderous, causing heatstroke in most species in hours, and death by heat exhaustion. A few very hardy plants that resemble cactus grow here. Any animals unfortunate enough to be found on the Sun Side of Vulcan are probably transients desperate for food, or have been driven from the terminator band.

The Sun Side of Vulcan has artificially constructed rock formations strewn across the planetary surface. Black pylons in a regular rectangular grid are spaced about 200 kilometers apart, each surrounded by a field of flat black glass 10-100 kilometers in radius. There are no entrances to the towers. A energy field makes them impenetrable to heavy weapons (they have ship grade armor of 21/24 and will be breached on the 21 damage or destroyed with 24 damage or more. A new pylon will replace the destroyed one in 1d6 weeks. The wreckage from a pylon almost immediately dissolves into inert dust.

HAZARDS ON THE SUN SIDE

The temperature is the major hazard of the Sun Side. Electrical disturbances also can interrupt radio communications for 1d6 turns unless a Technology roll is made to compensate. Eerie day there is a 1 in 6 chance of a Radiation Storms lasting 2d6 turns and cutting off all radio communication. Robot handlers must make a daily roll for each robot they control or lose control. The robots normally shut down until rebooted. Terran robots go berserk if the Teck roll is a natural '2'.
Directly under the Sun it is a constant 100o C. Vision is impaired by the blinding light even wearing protective eyewear and visual searches at Long range have a -2D disadvantage. Characters directly exposed to the Sun also receive 1d6 rads per hour. Vulcanoids ignore this.

STAR SIDE

The Far Side of Vulcan faces away from the Sun, warmed only by warm air from the Terminator and Sun Side. Its temperature falls to -100C. It is covered with ice, sometimes hundreds of meters thick. Near the Terminator this glacier begins melting and forms streams and rivers. Some hardy plants live near the Terminator. Animals on the Far Side come to graze or hunt, only to withdraw to their lairs in the ice pack. The ice worms, shadow stalkers and night crabs are all deadly predators that can bring down a lone explorer. Sometimes these creatures venture into more settled lands.

Some explorers have reported cities beneath the ice. These remnants of the ancient Vulcanoids and the Ionian mentors had higher technology, perhaps as advanced as the Late Atomic Age. Some of the cities may be under domes erected by the Ionians and be well preserved or even inhabited!

HAZARDS ON THE STAR SIDE

The Star Side has the occasional predator. What the local fauna lack in numbers they make up in teeth and claws. The cold is dangerous as well. Vulcan's horizon is very close. Crevasses and pits can sneak up on the unwary traveler. Many travelers fall into a crevasse and disappear. Avoiding a crevasse or pit requires a Knowledge roll made with a -1D penalty. An Omniscanner will negate this penalty.

TERMINATOR BAND

The Terminator Band circles Vulcan, dividing Sun and Star Sides. The band is in perpetual twilight and is about 300 kilometers wide. The climate is temperate, about 20C. There are frequent storms as hot and cold air masses meet. The glacier melt from the Star Side forms the massive World River. This river drains into several lakes and tributaries. The temperate area is home to the few Vulcanoid cities. These city dwellers have managed to develop a society that has reached the Early Mechanical Age tech level.

HAZARDS IN THE TERMINATOR

The more wiley animals from both Sun and Star Sides will venture into the Terminator Band. Hower, pirates and their Vulcan allies are the chief menaces for player characters.

THE VULCANOIDS

Vulcanoids are the descendants of Terrans. They have glossy bluish-black skin and slim muscular builds. In dim light their irises open wide enough to give them a black-eyed look. In the heat of the Sun Side Vulcanoid skin secretes a shiny, metallic coating that reflects sunlight and radiation. Their eyes possess secondary eyelids to shield them from the solar furnace in their sky. Their lids also polarize light, letting them know the general direction sunward. In other aspects they are human. Vulcanoids prefer things very hot: 20C degrees Celsius is chilly to them. Earth-like temperatures are cold.

HISTORY

Vulcan and Mercury once formed a two planet civilization. The Annunaki (Fae) of Mercury reached Vulcan world over 15,000 years ago. They would later arrive on Earth and other planets. The MamelMamel crystals the Fae used as power sources for their ships were rare on Mercury, but far easier to find on Vulcan. Because the Annunaki found Vulcan's gravity too high, they abducted

Terrans to mine the Mamel crystals on Vulcan. The Terrans came to regard their slavery as a divine duty.

Disaster struck when the Sun experienced a coronal mass ejection. This plasma burst caused all the crystals used for power on Vulcan and Mercury to explode, destroying Mercurian civilization and any mined crystals. The huge crystal reserves on Vulcan propelled it into a new orbit, closer to the Sun.

Vulcan became tidally locked, but even its terminator band would become uninhabitable desert. The event was seen as far away as Io, and the Ionians dispatched a rare sunward expedition to investigate. They discovered the many thousands of Terrans trying to survive and took pity on them. Using their technology and the unique properties of the MamelMamel crystals, they created the Insolation Field. Like the cloaking devices of the Early Cosmic Age Cloak (Spacecraft Go! p. 17) the Insolation Field bent sunlight around Vulcan, cooling it. This also rendered the planet mostly invisible to sensors. A ship in the right place would only detect a lensing effect, similar to viewing stars or galaxies passing behind black holes.

However, the Ionians believed that their Insolation Shield alone would never make Vulcan habitable to Terrans. Thus, they also genetically altered the Terrans on Vulcan to adapt them to their harsh environment. They created their unique eyes and epidermis. The Vulcanoids viewed the Ionians as saviors, but the more advanced Ionians remained aloof. The primitive Terrans were confused by these strange, powerful creatures, who insisted they were not gods despite all evidence to the contrary. Eventually, the Ionians departed without warning.

In the millennia since the Ionians' departure, the Vulcanoids have progressed slowly. They avoided the great wars the plagued Earth. The various cities remained independent and rarely entered into conflict. Habitations on the Far Side were forgotten and covered in ice when the Ionians left. Vulcan itself cooled, though still hot. It was also virtually invisible. The Fae forgot it as they desperately survived their own apocalypse. The Ionians have never returned to either Mercury or Vulcan .

More recently the Golden Horde pirate clan was pushed out of the Asteroid Belt after confrontations with the Earth Patrol. They moved their operations to the inner worlds, Mercury and Venus. The inner system lacked the concealment of the asteroids. The Golden Horde practiced attacking out of the Sun and fleeing towards it to confuse sensors.

Jean Renée Zhukov was a lesser pirate eager to make a name for himself and some credits before his crew mutinied and replaced him. Zhukov's pirate cruiser, the Medusa, was trying to escape the Earth Patrol by hugging the Sun. Zhukov was robbing ships departing Venus when the Medusa encountered the minimal lensing of the Sun's light. Investigating, they found a planet and barely avoided crashing into it!

PIRATES

After discovering Vulcan accidentally, Zhukov's men built a landing field on the Star Side. They launched an attack on Cocitus that leveled that city's palace and killed most of their royal family. Zhukov traded weapons with other city states for laborers to gather Mamel crystals and build a fortress for their landing field. Then, they mounted raids on Mercury and Venus. However, instead of fleeing to the Belt like pirates normally do, they turned sunward to Vulcan. So far, their trickery has worked. The city state of Cocitus now serves as the pirates' major base. The native Cocitans' civilization has advanced to the Late

Mechanical Age, supplemented by off-world weapons and equipment.

Calledan was a minor noble who quickly surrendered to Zhukov. Zhukov let Calledan live and made him a prince to serve as their ineffectual figurehead. Any of Calledan's staff could have told Zhukov he was making a big mistake but decided not to. Calledan was a shady schemer. People suspected him of many dark deeds. He was never caught and was never punished. His staff was discreet if they wanted to live. They also had no love for the Terrans since many friends were lost when the palace was levelled.

INSOLATION SHIELD

The Insolation Shield uses the natural properties of the Mamel crystals found on Mercury and Vulcan. The technology that keeps the shield running is Early Galactic Age, self-repairing, and protected by forcefields. The black towers on the Sun Side tap into solar power to divert the bulk of the radiation falling on Vulcan.

The pirates learned enough about Mamel crystals and the technology behind the Isolation Shield to create smaller, cruder versions for their ships. This innovation allows the Golden Horde to remain ahead of the Earth Patrol.

Finding Vulcan with sensors without specifically looking for it is impossible. Specifically searching for the hidden planet while near Mercury or closer to the Sun is possible: roll Technology at -3D penalty. Having other clues, like a Golden Horde ship's sensor data, might reduce the penalty to -2D.

The shield is not perfect. One reason is the pylons beginning to show signs of wear. If a ship passes by and Vulcan eclipses the Sun a ring of light will be visible around it briefly.However, most vessels try not to scan the Sun to avoid damaging sensors. The shield does not affect gravity. Vulcan could tug a ship off course but this would probably look like a navigation error.

Orbital debris is a problem. Tiny rocks, paint chips and metal flakes seem to be orbiting nothing. Jean Renée Zhukov wants these cleared away. Clearing the debris involves launching a ship which would look suspicious (again, what is it orbiting?!) so Zhukov waits till debris becomes very noticeable. Sadly the Golden Horde is not the most efficient or disciplined of crews and they do miss some debris.

Finding Vulcan after the first time is much easier, and only requires a Technology roll: failure only adds 2d6 days to the trip time.

GRAVEYARD OF SHIPS

There are many wrecks on Vulcan: these are mostly Earth ships, but a few Martian, Ganymedan, and even old Selenite wrecks can all be found on the surface. The pylons generating the Insolation Field use tractor beams and force projectors to drop crashing ships in an area a few hundred kilometers from the Terminator Band on the Sun Side. This protects the pylons and the Vulcanoids. Some ship wrecks are outside this area, even on the Star Side. Most Vucanoids avoid the wreckage, believing they are cursed or haunted. However, some Vulcanoids scavenge these wrecks for materials and technology. These explorers have formed a Scavenger's Guild to examine the technology they have found. The Guild wishes to use this technology to fight their human oppressors. The Guild has Late Mechanical Age equipment and occasionally more advanced items.

Finding a wreck is up to the referee. A daily check on 2d6 can be made, with a wreck present on a roll of '12'. Most

wrecks on the Terminator band were picked clean by scavengers long ago. The wrecks on the Sun Side are harder to reach and preserved by the dry environment.

GRAVEYARD HAZARDS

Graveyard is a misnomer. Ships are widely scattered about an area of several hundred kilometers. Most of this area lies in an area of the Sun Side. Finding a wreck can take 3d6 days of searching. The ships themselves may be deteriorating and prone to collapse. Machinery inside may explode or fires may erupt when salvagers or explorers begin disturbing damaged hulls and components.

Once a wreck is found it can have the following features. Roll on the table below.

Graveyard Wrecks

3d6	Wreck Features (1 Selenite, 2 Martian, 3-5 Terran, 6 Other)	
3	Treasure	1-2 Mamel Crystals 3-4 Artwork 5-6 Jewels and Gold
4	Technology	1-4 Broken Artifact 5-6 Working Artifact
5	Trap/Hazard	1-3 Booby Trap! 4-6 Hazard
6	Equipment	Personal Gear
7	Water Bandits	1-2 1d6 Bandits 3-4 2d6 Bandits 5-6 Bandit Fortress
8	Beast Lair	Roll an Encounter per Desert or choose from the beasts listed
9	Supplies	1-2 Water 3-4 2d6 Rations 5-6 Tainted
10	Equipment	Personal Gear
11	Stripped Bare	Nothing of value, except as shelter in a dust storm
12	Electronics	1 Working radio 2-3 Navigation computer 4-5 Coding apparatus 6 Portable generator
13	Armory	Weapons 1-3 Lightning pistol 2-3 Martian blaster 5-6 Ganymedan Kezmek sword)
14	Beast Lair	Roll an Encounter per Desert or choose from the beasts listed
15	Pirate Scouts	1-2 1d6 Pirates 3-4 2d6 Pirates 5-6 Pirate Base
16	Trap/Hazard	1-3 Booby Trap! 4-6 Hazard
17	Technology	1-4 Broken Artifact 5-6 Working Artifact
18	Treasure	1-2 Mamel Crystals 3-4 Artwork 5-6 Jewels and Gold

Armory: An assortment of 1d6 weapons 1-2 Late Mechanical 3-4 Late Space 5 Melee weapons 6 Special (a lightning pistol, Martian blaster or Ganymedan Kezmek sword).

Artwork: A durable object of art worth 1d6 x 10,000 credits.

Bandits: Bandits are Vulcanoids driven to the barely survivable Sun Side. They constantly seek water to survive, digging into subterranean springs, harvesting the few hardy plants, and hunting water beasts (p. 96). They see anyone they encounter as another source of water. People captured or killed will be distilled after being looted! A fortress contains 4d6 bandits and 1d3 ATVs modified to carry a machinegun. Bandits will have Late Mechanical Age weapons and equipment.

Booby Trap!: Scavengers have already been here. They carried anything valuable away and then decided to leave a trap to cut down on their rivals. A booby trap will be armed with a fragmentation grenade. To detect a trap make a Technology roll. To disarm a trap make a Stealth -1D roll.

Broken Artifact: An item of ancient and mysterious origin. It can be Early Interstellar Age or more advanced, but is an item of personal equipment. The artifact requires repairs. One to three Technology rolls at -2D wil restore its function. Each roll requires at least a week.

Personal Gear: Equipment is found corresponding to an outfit: 1-2 Roughneck Outfit 3-4 Engineer Outfit 5-6 Scout Outfit.

Hazard: Crews work very hard to keep their vessels safe. Wrecks don't receive such care and salvage crews face jagged metal, radiation and chemical leaks, and systems about the explode. Throw Technology to detect a hazard. Removing the hazard may not be possible. Salvage crews rarely carry radiation shielding around. A Technology roll with -1D can remove this hazard.

Jewels and Gold: Precious metals and jewels amounting to 1d6 x 5000 credits. It is the equivalent of one item per 1000 credits.

Mamel Crystals: A small trove of Mamel crystals worth 2d6 x 10000 credits. Pirates: Pirates seek salvage like anyone else. They see anyone they encounter as more salvage. People captured or killed will be distilled after being looted! A base contains 4d6 pirates and scout or picket. Rations: 2d6 days supplies.

Tainted: Rations or water is found. They are spoiled and treated as a dose of arsenic. Recognizing the taint requires a Knowledge throw.

Water: 1d6 days supplies.

Working Artifact: An item of ancient and mysterious origin. It can be Early Interstellar Age or more advanced, but is an item of personal equipment. Unlike the broken artifact, this is in good repair. It may require a recharge.

Calledan, Figurehead ruler for the Pirates - Vulcanoid

Combat 1 Knowledge 2 Social 2 Stealth 2

Archetype: Agent **Talents**: Con Artist

Stamina: 14 **Encumbrance**: 10

Equipment: Agent kit, fancy sword.

Cash: Thousands.

Resources: Gold, jewels, a dozen loyal guards sworn to secrecy, and a few stolen laser weapons.

Elevator Pitch: Prince Calledan was very low in the line of succession for Cocitus before the Golden Horde pirate band arrived. His more heroic relatives died opposing the pirates. The invaders made Calledan their figurehead to appear legitimate. Now, he plans his eventual revenge on the pirates. Calledan is a schemer and scoundrel but these off-worlders killed his relatives! He has put his deceitful nature to good use, funding rebels, learning human plans while playing his part, and acquiring any human weapons he can. His activities remain unknown to all but a handful of trusted servants. The citizens of Cocitus see him as a scoundrel and traitor. It would be the perfect cover if his fellow Cocitans were not always trying to assassinate him.

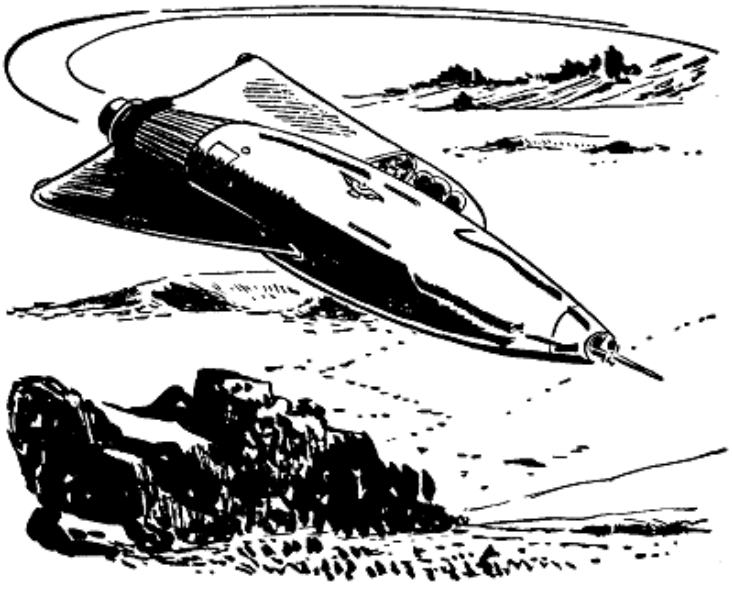
Public Profile: The citizens of Cocitus will spare no advective or invective describing what a louse Calladan is: “He’d sell the silver off his dead mother’s skin for a penny.” In fact, Calledan is a devil fighting on the side of the angels.

Goals: Calladan wants the pirates dead, not merely defeated.

Means: Subterfuge, sabotage and murder.

Patron: Calladan will aid anyone working against the pirates. Prisoners will find their cell door unlocked. Prisoners of the pirates will find the keys to their ship, or a reasonable replacement, and then directions to the nearest native rebels.

Antagonist: Calladan will aid anyone working against the pirates. Prisoners will find their cell door unlocked. Prisoners of the pirates will find the keys to their ship, or a reasonable replacement, and then directions to the nearest native rebels.



Lt. Martin Gomez, Earth Patrol Engineer - Human

Combat 1 Vehicles 2 Technology 3

Archetype: Engineer **Talents**: Rigger

Stamina: 14 **Encumbrance**: 10

Equipment: Engineer kit, Heat suit, M23 Lightning Pistol, many Early Mechanical Age tools and weapons in various states of repair

Cash: Thousands.

Resources: Vulcanoid allies in the Scavengers Guild

Elevator Pitch: Lt. Gomez' ship, the Earth Patrol Cruiser Sentinel, crash-landed on Vulcan. The rest of the survivors were captured or killed by pirates or their Vulcanoid mercenaries. Lt. Gomez escaped and found some native Scavengers who took him in. Martin was not the hero they wanted. However, he was a first-rate technician. Gomez taught the Salvagers all about the technology they scavenged! After salvaging enough equipment to set up a machine shop in his wrecked cruiser, Gomez soon had the scavengers turning out submachine guns.

Now, Martin doesn't think about escaping. He wants to pay the pirates back for murdering his shipmates. And he wants to help his new friends. He helped create the Scavenger Army. He does have an old transmitter he occasionally uses to try to contact the Patrol. So far, the Insolation Shield and the Sun have all but jammed his signals. Distress calls from the lost Sentinel are becoming a spooky legend among Earth Patrol ships visiting Mercury.

Public Profile: Lt. Martin Green was an engineer aboard the Earth Patrol ship Sentinel. The ship was lost with all hands near Mercury for unknown reasons.

Goals: Liberating Vulcan. Then perhaps a romance with the Scavenger Queen Mallana.

Means: Technical and military know-how to keep aiding Vulcanoid rebels.

Patron: Martin would be amazed to be rescued, though he'd refuse to leave until the pirates are beaten and he knows Mallana is safe.

Antagonist: Martin would be amazed to be rescued, though he'd refuse to leave until the pirates are beaten and he knows Mallana is safe.

Mallana, Scavenger Guild Leader - Vulcanoid

Combat 1 Knowledge 1 Physical 1 Social 1 Stealth 1 Technology 1

Archetype: Engineer **Talents**: Leader

Stamina: 17 **Encumbrance**: 12

Equipment: Engineer Kit, M23 Lightning Pistol, many tools

Cash: Thousands.

Resources: A small army of techs and warriors based on the Sun Side of Vulcan, the wrecked cruiser Sentinel that still has a working life support system and air conditioning.

Elevator Pitch: Mallena is Vulcanoid nobility and was always a gearhead. Her family arranged a marriage to another noble family: she was supposed to marry Calladan, a spoiled and venal Vulcanoid noble. Instead, she fled to the Sun Side. When the pirates took over Cocitus she swore she would kill her former fiancée for betraying Vulcan to the Golden Horde and began organizing a rebellion. Under Lt. Gomez' tutelage she's become a decent engineer. However, she's most important as the leader of the rebels known as the Scavenger Army. Gomez' insights into technology and tactics have helped her rebels more than she'd ever hoped. She can never repay him and looks to him as a mentor and scholar. She'd be shocked to learn he has romantic feelings for her. She might return the feelings in time.

Mallana possesses an innate curiosity about the universe and technology. She has been hardened by adversity, but she finds it hard to be a ruthless rebel. However, she has people for that sort of thing.

Public Profile: A tall and muscular Vulcanoid of indeterminate gender, under bits and pieces of salvaged armor and uniforms. They bear an assault rifle.

Goals: Vulcan will be freed from the Golden Horde!

Means: Mallena uses sabotage, deception, and all the techniques of an insurgent to mount attacks on the Golden Horde pirates and their allies. Her people came close to killing Calladan twice!

Patron: Any crashed ship on Vulcan is likely going to be found and looted by Scavengers led by Mallena. Survivors will be brought to their base for questioning by her and Martin Gomez. Mallena won't trust any Terrans besides Martin until they prove themselves. However, more human techs would be very welcome.

Antagonist: Anyone who is an ally of the pirates can expect no mercy.

Jean Renée Zhukov, Pirate Navigator - Human

Combat 2 Physical 2 Social 1 Vehicles 2 Technology 1

Archetype: Pilot **Talents**: Infuriating

Stamina: 20 **Encumbrance**: 14

Equipment: Roughneck Package, bottle of brandy at hand

Cash: Hundreds of thousands.

Resources: Pirates, Vulcanoid mercenaries, two pickets and three scouts.

Elevator Pitch: Jean Renée Zukov was the navigator on a Golden Horde ship that crash landed on Vulcan. Sadly his captain and the senior officers died in the crash. Making their way to Cocitus, the pirates were welcomed. After learning some of the language and ways of their hosts, Zukov and his men used their superior weapons to overthrow the royal family. They then swelled their ranks by recruiting local mercenaries and killers. In no time, Zhukov found himself in control of the largest city state on Vulcan.

After he figured out how the Insolation Screen worked, Zhukov sent word to the Golden Horde. The Horde ships that responded found Zhukov well-settled with a small army and decided to leave him in charge for the moment. Zhukov knows his brethren would all kill him and take his city in a heartbeat. He never neglects his personal security.

Jean is rapidly discovering running a city is very different from captaining a ship or leading troops. He enlisted Prince Calledan to see to the everyday affairs of Cocytus. He believes that Calledan is foppish, selfish and a coward: not a threat, but useful for running Cocytus—for now. As for Zukov, he is largely concerned with getting supplies and riches for himself and his men. He takes what he needs and crushes any who protest.

Recently, there have been a number of ambushes and acts of sabotage. Jean's small fleet was a target for bombs and even mortar fire! The pirates have begun mass arrests in Cocytus to find the rebels.

Public Profile: Jean Renée Zhukov is wanted by the Earth Patrol for smuggling and piracy. He attacked and robbed a Ganymedan ship, seizing a dis-blade belonging to House Rennock. The Ganymedans want revenge.

Goals: Today Vulcan, tomorrow leadership of the Golden Horde! Zhukov wants to keep taking tribute from his Vulcanoid vassals, and charging fees for servicing Horde ships until he can buy the leadership of the Golden Horde. This will require him bribing many of the senior pirates of the Golden Horde.

Means: Oppression. Theft. Piracy.

Patron: Any characters who can stomach Zhukov will be recruited into the local Golden Horde operation. They will be expected to rob, murder and enslave. The hours and pay are good.

Antagonist: Being robbed and having your ship stolen is par for the course for those encountering the Golden Horde as antagonists. Anyone interfering with Zhukov's operations will be targeted for an all-out attack and a long walk out of a short airlock.

RUMORS

- These rumors may be encountered by people exploring in the vicinity of Mercury or perhaps related by other spacecraft traveling near the Sun.
- The Earth Patrol recently lost a destroyer squadron to the Golden Horde.
- A derelict ship found off Mercury had a trove of huge power crystals with fantastic properties. After several explosions the salvage team abandoned the hulk.
- Fiery monsters have attacked ships on the Mercury-Venus-Earth run.
- The Golden Horde is preparing to attack Mercury and Venus simultaneously. More troubling, they plan to take out several Earth Patrol ships!
- There is a space warp near Mercury that will take you to Vulcan, orbiting another star.
- There is a graveyard of ships orbiting close to the Sun, full of salvage and treasure.

TECHNOLOGY

Cloak (Late Space Age, +40%): Stealth technology interferes with the EMF radiation around a vessel, rendering it invisible. The ship still produces a faint heat signature and magnetic fingerprint and can be detected with a Technology throw at -2D. If undetected, the ship may drop the stealth shield and attack with Position. A stealth shield can't be reestablished during combat: everyone will be looking for you.

Note the Cloak is made possible with Mamel crystals, which are often rare. The advantage to Position is an alternative to the rules for the Stealth Shield found in Spacecraft Go!

The cost of the Cloak can be reduced to +20% if the engineer reduces a ship's gun rating by 1 step.

Radiation Well (Early Space, 10,000 Credits per crew, 1 ton of cargo.): A radiation well is an emergency sanctuary for crew and passengers. It is very cramped. It can support crew and passengers for up to 48 hours. Entering a Well cuts radiation exposure to 1/10th the listed amount. This spacecraft component is often mounted on vehicles on Io.

Name	Solarian		
Niche	Special	**Armor**	Special
No. Appearing	1d6	**Damage**	3d6, 2AVD
Size	Medium (one meter globe)	**Skills**	Combat 1, Knowledge 1, Social 1
Stamina	20	**Abilities**	See below

This species of radiant energy beings inhabits the Sun. They sometimes visit the Sun Side of Vulcan to study the humanoids they have observed. Solarians possess Telepathy and Telekinesis and mean no harm. However, they have accidentally caused injuries and damage while interacting with other species.

Solarians can attack with a ball of plasma (Ranged Plasma Ball 3d6 Pistol range). Simply being within 2 meters of the Solarian causes 2d6 damage to physical creatures. Material attacks only do 1 point of damage per die as the weapon or projectile melts on contact with the Solarian's body! Solarians are immune to heat, radiation and energy attacks. Lightning weapons damage them normally.

Name	Water Beast		
Niche	Herbivore/Desert	**Armor**	2
No. Appearing	2d6	**Damage**	1d6
Size	Large (Horse)	**Skills**	Physical 1, Stealth 1, Social 1
Stamina	24	Abilities	Rapid, Silver Armor, Water Storage

Description: A water beast is a mammal with six legs and huge padded feet, which permits them to speed across the Sun Side sands. Instead of a hump, they have several large cysts holding ample amounts of water. Vulcanoids use sharpened reeds or metal straws to carefully draw water from their mounts.

Water beasts are partly domesticated by the Vulcanoids. Many escape to the wild. Some are captured and escape several times. The creatures remain on the Sun Side where predators are scarce, occasionally venturing to the twilight regions to find water and reproduce.

Name	Rainbow Hopper		
Niche	Opportunist/Desert	**Armor**	0
No. Appearing	1d6x10	**Damage**	0
Size	Tiny (rat)	**Skills**	Stealth 1
Stamina	2	**Abilities**	Fly, Hive Mind

Rainbow winged and beautiful locust-like insects. Hoppers congregate around Solarians, though at a safe distance, who use them to lure humanoids and animals to them. The humanoids are often killed accidentally by the white-hot Solarians. The hoppers then feast on the carcasses. Vulcanoids consider Rainbow Hoppers a delicacy.

THE BELT

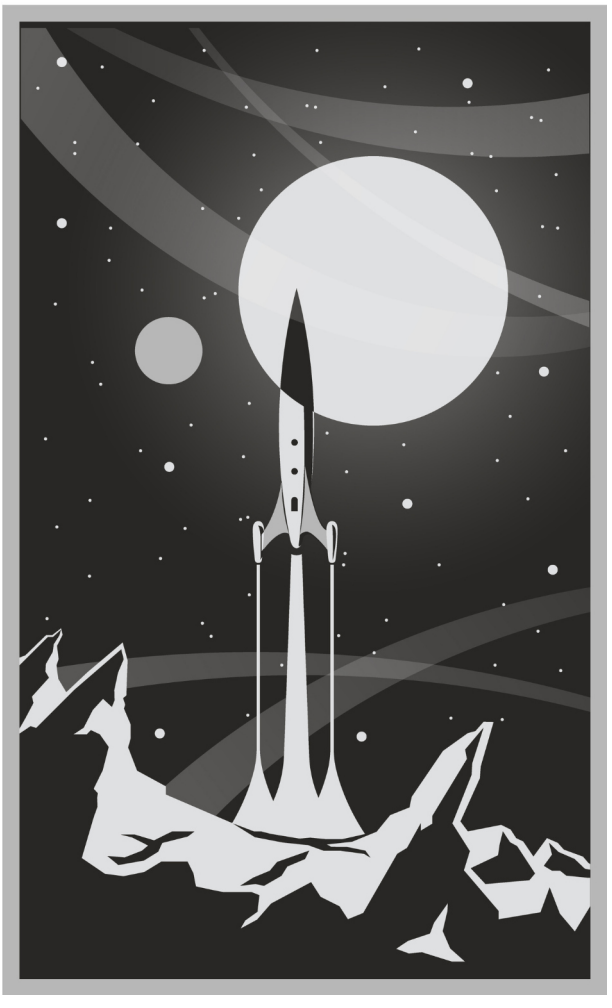
*"There are a lot of ****ing asteroids in the Belt!"*

- Old Martian saying.

Asteroid Belt	**Orbit: 2-3** AUs	**Some Industrial. Many Resource worlds**	**Rockball**
Population: 20,000-100,000 varies.	**Tech Age**: Late Space Age (some older bases are Early Space Age or Late Atomic Age.)	**Corporate**	**Underground Cities**

THE DREAM

The Belt is a cornucopia of mineral wealth. Belt factories are major source of Ultra-Light Steel and Impervium. A few asteroids have thin atmospheres and limited ecosystems stemming from ultradense cores that may contain all sorts of exotic matter or ancient gravity generators. A few show terraforming on a small scale. The eco systems may simply be the descendants of vermin transported by mining ships.



REALITY...

Asteroids may be populated by hard working miners: either independents or corporate drones. They may also be a refuge for warlords and pirates who think themselves beyond the law. Some offshoots of Martians, Ganymedans, and Callistans take refuge on some obscure asteroid to be forgotten. Humans are recent arrivals, but a generation of Asteroid born humans is in full swing. The few Belters born in the Asteroids are tall and gangly and may never feel a full gee.

Miner

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Scout	1 Month Travel x1.5	14/17	4 (6)	64	4d6	0	
Steps	-1	-1	+1	+2	+1	-2	0
Cost	0	-10%	+10%	+10%	+20%	-20%	+10%

Travel Multiplier: x1.5

Modifications: Mining Equipment. Mining Equipment reduces Guns by two steps. One step of Guns is bought back.

Cost: 6.8 million Credits

Monthly Cost: 63000 Credits

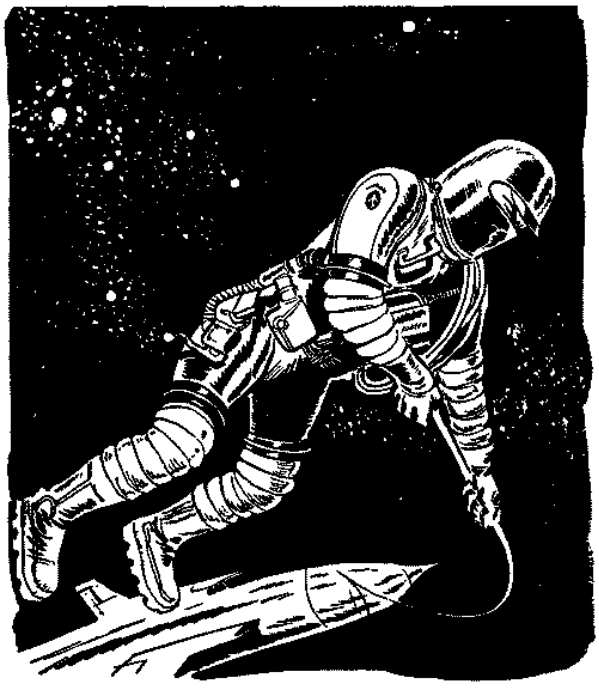
Some Prospectors start out as surplus Earth Patrol shuttles or scouts. Others are converted tramp freighters. Armor, guns and propellant are reduced, giving the ship mass savings that go into the crew compartment and cargo hold. Hull space is given over to mining drills and lasers. The ships are lightly armed and armored but most pirate regard stealing ore as almost as bad as an honest living.

A Prospector carries 6 dedicated miners in addition to its crew. The ships mount mining equipment, doubling the productivity of miners. Four cargo units per miner a day is typical. Twenty four cargo units per day will fill a hold in three days.

In practice Belters stick with Prospectors. As they gain in riches they attempt to build a fleet of Prospectors. More small ships travel further, and make more scans.

A group deciding to prospect in the Asteroids or mine must be resigned to days of boredom, punctuated with minutes of anxiety. The problem is not locating gold or precious metals. It is because the Belt is overflowing with riches and greatly devaluing the market price of strikes.

The group's ship will encounter a worthwhile claim by rolling either Knowledge or Technology -2D. A ship with mining equipment only rolls with -1D. Roll for the value of the claim.



SHIP FINANCES

Ships in the Belt are only financed by a bank if they are destroyer sized or larger and owned by a solid corporation. These have a good survival rate. Smaller ships rarely can afford a mortgage. However, many Belter clans, guilds, and unions have sprung up to purchase ships and loan them to vetted individuals for a share of the profits. This cuts expenses.

Crew salaries can be cut to the bone in exchange for a cut of any profits (this is regarded as a motivator to efficiency). Such crew are trying to become vetted and score their own vessel. Some miners further economize by purchasing robots and automatics.

Pirates are a plague to miners. Ships are moving in a leisurely pace and usually using an algorithm to predict what asteroids are likely to yield its riches. Pirates can use the same algorithms and set up an ambush. Many regard this as the least profitable form of piracy, and a sign of stupid pirates. Some follow pirates to capitalize on their criminal assaults, rescuing crew and performing repairs for fees.

Some ships will merely record a strike and sell the claim to a larger corporation to mine. This results in a sale for 10% of its total value, but must be filed in person with physical evidence (drillings, surface rock and photos) to avoid false reports.

TRAVEL

A group deciding to prospect in the Asteroids or mine must be resigned to days of boredom, punctuated with minutes of anxiety.

The Belt is open and wild. It is far too large to be entirely settled or even patrolled. A trip to a promising area from Ceres or another market takes 1d3 days (average of two days, or three with a Prospector's Travel x1.5).

ENCOUNTERS, ANOMALIES AND SENSORS

Ships make an encounter roll when they enter a new area. The Belt is Frontier Space. If there is no encounter roll 1d6 discover an anomaly if. '6' is rolled.

The Belt is considered Frontier Space. Encounters are rolled for once a week. If no encounter is rolled during space travel, a special event will occur on a roll of 1 on 1d6. Roll on the table below. Events are detected by making a Knowledge roll. Making this roll will likely prevent mishaps. An event is detected at Far Range if the roll is successful, the Pilot's Vehicle rolls are modified with +1D. Failure means the Event is detected at Near Range. Vehicle rolls to avoid it are modified by -1D. A natural '2' rolled means the Event immediately has dire consequences with no warning.

Pirates are a plague to miners. Mining ships move at a leisurely pace and usually use informants to learn what asteroids yield good strikes. Pirates can set up an ambush after the hard work is done. This would only be worth a sensible pirate's time if the strike is Excellent quality. Some follow pirates to capitalize on their criminal assaults, rescuing crew and performing repairs for fees.

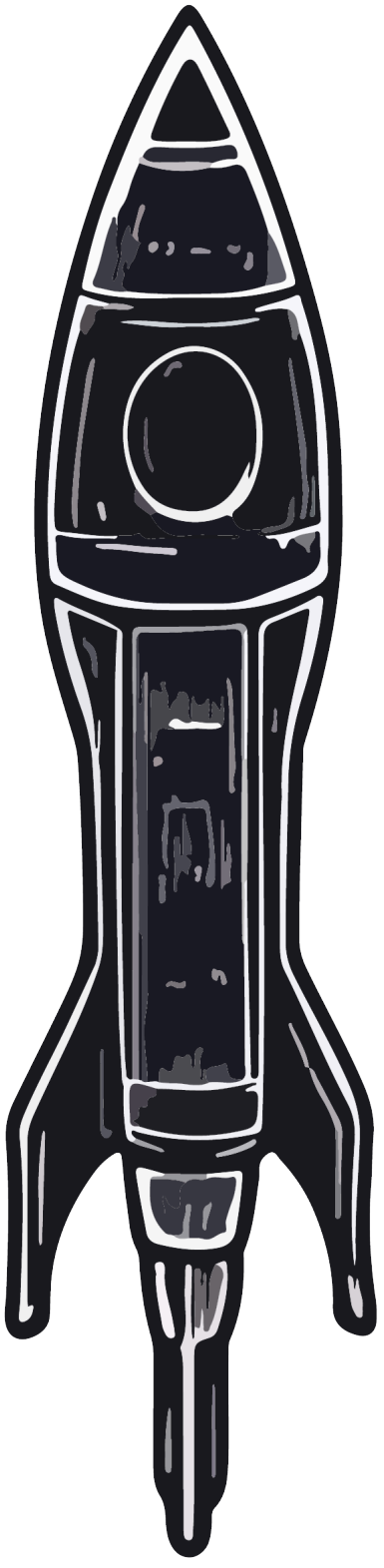
Some ships will merely record a strike and sell the claim to a larger corporation to mine. This results in a sale worth 2d6 x 10,000 Credits, but must be filed in person at a claims office with accompanying physical evidence (drillings, surface rock and photos) to back up the claim.

ANOMALIES IN THE BELT

If an anomaly is discovered roll d66 to determine its nature on the table below.

Belt Anomalies

d66	Event
	Asteroids
11	Dust
12	Close Binary
13	Weird Shaped Asteroid
14	Dust Ball
15	Habitable
16	Cluster
	Spatial Anomaly
21	Micro Blackhole
22	Space Warp ETA change
23	Space Twist
24	Portal
25	Wormhole
26	Missing Time
	Derelict
31	Wreck
32	Salvage 1d6 x 10 10,000 Credits/ton
33	Feral Survivors
34	Frozen Survivors
35	The Beast is Loose!
36	Creepy AI
	Goo Speck - a small speck of nanotech from an ancient war hits the ship.
41	Metal Eater
42	Rock Eater
43	Plastic Eater
44	Omnivore
45	Blinder
46	Field of Goo
	Signal
51	Wow Signal
52	Hacker Virus
53	Coded Message
54	SOS
55	Research Station Alert!!
56	Patrol Alert!!
	Small Object
61	Inert Probe
62	Booby Trap!
63	Info Dump
64	Malfunctioning Probe
65	Tracking Probe
66	Lifeboat



SENSOR ROLLS

Sensor rolls can reduce the danger of anomalies. A failed roll exposes a vessel to delays and outright danger. A natural '2' means the ship is unaware of any danger and gets a hold full of trouble.

ASTEROIDS

Asteroids are usually separated by hundreds of thousands to millions of kilometers. However, Jupiter's gravity, micro blackholes or random chance may cause some asteroid clusters and dust clouds to form close enough together to be a hazard to ships passing through.

- **Dust**: A cloud of particles and grit due to collisions or careless mining. Successful scan -All scans for this week are penalized -1D. The ship avoids the thicker dust regions. Failed Scan - All scans for this week are penalized -1D. The pilot must make a Vehicles roll or the ship suffers a 6d6 roll for damage (FTL:: Nomad p.183). '2'- The pilot must make a Vehicles roll -1D or the ship suffers 1d3 6d6 damage rolls.
- **Close Binary**: Mining here will be at half speed as two rocks roll around each other. Successful scan - Any strikes are attributed to the correct asteroid. Failed Scan - Possible strikes could be on either body. A survey team must be landed and surveys take double normal time. '2'- Surveys take double time.
- **Weird Shaped Asteroid**: Successful scan - No difficulties encountered. Failed Scan - Landing attempts require a Vehicles -1D roll or a Regular damage roll is inflicted on the ship. '2'- Landing attempts require a Vehicle -2D roll or 1d3 Regular damage rolls are inflicted on the ships.
- **Dustball**: Successful scan - Mining occurs at double speed due to the loose composition. Failed Scan - Ship exhausts create a dust cloud, delaying operations 1 day. '2'- Landing creates a huge plume of dust clogging vital systems. Inflict a Regular damage roll.
- **Habitable**: Successful scan - The planetoid's environment and ecology is revealed. Failed Scan -The environment is analyzed but the plants and animal life (if any) are unknown, '2'- A survey team is needed to verify surface conditions. No information is given on flora or fauna.
- **Cluster**: Successful scan - The number and size of the asteroids in the cluster are revealed. Potential strikes are identified for each body. Failed Scan - The largest body has strikes identified. '2'- Survey teams are need to locate strikes.

SPATIAL ANOMALIES

Some ships have reported areas of strange anomalies in the Belt. These may be wormholes. If any ship has ever dared to investigate a wormhole closely, it has not returned. Some theorize that the Belt actually contains tiny, primeval black holes. Others believe strange matter creates strange anomalous effects. Fringe scientists insist this is the remains of an ancient Stargate system. But no one has found any evidence of a Stargate.

- **Micro Blackhole**: Successful scan - The blackhole is identified and avoided! Reporting such a hazard earns a 10,000 Credit reward! Failed Scan - The blackhole is not detected until it is nearly on top of the vessel! The engineer may make a Technical roll to avoid taking a Regular damage roll. '2'- As with a Failed Scan except

roll 1d6 Regular damage hits. On a '2' the blackhole passes through the ship doing a Critical damage roll.

- **Space Warp**: Successful scan - The warp is avoided! Reporting such a hazard earns a 5,000 Credit reward. Failed Scan - Roll 1d6. On a 1-3 the warp subtracts 1d6 days from the ship's travel time. On a 4-6 the warp adds 1d6 days from the ship's travel time. '2'- As for a Failed scan except 3d6 weeks is added or subtracted from travel time.
- **Space Twist**: Successful scan - The twist is avoided! Reporting such a hazard earns a 5,000 Credit reward. Failed Scan - Each crew member is exposed to non-Euclidean geometry and takes 3d6 damage unless they make a Physical roll. '2'-Each crew member is exposed to non-Euclidean geometry and takes 4d6 damage unless they make a Physical roll.
- **Portal**: Sent back in time! Successful scan -The ship scans another ship exactly like it briefly. The transponder IDs match. Failed Scan - The ship and crew lose the last week of their lives. Everything is reset. Fuel and propellant are restored to previous levels. Injuries or damage sustained in the last week vanish as do gains made. '2'- As for a Failed Scan but sensors are knocked out for 1d6 days.
- **Wormhole**: Worm! Ships have encountered worm holes in space, also called warps or bridges. This is a wormhole with a real worm or creature that doesn't like being disturbed. Successful scan - The worm is avoided. Reporting this feature brings a 20,000 Credit reward. Failed Scan - The worm makes a grab for the spacecraft or any tasty shuttles! Make a Vehicles roll to avoid the worm attack, which does 7d6 once. '2'- As for Failed Scan but the creature is particularly sneaky. Make a Vehicles roll -2D to avoid the attack.
- **Missing Memories**: Successful scan - The threat is avoided! Failed Scan - It is 1d6 days later. The ship's crew is missing the last 1d6 days of memories. They may notice the hold is no full of ore, or empty or someone was injured and treated. '2'-As for Failed Scan but one crew member (randomly determined) is sure the ship is missing a crew member no one else remembers.

DERELICTS

Ghost ships and wrecks. There may be something worth salvaging on board. Boarding and salvaging from a derelict means dealing with the normal dangers of salvage operations: becoming trapped, tearing your suit on wreckage, and malfunctioning technology. In addition to all that, derelict ships creep many people out!

The size and previous role of a derelict can be rolled on the Encounter table for Frontier Space. If the referee wants a random size of the ship roll 1d6, 1- Picket 2-4 Scout 5-6 Small.

- **Wreck**: The derelict is almost a total loss. 1d6 tons of salvage that can be gathered as if mining, and sold for 1d6 x 500 Credits per ton. Successful scan - The condition of the wreck and possible salvage is revealed. Failed Scan - The wreck appears far more valuable than it is. '2'- As for Failed Scan but anomalous life signs are detected,
- **Salvage**: The derelict is in decent shape but not worth repair and refit. It contains 2d6 tons of salvage that can be gathered as if mining, and sold for 2d6 x 1000 Credits per ton. Successful scan - The condition of the wreck and possible salvage is revealed. Failed Scan - The wreck

appears less valuable than it is, similar to the wreck result above.. '2'- As for Failed Scan but anomalous life signs are detected.

- **Feral Survivors**: The derelict is in good shape and contains atmosphere! It even has back up power on but it does not respond to hails. 2d6 tons of salvage that can be gathered as if mining, and sold for 2d6 x 1000 Credits per ton. The problem is the crew is still alive and unwell. They will attack anyone boarding their lair. They never check morale and are Thugs (FTL: Nomad p. 239.) Spaceborne virus? Exposure to a space twist? Confronting elder horrors? Who can tell what happened. Technically they are crew in possession of a vessel and salvage is not allowed. Successful scan - The condition of the ship and a rough estimate of survivors is received. Failed Scan - The condition of the ship is revealed along with anomalous life reading. '2'- The condition of the ship is revealed, with no life readings.
- **Frozen Survivors**: The ship is livable though its power systems need a complete refit (costing 4 months operating expenses.) There are 1d6 crew in cryo-tubes or living under fast drug. They count as crew and salvage is not allowed. This won't stop some people from giving them a toss out the airlock. Successful scan - The condition of the ship and a rough estimate of survivors is received. Failed Scan - The condition of the ship is revealed along with anomalous life reading. '2'- The condition of the ship is revealed, with no life readings.
- **The Beast is Loose!**: The derelict is in decent shape but not worth repair and refit. It contains 2d6 tons of salvage that can be gathered as if mining, and sold for 2d6 x 1000 Credits per ton. An unknown creature is aboard, having broken containment and killed the crew. Use the stats for a Runner (FTL: Nomad p. 258.) Successful scan - The condition of the wreck and possible salvage is revealed along with faint life readings. Failed Scan - The wreck appears far less valuable than it is, similar to the wreck result above.. '2'- As for Failed Scan.
- **Creepy AI**: The derelict is in decent shape but not worth repair and refit. It contains 2d6 tons of salvage that can be gathered as if mining, and sold for 2d6 x 1000 Credits per ton. The problem is with the computer. It appears to be too friendly, offering helpful advice. However little accidents happen. The ship makes a sudden attitude adjustment, throwing people around, or an airlock opens at the wrong time. The computer apologizes for these malfunctions. It is merely attempting to regain control.Successful scan - The condition of the wreck and possible salvage is revealed. Failed Scan - The wreck appears to be far less valuable than it is, similar to the wreck result above.. '2'- As for Failed Scan but anomalous life signs are detected.

GOO BLOBS

Gray Goo is believed to be a weapon left from the Ganymedan-Callistan War. Gray Goo forms blobs between asteroids. So far it has only been detected in the Belt. The shiny dense liquid acts as though it were alive. If it comes into contact with a ship, Goo will spread out eating metal and plastics and creating more Goo. The stricken ship sustains one Regular Damage roll the first day, two hits the second day, and four hits on each subsequent day. Removing the Goo requires crew to don space suits and use torches or lasers to scorch away the Goo. Each crew must make a Technology roll. To eliminate the Goo, the crew requires a number of successes equal to the number of Regular Damage rolls the Goo inflicts that day. So a crew would require four successes on the third day of infection. Determining if a ship has a Goo outbreak is pretty easy once it starts eating at the hull: roll Technology with a +1D bonus on the first day and on each subsequent day.

Some asteroids have areas covered with Goo. So far, any attempts to analyze the Goo have resulted in it eating its way out of its containment and destroying the laboratory. Ships stricken with Gray Goo are not allowed to dock and may be fired upon if they move close to other ships or stations.

- **Metal Eater**: Successful scan - The sensors register a small metallic speck on a collision course. It can be avoided with a Vehicles roll. Failed Scan - The craft registers a small impact that does no damage. Yet. '2'- There is no sensor report.
- **Rock Eater**: The goo comes aboard the ship with mined materials. It will destroy one ton of ore the first day, two tons the next day and four tons every subsequent day. The entire cargo must be jettisoned after the second day. Successful scan - Ore examination reveals the goo. One ton is lost. Failed Scan - One ton of ore is lost. The second day the engineer may make a Technical roll. Success means two tons of ore are lost. '2'- The infestation is not discovered for 2d6 days.
- **Plastic Eater**: This is a potential disaster for a single space suited person. Successful scan -A spacesuit in storage is damaged and requires a Technical roll to repair. Failed Scan - A spacesuit being worn outside the ship is damaged, sprinting a leak. The wearer must roll Physical or be exposed to vacuum (FTL: Nomad p. 60). '2'- The spacesuits of an entire team surveying or mining is compromised. All are exposed to vacuum.
- **Omnivore**: The omnivore eats anything organic, including plastics. The effects are as above but the person discovering the goo will also make a roll on the Triage table unless they make a Stealth roll.
- **Blinder**: This goo is specialized to damage sensors and electronics. Successful scan - The infestation is discovered in time! Cleaning and repairing the sensors takes 1d6 hours. Failed Scan - The goo blinds the ship. Repairing the sensors requires a Technical roll. A roll can be made every 1d6 hours. '2'- As for a Failed Scan but a repair attempt takes 2d6 hours.
- **Field of Goo**: An asteroid is covered in rock eater goo, making mining virtually impossible. It can be removed with a mining equipment (taking 1d6 weeks(, Successful scan - The goo is detected. Failed Scan - The goo is not detected until it is mined. Half the mined ore is lost. '2'- The goo destroys all the ore mined.

SIGNAL

Ships run across all manner of radio transmissions in the Belt. Most are routine and if little concern but sometimes a signal might tell of trouble or adventure! Some transmissions may be relatively close . Others may be days or weeks away. This is recommended if the referee uses the transmission for a new adventure, for example Research Station Alert! Or a Coded message that has sensitive information.

- **Wow Signal**: A strong, brief radio burst is detected coming from the Galactic Core! Successful scan - The transmission is coming in clear and can be analyzed at length. Its origin is outside the Solar System and its origins are unknown. Failed Scan - The transmission is received but misread as a distress signal form the Oort Cloud. '2'- As for Failed Scan but the signal seems to be coming from within the Solar System.
- **Hacker Virus**: An innocuous transmission contains a computer virus! A successful scan points to a small object 1d6 days away (roll this as a Small Object) Successful scan - The scan detects the virus and it is deleted. The computer still needs to be checked out taking an hour. Failed Scan - The virus is detected after it has begun to work! Deleting the virus and restoring the computer takes a Technology roll. Ship operations are suspended until the roll is made. A roll can be made every day.'2'- As for a Failed Scan. However the computer gains one or more annoying personality traits. Repairing these quirks requires a Technology -2D roll.
- **Coded Message**: The ship receives a transmission of utter gibberish: "The Martians eat melon. Moonrise over Mercury is lovely... etc." Successful scan - Message received! Failed Scan - The message is garbled and must be recovered. The result is still gibberish. '2' - Deciphering takes 1d6 days and still results in gibberish.
- **SOS**: A ship has met disaster. Roll for size:1- Picket 2-4 Scout 5-6 Small. There may be survivors. Roll under Derelicts (see above). Successful scan - The transmission is received. The disaster is located 1d3 days away. Failed Scan - Locating the wrecked ship takes 2d6 hours. '2'- The signal is received once and lost. Tracing it take 1d6 days.
- **Research Station Alert!!**: A base is in trouble. Roll for size:1- 50 personnel 2-4 20 personnel 5-6 10 personnel. There may be survivors. Successful scan - The transmission is received. The disaster is located 1d3 days away. The transmission includes and audio file: "Dear god it's loose. Get the weapons!" Failed Scan - Only the distress signal is received. Locating the station takes 2d6 hours. '2'- The signal is received once and lost. Tracing it take 1d6 days.
- **Patrol Alert!!**: The Patrol warns of a pirate vessel in the vicinity. Successful scan - Message received! Failed Scan - The message is not received and an encounter is likely with a pirate ship. '2'- As for a Failed Scan but the pirate has created an ambush, hidden by an asteroid and immediately gets Position. The first round.

SMALL OBJECT

Mars, Ganymede, and Callisto all fought over asteroids in the past. There are leftover mines and other unexploded ordinance surrounding some rich asteroids. Some Terran prospectors buy old relic mines to set around their claims and blame the belligerents of previous wars for their presence.

- **Inert Probe**: Probes are often sent to scan for precious metals in the Belt. This one has seen better days. It is out of power and drifting. Its memory banks are wiped. I can be sold as scrap for 1,000 Credits Successful scan - The probe is detected analyzed and may be brought aboard. Failed Scan - The probe is detected but determining its nature requires a closer look. '2'- The ship is on a collision course with space junk! Make a Vehicles roll to avoid a collision doing 6d6 damage and destroying the probe.
- **Booby Trap!**: Someone felt merely registering a claim was not enough. They left a probe filled with explosives! Successful scan - The booby trap is exposed! Roll Combat to destroy it. Optionally Mining equipment can disarm it with a Technology roll. Failed Scan -The ship triggers can explosion doing 5d6 damage. '2'- As with a Failed Technology roll except the explosion does 6d6 damage.
- **Info Dump**: A probe is discovered drifting without power. Its memory banks are intact. Successful scan - The probe is identified and the banks are downloaded. The probe can be sold for 2,000 Credits. Failed Scan - The probe is detected but its nature is unknown. It can be brought to the ship for examination and resold. '2'- The probe is detected but it immediately wipes its memory banks. It may be resold for 1,000 Credits.
- **Malfunctioning Probe**: A probe attempts to close and dock with the characters spacecraft. Successful scan - Make a Technical roll to successfully retrieve the probe. It can be sold for 1,000 Credits. Failed Scan - The probe is only detected at close range. Make a Vehicles roll to avoid being rammed a5d6 attack. '2'- The probe isn't detected until it is too late. Take a 6d6 attack. An engineer may Brace for Impact (FTL: Nomad p.180.)
- **Tracking Probe**: This is mostly a nuisance. A probe shadows the ship's operations when they try to mine. Successful scan - The probe is detected and it can be destroyed or jammed with a Technical roll. It deactivates if brought aboard a ship. Failed Scan - Random radiation transmissions are received, possibly fueling paranoia. '2'- As for Failed scan.
- **Lifeboat**: A pod is encountered with one or more survivors. Successful scan - The pod's weak distress signal is encountered leading to an encounter. Failed Scan - The pod is encountered but no distress signal is received. It seems inert. '2'- Sensor misreading makes the lifeboat seem dangerous. A closer look is required.

STRIKES!

A group deciding to prospect or mine in the Asteroids must be resigned to long hours of boredom, punctuated with minutes of anxiety. The problem is not locating gold or precious metals. This is because the Belt is overflowing with riches. There are many problems in the next steps. The strike may be small, barely paying expenses. The strike may be hard to exploit. Anomalies and Asteroid Traits (radiation, debris or volatile fluids) can make mining slow and/or dangerous.

The group's ship will encounter a worthwhile claim by rolling either Knowledge or Technology. A ship with mining equipment or advanced sensors rolls with +1D. Large ships, cruiser size and larger, make scans with +1D.

A ship will encounter something worth mining (often barely so) on any roll but a natural '2'. If the sensor tech makes the roll they locate two strikes and finally, a natural '12' will locate 1d6 strikes.

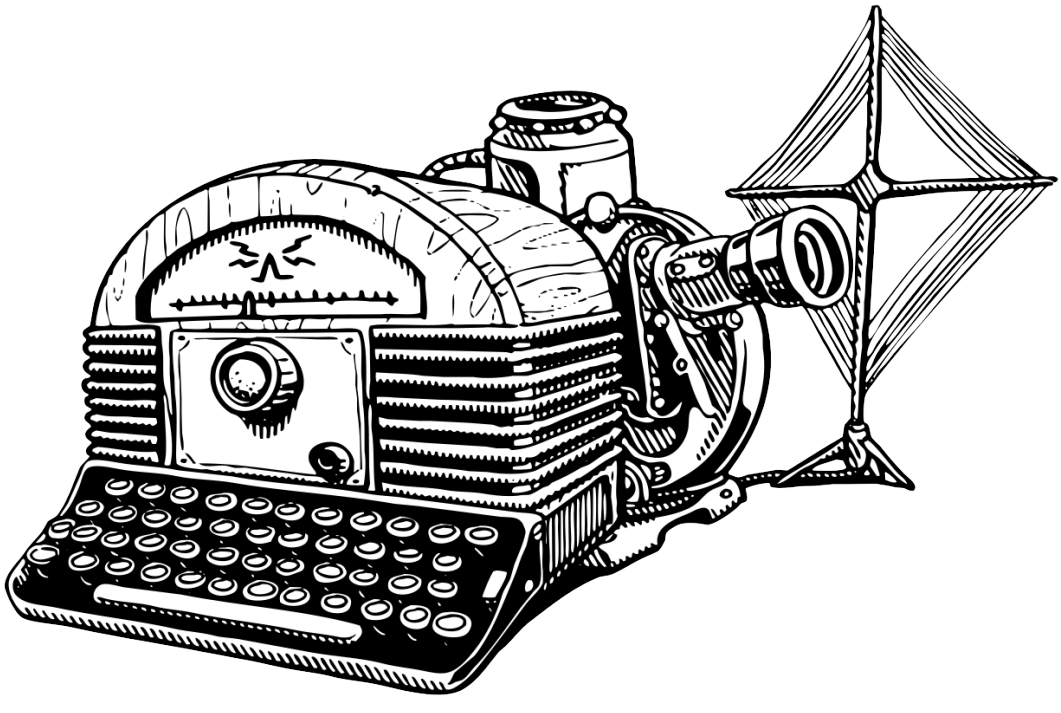
GENERATING AN ASTEROID

Asteroid Type

There are many types of asteroids, varying in composition, size, and inhabitants. The following, owing tables are for referees to generate rocks on the fly. The referee is free to pick and choose results from the tables to create the rock they need for an adventure. Humans have exploded onto the Belt in the last 10 years. Any abandoned bases or ships are more likely to be Martian or from one of the Jovian moons.

What is your asteroid composed of primarily?

1d6	Type
1-2	The planetoid is primarily metallic and potentially a rich find! Double the number of strikes.
3-4	The planetoid is silicate: rock. There may be other mineral deposits of value.
5-6	The asteroid is composed of carbon compounds. It is effectively a 'dry' comet. It may be tapped for propellant, taking 1d3 days.



ASTEROID SIZE AND SETTLEMENT

Asteroids vary greatly in size and settlements. Prospectors will ignore populated asteroids as they are obviously claimed. If the referee wants a settled rock and is stumped for an idea, they can have a roll on the table below.

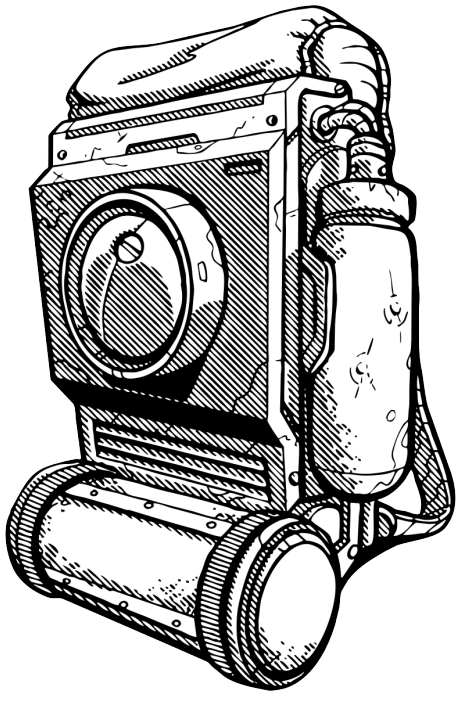
Size it the greatest dimension of the rock. Population is optional. A referee is free to decide (barring Traits) that the rock is uninhabited. A populated rock is claimed and outsiders mining it are claim jumpers and may be shot at!

Stirike Sites are the number of areas to survey and begin to mine.

Quantity is the number of cargo units in a site.

How big is this rock?

1d6	Size	Population	Strike Sites
1	3d6x10 kilometers, or a cluster of 1d6 asteroids. Roll size for each, treating any rolls of '1' as 3d6 kilometers	3d6x200	Triple the number of possible strikes.
2	3d6 kilometers.	3d6x100	Double the possible strikes.
3	2d6 kilometers	3d6x10	1 to 3 one site, 2-4 two sites
4	3d6x100 meters.	2d6+3	1
5-6	3d6x10 meters.	none except perhaps the crew of a ship, trying to load the rock into the cargo hold. This asteroid can only give up a single ordinary strike, if that.	1



What makes the rock stand out?

d66	Tag	Description
11	Dense Core	The planetoid has an ultra-dense core allowing it to trap a thin atmosphere and life. Hills or mountains may reach above the atmosphere. Optionally, native life is tiny compared to offworlders. Minimum size is 20 kilometers.
12	Hot Rock	The asteroid has a high percentage of fissionables and they are in constant danger of exploding! This might melt or obliterate a section or result in the entire body being destroyed.
13	Goo Ball No population.	The asteroid is covered with the infamous Grey Goo. Make a Knowledge roll to determine this. Any ships landing or personnel venturing out in spacesuits will be attacked in 1d6 turns. Ships take Regular Damage. Personnel will be exposed to vacuum and have to reach an airlock before they pass out or die! Reporting a Goo Ball to the Patrol earns you 10,000 Credits.
14	Double System	The asteroid is actually a double planet system, like Earth-Luna. Unlike the Earth-Luna system, the two bodies are touching and slowly revolving.
15	Ringlet	The asteroid is in the shape of a torus. This may be somehow natural or artificial. Walking on the surface requires a Knowledge roll to avoid becoming confused and lost.
16	Singing Rock	A micro black hole sits in the center of this asteroid. It is sheathed in a layer of neutronium and causes the entire asteroid to vibrate, producing a subsonic hum. This can force NPCs to make morale throws to avoid being panicked. If the rules for Horror (Nomad Companion page 38) this is a -1D Horror throw. Most NPCs in the Asteroid Belt are Resolve 0-1.
21	Historic Site No population.	The planetoid possesses ruins. Perhaps it was settled by Martians, Ganymedans or some other people.
22	The Floating Mountains of Insanity Population is in the dozens at most.	A group of abandoned Primeval Martians lie frozen in a dark cold tunnel, waiting to be brought into a warm lighted spaceship to wake.
23	The Signal	Mysterious, intermittent radio signals come from the asteroid. These can be tracked to a very old probe, landed in a crevasse. The probe is torpedo sized and if salvaged could be worth credits to a collector or museum.
24	Ghost Ship	Derelict! A ghost ship of the space lanes is initially mistaken for an asteroid. The derelict may have frozen survivors or valuable salvage or be a looted airless hulk.

What makes the rock stand out? - Cont.

d66	Tag	Description
25	Robot Uprising! No organic inhabitants.	The asteroid employed numerous robots coordinated by a central brain. Unfortunately the brain went off into the weeds. The robot killed the few organic workers after some reprogramming and covered up the incident. Corporate is trying to decide what to do next: torpedoing the base, sending in troops or leaving the bots to rust.
26	Light and Shadow	Due to unknown reasons, light playing around the asteroid causes illusions, flickering lights, orbs moving by, UFOs.
31	Crystal Kingdom	The asteroid has many deposits of Mamel crystals!
32	Rare Riches	There are huge deposits of rare earths, easily extracted The quality of the Strike is automatically Excellent.
33	Treasure Ship	A wrecked vessel holds a valuable cargo.
34	Buried Treasure	A pirate sought to honor tradition by hiding their loot from several successful voyages on this rock. The treasure may have robotic defenders or traps, or send a distress call to the owner.
35	Fallen Valor	A modern military ship is disabled and has redacted cargo. It may be prototype technology or sensitive data. The military will be very interested in attempts to sell or use it.
36	Fabricator	This body is coated in White Goo a fabricator! Items left on the surface will be duplicated. Duplication takes 1d6 days and is limited to personal equipment (no free spacecraft or vehicles. Who trained or modified the goo is unknown. Removing a sample of the goo reverts it to Gray Goo after 1d6 days.
41	I Got a Rock.	It's a barren rock.
42	Crystal Connection	It's a barren rock but has a few Mamel crystals!
43	Black Rock	The surface is very black. Pilots landing will have to use radar (always a joy: Tech roll -1D to avoid Regular Damage)
44	Rubble	The surface is covered with debris and dust that is easily kicked up in the light gravity. The dust can result in machinery and spacesuits being damaged or malfunctioning.
45	Rolling Rocks	As in 44 however the asteroid is covered with boulder-sized rocks. This makes assaying and mining much easier but pilots landing have to make a Vehicles -1D roll) or suffer a regular damage roll for their ship..
46	Dusty	As in 44 however the asteroid is covered with abrasive dust. This makes assaying and mining much harder but pilots landing have to make a a Vehicles -1D roll) or suffer a regular damage roll for their ship. Even tiny maneuvering jets will stir dust up for hours and reduce visibility.

What makes the rock stand out? - Cont.

d66	Tag	Description
51	Snowball	It's an icy ball. Whatever its composition, it has a thick coating of ice
52	Liquid Core	It's an icy ball, but has a liquid center, somehow. This may be due to an ultra dense core, a collection of fissionable metals or ancient technology.
53	Disco Ball	Some past owners have covered the asteroid in a shiny reflective covering. It is a nearly pure metal/polymer mixture, sprayed onto the icy surface. The asteroid could be diverted to one of the inner worlds and make the journey with out melting. The covering could be harvested where the planetoid is right now. People on the surface may be dazzled by the reflected light (-1D to attacks or precision work.
54	Geysers	Elliptical orbit: the asteroid's orbit takes it near the Sun -within the Earth's orbit! This causes geysers as it partly melts. These may further change its orbit. It makes catching the asteroid near Earth difficult, Knowledge roll -1D or you increase travel time by 1d3 days.
55	Krill	The icy ball possesses a simple sort of life, plankton like animals and plants creating bioluminosity. They may be genetically modified and placed there for unknown reasons or even visitors from another star!
56	Volatile	In additional to normal ice, the asteroid has deposits of more volatile elements like ammonia. These can be hazardous to water mining attempts.
61	Inverted World	The asteroid was hollowed out and spun up for gravity like a space station. This might be the work of the current inhabitants or a previous civilization. Its interior has air and life.
62	World in a Bottle	The owners have wrapped the asteroid in a prototype polymer, an airskin, to contain an atmosphere and water! Terran plants and animals were brought in and have adapted to the low gravity. Scouts and smaller craft can land at huge airlocks at both poles.
63	Centrifuge Population required.	The planetoid has two living sections on booms and spins fast enough to provide .4 gees in the sections. The booms lead directly to mine tunnels and hollows that have .6 gees and are pressurized to increase worker comfort and productivity.
64	Parking Lot	The asteroid's surface is completely built over in metal or plastic, often mined from the asteroid. The original body may have been completely mined out and no longer exist. The shell remains.
65	Cueball	Owners have used a laser or mirror to melt the planetesimal. It is a relatively featureless sphere with its elements arranged in virtually pure layers according to density.
66	Gun	The owners constructed a massive magnetic cannon to 'fire' cargos to other worlds. The cannon can also fire modified Micro-sized craft increasing their travel rating one step. Being fired is extremely stressful and passengers must roll Physical. If they fail they roll on the Triage Table with a +1D.

SPECIES

Who lives and works there? The referee can decide an asteroid is not being exploited. Otherwise the tables below offers ideas.

Inhabitants

1d6	Species
1	Terrans
2	More Terrans
3	Martians
4	Ganymedans
5	Terrans, Martians, Ganymedans, Callistans and even a few Gruthk who got really lost
6	Roll twice above, treating a roll of six as Earthlings. Two groups have settled here and are in competition and may have different purposes and economies!

OCCUPATIONS AND GOVERNMENT

What is the lifestyle and government of the asteroid? Is there even a government? If the referee needs inspiration roll on the chart below:

Lifestyle

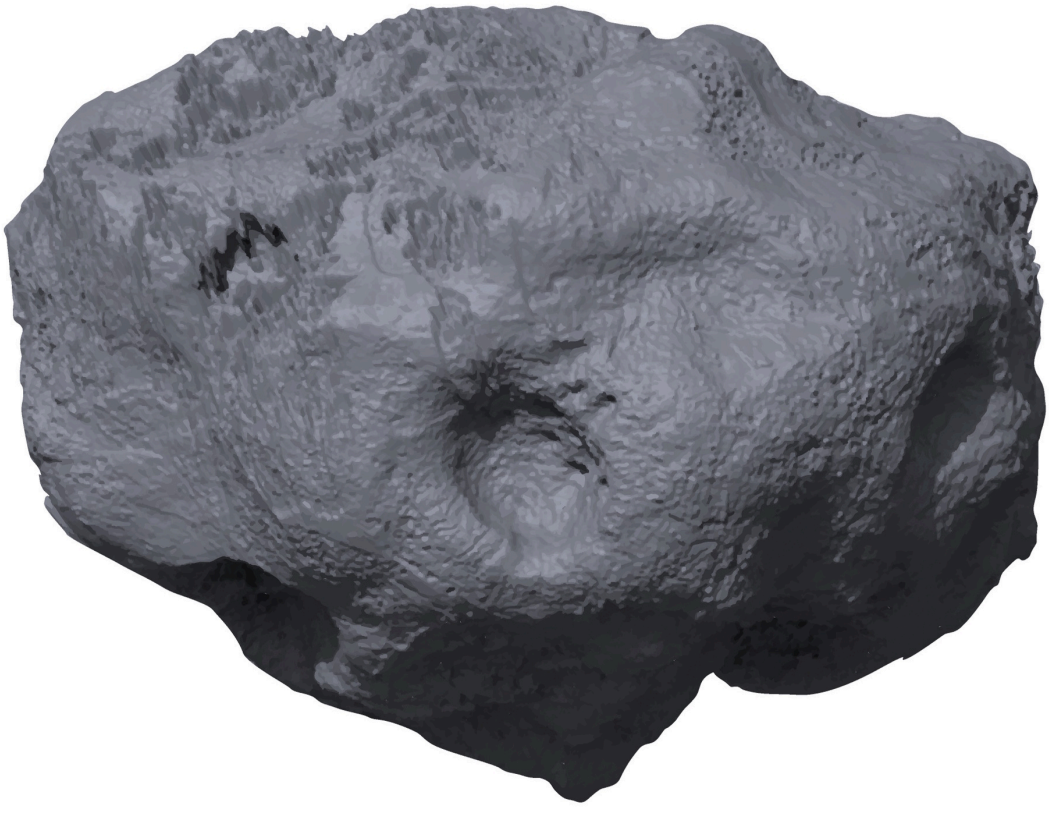
1d6	Inhabitants
1	**Belters**. Independent, hard working, rough at play and likely to break rules or bones. The place looks like Deadwood on a bad day.
2	**Company**: Mining is done by the employees of a company. Things are much more orderly than result #1. However, corporate skullduggery, sabotage, and union breaking may be present.
3	**Minimalist**: Government and laws are kept to a minimum. Justice is likely fast and harsh. People rely on themselves in most cases
4	**Warlord/Pirate/King**: A local despot and his minions rule here, too entrenched and remote to be removed by Earth Patrol -for now.
5	**Locals**: A lost tribe of sentients resides here, underground if the asteroid is unlivable. They may also be a colony of humans with their own beliefs who want to live in isolation.
6	**Hermit**: A crazed scientist doing illegal research, his staff and creations reside here.

CREDITS

How does the place generate Credits? Places that are mined out find another way to make money, often selling goods and services to miners.

Income

1d6	Revenue
1	**As Indicated by the inhabitants**: pirates steal, miners mine, scientists live off patents or grants.
2	**Side Hustle**: the main revenue source is as in #1, though the inhabitants have a profitable sideline. Perhaps they run a pirate ship or deal in illegal items or services.
3	**Hydroponics**: the population maintains huge greenhouses and raises cash crops for nearby settlements. Interfering with those settlements' fresh food supply will provoke a harsh response.
4	**Clip Joint**: the locals make money off crews traveling through. Casinos, fight pits, drug dens, sporting and theater events, and companionship. This place offers anything and everything for bored and jaded spacers.
5	**Medical Facility**: the asteroid has a state-of-the-art hospital. Nearby settlements make use of this and will be upset should anyone disturb its normal operations.
6	**Salvage and Rescue**: the locals operate a small fleet of ships ready to aid settlements and ships in distress. They do expect to get paid. This can be a fair charge for labor and gear or everything you've got.



SURVEYS

Once sensors indicate a strike, a survey team must be landed. A team requires two personnel. The team pinpoints A successful Technology roll finds the largest lode of valuable minerals and preps the site for mining with a Technology roll. Failure means the sensor readings were mistaken, or the site is not viable. They also assess how valuable the minerals are. This takes one day. Roll for the quality and size of the minerals on the chart below:

	Qality		Size
1d6	**Quality**	**1d6**	**Size**
1	800 Credits per cargo unit	1	1d6 x 10
2	1,000 Credits per cargo unit	2	2d6 x 10
3	1,250 Credits per cargo unit	3	3d6 x 10
4	1,500 Credits per cargo unit	4	4d6 x 10
5	1,750 Credits per cargo unit	5	5d6 x 10
6	2,000 Credits per cargo unit	6	6d6 x 10

CLAIMING YOUR ROCK

Claiming a rock requires one of the following: a trip to an assayer's office (located near the local market) with drill cores and photos of the rock claimed as well as its orbital data or physical occupation. Some larger ships will drop off a couple of miners in a small prefab base or land a small ship to protect their claim while they head for the assayer. Assayers are located at Ceres, Pallas, Vesta and Hygeia as well as any well settled cluster.

Selling ore follows the same rules for speculative cargo in FTL: Nomad. You have the added pressure of someone looting your claim while you report it!

PLACES

NEO-1999

NEO-1999 is a cluster of asteroids orbiting together between 2 A.U.s and 0.8A.U.s. The cluster can pass close to Earth and Mars. Since it was found an exhaustive study was made to assure its bodies did not pose a danger to Earth or Mars. The asteroids in the cluster are believed to have a common origin. The four major bodies are several kilometers in length and silicate composition with abundant mineral wealth in the form of precious metals and rare earths. NEO-1999 has an assayer's office and ship repair facilities.

ASTEROIDS

A lane is cleared of dust and gravel for approaching ships. Craft trying to enter the cluster undetected face the Asteroid Hazard (page 192).

Succor Rock

Type	Silicate
Size/Settlement	50 kilometers. Pop. 1200.
Tag	Gun
Species	Human
Occupation/ Government	Belters, many hospitals and search and rescue workers. Succor rock is led by a Citizen's Council. People are elected for their know how and experience rather than campaign funds and sound bites.
Economy	Succor runs the cluster's hospital, though earlier settlers were expressly miners. Some mining still goes on. The Samaritans of Succor also use a huge mass driver to ship cargos all over the Inner System for reasonable rates.

Inside Information

Succor is what it appears to be: a hospital servicing the nearby Belt communities. A notable exception is Gold Nugget, which has its own dispensary. The Gun is a mass driver (nicknamed 'Chuck) capable of firing Micro-sized craft for emergency responses. This halves trip time to the rescue site. The Samaritans expect to be paid at some point for prompt responses and life saving acts. A Search and Rescue projectile crew is paid double in the case of a mass driver launch, however any crew is expected to be in good shape (Physical 1).

Privileged Information

The techs operating Chuck are an old crew of the original settlers. They're thick as thieves (or in this case smugglers). They use the numerous routine test firings of Chuck to fire small cargos of contraband throughout the Inner System. They do keep the aging mass driver in remarkable condition and their sideline is overlooked for now.

Any smugglers rescued are forced to pay with virtually everything not nailed down on their ship. Truly

Amnesty Bay	
Type	Carbonaceous
Size/Settlement	1 kilometer. Pop. 800.
Tag	Black Rock
Species	Mixed bag
Occupation/ Government	Warlord Leslie Hu has established a mercenary group, specializing in space borne and vacuum operations. He is their ultimate authority. Government is by military organization
Economy	Side hustle, besides hiring out for military ventures the asteroid has a small prison for very dangerous or controversial political prisoners.

Inside Information

The warlord of Amnesty bay is known only as General Sobek, except to his most trusted staff. Most people will deal with one of his executive officers or lawyers. In any case, Amnesty Bay will hire nearly anyone on as a mercenary. Specially-trained or experienced recruits may have Sobek's crew smooth over any legal troubles short of murder in exchange for a very long-term contract.

The bulk of the NEO-1999's defense duties fall to Amnesty Bay. The mercenaries are very conscientious about guarding the safety and prosperity of their home. Some Amnesty Bay mercenaries are stationed as security forces on Succor Rock.

Privileged Information

General Sobek is Leslie Hu, the former security chief of the South American Confederation. At the time the Confederation was ruled by Maia del Sol. Hu believed he identified a pervasive Tellurian presence in South America, backed by Martians with psionic agents. He authorized mass disappearances, executions and security camps to combat this psionic threat.

Ironically Hu's extreme measure did turn up Tellurian terrorists and curtail their activities. No Martians were found. His extreme measures resulted in a revolution that toppled Maia del Sol's regime. Hu fled along with his inner security council and wound up in the NEO-1999 cluster. He created the identity of Sobek and recruited mercenaries and many of his former troops to create Amnesty Bay and create his crew of well-trained mercenaries.

Hu is unique because both the Earth Republic and Antarctic Confederation want him brought to justice, dead or alive. Aside from his most trusted aides, no one knows his identity. He limits his contact with outsiders, fearful of being reported to the Patrol. He retains a hatred of Martians and will not hire or work for them. Many Belters share his dislike.

Noriko's Rock	
Type	Carbonaceous
Size/Settlement	1.2 kilometers. Pop.160.
Tag	Dusty
Species	Human/Martian
Occupation/ Government	Hermit
Economy	Adashino Noriko established a research base on her rock (she bought it with grants). The base is studying newer and better ways to removed rock dust and debris from mining operations and miners. Dr. Adashino has already delivered several (patented!) Improvements to dust clearers.

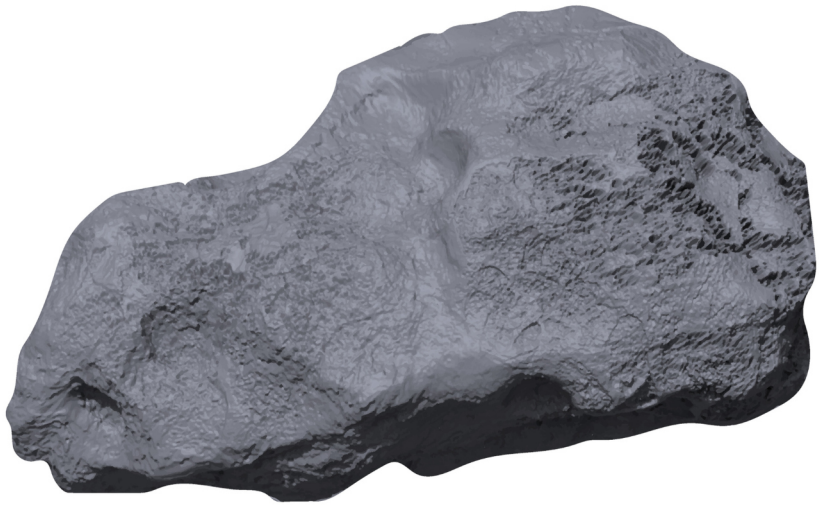
Inside Information

Dr. Adashino is a tough boss. Her employees sign a stack of non-disclosure and non-competition agreements. Their logs and notebooks are kept under lock and key. The computers are monitored on the base and there are cameras everywhere. This seems excessive for a base researching relatively innocuous things like dust repellers. Her funding seems excessive as well.

Privileged Information

Survey results classified Noriko's Rock as Dusty (and it is to some degree). The asteroid actually has several patches of Gray Goo. Dr. Adashino is studying the Goo using drones with microscopic lenses. In addition to developing static fields that repel dust, she believes she is on the way to creating a Goo-proof container. The original Goo developers must have had a way to contain it! This is highly illegal research.

Her most impressive finding is a way to turn the feral Gray Goo into benign White Goo (page 104), a substance that fabricates small items it comes in contact with. She is waiting till she can contain Gray Goo to announce this. Her work was not without failures though. Black Goo is the worst, a variant that attacks only organic matter leaving behind only skeletons. Both these forms can be contained, the White Goo in plastic containers and the Black Goo in metal or glass vessels.



Gold Nugget	
Type	Metallic
Size/Settlement	1.2 kilometers. Pop. 90.
Tag	Rare riches
Species	Human
Occupation/ Government	Company men and Company leadership: the Goldstone Mineral Corporation.
Economy	Gold Nugget is known for its advanced gravity control systems. It can generate an earth standard gravity. Unlike many Belt bases it has a full atmosphere of pressure, allowing personnel to taste and smell normally. This is considered a privileged.

Inside Information

Gold Nugget is relatively isolated from the NEO-1999. Locals usually don't trust large corporations, especially after hearing stories from Ceres. The dislike is especially intense among Deaders who do not work for those heartless Goldstone suits who have had their stunted souls replaced by algorithms. Most of the mining is done by robots directed by humans but occasionally a skilled human is needed and hired from outside, usually Ceres.

Privileged Information

Goldstone Mineral Corporation realizes even Gold Nugget's wealth is not limitless. Estimates show 85% of the palladium and other rare earths have been mined and what remains may not be economical to excavate. The mining is extensive. The gravity generators are a new standard.

The corporate bosses have decided to make Gold Nugget into a sleeper ship to send a huge crew to the Oort Cloud. It's so remote there must be something valuable out there! The gravity and new generation cryo-systems are proprietary technology and the project is not being made public knowledge to make security as tight as possible.

The present design of the Gold Nugget (to be rechristened the Icebreaker) looks like this. Built on a battleship hull it is undergunned and lightly armored, It is not expected to encounter any foes so far away from the Inner System. Its guns are replaced with mining gear.

The conversion will involve using explosives and lasers to shed much or the asteroid's mass. The current construction has the few old timers curious, suspicious and worried in no particular order.

Icebreaker

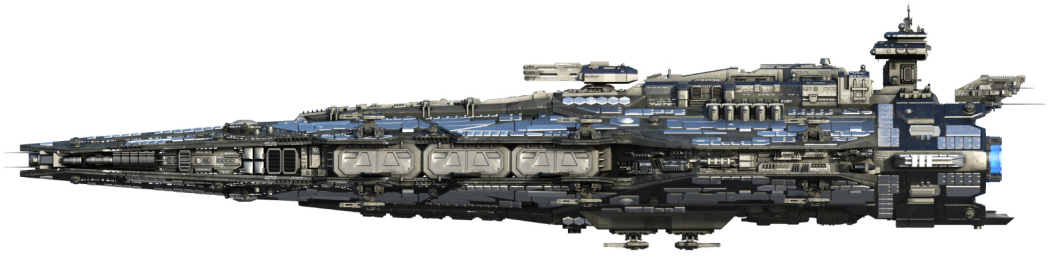
Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Battleship	4 years Travel x 1	25/28	300	500	7d6*	-3	
Steps	+1	-1	+1	+2	-1	-2	0
Cost	0	-10%	+10%	+10%	-10%	-20%	0%

Travel Multiplier: x1

Modifications:

- 8 Torpedoes. Most will be probes. A few explosive torpedoes will be carried to crack promising asteroids.
- 1x Scouts 64 tons , 12 x Pods 24 tons, 2x Micro hulls, 1 small hull. 128 tons.
- 100 extra people. 100 cryo-tubes let miners and researchers sleep until needed during travel.

The trip to the outer gas giants will take 14 month each way for 28 months total. However a third of the crew will be in cryo-stasis at any given time, stretching the vessel's endurance to three years!



Deadwood	
Type	Silicate
Size/Settlement	1.1 kilometers. Pop. 110.
Tag	Centrifuge
Species	Various Species
Occupation/ Government	Deadwood is populated by Belters. A dozen or more small operations mine common and some precious metals, such as gold and platinum. Government is minimal though lawbreakers will be quickly brought to a quickly convened people's court. Justice might even be served.
Economy	Deadwood gets along by mining. It also operates a small hangar for any prospector ships, which can hold ups to three Scouts or a single Picket.
	Deadwood locals are friendly enough. Sections of their asteroid can be pretty rough with bars, casinos, houses of ill repute and drug dens. Despite these and few nice places to club, Deaders manage to show up for work on time and sober!

Inside Information

The miners of Deadwood left when Gold Nugget was sold to Goldstone. They chafed under corporate control. They found a settlement with very libertarian attitudes. The locals only tolerate the barest bones of government. Even police protection is paid for privately (usually Amnesty Bay mercs). Most citizens carry weapons for this reason. Despite this, violence is uncommon. Under local law the person that initiates violence is usually found at fault and liable for fines or imprisonment.

'Deaders' used their new money to create the settlement's centrifuge system. This was before gravity's were understood by Terrans and it was an important step in independence. Healthy pregnancies required gravity to develop. This meant Belters had to return to an Inner planet to have children. At Deadwood the Centrifuge made that unnecessary. The Centrifuge has drawn people from across the Belt to Deadwood for any pregnancies and to raise the first human Belters born off Earth.

Unfortunately Deadwood already had a reputation as a rough and tumble place. Casinos and clubs were soon competing for space with obstetrics, daycares, schools, and family friendly venues. The new families also quickly formed a powerful voting bloc, demanding protection in some form. In the end 'Red Zones' were established, raucous and risky party areas where almost anything was permitted. Beyond the red lines, courtesy, restraint, and modesty was encouraged by security.

It worked for the most part. Most of the real troublemakers were transient with no political say. The worst were removed and told not to come back.

Privileged Information

A few Deaders are wanted criminals in other parts of the Solar System. The few law officers that operate in Deadwood generally ignore any denizen's minor past crimes if they make no trouble. It's not their concern where a person is from or their history. However, the occasional bounty hunter has been known to appear in Deadwood looking for a criminal who has escaped justice somewhere else.

The mining on Deadwood is becoming less and less lucrative. The locals are

considering leaving for another rock or finding a new source of revenue. As well, the Centrifuge is going to require extensive maintenance and upgrading soon. The amount of work required was greatly downplayed in news dispatches by the Council running Deadwood. The Centrifuge was now a vital part of the new economy. However, the locals resisted government control and taxes were practically unknown -a small tax on purchases was tolerated.
Two plans are being discussed to raise more money. One was organized gambling, a huge casino. This would mean driving smaller casinos out of business through economics or other shadier means. The second was buying small ships and leasing them to miners for a share of their profits. Many council members called this another, riskier form of gambling, and one where the odds didn't't favor the house.

Various people are lobbying for one of the plans -quietly). Some shady types from Ceres are interested and willing to provide investment capital in return for various 'concessions'. They also promise to make any union problems with construction go away. Belter clans want to see more ships in the Belt. Most clans can only lease a couple ships to up and coming prospects. They all want a larger presence.

RUMORS

- A prospector's friend of a friend told about a living asteroid that bit off part of their ship!
- Pirates are faking distress calls to lure their targets.
- A mining ship is bringing in a few hundred cargo units of precious metals that are sure to crash the markets for a few months.
- A mining ship found an alien ship of extrasolar construction with crew alive in low berths.
- Amnesty Bay will perform all manner of upgrades to a ship, no questions asked.
- You can get plastic surgery on Succor to change fingerprints, retinal patterns and features. It's expensive though.

CERES

“A Martian wouldn’t recognize a profit if it bit them on the butt!”

- Terran Trader

Ceres	**Orbit: 2.77** AU	**Non-Industrial**	**Rockball**
Population: 20,000	**Tech Age**: Late Space Age	**Corporate**	**Underground Cities**

ENVIRONMENT

Ceres has no surface atmosphere, a frigid temperature and weak gravity, 3% of Earth’s. A salty subsurface ocean is covered by a thin crust of ice, rock and salts. The ocean is rich in boron, the most common reactor fuel.

COMMON KNOWLEDGE

Ceres is considered a dwarf planet. Scientists are divided on whether Ceres and the rest of the asteroids are the remains of a planet or debris left over from the formation of the Solar System. Either way, Ceres is cold with an airless surface and numerous shining salt flats.

Humans came to Ceres late. The Martians and others had already arrived and strip-mined the surface for boron. Mars sold the rights to Ceres to the Goldstone Mineral Corporation. The Terran surveyors noted the many salt deposits on Ceres surface and theorized it possessed several salty subsurface seas. Drilling began.

Survey teams discovered alien ruins in the shade of a cliff near the primary mine shaft. Word of this leaked out despite non-disclosure agreements, communications black outs, and dire threats. The ruins were laid out in a hexagonal format and had similarities to the obelisks of Mars. The Martians professed no knowledge of them. It is possible that Ceres was settled by Martians, Selenites or some other species in the distant past.

Miners reached that ocean and pumped saltwater into refineries. They removed boron and useful salts from the water and began trading boron with Mars and Ganymede in exchange for their fusion reactors. Terrans turning worthless Ceres into a gold mine did not please the Martians. Earth already possessed a huge amount of boron in its seawater, after all. Now they had another source, closer to Mars and the Jovian System: ideal for trade and supplying warships.

The mining effort was plagued with accidents, many due to human error. Some miners insisted monstrous squid creatures caused the accidents. These were dismissed as a worker’s tall tale to avoid be fired or fined. The solution to workplace accidents was the establishment of the Life Support Guild. The Guild provided regular testing and certification of techs dealing with life support systems. The accident rate tapered off after the Guild was established, and stories of squid creatures became nearly-forgotten myths.

The miners on Ceres fear and avoid the strange surface ruins. Scientists are demanding all operations on Ceres halt, pending a survey of the surface and the ocean. Goldstone Mineral is blocking this effort in court. Instead, it has made the existing ruins off-limits to miners, sealed the site completely and posted automated defenses. The ruins are

difficult to access, being surrounded by numerous dust pits and crevasses.

Now, corporate interests and private mining expeditions all seek wealth on Ceres and in nearby asteroids. They are plagued by pirates and criminals. The Earth Patrol is stretched thin trying to protect Earth's interests and provide a semblance of law and order in and around Ceres.

PLACES

ORBIT

Ceres is Frontier space. Approaches are kept clear of dust and debris. Piazzi Port gives updates on ion and radiation storms. Due to several accidents, ships must allow trot Port to put a docking pilot on board to land the ship. There is no charge for this but it may take several hours.

HAZARDS

Pirates are eager to rob boron and water to keep their ships powered and flying. On a result of no Encounter there is still a 1 in 6 chance of a pirate attack.

PIAZZI (PIZZA) PORT AND THE ICE TOWER

Piazzi Port is the major settlement on Ceres named after Ceres' discoverer, Giuseppe Piazzi. It was inevitably nicknamed Pizza Port. In fact it does have a number of pizzerias. The majority of the dwellings in Piazzi Port are converted fuel tanks, buried under the surface. Ice is an excellent insulating material, especially with thickening fibers or gravel added. The economical Terrans saved a lot on construction costs. Some structures are topped with a layer of stone or concrete. While ice shields against the neutrons produced by the larger hydrogen reactors used dirtside, stone is better at shielding gamma rays and x-rays.

The Ice Tower is a control tower and research center that towers 100 meters into the sky. Constructed of ice, it gleams in the weak sunlight. Rooms inside are heavily insulated to avoid melting the ice. It also holds the local jail. Being put on ice is not just a metaphor on Ceres. Floodlights add to the Ice Tower's beauty. Ice is frequently added to keep the structure stable.

Ten thousand souls call Piazzi Port home. The locals are used to a large number of traders, aliens, and transients.

The port contains almost every form of entertainment imaginable and a few are rumored to be devised by AI. It also has the usual clip joints to divest unsuspecting or addled spacers of their oversized wallets. Ships land on a large, cleared field located several kilometers from the port. The field and control buildings are linked to the port via a pressurized rail system.

About 5,000 more people operate secondary installations across Ceres: mining, surveying, and doing research.

Port Places

The Pit: The Pit is a private club for Ice Tower administrators and Life Support Guild members. It is a combination bar, casino and brothel. This is one of the few places people will discuss the real nature of the problems plaguing Ceres, human-made or otherwise. The Pit employs several Martians for security. While they won't talk about the creatures in the ocean, they can protect humans from these threats better than Terran security. A few combat robots also wait in alcoves.

The Grind: Terran gravity control sucks. Everyone knows this. Even the minimum 0.4g is hard to maintain and possibly damaging to Ceres' ice structures. As a solution, the locals built a 100m diameter centrifuge, colloquially referred to as The Grind. This structure rotates

fast enough to provide an artificial gravity of 0.8g, which is enough to prevent bone and muscle atrophy. Some people want to return to Terra and be able to walk after a long stint in the Belt. Everyone gets several weekly workouts on the Grind. Even spacers are welcome.

Sutter's Ant Hill

Dr. Kiko Sutter is a biologist researching Cere's seas. Her outpost is far from Piazzi Port (200 kilometers!) Her official mission is to research growing plants in Ceres' low gravity. However Kiko has dug a small shaft to the sea and brought up advanced plant and animal life. She is currently building a robot to plumb the depths, not knowing this is likely to bring her to the attention of things. The outpost has a staff of about a dozen and several robots.

HAZARDS

The sections below deal with several unexplained disappearances.

Life Support Guild: Running afoul of the Life Support Guild can be an occupational hazard. The Guild is not shy about warming spacers to mind their own business and move along. Police will back this up and jail people asking the wrong questions. People asking the right questions may quietly disappear.

Surface Excursions: Taking a stroll becomes a complicated matter in a vacuum. Ceres has very weak gravity. Even in a spacesuit people are nearly weightless. An average human could jump 15-20 meters (15 meters +3 meters per point in Physical) vertically and have a hang time of 20 seconds. It is possible to come down in fractured ice or rock shards that can damage a space suit. When in doubt a character can make a Stealth roll to remain on the ground.

Travelers on the surface (whether by foot or vehicles) are warned to remain on the few clearly marked trails. Ceres' horizon is very close. Crevasses and pits can sneak up on the unwary traveler. Many travelers disappear. However this is the only way to seek more ruins. Avoiding a crevasse or pit is a Knowledge -1D roll. An Omniscanner will avoid the penalty.

Cephs: the Cephs also monitor the surface and occasionally ambush any humans on foot. Cephs possess the equivalent of space suits (glowing coral coverings.)

INSIDE INFORMATION
PIAZZI PORT

Few people want to talk about the ruins. A few drinks may loosen some tongues but by and large citizens fear being informed on to the Life Support Guild. There is a happy and hospitable atmosphere that is covertly and brutally enforced. A person being rude to spacers or talking about the wrong topics may have a black eye or broken nose on later encounters.

Work at the Ice Tower is high paid but more dangerous than being a port worker. This is just the nature of industrial jobs in a very hostile environment. But some doubts remain. The Life Support Guild has reduced the number of accidents on Ceres. Any Guild employees will eagerly tell spacers how great they are., and caution them about traveling outside or talking to riffraff. There are establishments that cater specifically to spacers.

The Ice Tower is the other major employer on Ceres. The main shaft is sealed and pressurized though near freezing. The shaft is open at the bottom into one of Ceres' numerous seas. The oxygen, heat and pressure serves to keep the anaerobic life in the sea contained (any one of the three conditions should be fatal. Numerous pipes and hoses lead

into the sea.

Briny water is pumped up from a few hundred meters down. It is distilled, the salts and minerals (including boron) are separated and procensedfor various uses. The freshwater is piped to Piazzi Port or frozen into bricks, braces and various forms for construction.

Piazzi Port is pretty well patrolled. Recently the Port has received intelligence of a possible attack by the Tellurian faction. Security may stop and question new arrivals acting suspiciously. Otherwise, Piazzi Port can be handled similar to the Florida Spaceport.

The Drifters are the exception. About one hundred people are currently jobless and essentially camped out in the spaceport. They were all released from their work contracts for various reasons and haven't the money for a ticket home. This works out for the port. They provide cheap temp labor or muscle for shady enterprises. The port has cheap lodgings (that look like cryo tubes!) So there's no tent city to spoil decor like in cities on Earth.

LIFE SUPPORT GUILD

The Life Support Guild is an organization committed to maintaining safety standards on Ceres and a few other outposts. Safety is everyone's business 24-7 when there are only a few hatches between them and vacuum. Sadly employees lack the training and basic abilities of most Patrol crew and mistakes can happen. The Guild is composed of a bunch of thugs that use strongarm tactics. While most people work just hard and carefully enough to avoid being fired they will work much harder after they get their arm broken or family threatened. The Guild earned a fearsome reputation. It does enforce professionalism and safety standards. Goldstone turns a blind eye to their more violent methods. So a few techs have a few less fingers? Accidents happen.

The Guild prevents drug dealing on Ceres (alcohol is okay). Anyone trying to deal will be forced to take a long walk out of a short airlock. However, like any organized crime enterprise The Guild has expanded into other areas: gambling, prostitution, protection, and influence peddling. Ships docking on Ceres must pay for Guild security and safety inspections or they are guaranteed to be robbed or have accidents. Virtually all businesses on Ceres pay protection money to the Guild.

Ironically, many of the accidents were not due to human error, they were the doing of the Cephs. The Goldstone Mineral Corporation found no evidence of human error, but could not explain the accidents otherwise.

CERES NATIVE LIFE AND RUINS

The sea the Ice Tower tapped into has a rich biosphere. Thermovores tap into the heat and nutrients of thermal vents kilometers down. These heat eating plants and fungi are them food for a variety of animals. The depths are actually well lit by bioluminescent life similar to Earth's plankton.

The animal life is far more evolved and dangerous than the public knows. Several times predators surfaced and were killed by armed guards. The research on these things has been rudimentary at best. The Tower is a commercial venture.

The ruins do look eerily similar to the monoliths on Mars, leading' some to link the sea life and ceres to the Red Planet. The Martians profess no knowledge of the ruins. You found ruins? Well good luck with them. We sold you Ceres as is."

Old rock miners believe there are passages to the seas and caverns all over Ceres. The numerous disappearances

are due to animal life reaching the surface, and attacking lone humans

PRIVILEGED INFORMATION

LIFE SUPPORT GUILD

The Life Support Guild is a sadistic bunch of thugs, operating as Goldstone's secret police, keeping everyone in line. Ceres is mostly unexplored except for the ruins, Ice Tower, and area around Piazzi Port. People operating one of the many outposts are extensively debriefed when they return to the port. Many of these outliers seem to vanish. They can't all be falling into rifts or pits.

It's worse at the Ice Tower. The Tower has had at least a dozen deaths reported, but there are more and the Guild is maintaining a strict silence. Employees have to sign very strict non-disclosure agreements. Workers' families are also threatened if they talk. The workers will avoid speaking about the ruins. They have an instinctive dread of the place.

The Life Support Guild has a new duty: keeping people out of the ruins. Scientists, especially those working with the Patrol are safe enough. Sight seers or adventurers will come up against a hard place and walk into a dust pit or ice crevasse or have a defective spacesuit.

Guild thugs have dug more dust pits around the ruins. In fact some new pits were discovered (the hard way) that they did not chart or dig! Working around the ruins, a few members have had accidents, falling into a pit or crevasse. That's what is assumed. Bodies tend to vanish.

The Guild workers call the ruins the Boneyard. Nothing will keep them woking in or near them during the 4.hours of Ceres' night. Some of the more jumpy workers are seeing things. The same things they've told miners to ignore and keep silent about.

NATIVES

Ceres is inhabited. A group of devolved Martian Primeval Martians exists in the depths of the seas under the surface. The depths have a fair amount of bioluminescence. Life on Ceres thrives by harnessing the energy of subaquatic thermal vents. Some of the thermovores generate oxygen. Ceresean animals can survive vacuum up to 30 minutes and live in an Earth atmosphere indeifinitely.

A few scientists believe Ceres' core contains a huge store of radioactive elements that create enough heat to drive volcanic vents to warm the ocean and sustain life. The Ceres species of Primevals were named Cephalopods, or 'Cephs' by the few humans who encountered them and lived. They are shape shifters, evolved to hunt humanoids. They can assume humanoid forms The early mining accidents on Ceres were the result of the Cephs assuming human form to wreck machinery, cause chaos and death, and then retreat back to the sea. Goldstone has charged the Life Support Guild with suppressing any news of the Cephs. Goldstone is working on a submarine to reach Ceres' rocky core and exterminate the Cephs,

The 'Cephs, like the Martian species, are quite intelligent and some possess psionics. They possess lifeforms they engineered into biotechnology and weapons analogous to Early Interstellar Age gear. They also possess the original Primeval taste for humanoid flesh and blood. Martians are preferred but some are developing a taste for Terrans.

Generic Cephalopod

Combat 2 Knowledge 3 Physical 2 Stealth 2

Archetype: Scout

Talents: Hardy, Psionics: Alter Appearance, Electrokinesis

Stamina: 20

Encumbrance: 14

Equipment:Tentacles do 1d6 melee, venom (see below)

Cephs have tentacles doing 1d6 damage in melee and fanged feeding palps. One will try to strike with its tentacles first. If it hits it will attack with its fangs the following round, hitting automatically unless the victim makes a Physical roll at -1D penalty. The character can try to escape every turn with a Physical -1D roll. The fangs ignore any armor that doesn't enclose the character fully and deliver a venomous bite after hitting a target for damage; the character takes 1d6 for three rounds unless they pass a Physical roll each round. They make the roll every round. A Ceph's rubbery skin provides it with Protection 4. Cephs can live out of water up to 12 hours.

PROMINENT LOCAL NPCS

Marley, Vigo Pirate Captain - Human

Combat 1 Physical 1 Social 1 Vehicles 2 Technology 1

Archetype: Agent

Talents: Heavy Hitter

Stamina: 17

Encumbrance: 14

Equipment: Agent Kit, M23 Lightning pistol

Cash: Varies widely, a few thousand to hundreds of thousands

Resources: Pirate picket, crew of cut throats, informants on Venus.

Elevator Pitch: Vigo Marley's birth name is Vita Marley. Vita grew up impoverished on Earth. She begged for a trip off-world and soon joined the Dark Sons pirate gang to escape poverty. Unfortunately, she soon learned that the Dark Sons were highly patriarchal and discriminated against women. Vita decided to become Vigo, hiding her gender, and quickly rose through the ranks. Vigo was a bold and successful captain, though he steered clear of the flesh trade many of the Dark Sons practiced. His crew found him a little aloof but grew rich with him as they took ship after ship. Wilfred is no fool and packs a high-powered rifle for dealing with material threats.

Public Profile: Vigo Marley is currently number one on the Earth Patrol wanted list. Mars and Ganymede want him caught as badly.

Goals: Vigo wants to keep taking enough ships to buy his own space station and retire as Vita.

Means: Piracy. She has a heavily armed picket named 'The Black Diamond' and a competent crew (Combat, Vehicles and Technical 1) She has distanced herself from the Dark Sons.

Patron: Vigo is always seeking inside information on juicy targets. Sometimes he even sends his sister Vita out to visit hapless ship captains for information.

Antagonist: Vigo doesn't like people interfering with his operations, or troubling his sister. He could also show up to steal cargo.

Kutuzov, Ivan 'Johnny' Professional Spice Dealer! - Human

Combat 1 Physical 2 Social 2

Archetype: Soldier
Talents: Heavy Hitter
Stamina: 17
Encumbrance: 14
Equipment: Agent kit, big knife
Cash: Thousands.

Resources: Business contacts, goons, crooked security.

Elevator Pitch: Kutuzov is a former Spetsnaz sergeant, discharged for unnecessary violence. Kutuzov runs a Ceres-based company called Interplanetary Spices that supplies the Goldstone Corporation. Kutuzov is a good businessman and employer. He also oversees an oceanic shaft and the mining operations around it for the Life Support Guild. In his dealings for the Guild he is very business-like. The first talk of monsters or signs of incompetence will get a warning, expertly administered, to hospitalize the recipient for a day. The second warning will leave a person in the medical bay for a few weeks. So far no one needed a third warning.

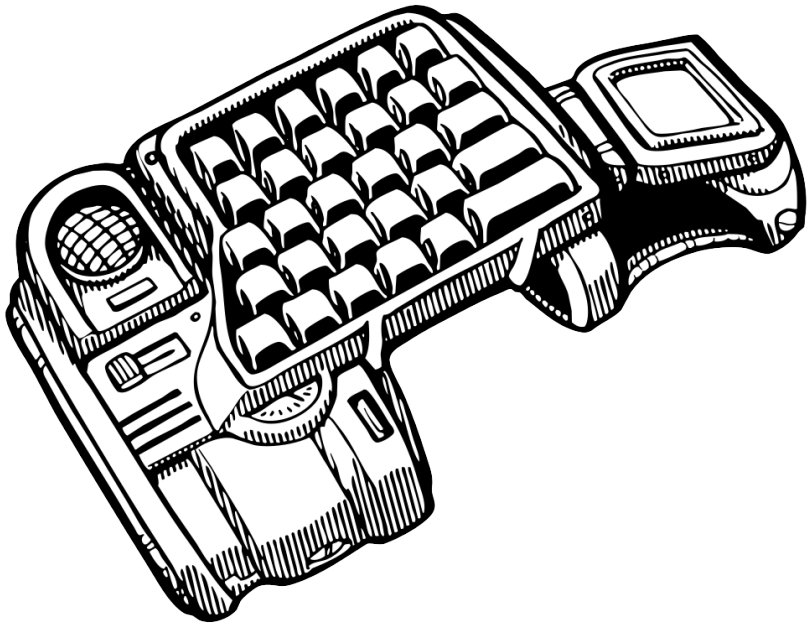
Public Profile: Johnny Kutuzov owns Interplanetary Spices. He is a prominent citizen and a friend of the Goldstone Corporation.

Goals: Kutuzov wants to continue living the good life. That requires keeping workers working and rumors to be squashed. Malignant aliens will bring all manner of nosy Earth Republic types to Ceres. No one needs that.

Means: Kutuzov is an iron fist in a velvet glove. Sometimes he leaves the glove home. He is reasonable as long as he gets what he wants. He does not escalate a situation without knowing who he's dealing with. He can also be fun to party with.

Patron: Kutuzov might need unknowns to spy on the locals, or to run 'special spices' to his Ceres store. Efficient workers will be rewarded. Inefficient workers will be encouraged to do better.

Antagonist: Characters may disappoint Kutuzov, by failing to deliver cargo, being indiscrete ,or interfering with the adjustment of a worker. Kutuzov will exact compensation from them, their hides, their cargo, and their ship.



Þhorkell, Astrid 'Thorn' Technician - Human

Knowledge 1 Physical 1 Vehicles 1 Technology 2

Archetype: Engineer **Talents**: None

Stamina: 17 **Encumbrance**: 12

Equipment: Engineer kit, some blurry images of things on her phone.

Cash: Tens of Credits.

Resources: She has her toolbox and several good friends.

Elevator Pitch: Thorn has worked on Ceres all her life. Her skill Iin robotics is well known and she has very high efficiency ratings. However, she worked the Ice Tower and saw things. The things killed several people she was close to. The hard-bitten worker quit her job and now spends a lot of time drinking her savings up. Thorn is a good worker; she's just terrified by what she saw of the Cephs and the friends she lost to them. The Life Support Guild was very specific about her keeping her mouth shut and doing her job or keeping her mouth shut and quitting. Thorn quit.

She easily found another job at Piazzi Port and other workers who had similar stories. They formed a group for support, despite the danger from the Life Support Guild. They decided that things on Ceres were not going to get better without people like them doing something. The small group carefully gathered or made weapons and rebuilt several robots, with Thorn's knowledge, turning them into combat models. Then they decided to capture one of those things, dead or alive to deliver to the Earth Patrol.

Public Profile: A disheveled technician who's been drinking.

Goals: To stay alive and get revenge on those things and the Guild.

Means: Building a robot to do her fighting so far. She plays the part of a harmless functioning alcoholic.

Patron: She might buy you a drink. She could make a good engineer if you got her sobered up. The drunkenness is an act and she's trying to recruit people to help her and her gang free Ceres from two scourges.

Antagonist: She might buy you a drink. She could make a good engineer if you got her sobered up. The drunkenness is an act and she's trying to recruit people to help her and her gang free Ceres from two scourges.

Bubbling Gurgle, Assassin - Cephalopod (Special)

Combat 3 Knowledge 3 Physical 2 Social 1 Stealth 2

Archetype: Mystic

Talents: Hardy, Psionics: Alter Appearance, Electrokinesis

Stamina: 20

Encumbrance: 14

Equipment: Engineer kits from various victims.

Cash: Varies.

Resources: Whatever the last victim had.

Special: "Bubbling" has tentacles doing 1d6+2 damage in melee and fanged feeding palps. It will try to strike with its tentacles first. If it hits it will attack with its fangs the following round, hitting automatically unless the victim makes a Physical roll at -1D penalty. The character can try to escape every turn with a Physical -1D roll. The fangs ignore any armor that doesn't enclose the character fully. Bubbles' fangs deliver a venomous bite after hitting a target for damage; the character takes 1d6 for three rounds unless they pass a Physical roll each round. They make the roll every round. Bubbles' rubbery skin provides it with Protection 4. Bubbling Gurgle can live out of water up to 24 hours.

Elevator Pitch: Bubbling Gurgle is a successful 'Ceph' assassin and saboteur, and responsible for the death of many workers. It can assume human form and remain in an atmosphere for 24 hours instead of the usual hour common among most Cephs. Bubbles is a merciless killer.

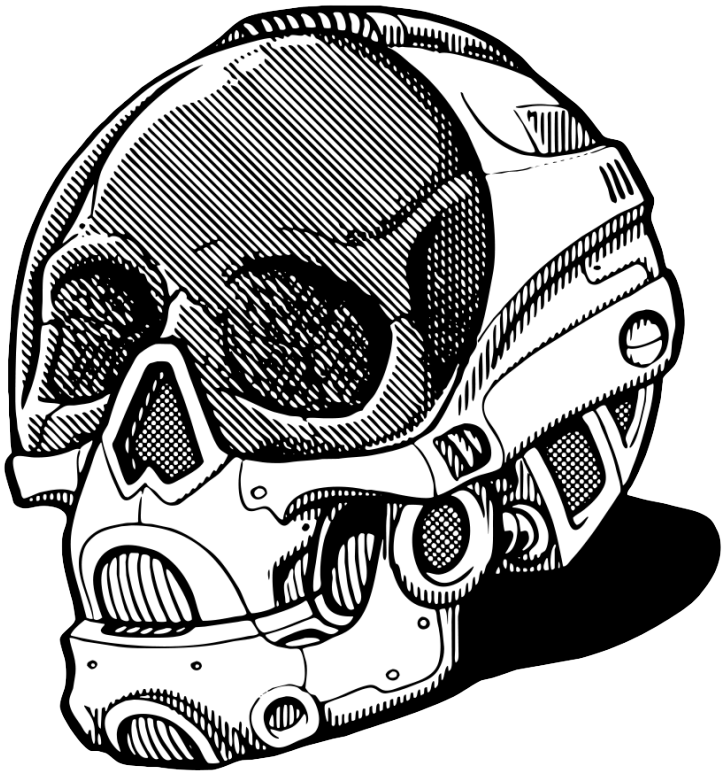
Public Profile: Hey, who's that? Hello?

Goals: Drive the humans from the Mother Ocean!

Means: Killing. Sabotage. Fear.

Patron: Nope.

Antagonist: You bet.

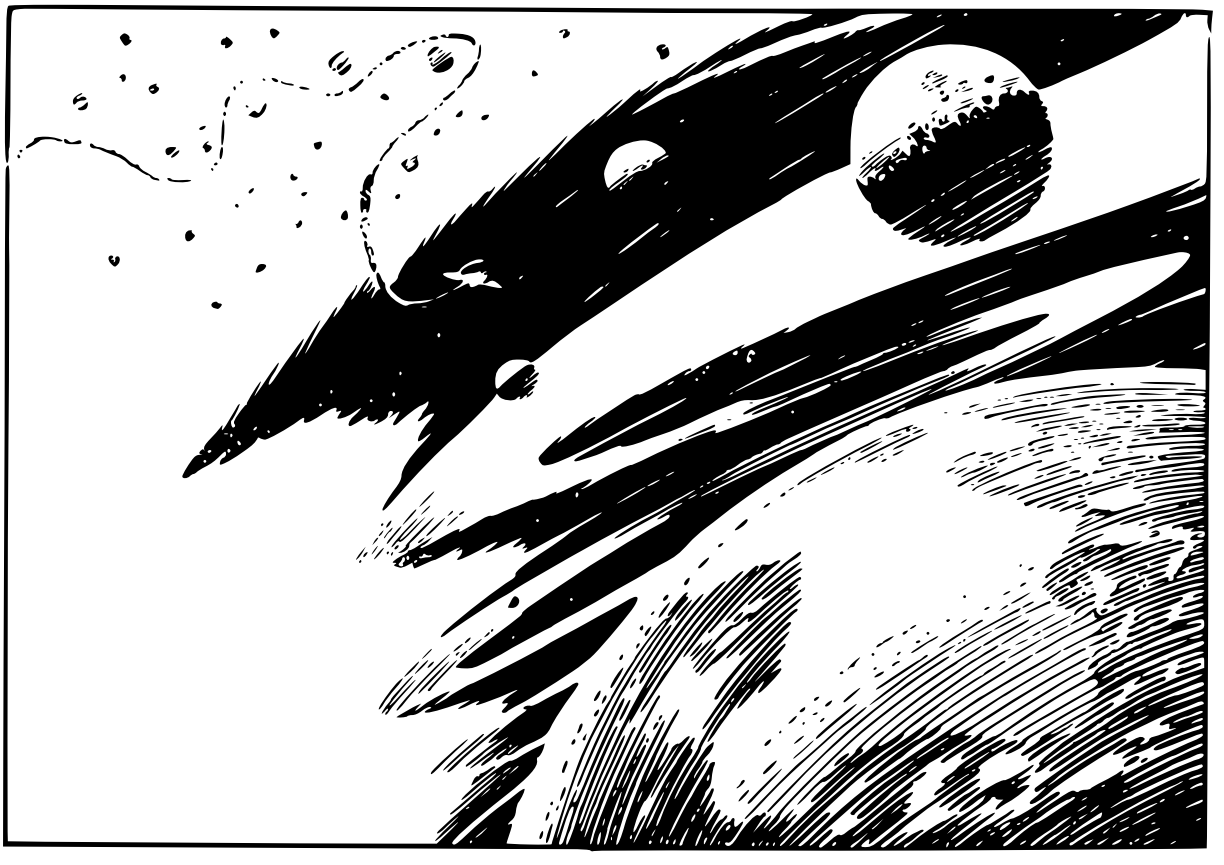


RUMORS

- Workers saw things in the oceanic shafts. Many miners refuse to work in the shafts despite incentives.
- The ruins are haunted. Workers for the archaeology teams have seen ghosts and black shadowy forms.
- The Life Support Guild has really gotten Ceres up and running.
- A Bigfoot was spotted out in the mall.
- The ruins are a treasure trove of alien technology.
- Pirates buried a huge stash of loot on Ceres twenty odd years ago, but were caught before they could return for it.

TECHNOLOGY

Ceres has the same technology as Earth. Like many mining operations they use cyborgs, valuing their strength and special abilities.



JUPITER

"King Jove, the ship eater. I hope he ate recently"

- Earth Patrol Officer

Jupiter, Jove, The King, Red Eye	**Orbit:** 5.2 AU	**None**	**Gas Giant**
Population: Hundreds in Space	**Tech Age**: None	**Unknown**	**Unknown**

ENVIRONMENT

The exact conditions on Jupiter remain unknown. The gravity 2.2 times Earth's, the atmosphere dense and comprised of poisonous gasses. Jupiter is considered Frontier space for encounters.

PLACES

ORBIT

Jupiter is Frontier Space for purposes or encounters within Io's orbit. Beyond Io's orbit is is Settled Space. That's how large the system is.

HAZARDS

The Radiation Belts: Radiation storms (page 192) are a constant hazard near Jupiter. Radiation storms occur on a 12 on 1d6 per week. Ships are advised to get behind a moonlet or asteroid. Only Callisto is beyond the Radiation Belt.

JUPITER'S ATMOSPHERE

Landing on Jupiter requires a Vehicles roll with a -2D penalty. Failure inflicts a Regular Damage result on the ship. Another Vehicles roll -4D must be made if the pilot still wants to land. If the pilot fails the second roll the ship takes 1d6 hits of Regular Damage The pilot can abort and come around for another pass 4d6 hours.

PIRACY

The riches of the Jovian system have attracted the notorious Dark Sons. The Sons are not merely pirates, they enable smuggling and engage in slave trading. The Jovian worlds have unanimously called for a death sentence to all pirates, usually carried out in the field.

COMMON KNOWLEDGE

Jupiter is the largest of the planets. In terms of scale the Solar System contains Jupiter and scraps. Its extensive moon system is itself a miniature Solar System. The tidal forces linking Jupiter to its moons causes the moons to experience internal heating, which warms their surfaces. But their surfaces are tidally locked, with one face perpetually turned to Jupiter.

Jupiter has a thick, cloudy atmosphere. In the depths of the planet, it becomes too dense to breathe and eventually becomes a liquid. Some radar scans have indicated the planet has immense mountains and plateaus, some the size of Earth, that could have livable environments.

Four Earth expeditions and countless Ganymedan attempts to land on Jupiter failed. The first two Earth ship were lost with no survivors, the last two had to turn back after sustaining severe damage from lightning strikes. Any ship attempting a landing will encounter

radiation storms in close orbit, foul weather (page 192) in the atmosphere. The ship will then need to find a landing spot in possibly mountainous terrain, in poor visibility, under heavy gravity! It will struggle against a gravity 2.2 times that of Earth as it lands. The crew will find it hard to move around and complete basic tasks as they explore. In game terms, they are always Fatigued. Anything that would result in them normally becoming Fatigued causes them to black out for 1d6 rounds unless they make a Physical roll with a -1D penalty.

The Eando Telemorphic Foundation

The Telemorphic Foundation has offered a one million credit prize to a crew that lands on Jupiter, acquires mineral and living specimens (if any) and returns. The Foundation regards the exploration of Jupiter and its colonization as the next great frontier. With its harsh environment, Jupiter is a perfect venue to deploy Telemorphic subjects adapted to the planet's high gravity and dense air.

INSIDE INFORMATION

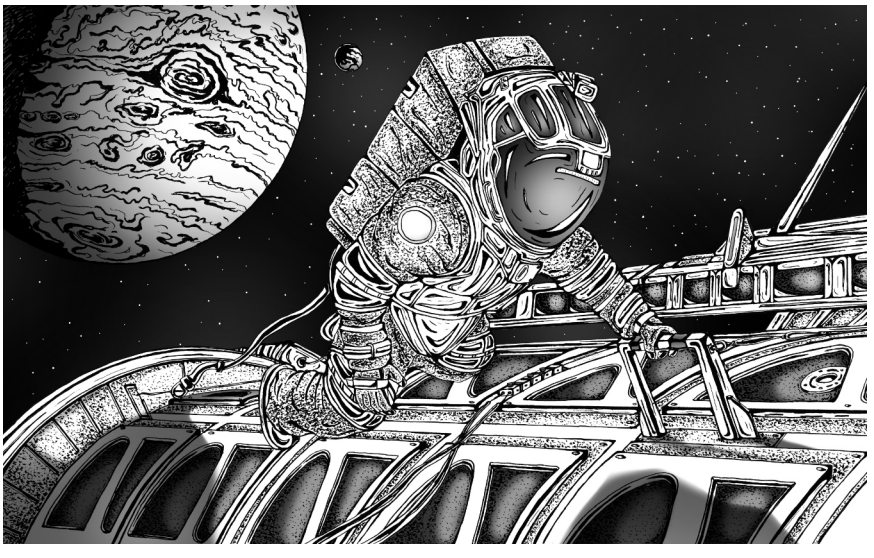
The Ganymedans made one successful landing on Jupiter out of many attempts, though communication with the ship was soon lost. The crew reported a dense though breathable atmosphere, severe thunderstorms and no signs of life. The Ganymedans are eager to attempt more landings for undisclosed reasons. This could be linked to mysterious radio signals ships near Jupiter sometimes receive.

The Ganymedans and Callistans both agree that no one could claim or own Jupiter. Thus they do not prevent Terrans or others from landing or probing the great planet. More to the point there is likely nothing of economic value there. The Jovian Moons stress practical science, not abstract research.

PRIVILEGED INFORMATION

The Ganymedans believe their people established a colony on Jupiter, before the Time of Darkness. They believe this colony is the source of the radio signals. Contacting these poor, isolated souls will be a great victory for the Ganymedan House that does so successfully, not to mention the right thing to do!

Lost colonies, shipwrecked Earthlings, alien life: the mysteries of Jupiter are for the Referee to establish. Perhaps Jupiter is overrun with Lovecraftian horrors, only contained by its mighty gravity, or a race of conquerors attempting to leave the planet and conquer the puny Inner System!



Greene, Morton 'Prospector' - Human

Knowledge 2 Social 1 Vehicles 1 Technology 1

Archetype: Outlaw	**Talents**: Awareness
Stamina: 14	**Encumbrance**: 10
Equipment: Pilot kit	

Cash: Thousands.

Resources: Scout ship with 2 hidden compartments holding 1 ton each, Patrol courses and schedules, Zoe.

Elevator Pitch: Morty makes numerous smuggling runs to the Jovian system. He usually buries his cargo on a predetermined minor moon or hands it off to the ship of a trusted associate to avoid the patrols further along. He does his part dodging the patrols in the Inner System. Greene uses the cover of an independent prospector to cover his activities. Smuggling pays way better. A special transponder, allowing his ship to escape identification, has kept him in business the past few years.

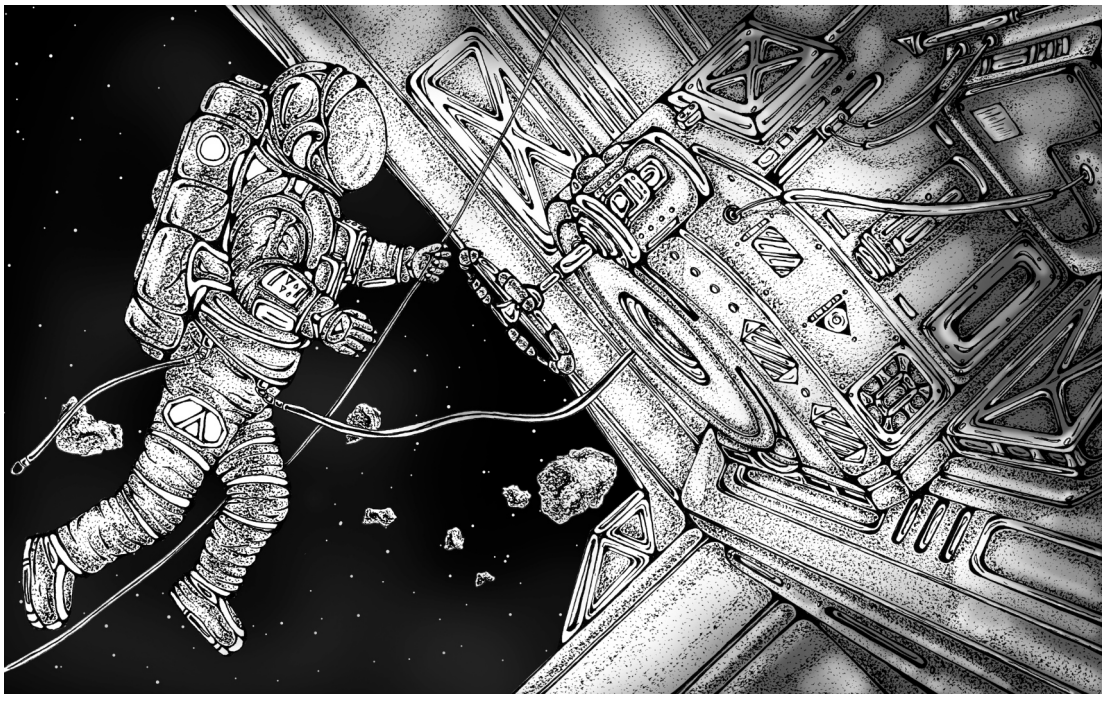
Public Profile: Mort is an independent prospector. He gets by with minor strikes and by making mail and freight runs to Europa and Io. He also enjoys the nightlife on Callisto.

Goals: To make money and stay out of jail.

Means: Smuggling is Mort's go to plan. The mining and mail jobs are just a front. He'd lose money working any but the most lucrative claim if he turned honest.

Patron: Characters may need to rescue Mort from a pirate attack or drive failure. He'd be grateful and pay suspiciously well.

Antagonist: Mort is a working-class criminal. He has no time to avenge affronts and insults. He'd rather make a pile and blow it on Zoe to heal his hurt feelings. Zoe might be upset by anyone troubling Mort and react violently.



Ulligor 8311 Trader and Martian Spy Martian

Knowledge 2 Social 2 Vehicles 1 Technology 1

Archetype: Agent
Talents: Psionic: Telepathy, Clairvoyance
Stamina: 14
Encumbrance: 10
Equipment: Agent kit, Scout ship
Cash: Thousands.

Resources: A Scout ship, several firearms hidden aboard.
Elevator Pitch: Ulligor is known as the friendly Martian. That should be a tip off to most people. Instead of spying on radio transmissions and breaking military codes, Ulligor simply uses telepathy on the people he meets. He's a pro at getting Ganymedan patrols to board him then reading the minds of officers.

Public Profile: Ulligor is a friendly Martian trader who is often in trouble with the Ganymedans. So far, he's managed to stay out of jail. He enjoys the nightlife on Callisto.

Goals: To keep spying for the Red Planet and enjoying the freedom of Callisto.

Means: Telepathy, bribery.

Patron: Ulligor runs a one-Martian operation. Even his crew have no idea what he's doing. Characters may rescue him after a drive failure or pirate attack.

Antagonist: Ulligor will make trouble for characters who bother him or cost him money with telepathy. It's an easy matter to plant suspicions in customs and law enforcement about no doubt shady characters.

Keira Nyembi Salvage Ship Captain Human

Combat 1 Vehicles 2 Technology 2

Archetype: Pilot
Talents: Rigger
Stamina: 14
Encumbrance: 10
Equipment: Pilot kit, Usu and Titanium robot.
Cash: Thousands to tens of thousands.

Resources: Scout ship, and robot crew, friends
Elevator Pitch: Keira Nyembi is an honest captain performing search and rescue and salvage missions around Jupiter. If she can get there fast enough it's search and rescue, otherwise it's salvage. She's made a name for herself after some successful rapid responses to emergencies and her crew of robots.

Public Profile: Captain Nyembi is known as the Angel of Mercy. However, her mercy is not free. She charges the going rates. Regardless, she has a lot of grateful customers and makes decent money salvaging wrecks and performing rescues. Her robots are very efficient first responders.

Goals: Eventually she wants to buy and outfit an entire fleet of search and rescue/ salvage ships

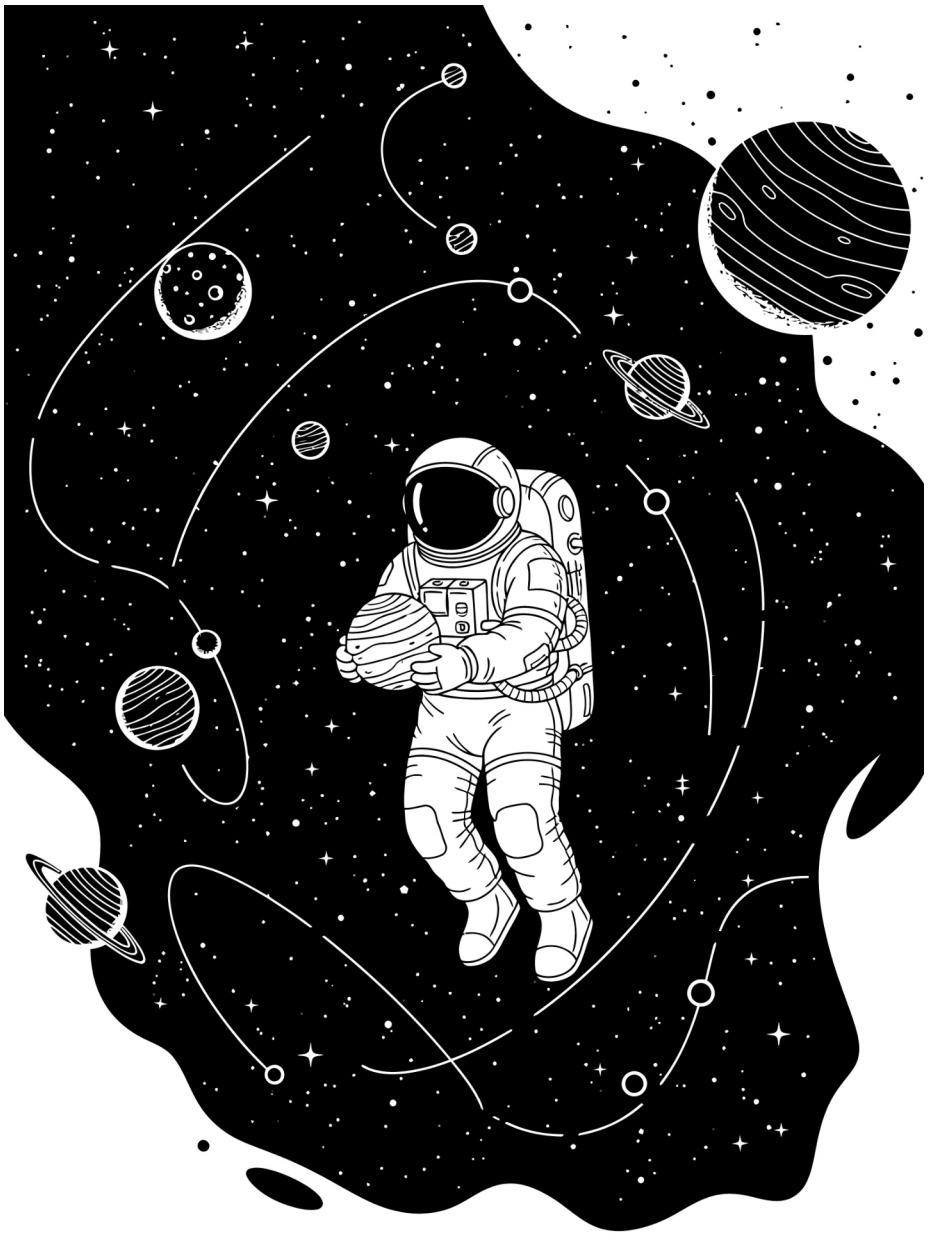
Means: Running rescue and salvage missions.

Patron: Keira may find a job for a crew she rescues, to help them pay her back. She's more comfortable with bots working for her than people.

Antagonist: Keira doesn't have a mean bone in her body. Her friends and acquaintances aren't as forgiving. Anyone hurting Keia can expect their comeuppance from a number of sources, including pirates grateful to Keira for a swift rescue.

RUMORS

- Jupiter is a graveyard of ships. All the known and a few unknown species have lost ships to Jupiter. Anyone who can land there and return will be rich from treasure and technology.
- The Earth Rocket Racing Federation is looking to buy port and service facilities from Ganymede and Callisto to start a Jovian Racing Circuit.
- There are flying mountains in the skies of Jupiter, full of an anti-gravity element. Fierce creatures nest there and guard them.
- Jupiter was colonized by Ganymedans in the past who evolved into a race of superstrong giants.
- Mysterious radio signals are detected from Jupiter at times.
- Gigantic lifeforms were sighted in the upper atmosphere.



GANYMEDE

“Ganymedans are like cats, aloof, disdainful and coveting affection and attention. Gotta love them!”

- Earth Republic Ambassador

Ganymede	**Orbit:** 1,900,000 kilometers from Jupiter	**Non-Agricultural**	**Prime**
Population: 400,000,000	**Tech Age**: Late Space Age	**Honor**	**Caste System**

ENVIRONMENT

Ganymede has 0.5 gees of gravity, a temperate, though chilly climate, and a Standard atmosphere.

Ganymede has a large and extremely dense core allowing it to sustain a breathable atmosphere. Tidal forces from Jupiter cause internal heating, which creates Ganymede’s temperate climate. Ganymede has strong electrical and magnetic fields that interact with Jupiter’s magnetic field. The moon has a robust ecosystem and intelligent native life. Visitors often remark about the charged atmosphere. Terrans say it’s as if a storm is always about to break. Many receive small static shocks from metal objects and wear steel bracelets to neutralize the shocks.

Jupiter has two immediate effects on the environment. Ganymede, like all the major moons is tidally locked, one side always facing Jupiter, one always facing away. Jupiter side is always lit and similar to early dawn on Earth. Reflected light, together with sunlight and internal heating keeps the Jupiter side temperate though cool. The far side is somewhat colder, dropping to Arctic temperatures when it facing away from the Sun (about 3.5 days) and rising to temperate during the day.

Jupiter’s other effect is aurorae. Beautiful aurorae crowd Ganymede’s skies except on the most overcast days on the far side. On the Jupiter side the aurorae are visible when Jupiter is between Ganymede and the Sun and merely a crescent. Jupiter’s own aurorae become visible then.

COMMON KNOWLEDGE

PLACES

TROS PORT

Tros Port is the major military and civilian landing site on the Jupiter side. Military spaceports and some research outposts are on the far side to watch the Callistans and the Sargasso. Tros Port has undergone major expansions. Several Terran and Martian organizations are present in their respective enclaves. The Callistans are even allowed a small embassy. Passengers, crews, and cargo arriving are subjected to a rigorous security screening. After this they are released into the Mall. The Mall is pandemonium with vendors in kiosks, performers, and would be guides offering goods and services. One Terran called it worse than Comic Con.

The most notable Ganymedans are the Hallasarana, the caste that rules Ganymede. They are very obviously in charge and mostly female. There are others: the vision impaired E’edoygan, the subdued Alu’kel, and the boisterous Fo'kel performers and hustlers.

HAZARDS

Tros Port is a bustling commercial area, ripe for crime. The port security forces are a cure that is often worse than the disease. Offworlders are advised to find a friendly Hallasarana to escort them around and lend them a hint of respectability. Most crime in Tros Port is nonviolent, pickpocketing, theft, and rigged games of chance.

PLAINS OF GWARLUHH

The Plains of Gwarluh surround Tros City and Tros Port. A few scattered trees and numerous shrubs and bushes dot the landscape. The plains experience a constant cold wind and can be quite gloomy under a New Jupiter. A number of factory farms using fusion powered irrigation thrive in the region among many abandoned small farms that couldn't compete. Ranching is still practiced in the region.

HAZARDS

The Plains are somewhat dry and cold. They do have dangerous animals and a few Ganymedan Ghouls. Terrans may consider tales of ghouls to be akin to Bigfoot in their legends but the ghouls are a real threat.

GANYMEDANS (HALLASARANA)

Hallasarana or High Ganymedans average close to two meters tall (for females, males are closer to 1.7 meters). Most men and women have a lithe, athletic build. They have blue skin and bright red, or brown hair. Darker hair colors are rare and considered unlucky. They have almond shaped yellow eyes with slit pupils, and aquiline features. They can see in dim lighting better than Terrans thanks to their cat-like eyes.

Reddish freckles are common on their faces and bodies. They have hands similar to humans with long and dexterous fingers. Both sexes have long and pointed nails. Hallasarana use facial makeup or tattooing to display their allegiance. Makeup is usually the mark of a mercenary or temporary employee. Clothing is usually utilitarian and subdued colors.

Ganymedan females outnumber males ten to one. Females have taken over most dangerous jobs, protecting the men, who are nudged towards safer pursuits. Females have to compete or fight to court a male. Selective evolution has made them larger and stronger than their males.

Females enjoy competing in tests of martial prowess, and frequently go about armed in their day-to-day lives. The local kekmet blades are a girl's best friend. They will happily engage numerous local and offworld combatants in violent games for fun and glory. A lot of local entertainment involves sports making Australian rules football look tame, with all-female teams. The females consider danger-prone Earthlings exotic and exciting. Earthlings are advised to be polite to all Ganymedans. The females in particular are assertive and flirty, but are not serious. The males are often angered by this and are serious.

The Hallasarana all can direct small amounts of electricity for aggressive display or defense. This is equivalent to a small static shock. It is unclear whether this is an inborn ability or has to do with ornate belts the Hallasarana usually wear.

Ganymedans prefer temperate climates and are poor swimmers. They generally dislike large bodies of water. Ganymede has numerous seas but they are all subsurface. The Ganymedans equate water with their Underworld, dark, unknown and perhaps a place of punishment.

E'EDOYGAN

The E'edoygan, the Star-Eyed, are born vision impaired. They have prematurely white hair and few freckles. They do not have the showy electrokinesis of the Hallasarana. In their case they sense and project electrical fields. This mostly compensates for vision loss. It also makes them natural technicians. A few become mystics, making the leap from sensing energy fields to sensing thoughts.

They form the caste beneath the Hallasarana, engineers, scientists and tradesmen. Many never join a house, instead forming groups on the far side of the moon to explore their electrical sense or perform arcane research.

THE ALU'KEL

The Alu'kel, the Hollow Ones are the lowest caste in the Noble Houses. Alu'kel are shorter and stockier than other Ganymedans and are known for their strength and endurance. Females and males are both 1.7 meters. Both sexes have black or brown hair. They are laborers, guards, maintenance and servants. They have no innate electrical or magnetic abilities, a major flaw to the other Ganymedans.. Some Hallansarana call Terans Terralu'kel, referring to their similar weakness.

THE FO'KEL

The Fo'kel are also known as the Fallen. This refers to their perceived moral lapses. They manipulate magnetic fields. They often use this for sleight of hand: stealing small metallic objects, manipulating locks, shorting out small pieces of machinery. Their powers lead the Hallasarana to distrust them. Nonetheless, many are employed by Houses as spies, saboteurs, and possibly assassins.

More commonly, they seek part time work: repairs, deliveries, anything for a credit. There are many Fo'kel who work as performers for the coins the more privileged castes toss them. Unlike the other castes. The Fallen do not mark their faces to show allegiance. They often have dark blue birthmarks on their faces.

HISTORY

Ganymedans evolved from ambush predators on the terminator band dividing Jupiter side from the far side. They are the second oldest existing space travelers. They developed fusion power over a millennia ago. Moving out into the Solar System they made contact with the Martians and Callistans. There are some fragmentary accounts of expeditions to the Outer System.These initial explorations did not end well.

They quickly realized the Martians were stealing their technology after they lost several ships. An armada was built to attack Mars. However, Mars engaged in a nuclear war over this stolen technology and the Hallasarana were content they'd wipe themselves out.

The Callistans traded various luxury items to Ganymedan merchants for fusion technology and began building ships. The Callistans outnumbered the Hallasarana and quickly developed a rival fleet. An arms race began and eventually, paranoia and misunderstanding led to the War of the Moons.

Both moons launched nuclear attacks. Both civilizations were largely underground to survive radiation and ion storms from Jupiter. They both survived but lost knowledge and regressed technologically. The Hallasarana suffered from a plague affecting their males. Most sickened and died. Most newborn males died as well. This was known as Male Scourge. It continues to this day. The lower classes were not as badly affected.

In these groups females outnumber males merely 3:1.

The Hallasarana adapted. Women handled rebuilding the society. It was decided to decentralize authority. A central, patriarchy was blamed for the path to war. A new society was built, based on a council of Noble Houses. They slowly regained technology and most of the knowledge that was lost.

The Hallasarana mutated over time into the other 'Low' Ganymedans. That term doesn't sit well with the lower orders. They were eventually invited to join the Houses as middle management and labor. A few were even accepted into the military.

INSIDE INFORMATION

GANYMEDANS

The Ganymedans depend on Ganymede and Jupiter's magnetic fields in part for their life energy. They do need to eat and drink but much less than a Terran or Martian. The Hallasarana in particular train themselves to project electrical bolts to defend themselves. Both sexes find this somewhat attractive (like a body builder appeals to some humans). Males in particular, with their diminished frames, hone this ability and usually are more powerful them females. The Regulator Belts (page 147) both sexes wear supplement this ability. In general a bolt from a Ganymede is about as damaging as a gunshot. The rate of fire and number of bolts per day varies. Neither can be great since Ganymedans do use pistols and rifles.

The E'edoygan, Alu'kel, and Fo'kel multiplied in recent times. While a few appear in old stories, mentions are rare. After the War of the Moons, these subtypes became more numerous till today they make up 80% of Ganymede's population. This may link their origins to fallout after the war or the bioweapon the Callistans used to stunt the male population. Males among these castes are more numerous, about 30%.

The Fo'kel can be untrustworthy, like any caste but they can also be good friends. They never forget a kindness or a wrong. Fo'kel are frequently psychics, claiming to read omens of the future in Jupiter and Ganymede's aurorae. A few are psionic (mostly telepaths, with some clairvoyants.)

The Alu'kel are not as powerless as the Hallasarana believe. They simply internalize their energies resulting in greater strength and durability.

The E'edoygan use their ability to sense electrical fields in many way. They can read a computer screen, much the same way spy technology can. They can also sense and troubleshoot problems in cybernetics and often treat cyborgs. Their biological radar also lets them function as if sighted for gross motor skills. E'edoygan also often have limited vision or opt for cyberware, granting them sight.

LOWER CASTES

Many of the Lower Castes form their own clans guilds and houses. E'edoygan have their mysterious monasteries on far side. Fo'kel have what some Hallasarana call thieves' guild. They'r closer to clans. Alu'kel form unions for collective bargaining. The Noble Houses play these down as much as possible in Tros Port. In Taos City, it's a different story.

The security in Tros Port are drawn from numerous Houses on a rotating basis. Redoss, Hokiko and Nrok'dlil always have a contingent in the port. These security forces have intense rivalry, like their Houses and are likely to treat offenders very differently. Offworlders should avoid Nrok'dlil controlled areas and establishments and when in doubt run to Hokiko or Redoss security.

PRIVILEGED INFORMATION

GANYMEDANS

All Ganymedans ,except the Alu'kel, wear regulator belts.The Halasarana maintain the belts are prized heirloom that can be used in their defense.

These store electrical energy to maintain power levels. Ganymede and Jupiter's magnetic field interact in a haphazard manner. The belts maintain good health and are very necessary on worlds with weak magnetic fields like Luna , Ceres or Mars.

The Regulator belts hint at the possible cause of the male plague, a magnetic disruption of Ganymede's core. Women just adapted to this differently than the males. Ganymedans insist this was a result of a super weapon and this has hampered their research for a cure.

Bio weapon, magnetic field flip, radiation who's right? That's for the Referee to decide!

NOBLE HOUSES

The Noble Houses began when women survivors gathered every male they could find and protected them from any and all. Monogamy was enforced and many children expected to replace the fallen. As time progressed male Hallasarana were required to take less hazardous jobs and their health monitored closely. Leadership was acceptable for males as well.

The lower caste males were not required to be kept safe. All the other castes allowed males to marry multiple mates. The Hallasarana find this disgusting. They are now a minority as the polygamous castes become numerous. More shamefully, the lessers were allowed to join Houses due to declining numbers.

House Redoss

Redoss is a prominent House. Their males are heavily involved in leadership and spacecraft construction. They favor trade with Earth, are neutral to Mars, and tolerate Callistans. Most of the security forces in Tros Port are from Redoss. They employ large numbers of Alu'Kel ,and even Fo'kel, quartering some within their enclaves!! Most spacecraft are built by Redoss.

House Nrok'dlil

Nrok'dlil is an active member of the Council of Houses. It originally made money mining on Ganymede. However, mining asteroids and moons was more lucrative and other Houses moved into that field faster. It now faces a market glutted with cheaper offworld metals and minerals. House Nrok'dlil uses blackmail, bribery, and threats to play politics and get what it wants, tariffs are imposed on off world mining. The Nrok'dlil detests Terrans and Martians, preaches death to the Callistans, and oppresses the Lower Orders it recruits. Fo'kel are not recruited.

House Hokiki

House Hokiki is a new House. It is friendly to all off worlders, even Callistans. It has the largest number of Fo'kel as members, making people wonder what they're up to. Hokiki makes they're money developing new technology. Hokiki is run at all levels by males and females. They also endorse open marriage which most Noble Houses denounce. Unlike most Houses, their numbers are growing.

The Eando Telemorphic Foundation and Hokiki have several joint projects underway. These are under heavy security. The bases used for this research are located on the far side. Recently

House Nrok'dlil has denounced Hokiki in the Council of Houses as deviants and traitors to the High Ganymedans and their world.

House Hokiko has begun new research with the Eando Foundation into the cause and cure for the male malady. So far, the Foundation is reviewing Ganymedan research and recruiting volunteers. Some researchers are beginning to suspect the cause is not genetic. Their Callistan friends do not know about this research. That information would threaten the Foundation's collaboration with Callisto.

PROMINENT LOCAL NPCS

Wu, Malcolm diplomat - Human

Knowledge 2 Social 3

Archetype: Agent **Talents**: Insightful

Stamina: 14 **Encumbrance**: 10

Equipment: Nice suits, OmniComm

Cash: Thousands.

Resources: A silver tongue, diplomatic immunity, and a fine suit.

Elevator Pitch: Malcolm Wu is a mid-level diplomat with delusions of grandeur. He wants to broker a peace treaty between Ganymede and Mars. Unfortunately neither Mars nor Ganymede are in any mood to sign a peace treaty. Malcolm is a regular fixture at all the high society parties on Ganymede. Martians and Ganymedans know him, know he means well, and generally dismiss what he has to say.

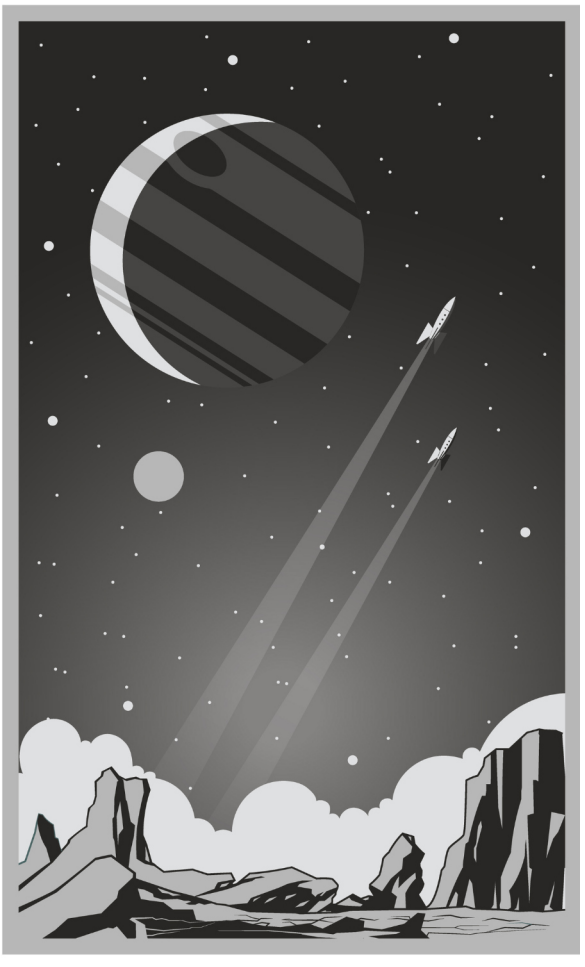
Public Profile: Malcolm Wu is an Earth diplomat, acting as a liaison to Ganymede.

Goals: The Solar System is going to erupt in war. Wu must prevent this!

Means: Schmoozing, carousing and toadying.

Patron: Malcolm can always use bodyguards, assistants and transportation specialists.

Antagonist: Malcolm Wu isn't really the Antagonist type. He is more likely to annoy characters by hiring them and giving them all manner of thankless tasks: go get these love letters for her, go get this spice for his party, etc.



Habba'krenock, Redoss Noble Inventor - Hallasarana

Knowledge 2 Social 1 Vehicles 1 Technology 2

Archetype: Engineer	**Talents**: None
Stamina: 14	**Encumbrance**: 10
Equipment: Engineer kit, Kezmek Sword, Regulator Belt	

Cash: Nothing on hand. Millions with a little pleading.

Resources: The wealth and followers of House Redoss.
Elevator Pitch: Habba is House Redoss' prime eligible bachelor and a fine engineer. His marriage will be the political move of the century. Unfortunately for all his potential would-be suitors, Habba doesn't want to marry and produce heirs. He wants to land a ship on Jupiter. Habba says he has space travel in his blood. His House wants to keep that blood contained in his body.

Habba's adventurous desires and befriending of off-worlders are undesirable traits in a future husband. He faers that he must grow up and resign himself to an idle life of luxury, designing spacecraft for others to fly.

Public Profile: Habba'krenock Redoss is the future leader and top breeding stock of House Redoss. He is known for throwing numerous parties and feasts. Habba is very friendly though surrounded by bodyguards.

Goals: To land on Jupiter, and return!

Means: Habba has designed and built a landing craft. The hard part is getting away to fly it!

Patron: Habba has determined that rockets may fail Jupiter. He seeks Earthlings who will fly a ship with his new airframe!
Antagonist: People insulting or interfering with Habba will meet his big sister (see below). She handles his more antagonistic acts.

Redoss, Lainna'atoos Redoss Warrior, Troubleshooter, RPer - Hallasarana

Combat 3 Knowledge 1 Physical 1 Social 2 Vehicles 1 Stealth 1

Archetype: Soldier	**Talents**: Leader
Stamina: 17	**Encumbrance**: 12

Equipment: Soldier kit, Kezmek Sword, Regulator Belt

Cash: Thousands.

Resources: Ganymedan warriors, the resources of House Redoss.
Elevator Pitch: Lainna'atoos Redoss is a career military officer serving House Redoss. Unfortunately, her job extends beyond her professional duties: she always seems to have to watch out for her younger brother, Habba'krennock, who insists on becoming a space explorer. Lainna would rather be fighting pirates, Callistans, and Martians! She wants to show off, make a name for herself, and get married. Lainna's great weakness is gaming. She enjoys hard copy Terran wargames: from wargames she moved to miniature gaming—she paints her own figurines of course. More recently, she has started playing role playing games. Oddly, Ganymedans have several fantasy and science fiction role playing games that are similar to Earth games. Perhaps this is parallel evolution. As a no-nonsense career military officer and fearsome combatant, when she offers to tell you about her character, you'd better listen. She's otherwise very sweet.

Public Profile: Lainna'atoos Redoss is a high ranking military officer in House Redoss. She has several commendations for bravery and holds a dis-blade.

Goals: She seeks to revel in the gore of her enemies and to meet a nice guy.

Means: She's a sharp instrument of warfare and destruction. So are most of her friends.

Patron: She might seek a Referee for an RPG session, or need secret transportation for herself and her troops, possibly to chase down Habba'krennock or the fool who took her dice.
Antagonist: Lainna is a pretty straightforward Ganymedan female: insult her family, her honor, or her role-playing game choices and she will challenge you to a duel. Men have the option of naming a female stand in of course.

Pallanix'seedo, Rocket Racer - Alu'kel

Combat 1 Knowledge 1 Social 1 Vehicles 2

Archetype: Pilot	**Talents**: None
Stamina: 14	**Encumbrance**: 10
Equipment: Pilot kit	

Cash: Hundreds.

Resources: Rocket Racing Federation covert support, Scout ship.

Elevator Pitch: Pallannix (Palla to her friends) is a young female who just finished her military service. The youngest of her clan and unlikely to wed, she's decided her future lies off Ganymede with the Rocket Racing Federation. She learned piloting in the military and acquired a group of Earthling technicians. Technology is man's work. Palla finds Earth fashions and culture fascinating and has taken a liking to male Earthlings. She also exhibits behavior that is not feminine by Ganymedan standards. She doesn't go outdoors armed, show off her electrical charges, or pick fights to display her marriage potential. And she prefers tough, strong Earth guys, even if they're short!

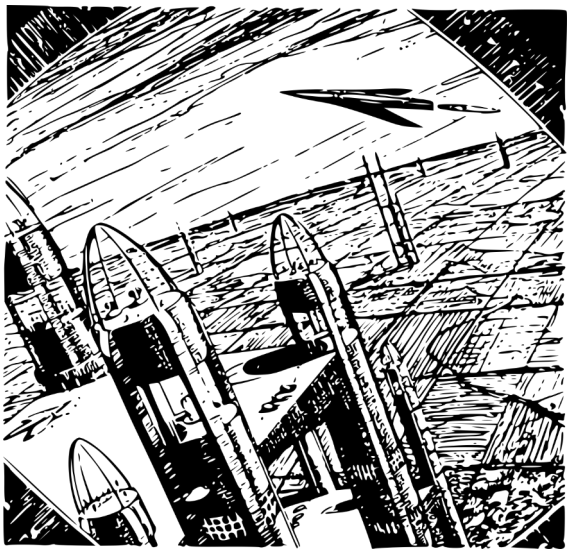
Public Profile: The possibility of the Rocket Racing Federation opening a Jupiter circuit greatly interests Pallanix. Meanwhile Pallannix will try to get sponsors to bring her, her crew, and her rocket to Earth!

Goals: To race professionally and go to Earth!

Means: She hasn't exactly hit on her method yet. She is talking to a lot of off-worlders.

Patron: Palla doesn't have a lot of money, but she needs Earthling advisors, technicians, and image consultants. People can work with her in exchange for a share of her payout.

Antagonist: Palla doesn't have time for grandiose schemes. Someone who makes her mad will get a punch in the nose. Her many big sisters are the vengeful types and are all professional Ganymedan military. They may want a word with people victimizing their little sister.



RUMORS

- The bio-weapon that the Callistans used had many effects on the Ganymedans. It made some males Psionic, some deformed. These were driven out.
- Most Ganymedans see themselves as ultimately doomed from the bioweapon, Gaming, role-play, and carousing are all ways of escaping this sense of doom.
- The Ganymedans are nearly extinct. Most of what you see are robots that are starting to malfunction.
- There are a lot of spacers who go missing in Tros Port.
- The Hallasarana are animals! A noble was seen decapitating a servant for spilling some wine.
- The Kezmek swords are artifacts the Ionians left behind.
- The Ganymedans consider all Martians little better than animals and mistrust psionics
- A Kezmek sword was smuggled off planet and sold for 100,000 Credits.

TECHNOLOGY

Ganymedans are well-known for their vibro-blades (Kezmek in the native language), a sword with a deadly tip that vibrates to increase its damage and penetration.

New Ganymedan Weapons

Weapon	Tech Age	Cost (Credits)	Range	Dmg.	Mag	Ammo Cost (Credits)	Aspects
Kezmek Blade	Late Space	Not for sale	Melee	4d6/2d6	10	150	2AVD

Kezmek Blade (Late Space, not for sale): The vibro blade, or dis-blade is a high-tech melee weapon favored by Ganymedan nobility. It was originally designed as a cutting and drilling tool. It consists of a basket hilt and length of impervium rod. The blade's point vibrates rapidly, letting it penetrate most materials, The weapon version originated as a tool for boarding actions, being powerful enough to destroy a lock or hinges on a door. The blade is designed for stabbing. The blades are not sold to off-worlders or even Ganymedans from the Lower Castes. Bearing one is a symbol of noble birth, great distinction in battle or bravery among Ganymedans. It is a great honor for a Ganymedan to give a dis-blade to an outsider as reward for a great service or to symbolize a friendship.

Kezmek rapiers do 4d6 or 2 AVD with the blade powered. A rapier holds enough power for 10 attacks. This must be declared before the attack roll is made. A blunt attack does not use a charge. And does 2d6 The usual tactic is to use blunt

strikes till the opponent is wounded (No Stamina), then finishing them off with a powered tipped lunge. The blade ignores low tech armors such as leather (referee's call) and most natural armors.

Equalizer Belt (Late Atomic Age, cost varies): Ganymedans require a steady supply of electricity to function well. Away from Ganymede they wear belts containing storage cells. These equalizer belts are often ornately designed and pass for high fashion. A Ganymedan outside their world's powerful electrical and magnetic field makes any Physical rolls at a -1D penalty without a belt. Belts can run from 50 to 5,000 Credits. A belt allows a Ganymedan to enter a state of hibernation, similar to a cryo-tube. A timer lets the hibernation be set for six weeks or less. A belt contains a power pack allowing

BESTIARY

Name	**Drainer**		
Niche	Opportunist/Forest	**Armor**	4
No. Appearing	3d6	**Damage**	1d6
Size	Medium (human)	**Skills**	Combat 1 Physical 1 Stealth 2
Stamina	18	**Abilities**	Climb, Glide, Shock Attack (2d6 damage to Ganymedan life. Armor doesn't protect).

A Drainer is a human sized furred creature resembling a koala with membranes under its forelegs like a Terran flying squirrel. It lives high in trees, spreading its membranous wings to dive down and attack. Drainers will attack Ganymedans first then other carrying electronic or energy weapons.

A Drainer's shock attack actually drains the life giving electricity from other Ganymedan life. A Ganymedan struck by a drainer takes 2d6 damage and is -1D to all actions during the fight. Oddly, the shock attack does no damage to offworlders. Ganymedans greatly fear the creatures

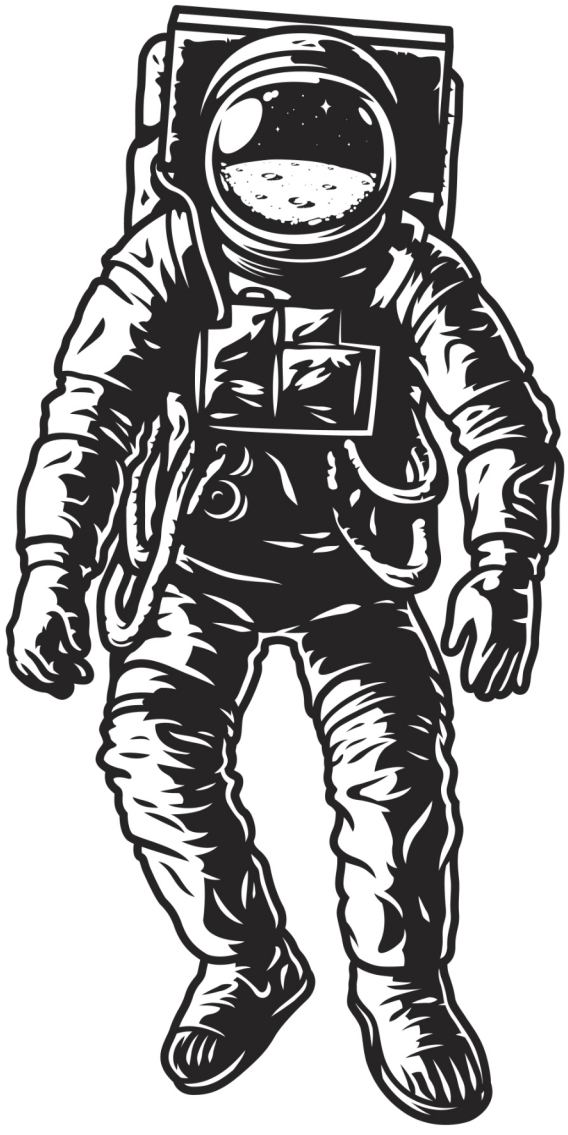
Name	**Electric Horse**		
Niche	Herbivore/Plains	**Armor**	0
No. Appearing	2d6	**Damage**	1d6
Size	Large (big cat)	**Skills**	Combat 0, Physical 3, Social 1
Stamina	20	**Abilities**	Rapid, Herd/pack

The electric horse is a low slung and fast lizard. The creature's skin often has stripes or spots. These ground hugging herbivores thrive in great herd on the steppes of Ganymede. The herds are inoffensive and shy unless threatened. They then may charge doing 2d6 per attack for a single round, then passing by.

The lizards are often used to form ceremonial cavalry units by the Hallasarana. They are very difficult for non-Ganymedans to control (-1D penalty to all rolls) as the natives use their electrical abilities to deliver small shocks for control. The creatures don't need a bridle in the hands of an experienced rider. They are the favored prey of Drainers.

Name	Ghoul		
Niche	Opportunist/Ruins	**Armor**	4
No. Appearing	3d6	**Damage**	1d6
Size	Medium (human)	**Skills**	Combat 1, Physical 2
Stamina	14	**Abilities**	Night Vision, Climb, Shock Attack (2d6 damage)

A victim of Callistan bioweapons or magnetic anomalies, ghouls roam abandoned ruins and old battlefields. They resemble the Hallasarana with darker blues skin and twisted, feral features. Unlike the Martian Zombie, these creatures are almost entirely sustained by electrical energy, hibernating in lean times and awakened by prey or lightning storms. Ghouls have an attack similar to the Drainer. Unlike the drainer they can also administer a shock to offworlders. Ghouls like pouncing on their victims and seem to enjoy inflicting pain. Some Ganymedans believe the creatures can be cured and finance expeditions to capture them.



CALLISTO

"What's the difference between a pirate and a trader? Circumstance!"

– Old Callistan saying.

Callisto	**Orbit:** 1,900,000 kilometers from Jupiter	Trade Class	Characteristic
Population: 600,000,000	**Tech Age**: Late Space Age	**Capitalism**	**Underground Cities**

ENVIRONMENT

Callisto has 0.5 gees, a cold climate, and a thin atmosphere. Callisto is the farthest of the four major Jovian moons. Like the others, it is tidally locked, one side always facing Jupiter. Unlike the other major moons, it orbits beyond the radiation belt and electrical fields of Jupiter and is safe to approach without much shielding. Callisto does not benefit much from the tidal forces heating the other moons and is an icy world with little liquid water. The moon formed from a jumble of rock and ice, with a high proportion of radioactive elements. These fissionables provide some internal heating. Callistans inhabit numerous valleys warmed by hot springs and volcanic activity. Callisto's atmosphere is thin and above 100 meters humans and others need breathing masks (page 66). Callistans and Martians manage.

Above the thermal valleys, Callisto is a cold, icy world. Most of the valleys are on the Jupiter side of Callisto, Callistans think of the far side of Callisto as uninhabitable and worthless. The far side is perpetually shrouded in fog. The thermal valleys are linked by tunnels, bridges and roads. Few Callistans travel on the ice fields and only rarely venture to the far side.

COMMON KNOWLEDGE

PLACES

ORBITAL

Callisto is considered Settled space. A patrol ship encounter means a call to be boarded and inspected. Various minor but unfortunate safety violations will be 'discovered' resulting in 1d6x 100 Credits in fines. This can be reduced to 100 Credits with a successful Social or Technical roll.

HAZARDS

Callisto has the odd pirate (some wearing Callistan Space Patrol uniforms). Their version of the Patrol keeps pirates under control. Ship may be looted but not stolen and killing traders is a death sentence. Trader bring money to Callisto.

VALLEY LIFE

Modern Callistans inhabit caves or tunnels lining the walls of warm valleys.

Unlike Terran cities, cliff cities are more impoverished the higher you ascend. The atmosphere is thinner, the weather colder. Luxurious accommodations and high end businesses are found on cliff bases, fronting the grounds on the warm valley floor. Night clubs and corporate boardrooms are often free standing dwellings on the valley floors. The top of

the cliff dwellings are often given over to storage, a few clubs or meeting areas, stores and the truly destitute. The higher levels have a high crime rate. Some of the criminals are thrown out onto Callisto's ice fields to die. Some windy and precarious walkways stretch between cliff openings.

Some athletic Callistans enjoy climbing the cliff faces. Most valleys wave several climbs marked out and labeled for difficulty: expert, challenging, easy, child, and Terran. Terrans have made climbs but find they need arctic clothing, six inch claws and lungs like a jet intake. Still making a short climb might be required to seal a business agreement.

In a warren, 100-200 Callistans are all considered one family, or sept. The sept considers all property communal. This spirit of generosity ends, however, when dealing with outsiders. Callistans are shrewd merchants. As the Martians say: "If you buy a boat from a Callistan it will cost all the water in your canal." This mercantile shrewdness extends to the Callistan Grand Council of Septs' willingness to sell almost anything.

HAZARDS

Humans climbing the cliffs will require a breather, arctic gear and climbing equipment. Unlike mountaineering on Earth, being robbed as you pass through bad neighborhoods is a possibility! On the other hand, you can probably call a cab if you get tired of climbing.

FAR SIDE

The far side of Callisto doesn't receive warmth from Jupiter, only the distant Sun. Even the thermal vents that dot the Jupiter side are rarer. Most of the far side is a desolate ice field with a temperature below freezing. Dangerous predators abound, that will attack nearly anything.

Hazards

See above. More importantly, the Callistans shun the far side. Help is not likely to come. Even if someone decides to come to your rescue, the eternal fog is the equivalent of Bad Weather.

CALLISTANS

Callistans are upright bipeds who can run on all fours. Males can reach a height of 2.2 meters and are covered in thick brown, black, or white fur. Females are somewhat smaller (2m.) Casllistans bear live young. A mixture of fur colors is considered lucky. Callistans possess retractable claws for moving on ice and rock. Their sharp teeth do not retract. Moon Bears have poorer vision than humans, but superior hearing and sense of smell. Despite their fierce appearance, Callistans evolved from omnivores: primitive Callistans congregated around thermal vents that provided warmth and fungal blooms for food.

Callistans are very touch oriented due to centuries of living in crowded conditions. Earthlings attempting a handshake will almost certainly be dragged into a furry hug. It is considered rude to speak to someone without taking them by the hand or arm in arm. Public speakers usually have an aide standing by to grab or a couple of symbolic statues on a podium. A Callistan's size makes cuddling an Earthling or Martian nearly as dangerous as refusing the embrace.

Callistans live in Septs, a group of families. Sept members usually have an occupation or group of related occupations or run a business. Grievances against a Sept member will be brought before the Sept elders or brought to a neutral arbitrator. Grievances are usually handled with fines or indentured service. Serious crimes: murder or rape can result in imprisonment, corporal punishment or exile. Septless Callistans are shunned by most.

HISTORY

Callistans lived peacefully for millennia, slowly progressing. The many septs didn't consider unification until they entered the Mechanical Age. Distance and ice isolated the valleys. Radio and vehicles made communication and travel easier. The Grand Council of Septs was formed, though each sept was unquestioned within its valley.

The Callistans were always fascinated with medical technology. Injuries and infection were frequent. They progressed quickly in it. They are unmatched masters of medicine and genetic engineering. The Eando Foundation is struggling to duplicate their techniques today, or buy them. They were also interested in space exploration.

They used fission reactors to build crude spacecraft and explore the Jovian system. Ganymede did not appreciate dirty fission powered spacecraft in their space. After encountering the Ganymedans, Callistans developed fusion using hydrogen fuel. They lacked the boron sources the Ganymedans had. The Ganymedans attempted to guide them to using boron that they could sell to the Moon Bears. Callisto resented this and relations deteriorated.

Both worlds argued over mining and settling of the other moons, particularly Io and Europa. As the Callistans said, "There was ill feeling as the resources were huge." Both sides built up their fleets. Eventually war broke out over misunderstanding and faulty sensor readings.

WAR OF THE MOONS

The War was short and brutal. It quickly escalated into nuclear and bio weapons. The Ganymedans and Callistans lost their fleets. Anything with an engine was destroyed or impossible to maintain with the destruction of spaceports. Like the Ganymedans, the Moon Bears fell into a Dark Age. The nuclear attack sealed many thermal vents, destroying habitable and inhabited valleys. The Callistans cleared these vents, by claw.

The Ganymedans charge the Callistans with using a biological weapon resulting in their diminishing male numbers and stature. The Callistans deny this. Questions remain, making the Ganymedans pay for a cure is a typically Callistan tactic. The Callistans have not and do not discuss the nature of the Ganymedan problem with outsiders.

After the nuclear exchange the war ended though a peace treaty was not signed. The reasons were unclear. The Ganymedans may have run out of nukes or been too concerned with their plague and repairing damage from the war. Records are incomplete.

THE SARGASSO

A collection of derelict ships orbits Jupiter, a remnant of the War of the Moons. It passes quite close to Callisto, orbiting three times for every two orbits Callisto makes. Callisto and Ganymede have left the wrecks alone. They treat it more as a war memorial and both governments wish it to remain intact. More knowledgeable spacers say the Sargasso was there before Ganymedans ever ventured into space.

The Sargasso is a constant source of conflict between the Jovian worlds. Callisto doesn't want to mount regular patrols, and at times Ganymedan ships use the Sargasso's presence to justify coming very close to Callisto. Every few weeks the Callistan fleet makes a show of force and the Ganymedans withdraw for a while.

INSIDE INFORMATION

HISTORY

Detailed records before the war are missing. Ganymedans say they gave the Callistans advanced technology, seeking to explore the Solar System's planets with them. However, the Callistans were never good at following orders. The Callistans claimed much of the gifted technology was actually bought or back engineered. Seeing someone can do something is a powerful aid in learning to do it yourself.

The Callistans take a very different approach to engineering from the Ganymedans. While the Ganymedans produce safe prototypes then improve their performance, the Callistans started with prototypes that stressed high performance and were a sharp jolt away from making a crater, then making them safer (usually). "You can't make progress without a few explosions!" is an old Callistan motto

This attitude extended to their ventures in the Solar System. Callistans had no problem knocking heads dealing with the various petty kings and despots of the Belt. This often caused problems for the Ganymedans. Many rulers refused all contact with "Jupiter."

The Callistans are building up their merchant and military fleet. They lack a sure supplier of boron and instead use the dirtier deuterium reaction to power their ships. Unlike their Ganymedan rivals, they enjoy business trips to Earth and Mars. While the Callistans don't find the Martians particularly trustworthy, they don't share the Ganymedan's hatred of them. Earthlings have won fame among the Bears for their remarkably hard heads!

Today Callistans strive to settle difference with a minimum of violence, but they do love that minimum. Private disagreements are often settled by a debate or a head butt, since Callistan claws and fangs make an all-out fight quite dangerous. A debate can be a horrific bout of snarls, roars, and growls. Head butts are a quick way to settle disagreements when all else fails and quieter.

HEAD BUTTS

The easiest way to resolve a head butting contest is by making a Physical roll. The difficulty depends on the NPC being attacked. Both participants make a physical roll with the higher throw winning! Callistans and Earthmen receive a +1D to their roll. Failing the roll results in an immediate loss by knockout. A tie may mean a mutual knockout! If both parties are knocked out, they can continue after waking or consider honor was upheld and buy drinks. A natural '2' on the roll inflicts 2d6+Physical damage to the loser and may result in hospitalization. Major injury causes a great loss of prestige. Supposedly, at least one Martian has died in an ill-advised head butting contest with a Callistan.

SHIP REGISTRATIONS AND BRIBERY

Numerous captains from across the Solar System purchase and register their ships on Callisto as the local government asks few questions. The Grand Council could be considered irredeemably corrupt, except it has a rigid protocol for bribes offered, pricing for "extra governmental service." An official can get in trouble for not honoring an accepted bribe. If you find the right official and make the required bribe, you will have your registration.

ULTRA DENSE DEUTERIUM

Someone gaining the trust of a Callistan will learn of Ultra Dense Deuterium (UDD). In its most compact form UDD will begin fusing at 1000C. The Callistans have managed to refine a more stable form. Unlike boron fusion, hydrogen fusion does produce neutron radiation. Callistan 'blade' ships are elongated triangles, with their reactor and engines far from the ship's cabins and crew stations to reduce exposure. The Callistans are very careful with their reactors. Any major damage to one will release bursts of neutrons and may cause secondary explosions.

PRIVILEGED INFORMATION

SHIP REGISTRATIONS

There are quite a few Earth and Martian ships on Callisto registered under more than one name. This is a legal loophole that can get them past the Earth Patrol with a successful Social roll. A fake license costs about as much as the ship's operating costs for one month.

Trying to find out about this over drinks or socializing will rapidly cause ship captains and others to dissuade outsiders from asking too many questions. A Social roll -2D is required to press for information. Some of those ships have warrants out for them. The Callistan security forces will also intervene to protect the privacy of individuals.

ULTRA DENSE DEUTERIUM

Some arms dealers are attempting to sell UDD to off world interests, no questions asked. However, the Terrans, Hallasarana, and Martians will ask a lot of questions. All these worlds have some enemies. The Grand Council of Septs will also get involved, going so far as to threaten death to dealers and customers (and it's not just threatening).

SARGASSO

There are ancient hulks there, Selenite, Ancient Fae, Primeval Martians, and others. The War of the Moons hid them among more recent wrecks, but the ancient ships are still there. Some have strange artifacts, others have traps, and a few may still contain strange, twisted life forms. Exploring them has seldom ended well, and both Ganymedans and Callistans have agreed to leave the Sargasso alone. They watch others risk their lives amidst the wrecks and hulks with some amusement, and patrols are always waiting to intercept any scavengers who may survive.

The Callistans allow salvage operations in the Sargasso. They will give notice of their next show of force to any salvage captains who have purchased a salvage permit. This costs 1d3 months' worth of operating fees for each ship.

UDD can be used to double the damage of an explosive weapon. Weapons gain the Greater Blast aspect if they do not already have it. People at Near range of the explosion take 1d6x100 rads. This multiplies the cost of the explosive by ten.

Ships with UDD reactors are tricky to repair in space. Crew undertaking repairs or maintenance of the engine or reactor while underway take 1d6 x 50 rads unless they succeed at a Technology roll.

Uggrrrrht, Trader - Callistan

Knowledge 3 Social 3
Archetype: Agent
Talents: Con Artist
Stamina: 16
Encumbrance: 12
Equipment: Agent kit, fancy jewelry
Cash: Millions!

Resources: Money, all manner of goods, security troops, business contacts.
Elevator Pitch: Uggrrrrht, or "Papa Bear" to his Earthling friends, fancies himself a trader. Uggrrrrht does his trading without leaving his home. Instead of flitting about in a ship, Papa Bear has built a lavish palace to bring the traders to him. To bring in new friends for trading, Papa Bear also has a round-the-clock party happening at his trading house. The palace sits above Papa Bear's huge warehouse on a valley floor surrounded by landscaping and geysers. The building is heavily guarded by mercenaries and robots from Earth. Uggrrrrht is a coward. Space scares him. His latest deal involves a Callisto franchise for the Rocket Racing Federation, however, that may require Papa to visit Earth.

Public Profile: Papa Bear is the merchant equivalent of an apex predator. You may get richer dealing with him, but the only certainty is that Papa will grow richer dealing with you.

Goals: Papa Bear's number one goal is to become even more wealthy! Papa Bear has a secret fantasy: he'd like to be the one who opens trade with Luna! He's amassing a huge store of boron and other minerals he's heard that the Selenites need. Now he just needs a means of communication.

Means: If Papa wants it, he buys it. If he can't buy it, he'll find something you want to trade for it.

Patron: Uggrrrrht is a fine patron. He hires crews and ships all the time to haul freight for him or to acquire special goods. He's always hiring.
Antagonist: If Papa wants something you have, he will get it one way or another. He will determine what you want to trade for it. This could include wanting to remain healthy.

Shelevala, Salvager - Callistan

Combat 2 Vehicles 2 Technology 2

Archetype: Pilot
Talents: Ace Pilot
Stamina: 16
Encumbrance: 12
Equipment: Pilot Kit
Cash: Varies wildly.

Resources: Salvage ship, crew with no sense of self preservation, many false ship registrations.

Elevator Pitch: Shelevala is a Callistan ship captain who ran many successful missions to the Sargasso. Unfortunately, she also ran a few missions that killed most of her crew. Shelevala will hire nearly anyone, and if you survive a Sargasso run, you could take a year off or make a down payment on a small ship with the proceeds. Shelevala doesn't waste the lives of her people; she expends them judiciously. They know what they are signing up for.

Shelevala is the captain who knows the Sargasso best. She's seen and even visited a few wrecks that match no designs from known worlds. Perhaps they come from another star? She also suspects that the heart of the Sargasso holds an intelligence: something very old and very evil that collects ships and crews.

Public Profile: Shelevala is a somewhat shady ship captain. She's been red-flagged by the Ganymedans

Goals: Making a big score in the Sargasso: a faster than light drive!

Means: Daring, firepower, using her wits.

Patron: Shelevala is always looking for a crew. Callistans and Earthlings are preferred. Earthlings are pretty hard to kill! They have very hard heads!

Antagonist: Incompetent and cowardly crew will be left behind. Shelevala is ready to fight someone who stands between her and a prize.

Doctor Vholomiglis - Callistan

Knowledge 3 Physical 1 Social 1 Technology 2

Archetype: Scholar (Medicine) **Talents**: Medic, Empath

Stamina: 19 **Encumbrance**: 14

Equipment: Medikit, diagnostic scanners, and pharmacy

Cash: Thousands, some grants that are much larger.

Resources: Medical center, skill, a crew of doctors, and a tremendous group of fans and supporters.

Elevator Pitch: Vholomiglis runs a free clinic on Callisto. Vholo will treat anyone, and takes whatever contributions they can make in return. Papa Bear is a frequent donor. Vholo is beloved by Callistans.

Dr. Vholo"s grand goal is to cure the scourge that is reducing male births among Ganymedans. He's sure that an old Callistan bioweapon caused this. To this end he is seeking out scavengers to scour the Sargasso for any traces of this weapon. He will not take any actions to jeopardize his medical center.

Public Profile: Dr. Vholomiglis is a humanitarian, treating anyone who needs medical aid.

Goals: Vholo wants to keep his medical center going, at all costs, and eventually aid the Ganymedans.

Means: Medical skills.

Patron: Dr. Vholo always uses skilled medical personnel of all species. He can treat characters for injuries or sickness. He is seeking ship crews to plumb the Sargasso to procure the ancient Callistan bio weapons for study, and can get them patrol schedules or salvage permits to facilitate this mission. Often, he will ask a crew to perform a mission in exchange for treating those spacers who can't pay for medical treatment. Needless to say he will treat any injuries they sustain in a hulk crawl.

Antagonist: Dr. Vholo is a kind soul. Those who disturb his work or his clinic will find a horde of locals ready to exact justice for him.

Roarke, Eddie Confidence Man - Human

Social 3 Vehicles 1 Technology 1

Archetype: Outlaw **Talents**: Con Artist

Stamina: 14 **Encumbrance**: 10

Equipment: Pilot kit, many phony IDs

Cash: Thousands.

Resources: A glib tongue, and a fast ship, several different IDs.

Elevator Pitch: 'Slick' Eddie Rorke presents himself as a Rocket Racing Federation official. He has spread many rumors about a new Jupiter Circuit. This enables him to get backing from wealthy locals. He's a favorite at Papa Bear's palace, living and shmoozing rent-free, for now.

Eddie Rorke is a con artist. His Rocket Racing Federation license amounts to a concession stand permit. He's altered that license and uses it in conjunction with his acting ability to fleece Callistans, Earthlings, Martians, and Ganymedans. He ensures everyone that they are the exclusive backer of the new circuit and are entitled to a massive share of any future profits from rocket racing.

Public Profile: Eddie Rorke is a Rocket Racing Federation official. But keep it quiet. Does he have an opportunity for you!

Goals: Making money, leaving in one piece with his money.

Means: All talk.

Patron: Eddie can use a ship and a crew for his escape plan, or backup escape plan. He can also use an entourage and guards. He will pay his staff once the next client pays up. Definitely.

Antagonist: Eddie needs that investment check to cover expenses until the Rocket Federation sends him more funds. There's some kind of hold up at the bank and the cheque won't clear. Help him out for a generous cut!

RUMORS

- Callistan ships are death traps. They spew radiation and use dangerous elements in their drives.
- Fighting a Callistan is suicide. They'll tear you apart.
- Papa Bear's trading house has everything for sale, even people.
- The Moon Bears are exploring Saturn! Initial reports tell of fabulous wealth and advanced civilizations there.
- Dr. Volo's clinic will treat anyone, regardless of finances or legal status.
- The bears will allow salvage in the Sargasso, for a price.

TECHNOLOGY

New Callistan Weapons

Weapon	Tech Age	Cost (Credits)	Range	Dmg.	Aspects
Fusion Grenade	Late Space	2,500	Near	4d6	Greater Blast, AV 3d6 Everyone within Near range takes 1d6 x 20 Rads.

Fusion Grenade (Late Space, 2500 Credits): This grenade augments its explosive power with UDD. It is an improvised weapon, deemed too dangerous to issue routinely. Any Callistan engineer can whip one up with access to UDD. The drawback is that you can't chuck one far enough to avoid taking taking damage from the blast and radiation.

Welder, Fusion (10,000 Credits, Late Space Age): The fusion welder uses a minute amount of UDD to increase its power. Increasing the welder's temperature was not possible without melting the tool! Instead the fusion reaction extends fuel use. It is identical to the laser welder (FTL: Nomad page 88) but has enough power for ten rounds. Refueling the welder costs 100 Credits.

BESTIARY

Name	**Callivole**		
Niche	Herbivore/River	**Armor**	13
No. Appearing	1d6	**Damage**	3d6
Size	Giant	**Skills**	Combat 1 Physical 1
Stamina	30	**Abilities**	Rapid, Tracks Scent

Callivoles (Callistan Voles) have squat bodies with six stubby legs. Their faces have huge, wide mouths perfect for scooping up their food. They live near thermal vents, eating the nourishing fungal and lichen blooms. They locate food with their keen sense of smell and dig it up with their huge claws. The Callistans tend to see voles as pests, but they are sometimes domesticated. A Large subspecies Stamina 18, Claws 2d6 Armor 5 is used as guard animals.

Name	**Ice Rats**		
Niche	Opportunists/ Deserts/Icefields	**Armor**	1
No. Appearing	3d6	**Damage**	0
Size	Tiny	**Skills**	Stealth 3
Stamina	3	**Abilities**	Stealth, Crude Hands

Ice Rats are white skinned hairless omnivores. Their thick skin provides both camouflage and some armor. They roam Callisto's ice fields seeking anything edible. A single rat is harmless to humans, but likely to steal small objects and snacks from any travelers. A pack of Ice Rats can strip a carcass to the bones. Callistans eat them raw and find the human practice of cooking ice rats before eating them utterly repulsive.

Name	River Dragon		
Niche	Predator/River	**Armor**	8
No. Appearing	1d6	**Damage**	2d6
Size	Large	**Skills**	Combat 1, Physical 1, Stealth 1
Stamina	16	**Abilities**	Swimmer, Claws/Teeth

River Dragons resemble raptors of Terra's Jurassic Age, with webbed feet and fur. They swim the icy waters of Callisto's rivers and ambush their prey. They are covered with thick, short fur like Terran seals. They hunt alone or in small packs. Travelers report packs taking down gigantic voles. Usually one will latch onto the prey's neck or throat, allowing the rest of the pack to flank the prey and attack with +1D.

IO

"Io is remote, inhospitable, and can kill you a thousand times over. There's got to be something valuable there!"

– Old Prospector.

Io	**Orbit:** 422,000 kilometers from Jupiter	**Industrial**	**Marginal**
Population: 10 million	**Tech Age**: Early Galactic Age	**Seismic Instability**	**Radioactive**

ENVIRONMENT

Io has a thin atmosphere, 0.3 gees, and temperate though dry climate. It is tidally locked to Jupiter. Like Europa, Io is mostly desert, heated by tidal forces, with no large bodies of water on its surface. The landscape is dominated by mountain ranges and rocky deserts. The surface is dotted with active volcanoes, and the thin air is often contaminated with dust, ash and noxious gases.

The major danger for all travelers to Io is the radiation. Io receives 150 rems per hour or 25 rems per turn. The Ionians and all other native life are immune to radiation and use it as a fuel in addition to eating and drinking.

COMMON KNOWLEDGE

PLACES

ORBIT

Io's orbit is considered Frontier space for encounters. The Ionians do not operate a lot of ships and do not concern themselves with space further than 50,000 kilometers away. Their port is one of the safest in the Solar System, with advanced gravitic systems to help ships land. Most landings are routine. Emergency landings are +2D to Vehicle rolls.

HAZARDS

The major hazard approaching Io is a Radiation Storm. If there is no encounter a storm will appear in a 2 in 6 chance.The Ionians issue warnings of oncoming storms. If a radiation storm is incoming, there is a 5 in 6 chance a ship will receive a warning in time for crews to retreat to radiation shelters. This assumes the ship has a radiation shelter.

DOMED CITIES

The Ionians avoid the storms and extreme temperatures of their world by erecting huge transparent domes over their cities. Generally speaking they do not allow outworlders in their cities. Their architecture favors squat ranch style buildings, to avoid earthquake collapses. The material technology of these cities are several centuries beyond Terran science.

The cities are also defended by forcefields and energy weapons. Pirates lost several raiders learning this

HAZARDS

Security is tight in an Ionian city. Visitors are rarely allowed access and then will be accompanied by a combination guide/ security robot. Hazards are minimal unless you're a pirate or law breaker. You guide bot will inform, calm and protect you.

MINING AREAS

Mining areas are established by the locals. They let the prospectors manage themselves, despite claim jumper, robber and outright murder. That's in the Mining Areas. Committing crimes outside them or at a trading point will result in the law coming down on your neck, and a quick trip to the nearest naval ship.

There are many abandoned camps, though most get buried quickly. These ghost towns are cheap prefabricated buildings and junk piles of broken equipment and a few vehicles not worth lifting off Io. They can still provide shelter from ash, smoke and storms. Any useful equipment or supplies are long gone.

There are a few trading posts, crewed by an Ionian with a number of offworlders to use as translators and negotiators. They offworlder section of the outpost is fully shielded from radiation. An outpost will record claims, and has a small jail for criminals. An Earth Patrol officer will often be here to process criminals and take reports from prospectors. The Ganymedans, Martians, and Callistans are very happy to give these duties to the Terrans.

Mining is done by living beings wearing space suits and dosed with AntiRad. AntiRad is extremely expensive. Some miners make do with drones and limiting their exposure, however, organic miners are better at picking out new veins and strikes.

HAZARDS

The Ionians do not bother with or police the mining areas. Claim jumping and robbery are a fact of life. Io has a repertoire of seismic and volcanic events that can make mining to any depth dangerous. Quakes, lava and landslides are a weekly if not daily occurrence. Roll 1d6 every week. On a 1, a quake or volcanic eruption occurs.

ROCKPILES

Some jumbles of rocks look like ruins, a road (like the so called Bimini Road in Earth's Caribbean), or a castle. Of course some facilities may be camouflaged to resemble rock piles. People going to such lengths will not appreciate being discovered. Ordinary rock heaps may be nesting places for Space Roaches.

HAZARDS

Rockpiles are prone to landslides of course. Quakes and landslides are a weekly if not daily occurrence. Roll 1d6 every week. On a one in six chance a quake or volcanic eruption occurs.

HIDEOUTS

With all the robbery, and attempts to avoid robbers there are often concealed camps on Io. Camouflage usually amounts to netting, with cinders and ash heaped on them to conceal a shelter or ship. Digging an underground shelter on Io is just asking for a cave in, but piling dirt, soils and grit on your roof is fairly easy and a good radiation shield.

HAZARDS

Hideouts host people who are hiding, of course, and who do not welcome visitors. In addition, abandoned shacks may be in poor repair and prone to collapse or infested with vermin. Space Roaches are vermin that can chew on a manhole cover.

IONIANS

Ionians stand 1.4-1.5 meters. They were uncharitably described as penguin bugs by some prospectors. They are upright bipeds with two asymmetrical arms, or flippers, a thick one for lifting and a thin one for fine work. Each hand is three stubby fingers and a thumb. Their legs end in a mass of tentacles, allowing them to climb many surfaces and keep their footing during quakes.

Their bodies are covered by a mass of blunt quills giving them a plump appearance and hiding their legs. Their quills are in black and white patterns. Ionians have a small head covered by quill-less thick reddish skin. They possess three eyes, two are large and yellow, covered by thick transparent membranes. The third is black and set above and between the yellow eyes and senses radiation. Ionians are deaf, and have no means of vocalizing, communicating with pulses of radiation and telepathy.

Ionians reproduce asexually via a natural cloning process. Small Ionians bud off their parent. The immature Ionians are given to a servant class for raising in a group home. Several times Ionians were birthed by Ionian diplomats and traders visiting other moons.

Martians and Terrans have used telepathy to communicate with the Ionians. The psionics attempting this all require lengthy rests to recuperate saying linking to an Ionian mind was like having a conversation in a machine shop or with several air hammers going off. Telepathic contact will fatigue humanoids unless they make a Physical roll. Ionians also use graphic displays to make their wishes known.

The Penguin Bugs are precise and punctual in their communications. They expect the same from others. Miscommunications and lateness are baffling to them. They are very generous with each other. This doesn't always extend to other species. They are especially alert about keeping their technology out of the hands of the younger races, sometimes using lethal force.

Ionians reproduce asexually via a natural cloning process. Small Ionians bud off their parent. The immature Ionians are given to a servant class for raising in a group home. Several times Ionians were birthed by Ionian diplomats and traders visiting other moons.

Ionians rarely leave their world, requiring charged particles in large amounts to stay healthy. Even at their current level of technology this is hard to reproduce artificially. They often use advanced cryo-tubes for prolonged stays away from Io. These tubes are often mobile, wheeled around spaceports. Apparently the Ionians remain awake mentally despite their bodies being held in stasis. They are quite capable of thinking and communicating psionically. Most people find this eerie.

COMMON KNOWLEDGE

Io is the second smallest of the major Jovian moons and the closest to Jupiter. It possesses a small liquid metal core that is heated by tidal forces from the moon's orbit of Jupiter. There is constant volcanic activity on Io. All attempts at establishing a permanent base have failed. Every year a few independent prospectors try to find a rich lode of ore and mine it before it is buried by lava or ash. Some succeed. Claim jumping and piracy by the Dark Sons and others is rife. Prospectors are advised to be heavily armed.

Io possesses a Standard atmosphere tainted by sulfides and volcanic outgassing. Spacesuits are needed to operate on the moon's surface. Other

difficulties include volcanic dust getting into and ruining machinery and tools, and lava flows erasing claim markers. At times even orbital mapping cannot find a previously established claim or new rock outcropping. This makes landing a ship on Io unsafe.

The locals have established mining areas that individuals and corporations may claim. The Ionians don't make any attempt at law enforcement as long as Ionians or their property is not involved. Sometimes they grudgingly provide rescue and medical services but this is not dependable.

It is for these reasons that the Ganymedans, Callistans, Martians, and major mining corporations like Forge and Goldstone never saw Io as worth the trouble. For the present, Io is still a place where independent prospectors can still make a fortune. Many human cyborgs who have worked off their medical debts attempt prospecting on Io.

INSIDE INFORMATION

IONIANS

Ionians do not deal with outsiders on an individual basis but always as officials of some sort. Everyone seems to have a role in society. They are not violent, only using force to defend themselves. However, that can result in a death or destroyed spacecraft. A blitz by the Dark Sons attempting to raid an outlying trading post resulted in a massacre, six ships were destroyed.

Ganymedans, Terrans, Martians, and Callistansagree it is in everyone's best interests not to provoke the Ionians. The few requests they make, contact protocols, orbital approaches, and moonlet claims are honored. Pirates have a healthy fear of them and usually don't venture inside Europa's orbit.

The Ionians have a powerful telepathic link between themselves but their powers are detrimental to other psions. They have also demonstrated telekinesis to handle small objects difficult for their stubby fingers to manipulate. Some can float and do so instead of waddling.

It is becoming apparent the Ionians have a form of group telepathy. This keeps individuals informed and in contact. In practice, the larger the group of Ionians, the longer it takes to come to a decision. Ionians are creatures of habit, having come up with protocols for many emergency situations. The smaller the group, the more initiative and creativity an Ionian will display.

MINING AREAS

Humans have begun using robots to prospect on Io: a number of prospectors are using bots for labor. The robots require a lot of supervision, but it's safer than going out there yourself. Unfortunately for the independent prospectors, the big corporations are now considering whether bot mining could make Io profitable.

Robots and electronics are not dependable in Io's 'hot environment. This is especially true of robots, that have a habit of going rogue and causing destruction. A robot handler must make a Technology roll each day or encounter problems requiring a shutdown. If the roll comes up '2' then a robot has gone into the weeds and will perform acts of vandalism or assault.

The Goldstone Mining outfit is developing a horde of cheap, stupid bots to scour Io's surface. After a predetermined time, the bot controller can recall the bots and check their samples. The Forge has also shown interest and is considering whether robbing a bot is illegal or not. Interplanetary mining and property lawyers are about to be very busy.

The more advanced robots the Terrans developed (from Selenite technology) are more vulnerable to radiation than robots used on other planets. Ironically, other worlds see the problems Terrans encounter with their 'bots and deride the Terrans' 'cruder' models. Earth's robot manufacturers are scrambling to correct this design flaw. Several researchers are field testing new prototypes.

The major thrust of these mining operations is fissionable material which are abundant. These radioactive elements all apparently have different 'tastes' to the Ionians. Some are delicacies. At trading stations, Ionians pay credits or occasionally, small gadgets that could be worth a fortune. Individuals' rewards are carefully monitored by the Earth Patrol. Some are confiscated for safety or security reasons (though the miners are reimbursed).

DOMED CITIES

The substance shielding the Ionian cities is beyond current material science. It must be have great tensile and lightness. It is also transparent to visible light and does not react to the charged particles in the atmosphere or the corrosive effects of volcanic eruptions. Sensor scans of it are inconclusive and the Ionians will not provide samples.

PRIVILEGED INFORMATION

IONIANS

Ionians form a group mind. This mind is intrusive and often checks on its members. Individual Ionians have come to be dependent on this mind as much as life giving radiation. Ionians offworld feel the loss of communication and will decline in health.

The Ionians are socialists by nature. Singular personal pronouns are confusing to them (along with humanoid reproduction). There is no real personal property and the group mind will sort any disagreements out. The group mind causes the static bothering telepaths. A few have noted telepathy works better with Ionians on other worlds.

MINING AREAS

Recently, the Mundelo Corporation made advances in spacesuits, allowing a person to work on Io indefinitely. The suits are fantastically expensive. A few suits are being tested secretly by the company. Having them fall into the wrong hands could cost them a fat revenue stream.

Optionally, if the referee is using Mecha, many miners will be working in shielded Mecha. These have a high start up cost. The new hazardous environment suits are much cheaper and will be a game changer.

ANTARCTICA

The Antarctic Confederation is very interested in the science behind the city domes, seeing it as a way to expand exponentially. They have several psionic agents masquerading as prospectors, trying to get some of the material or at lease clues to its composition. One agent stumbled onto the testing of the new hazardous environment suits and there may be an attempt to steal them. This new technology could benefit the Antarctic Confederation.

DARK SONS

The Dark Sons haven't forgotten the Io Massacre and do not forgive. They have agents in the Mining Areas to spy for any weakness in the aliens. Some captive scientists theorize the Ionians have allergic or even toxic reactions to certain types of charged particles. The pirates are developing weapons and strategies and plan to come back. A plan is underway to contaminate mined ores with toxic substances.

Biggles, Wanderer - Ionian

Knowledge 3 Technology 3

Archetype: Mystic	**Talents**: Psionics: Telepathy Mind Shield (Note Ionians always have a low grade mindshield in effect. Telepaths and related powers require a Knowledge -1D roll to work on them
Stamina: 20	**Encumbrance**: 10

Equipment: Containment Suit, Blaster pistol, food synthesizer.
Cash: Millions.

Resources: Containment suit, Blaster pistol, and food synthesizer.
Elevator Pitch: Biggles (not their real name) is the rarest of beings, a wandering Penguin Bug. Against all custom Biggles seeks out off world ships for trips through out the Jovian System and beyond. An Ionian can be incredibly useful as crew or just a passenger. Few people will attack an Ionian, fearing their wrath. Biggles' stats can sub for a typical Ionian's stats.

Public Profile: Biggles has advertised for passage on a ship, almost any ship will do. Their food needs are provided for of six months, as well as their special life support needs. They have shielding to modify their stateroom. Biggles will pay triple passage price.

Goals: Biggles has been severed from the Ionian group mind. Their sense of community shattered due to a mishap in psionic experiments. The Group decided Biggles would still serve a function, researching the primitives, without the need for a large group. It is also felt the primitives will act more naturally among for an Ionian who is more of an individual. Biggles doesn't have a specific goal but a burning curiosity about all things. The Ionian group will continue to pay their way as long as good reports are sent back. This may include chartering the ship Biggles travels on (all expenses paid!) If the reports are interesting.

Means: Biggles had credits, almost unlimited credits should the crew it accompanies prove interesting. It doesn't try to break local laws but their subjects are free to act as they will. Biggles will not influence their actions and bias observations.

Patron: As stated Biggles will try to board or hire a ship. They will be pleasant enough, apart from asking many questions. Biggles is nearly useless in combat but will defend themselves.
Antagonist: Biggles is supposed to be observing and reporting. Anyone interfering with that purpose may be singled the target of a blaster bolt or more likely the target of the well paid people it observes.

Korso, Cal Peddler - Human

Knowledge 1 Social 1 Stealth 2 Technology 2

Archetype: Mystic	**Talents**: Awareness, Psionic: Alter Appearance, Blink
Stamina: 14	**Encumbrance**: 10

Equipment: Agent kit, many small luxury items
Cash: Tens of Thousands.

Resources: A heavily shielded crawler, a full trading kit, a driver bot.
Elevator Pitch: Cal is a young man who is a successful trader, bringing all manner of recreational and luxury items to the tough and gritty miners of Io. Cal has makes loans (the rates are high but still better than the bank) finds rare items requested and seems to be too good to be true. He is.

Public Profile: If you need it Cal Korso can get it for you. Cal doesn't bother mining riches, he trades for them, following a tried and true business model of selling during a mining rush and jacking up your prices. Despite this he is well liked as he often buys a round for the house or sits in on card games (he's a terrible player).

Goals: Korso is a psionic agent for the Tellurian Faction. He trolls the bars, using credits, drinks and drugs to loosen tongues. His immediate goal is killing miners, by tainting AntiRad, sabotaging space suits, and damaging equipment. His long term goal is determining any weaknesses in the Ionians. The Tellurian Faction feel injuring a number of Ionians will make the Group reject Terrans. This may kickthem out of the Jovian system as the Ganymedans and Callistans reject Terran trade and diplomats to placate the Ionians.

Means: Korso has a lot of credits, from his business, the Tellurians and the Martian Polar Lords. He has a lot of friends among the mining community who will back him in a physical confrontation. He has numerous acids, explosives and poisons to deal with problems that come up.

Patron: Cal will gladly sell items to anyone. He works alone but he may hire guards or technicians for a specific mission. That might be as simple as delivering a package...
Antagonist: Cal will kill to protect his secret and his mission. This might involve hiring suspects to deliver a small package. Death is common on Io.

Pippin, Tom Scout - Human

Combat 1 Knowledge 1 Physical 1 Technology 3

Archetype: Scout **Talents**: Drone Operator

Stamina: 17 **Encumbrance**: 12

Equipment: Engineer kit, many small drones

Cash: Tens of Thousands.

Resources: A heavily shielded crawler, many bots and drones made to order.

Elevator Pitch: Tom makes a living prospecting. He sells the claims he files, he doesn't mine them. He troubleshoots and repairs mining robots on the side and makes a good living. He operates numerous drones. He uses these to spy on the Ionians and learn secrets of their technology. He has little success and a lot of wrecked drones. The Ionians value privacy and seem to regard blowing up Tom's drones as a hobby.

Despite his lack of results, people continue to supply Tom with credits and drones, backing a long shot.

Public Profile: Tom makes a living prospecting. He sells the claims he files, he doesn't mine them. He troubleshoots and repairs mining robots on the side and makes a good living. He is basically an IT guy for hire and he gets a lot of temp jobs.

Goals: Tom is determined to get either a sample of the material the Ionians use to enclose their cities or a good schematic of one of their blasters. He did manage to find a dead Ionian he autopsied with drones, selling the recording for money. The Earth Republic branded the video a phony.

Means: Tom has his legitimate businesses and a trickle of money and drones to stay in business.

Patron:Tom usually works alone or with a few bots. He rarely works with others. He will provide IT services for reasonable rates and sell small claims.

Antagonist: People bothering Tom will get their computers hacked and sabotaged. Being harassed by bots are an option. Bots do go rogue on Io due to radiation.

RUMORS

- There's a rich strike – any place, anytime.
- The Ionians are all synthetic beings under the control of a single enormous brain.
- The Dark Sons used a nuke on on the Ionians. It merely made them super strong and almost godlike for a while. (False!)
- Ionians find time away from Io to be extremely stressful.
- Psionics are virtually useless after any prolonged contact with the Ionians.
- The Selenites and Ionians came to blows a few times several centuries ago.

TECHNOLOGY

Ionians are in the early Galactic Age. They possess disintegrators and all the other trappings of that Age. Ionian technology uses biological components, based on their physiology and toughened against radiation. Needless to say a radiation damage result in space combat will leave Ionians laughing. They ignore such results.

Their gravity and force field technology is the envy of the star system, allowing their huge ships to hover or land on other worlds. Force fields allow then to ignore many attacks. To put it simply, don't tick off an Ionian captain. Fortunately Ionians are generally calm and peaceful, or seem the way.

FEAR, LOATHING AND RADIATION

Io experiences 150 rads of particle radiation per HOUR. An ordinary spacesuit absorbs 60 rads. This doesn't mean you can work outside for 20 or so minutes every hour. It means the rads absorbed per hour are reduced by 60 rads. A person in a space suit on Io will take 150-60=90 rads per hour or 15 rads per ten minute turn.

Some miners get around this using robots (or mecha if the Mecha supplement is in use). Others resign themselves to taking a dose of AntiRad. This is expensive but renders the user immune to radiation for 1d6 hours. AntiRad can be used once per day. More doses in a day provide no benefits.

In practice Earth miners use robotics, venturing out when they have must to examine their findings. Whenever possible they will dig tunnels and work underground, which shields them from radiation.

The new Hostile Environment suits were developed after obtaining several Martian and Ganymedan models. These elder cultures are worried by the speed of Terran innovation.

Space Suit Hostile Environment - new model: (Late Space, 10,000+ Credits): The latest spacesuits are bulky (3 times) and expensive. They are very successful prototypes and may cost 25,000 credits or more to start. They are otherwise identical to the item given in Nomad (page 66).

Ionian Space Suit, Hostile Environment (Early Galactic, 50,000 Credits): An Ionian Hostile environment suit infuses the wearer with life giving radiation. A human foolish enough to wear one receives 150 rads per hour. As one spacer put it 'They're environmental suits that work the wrong way around!' A suit contains a three day supply of life support, power, and food syrup.

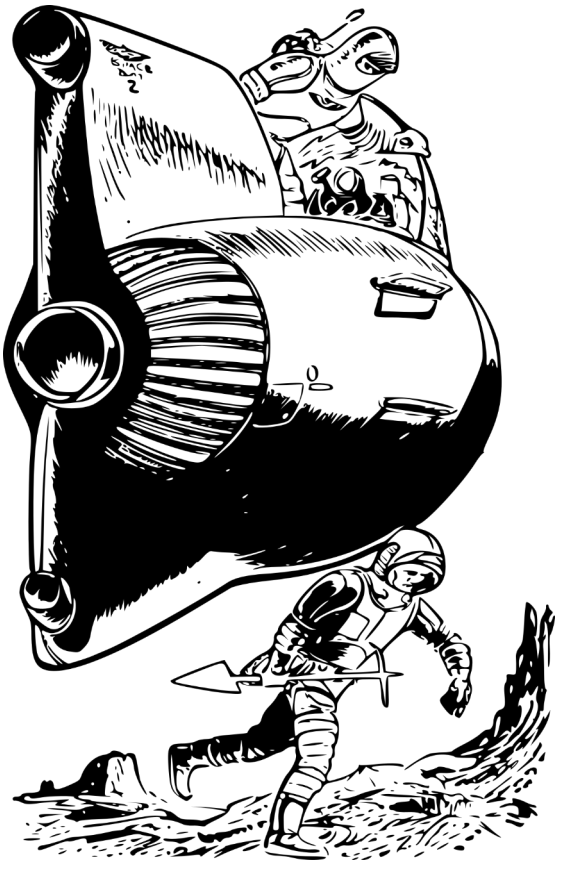
Food Synthesizer (Late Interstellar, 10,000 Credits): The Ionian food synthesizer can take anything vaguely organic and turn it into food! If you're an Ionian. The food is not nutritious and mildly toxic to other species causing stomach distress and 1d6 damage unless the eater passes a Physical roll. An Ionian can reprogram it to provide food for humanoids with a Technology roll in 1d6 hours. Deciding who will be the first to try it is always fun.

Radiation Well (Early Space, 10,000 Credits per crew, 1/4 ton of cargo.): A radiation well is a shielded sanctuary for crew and passengers. It is very cramped. It can support crew and passengers for up to 48 hours. It cuts radiation exposure by 200 rads. This spacecraft component is often mounted on vehicles on Io. Any lapses of personal hygiene become very apparent in a radiation well.

Io doesn't possess any multicellular animal life besides the Ionians. This has puzzled offworlders. There is a type of moss that replenishes the oxygen in the atmosphere, breaking down C02 and CO from volcanic eruptions. Microbes similar to paramecia breather in oxygen and breathe out CO2. Ionian bots keep the moss under control and Io keeps its atmosphere. When questioned by Terrans about the lack of animals and plants the reply was something like, "Oh THOSE. We didn't NEED them any longer." Most decide not to ask further.

Name	**Space Roach**		
Niche	Opportunist/Mixed	**Armor**	4
No. Appearing	3d6	**Damage**	1d6
Size	Small (child)	**Skills**	Combat 1 Physical 1
Stamina	20	**Abilities**	Night Vision, Trunk, Cling, Regenerates

These mutants are larger versions of Terran cockroaches. They have much thicker legs than their Terran cousins, and wide, shining eyes, Space Roaches are vermin that came to Io on Terran spacecraft. They took refuge in the underground mines and quarters offworlders used to shield themselves against radiation. German cockroaches in particular, could survive several weeks on Io's surface. The creatures often survived long enough to breed mutated offspring. These creatures were largely immune to radiation. The creatures are cowardly, only attacking lone humans. They are a nuisance, chewing though power lines and pipes and despoiling unattended food. Usually bright lights (headlights, several flashlights or a searchlight) will often make them retreat (make a morale roll).



EUROPA

"The 'Krabs' are pessimists, used to disaster, always expecting hardship. They'd make good communists".

-Dr. Chesley Kincaid.

Io	**Orbit:** 671,000 kilometers from Jupiter	**Garden**	**Desert**
Population:	**Tech Age**: Early Primitive Age (Europans)		

ENVIRONMENT

Europa has a thin atmosphere, 0.3 gees, and a very warm climate. It is tidally locked to Jupiter. Europa is mostly desert, heated by tidal forces, with a single very salty sea. The landscape is dominated by rocky deserts and mountain ranges. The mountains contribute to the formation of deserts by locking the little rain produced around the Salty Sea. Some of the mountains reach to the edge of the atmosphere.

Europa is the smallest of Jupiter's major moons. Due to its small size and proximity to Jupiter, tidal forces have heated the moon, and created an arid environment. Due to volcanic activity, much of the surface is covered with rock outcroppings and small sandy oases. There is little surface water though there is a a small surface sea far from Bonestell Base and its landing field. Interestingly, there are also indications that Europa has a subsurface aquifer the size of an ocean. More exploration is required.

Europa possesses a thin, clear atmosphere. Humans can tolerate it for a number of hours equal to their Stamina without breathing masks before they become Fatigued.

COMMON KNOWLEDGE

PLACES

ORBIT

Europa's approach is considered Frontier space. It experiences radiation storms like Io but of lesser intensity due to its greater distance.

Despite the arid climate most of Europa has vegetation and resembles mid-latitude deserts, like Earth's Sonoran Desert. The Salty Sea has not been explored by Terrans yet. The Europans do not venture onto it but do live on the shores, distilling water with ingenious solar powered stills.

SALTY SEA

The Salty Sea straddles the line between Jupiter side and far side. It is elliptical, running East to West and about 300 kilometers in length. Much of the shore is rocky outcroppings and a few beaches with black sand. The water is almost as salty as the Dead Sea on Earth. Few locals will venture out onto the water and boat making is virtually unknown.

Unlike the Dead Sea, the Salty Sea has macroscopic life forms and mean ones! Sea scorpions and army crabs often venture onto the shore to steal Europan crops and livestock. Fish swim the water. Europeans will not eat sea life, preferring starvation.

WORLD RIDGE

The World ring is a mountain range running along the Northern shore of the Salty Sea. The range blocks clouds and water from most of the Northern Hemisphere of Europa, creating a much drier climate than the Southern reaches. Europeans don't seem to notice much difference.

Due to the height of the range, Europa's small size, and the thin atmosphere the upper reaches of many mountains stick out of most of the atmosphere. Flying over the range in jets or propellor planes is very dangerous, risking engine failure (Vehicle roll -1D to avoid a hard landing or crash).

BONESTELL BASE

Named for the great artist, Chesley Bonestell, Bonestell Base is a corporate town, run by the Eando Telemorphic Foundation. The stated purpose is to research the native lifeforms' remarkable stamina and healing abilities. The spaceport is administered by the base. A Callistan ship is usually in orbit and may demand to board vessels entering orbit. Sometimes the Callistan vessel is replaced by a Ganymedan vessel with similar results.

Security at the port and base is high. The Tellurian Faction has performed one act of sabotage (exact details are classified). The Ganymedans and Callistans are concerned about the Faction expanding into their system and the presence of many Terrans who seem to be staying.

There are 1,500 people (95% Terran) at Bonestell Base and the spaceport. The base requires constant imports of food, technology and personnel. Ships that are expected are quickly inspected and sent to a berth. Tramp freighters attempting trade may face a wait (Social roll to avoid a 1d6 day wait for a berth.)

HAZARDS

The major hazard approaching Europa is a Radiation Storm. If there is no encounter a storm will appear in a 1 in 6 chance. The Ionians, Ganymedans, and Callistans are fairly conscientious about providing warnings of oncoming storms. If a radiation storm is incoming, there is a 5 in 6 chance a ship will receive warning in time for crews to retreat to radiation shelters. This assumes the ship has a radiation shelter.

Due to the height of the range, Europa's small size, and the thin atmosphere the upper reaches of many mountains stick out of most of the atmosphere. Flying over the range in jets or propellor planes is very dangerous, risking engine failure (Vehicle roll -1D to avoid a hard landing or crash).

Climbing mountains is hard enough in itself. The World Ridge has huge steep mountains. Due to the height of the range, Europa's small size, and the thin atmosphere the upper reaches of many mountains stick out of most of the atmosphere. Flying over the range in jets or propellor planes is very dangerous, risking engine failure (Vehicle roll -1D to avoid a hard landing or crash).

EUROPANS (KRABS)

Europans stand about 1.3 meters tall. Their barrel chests have hypertrophied lungs to cope with the thin air. Slabs of Keratin cover their torso and shoulders. They have two spindly legs within more armor on the knees and two gawky arms due to their world's low gravity. Their feet and arms end in three fingered claws similar to a crustacean's pincers. Though their bodies are protected by a thin chitinous shell, Europans do possess an endoskeleton as well as their exoskeleton.

Europans have well developed eyes. They are covered with several membranous

lids and a chitin over-lid. This protects them from the constant wind borne grit. Their eyes are adapted to the wide variation in light from the Sun and Jupiter. They take no penalties in dim light.

They have male and female sexes, though apparently only a Europan can tell the difference. A few Europans can speak basic English, or other human languages. Most cannot and charades prove confusing. Their bodies are dark brown or black with some red

Ganymedans and Callistans have found little of value on Europa or in the Europans. Earth has established a research base to assess local life forms for scientific and medical value. This involves extensive trade with the Europans. However, Humans have had to sign agreements with the Ganymedans and Callistans that guarantee that they get the right of first offer on anything found. Humans trading with the Europans have swapped plastics and synthetic goods for seeds and some shiny rocks. Human patrol ships also call and take a dim view of people exploiting the Europans (or calling them 'Krabs').

The Europans jealously guard the few fertile areas on their planet, and put them under intense cultivation. They lovingly draw water from wells or collect it in barrels after a rare rainfall. The Europans are masters of irrigation, and they often grow their plants under glass covers to minimize water loss due to evaporation. Native homes and shelters are built of lava rock blocks. They are sturdy but may still collapse from earthquakes or are buried by eruptions. The Europans possess Early Primitive Age technology.

INSIDE INFORMATION

BONESTELL BASE

Bonestell Base is very large, and access is restricted. Any spacecraft landing is boarded and inspected by Callistan troops. Ships without a good reason for landing are often turned away. Few locals live near the base, which is in a very inhospitable area. The research base is doing little to study the natives. Even linguistic study is rudimentary.

Most traders don't bother with Europa. A few xenobiologists do try to launch their own independent studies. Independents find delays and accidents occur. Supplies are not delivered or lost. Equipment and dwellings are vandalized, despite good relations with the locals. Some researchers just go missing.

THE SALTY SEA (TURREN KIYAT)

The Europans are terrified of their home's shallow surface sea. They call it Turren Kiyat: the Poison Water. Saltwater can weaken their protective exoskeletons. The sea is home to numerous large amphibious creatures. Only the hardiest Europans farm Turren Kiyat's sandy beaches.

The Europans tell tales of Europans who sailed from the far side of Europa. These 'foreigners' speak their own language and offer marvelous items in trade: copper tools, glass beads, and textiles! Some of the foreigners had conducted raids for gold and to take prisoners for unknown reasons.

PRIVILEGED INFORMATION

BONESTELL BASE

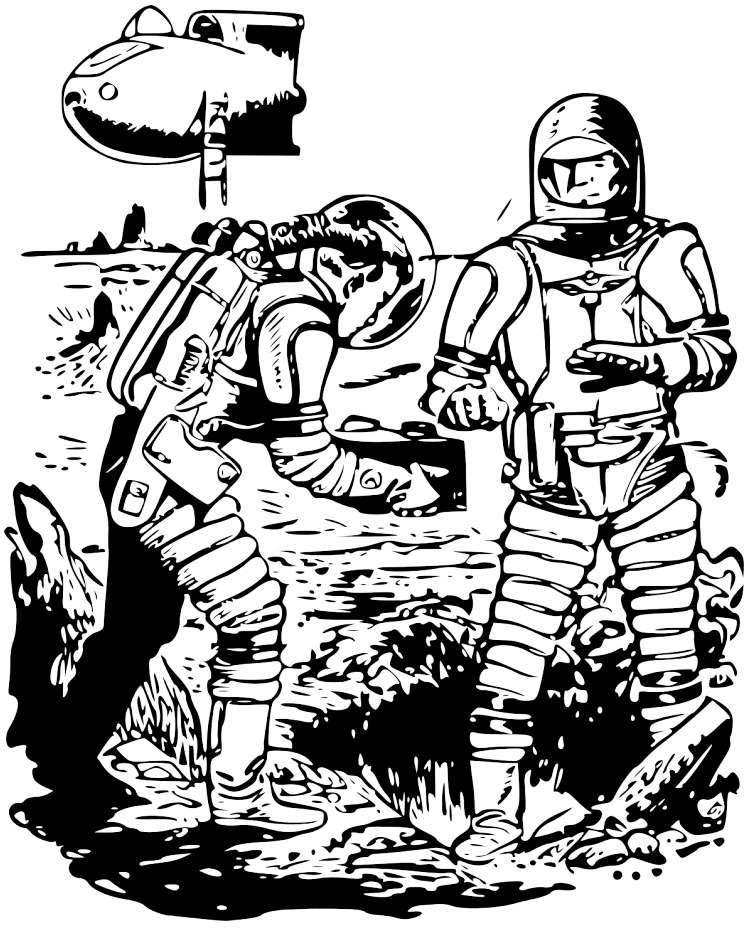
The Bonestell Base is run by the Eando Telemorphic Foundation. The Foundation set up a field test of their biomorphic process, merging human and European DNA. This is the second phase of the project, examining how their subjects adapt to the dryness, heat, and thin air. The study is being kept quiet for political reasons. The Tellurians would love to cause a fiasco and destroy the Foundation's standing. More importantly, not all the experimental subjects (human or Krab) are volunteers.

The researchers are tyrannical. The ETF executives on Earth are unaware of this. A number of subjects have opted out, but they're being kept at Bonestell for nebulous 'medical reasons'. Some have escaped to live among the Europans who welcome their strength and knowledge. The rogue subjects are attempting to contact any ship they can to get passage off Europa.

Bonestell base pays the Dark Sons to actively harass unwanted shipping. They don't harass base shipping. Astute observers may notice this.

THE SALTY SEA

The foreign Krabs are colonizers and seek gold and servants (willing or otherwise). Humans have not encountered them, yet. However the foreigners have learned about hoomins from their captives. They have offered rewards for a Terran brought in alive to the locals. The foreigners possess Late Primitive Age technology and have established several small kingdoms competing for new lands on the Jupiter side along the shore of the Salty Sea.



Xikeek, Local Chief - Europan

Combat 1 Knowledge 2 Physical 1 Social 1 Stealth 1
Archetype: Scholar (European Lore) **Talents**: Inspiring
Stamina: 14 **Encumbrance**: 10
Equipment: Spear, shovel, some trade goods.
Cash: Shiny rocks.

Resources: A tribe of Europans, some Earth gadgets, survival knowledge.
Elevator Pitch: Xikeek hunts the Europan beach nippers: large and fierce crustaceans hunted by groups of Europans. Xikeek speaks English and is very helpful to Any Terrans he encounters.

Xikeek's thoughts: "Humans are idiots. Eventually Europa will level their dwellings and kill them. It pays to stay close to take things off their bodies. The safest way to do that is be useful and wait. Their weapons are too powerful to oppose. The Ganymedans came and were devastated. The Callistans came and fled. The Others came in the Long Ago and were buried. Only WE survive."

Few Krabs die of natural causes. A smart Krab like Xikeek can live a long time. Humans would be amazed how old he actually is. Xikeek is over a century old. Most of the chiefs are at least 80 Earth years old.

Public Profile: Xikeek is the head Krab of the Shiny Rocks, the Europan tribe closest to Bonestell Base. He is a helpful and generous soul.

Goals: Survival. He wants his tribe to survive as well, but many won't.

Means: A wealth of experience. Heknows he will eventually fall, all do. For now, he knows where the bodies are buried: literally, in the case of the Bonestell base.

Patron: Chief Xikeek is an unlikely patron. He may approach strangers if his 'friends' at Bonestell Base can't or won't help with a problem.
Antagonist: Life is too short for a grudge. Europa will kill you and your enemies soon enough. Why worry?

Kincaid, Chief Doctor - Human

Knowledge 3 Social 1 Vehicles 1 Technology 1

Archetype: Scholar **Talents**: Medic

Stamina: 14 **Encumbrance**: 10

Equipment: Multiscanner, Tranquilizer Injectors

Cash: Hundreds.

Resources: Research staff, research base, security forces.

Elevator Pitch: Dr. Kincaid is the boss at Bonestell Base and a legend in his own mind. He has a number of subjects from Earth he is secretly adapting to Europa. Many of these people are dissatisfied with their treatment and want out of their contracts. A few have escaped to live with the Europans and seek spacecraft to take them off world and back to Earth. Bonestell has ordered security to retrieve them dead or alive.

Dr. Kincaid suspects that the Europans have an unnatural longevity. He is trying to "acquire" a few for further scientific examination. He may prepare injections developed from Europan genetic material to use in an attempt to reverse aging in humans. What could go wrong?

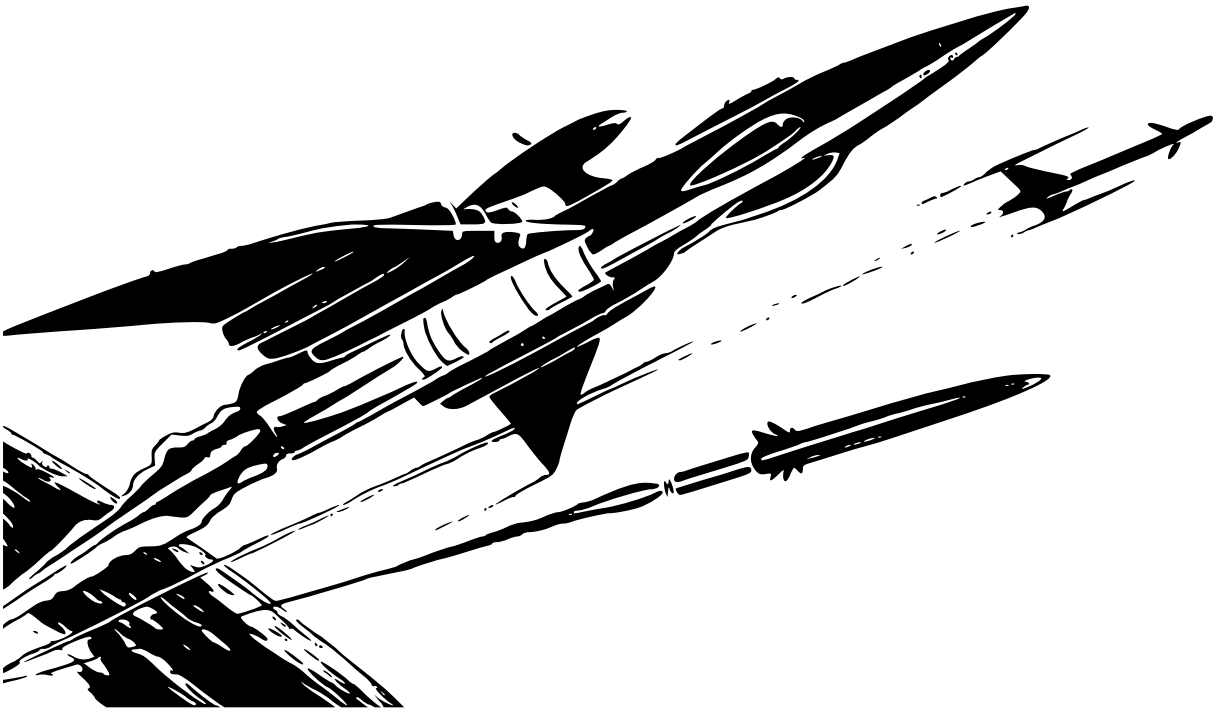
Public Profile: Dr. Kincaid runs the Eando Telemorphic Foundation facilities in Bonestell base. He has done cutting edge genetic research.

Goals: Immortality, for him, his legacy, and possibly even humanity if everyone else deserves it.

Means: Scientific research! Research is his omelet and his minions break a few eggs to make this omelet!

Patron: Dr. Kincaid may hire characters to hunt down some escapees or to bring in Krabs from further afield; he can't allow the nearby Krab tribe to know what he's doing.

Antagonist: People interfering with Dr. Kincaid will be dealt with by his security forces and will likely find themselves turned into involuntary experimental subjects.



Mandy Wheeler, Escaped Subject Hybrid - Special

Knowledge 1 Physical 3 Social 1 Stealth 2

Archetype: Outsider **Talents**: None

Stamina: 23 **Encumbrance**: 16

Equipment: Water bottle, hoodie and gloves

Cash: 0.02 Credits.

Resources: A little food and water.

Special: Mandy's DNA has been altered by the addition of Europan genetic material. Her arms end in pincers similar to the Europans. These do 1d6+3 damage in close combat. Her stamina regains 1d6 points the round after she takes damage. She becomes Fatigued after healing 10 or more damage this way. Unfortunately, the transformation has left her traumatized and psychologically unstable: despite her formidable new abilities she is quite shy and ashamed of her appearance.

Elevator Pitch: Amanda Wheeler was a plucky college student. Her stint on Europa was just supposed to be a summer internship. Instead, she was poked prodded and altered. Mandy escaped when Bonestell Base was damaged during an earthquake. Her Krab augmentations allowed her to survive on very little water and food. Now she's wondering who will get her off Europa.

Public Profile: Dr. Kincaid reported Mandy was a worker who left the base and ran out on her contract. This was due to her disfigurement in an accident due to her own carelessness. He would like Ms. Wheeler to be brought back for further surgeries to repair her damage.

Goals: Survival, escape, talking to the news media, maybe write a tell-all book.

Means: Mandy will tell her sad story to anyone who will listen.

Patron: Ms. Wheeler has no money. She will praise the heroism of anyone helping her and give them some shiny rocks!

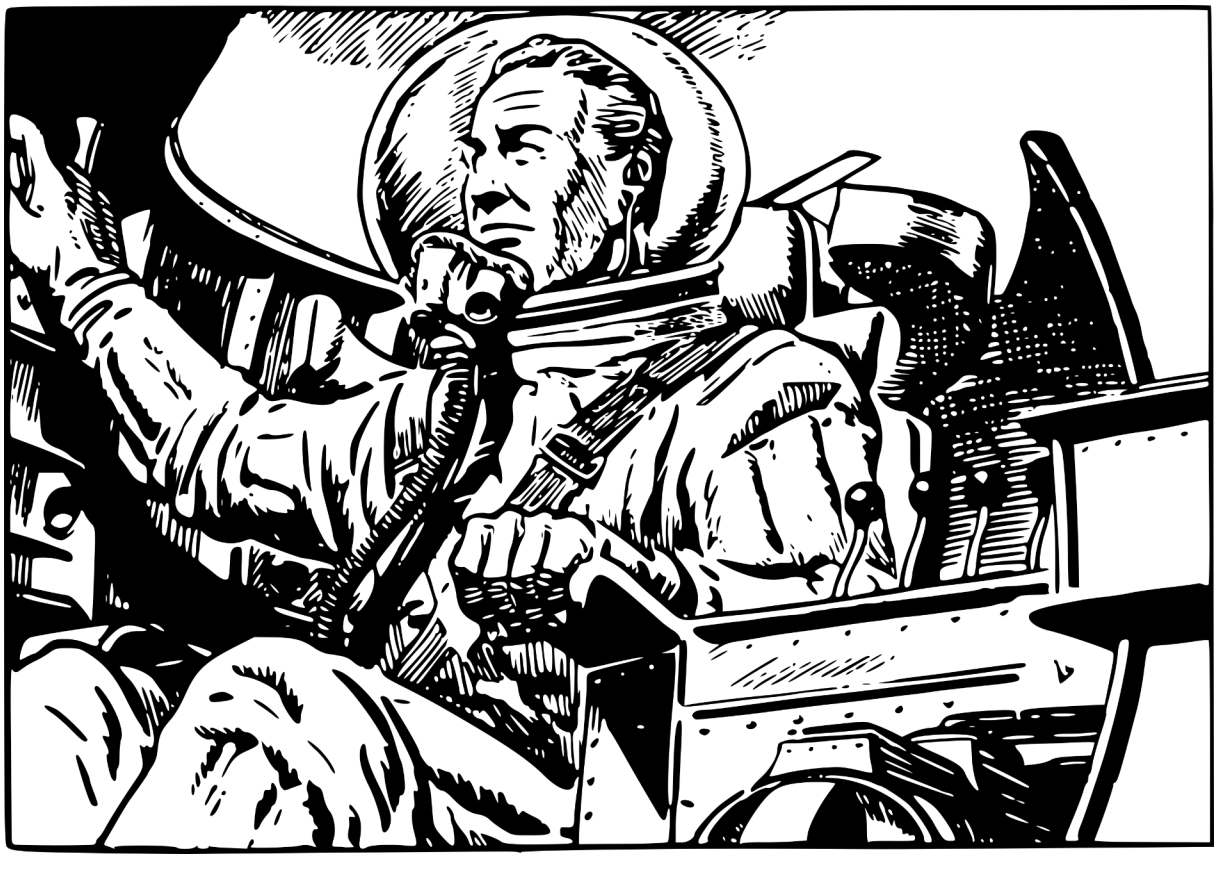
Antagonist: If she gets desperate enough, she'll stow aboard the player characters' ship or steal it.

RUMORS

- The Krabs aren't alone. There is a hidden species, very similar to humans. They are advanced and have mounds of treasure.
- The Dark Sons are working with Bonestell base, selling people they've captured for experiments.
- Europa has a massive underground ocean. The Earth Republic wants to tap it to irrigate the entire moon.
- The Krabs have little to trade: seeds,, rocks, water they collect.
- Some people began prospecting and found diamonds the size of your fist.
- Ionians often send a ship to Europa for unknown reasons.

TECHNOLOGY

Trade Kit (Late Primitive, 100 Credits 3 items): A trade kit contains goods that are valuable to the Europans, junk to most others. Some think the Ionians have the equivalent to deal with Terrans. A typical kit contains rustproof steel knives and hatchets, beads, glass lenses, and candy. Traders have noticed the kit's waterproof carrying case is particularly valued! Kits are used to pay for labor and services. The kits are being introduced to the T'k't who also value the contents.



Name	Beach Koro or Army Crabs or Nippers		
Niche	Opportunist/Beach	**Armor**	2
No. Appearing	2d6	**Damage**	2d6
Size	Medium (child)	**Skills**	Combat 1, Physical 1
Stamina	10	**Abilities**	Talons/Fangs, Enhanced Hearing

Nippers are arthropods similar to Earth crustaceans. Europan Nippers come in large and small varieties. The smaller ones are a nuisance (use Callistan ice rats statistics). The large nippers are described here. The large Europan Beach Nipper is always hungry, and frequently eat crops from Europan shore-side communities. This forces Europan farmers to engage in community-wide hunts, scouring several miles of beach. Those nippers caught become the main course of a community feast.

Name	Claw Bird		
Niche	Opportunist/Desert or Beach	**Armor**	2
No. Appearing	2d6	**Damage**	2d6
Size	Small (dog)	**Skills**	Combat 1, Stealth 3
Stamina	12	**Abilities**	Tracks, Flies, Stealth

Claw Birds have limited exoskeletons and leather wings. Their heads have four eyes with a wide field of view. They have two legs ending in sharp pincers like a crab they use to hold prey or rip into large carcasses. Claw Birds are scavengers. They seek deceased creatures to feed on but will also swoop down to steal food or carry off small animals. Europans despise them for destroying supplies, ruining crops, and carrying off pets and young Europans. They will often lay out a carcass to attract the creatures and then fall on swarms with nets and clubs. Unfortunately, the dead Claw Birds attract living Claw Birds that then attack the Europans.

Name	Mega Skorp		
Niche	Opportunist/Cave or Canyon	**Armor**	0
No. Appearing	2d6	**Damage**	1d6
Size	Medium (human)	**Skills**	Combat 3, Stealth 1
Stamina	12	**Abilities**	Tracks Scent, Stealth, Stinger

Mega skorps infest caverns and the darkest canyons on Europa. These creatures resemble the scorpions of Earth but are considerably larger. Their stingers inject a poison deadly to Europans Virulence -1D. Triage Roll). Humans are more resistant and make their Physical rolls with no penalty and merely take 1d6 damage if the roll is failed. A Mega skorp is little threat to an armored and armed human, and Europans are very grateful when any humans help clear out a skorp cave nest.

SPACECRAFT OF THE SOLAR SYSTEM!

"If you see me running, try to keep up."

- Old Engineer wisdom.

INTRODUCTION

Spacecraft in Retro Rockets use fusion rockets, there are no magical gravity drives. Fusion reactors generally use boron for their fuel. Hydrogen reactions are dirtier and the reactors are harder to repair and maintain. Boron is harder to acquire in the wilds than hydrogen. Water is used for propellant. Aside from minor issues listed below, both reactors perform identically to the ships in FTL: Nomad.

Fusion rockets can attain high velocities, however space is huge. Travel times in the Solar System often take weeks or months. Ships accelerate to their cruising speed, coast for most of the journey and decelerate at their destination. Rockets typically travel at 3-5 kilometers per second. Top tier racing vessels make 10-15 kilometers per second.

There is little hope for a warp or faster than light drive. Even the Ionians use very advanced rockets to get from point A to point B.

Spacecraft that have an Agility higher than +4 have it reduced to a maximum of 2. They do increase payload steps for this reduction.This doesn't apply to Ionian vessels and Selenite vessels have a maximum Agility of 3.

Items below marked as '*' appear in *Spacecraft Go!* The Cloak is available at Late Space Age, but only because of the unique properties of mamel crystals.

Technology

Abduction Beam (Early Interstellar Age, +5%): The Abduction Beam is a short ranged version of the Late Interstellar Age's Tractor Beam (Spacecraft Go! page 28). It is not usable for docking or in combat but can move up to six people or a small car into a vessel's hold (or lab!). The beam's range is only to Near Range. Targeting a resisting person requires a Technical roll. People held in the beam experience paralysis for a few minutes. The name comes from its most notorious users, the Selenites, who kidnap humans.

***Airframe** (Late Space Age, +10%): An airframe allows a destroyer or cruiser to enter a planet's atmosphere. Maneuvers are limited to taking off and landing. Any breach result represents damage that negates the airframe. A pilot still trying to land with a damaged airframe must roll Vehicles -2D or take three Regular Damage results.

Boron Fusion 1st Generation (Early Space Age): Boron fusion is difficult to achieve, but it is a relatively cleaner reaction, producing hydrogen and x-rays as side products. This is the default reactor used by all spacefaring races except the Ionians and Selenites.

***Boron Fusion Second Generation** (Early Interstellar Age, +10%): Boron fusion is difficult to achieve, requiring specialized laser ignition and temperature resistant reactors. The benefit is a reaction that creates x-rays instead of gamma radiation, which require lighter shielding (usuallywater). The vessel saves mass for payload and propellant. Boron fusion plants upgrade a

ship's payload one step. The Selenites use this perfected form of energy generation.

***C-Beams** (Late Space Age, +10%): The default space combat weapon is the mass driver, firing slivers of metal. Lasers have advantages but also drawbacks. Laser optics are huge, costly, and vulnerable. This variant technology uses a magnetically-contained plasma lens to focus a laser beam on a tube carried tens or hundreds of meters from the ship. Laser weapons have virtually instantaneous travel time (fractions of a millisecond). The drawbacks of this system are the longer times required to charge the laser, let it cool down between pulses, and keeping the beam on a target long enough to cause damage. With C-beams, ships making a laser attack without Position do not suffer any penalties to hit but roll four less dice for damage.

***Cloak** (Late Space Age, +40%): Cloak technology interferes with EMF radiation around a vessel, rendering it invisible. The ship still produces a faint heat signature and magnetic fingerprint and can be detected with a Technology throw at -2D. If undetected the ship may drop the Cloak and attack with +1D. A Cloak can't be reestablished during combat: everyone will be looking for you.

Cloaks in Retro Rockets are the result of carefully tuned mamel (or power) crystals. This is quite expensive unless you loot Vulcan and oppress its people for labor.

Radiation Well (Early Space, 10,000 Credits, 1/4 ton of cargo per crew.): A radiation well is sanctuary for crew and passengers. It is very cramped. It can support crew and passengers for up to 48 hours. I cuts radiation exposure to 1/10th the listed amount. This spacecraft component is often mounted on vehicles on Io. Any lapses of personal hygiene become very apparent in a radiation well.

***Shielded Hull** (Early Space Age, 1 step, +10%): A shielded hull places additional radiation shielding around the crew compartment and engines. It can save a crew if a power plant is damaged (aside from the guy fixing the engine!), reducing the rads to 1/10th. It provides some protection from weapons fire. The crew absorbs half the rads from particle beams, nuclear weapons. Or Radiation Storms.

Ultra Dense Deuterium Reactor (Early Space +5%): This reactor fuses hydrogen, using UDD to start ignition. It is a dirtier reaction than boron fusion. The reaction produces neutrons and hard radiation. Ships with UDD reactors are tricky to repair in space. Crew undertaking repairs or maintenance of the engine or reactor while underway take 1d6 x 50 rads unless they succeed at a Technology roll.

Callistan Blade Destroyer

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Destroyer	3 months .75 Travel	25/28	25	32	7d6	0	
Steps	-1	0	0	-1	0	-1	0
Cost	-15%	-	-	-5%	-	-10%	-30%

Travel Multiplier: x0.75

Modifications: UDD Reactor, Micro Lander (8 cargo).

Cost: 70 million Credits

Monthly Cost: 298,000 Credits

Blade destroyers are wedge shaped warships used by the Callistans. The destroyers patrol the Sargasso and show the flag for Callisto. The Moon Bears are churning the sturdy craft out rapidly, which disturbs the Ganymedans. They are a familiar site in the Jovian system and may even call on Earth.

Destroyers use deuterium reactions to power the vessel. This is a dirtier reaction than boron fusion but uses simpler reactors. Shielding is increased. Callistan doctrine places the reactor on a boom far from the rest of the ship, behind a dense radiation shield. The shield creates a conical shadow free of radiation. The ship spreads out in a cone or wedge to fill the void, thickening towards its fore.

The ships are too large to land in an atmosphere and use a Micro hull lander when away from Callisto. Tugs at the Callistan landing fields allow these ships to land but this amenity is only available on Callisto. The ships have decent armor and guns but are designed for a fast response to problems.

The Callistans believe in large ships and mass production. There are several types of destroyers with specialized roles that will form a squadron. The basic destroyer is a ship killer pure and simple. The troop Carrier version is often used with it to mount boarding parties or ground force landings.

Callistan Troop Carrierr

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Destroyer	3 months .75 Travel	25/28	200	24	7d6	0	
Steps	-1	0	+2	-1	0	-1	0
Cost	-15%	-	+10%	-5%	-20%	-10%	-40%

Travel Multiplier: x0.75

Modifications: UDD Reactor, Micro Lander (8 cargo).

Cost: 60 million Credits

Monthly Cost: 298,000 Credits

Earth Patrol Cruiser

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Cruiser	1 Year x1 Travel	29/33	100 (50)	109	7d6	+1	
Steps	-0	0	0	0	-1	+1	0
Cost	+10%	-	-	-	-10%	+10%	+10%

Travel Multiplier: x1

Modifications: Micro Landers x2 (16 Cargo), Robotics

Cost: 385 million Credits

Monthly Cost: 575,000 Credits

Earth Patrol Cruisers are a hodge podge of modular components that look ramshackle to some. Checking under the hood reveals cutting edge automatics to reduce the crew size and large compliment of torpedoes the Terrans are rapidly gaining fame (and infamy) for.

Cruisers project Terran power and influence throughout the known worlds. are not just military vessels. Robotics reduce the crew required for this ship, allowing 50 passengers without reducing cargo space. These passengers can be anything from scientists on a research mission, to combat troops deployed to put down a rebellion. A patrol cruiser may be on a diplomatic mission to show the flag or deliver personnel to a remote outpost.

Cruisers often carry civilian specialists for scientific reasons, diplomacy, and specific missions. Characters may volunteer or be pressed into a trip aboard a cruiser if needed.

Earth Patrol Gunship

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Picket	3 months x1 Travel	18/21	4 (6)	32	7d6	+1	
Steps	0	+1	-1	+1	+1	-1	0
Cost	+10%	+10%	-10%	+5%	-20%	-10%	+25%

Travel Multiplier: x1

Modifications: Six Torpedoes

Cost: 35 million Credits

Monthly Cost: 74,000 Credits

Earth gunships resemble flying wings. Their wings carry torpedoes and weapon mounts. They constantly patrol the Earth-Moon System and the Jovian worlds. They are agile and pack a rack of six torpedoes to deal with larger pirate threats. This led to their nickname: Sixpacks. Gunships operate in wings of two or three for added punch or escort cruisers.

A gunship has too small a crew to attempt boarding actions. They will escort suspected pirates or smugglers to a port for further investigation. The threat of the Gunship's weapons makes most ships comply with instructions.

Ganymedan Tetrahedron

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Cruiser	6 months x1 Travel	29/33	100	125	8d6	0	
Steps	0	0	0	0	0	0	0
Cost	+20%	-	-	-	-	-	+20%

Travel Multiplier: x1

Modifications: Airframe, C-Beams, Shielded Hull

Cost: 420 million Credits

Monthly Cost: 875,000 Credits

The Ganymedan Tetrahedron is a magnificent vessel resembling a four sided die or a pyramid with three sides. Their hulls are brilliantly painted and often works of art in themselves. The entire effect is to project the status and magnificence of its owners' Noble House. They do not operate small crafts, preferring to land to conduct business on the ground.

The four points of the tet base mount powerful thrusters that make the huge ships capable of hovering or landing easily on a planet. This is not often seen in such huge vessels. This makes the vessels even more impressive in the minds of the Ganymedans. Tets use powerful energy weapons instead of the run of the mill mass drivers Terrans and Callistans use. This makes their weapons more versatile, capable of sweeping attacks against smaller and more nimble hostiles. Terran Analysts feel the ships are too complicated and don't stand up well in combat despite their power due to their cost and lengthy construction. They also require more frequent resupply.

Diplomatic and training ship versions exist as well

Ganymedan Training/Diplomatic Tetrahedron

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Cruiser	6 months x1 Travel	29/33	100 (100)	64	8d6	0	
Steps	0	0	+1	-1	0	0	0
Cost	+20%	-	+10%	-5%	-	-	+25%

Travel Multiplier: x1

Modifications: Airframe, C-Beams, Shielded Hull

Cost: 437.5 million Credits

Monthly Cost: 875,000 Credits

This version of the Tet can carry a full diplomatic embassy staff or a class of trainees. Dues to cost a Noble House will rarely have more than one or two. Due to their Shielded hulls they are often used to conduct missions to Io and occasionally to Mercury.

Diplomatic and training craft are even more ornate than military Tets. For field work (whether military, research or diplomatic), the craft often are bases of operation. Due to their cost a Noble House will rarely have more than one.

Characters traveling on such a vessel (as crew, passengers or colleagues) will be amazed at the luxurious furnishing and amenities.

Generic Pirate Ship

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Picket	3 months x1 Travel	21/24	10 (15)	32	7d6	1	
Steps	0	0	+1	-1	+1	-1	0
Cost	+20%	-	+10%	-5%	+20%	-10%	+15%

Travel Multiplier: x1

Modifications: None

Cost: 32.2 million Credits

Monthly Cost: 98,000 Credits

The Dark Sons Pirates have produced several ships that are very similar to Terran gunships. In capability and appearance. This is possible with hidden shipyards and manufacturers dealing on the black market in the Belt. The Patrol has made tracking these facilities down their priority.

The pirate ship hits hard and has armor comparable to Patrol ships. The Patrol has torpedoes but is concerned pirates may acquire or produce their own.

Crew are often captured by pirate for ransom, information, or free labor. Unlike Earth Gunships a pirate vessel has room for a ten-man boarding party and four prisoners.

Golden Horde Pirate Ship

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Picket	3 months x1 Travel	21/24	10 (15)	32	7d6	1	
Steps	0	0	+1	-1	+1	-1	0
Cost	-	-	+10%	-5%	+20%	-10%	+15%

Travel Multiplier: x1

Modifications: Cloak (+40%)

Cost: 43.4 million Credits

Monthly Cost: 98,000 Credits

The Golden Horde uses mamel crystals mined on Vulcan or stolen to create a cloaking effect on their vessels. The ships are otherwise identical to the tried and true pirate ship design. So far the cloak is a secret used to great advantage. Cloaked vessels do not typically leave survivors behind, though they may take prisoners.

So far the Golden Horde lacks the shipyards of the Dark Sons. They want to increase their fleet size and install more cloaks but have not come to an agreement with the Dark Sons.

Lunar Sphere

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Cruiser	3 months x0.75 Travel	25/28	50 (50)	32	7d6	3	
Steps	-2	-1	0	-2	0	+2	-3
Cost	-20%	-10%	0	-10%	-	+20%	+10%

Travel Multiplier: x0.75

Modifications: 2nd Gen Boron, Air Frame, Automatics, Abduction Beam

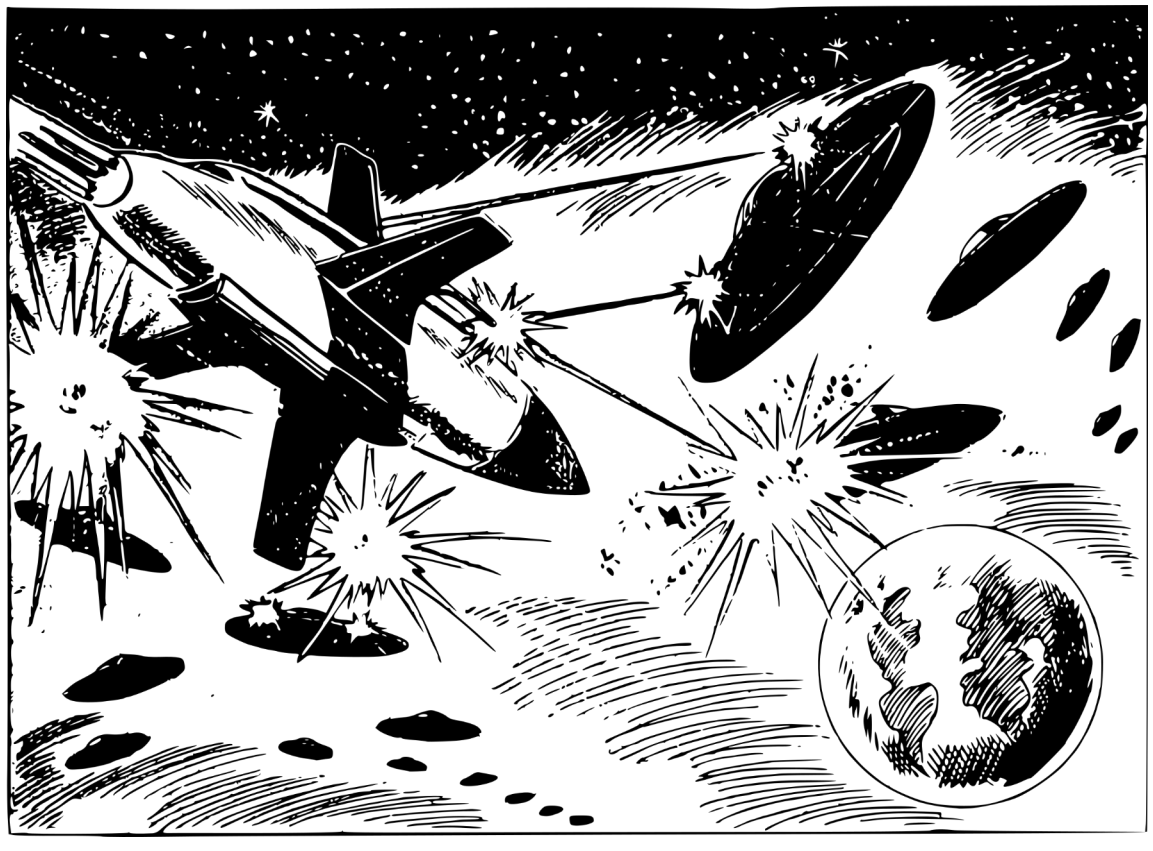
Cost: 385 million Credits

Monthly Cost: 783,750 Credits

Lunar Spheres still plague Terran shipping at times. They're the size of cruisers Unlike most cruisers, Lunar Spheres can land on planets. Terran UFO lore is full of tales of humans in remote areas abducted by the huge, glowing vessels. The vessels rarely approach Earth at present. They do so when they're desperate for water.

The vessels have an powerful advanced boron reactor and advanced acceleration compensators.making them extremely agile and hard to intercept. Their air frames a thruster arrangement lets them hover almost silently. Abduction beams let them take on large numbers of specimens. There are reports of whole villages being abandoned. The vessels rarely approach Earth at present. They do so when they're desperate for water Even in an atmosphere the spheres are hard to chase down.

Rocket racers and others buzzing the Moon for whatever reason may run into a Sphere. The Sphere will attempt to capture their ship and board it to capture the occupants.



Martian Saucer

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Picket	3 months x1 Travel	18/21	10 (15)	16	7d6	2	
Steps	0	-1	+1	-1	+1	0	0
Cost	-	-10%	0	-5%	+20%	0	+25%

Travel Multiplier: x1

Modifications: Air Frame, C-Beam

Cost: 37.25 million Credits

Monthly Cost: 98,000 Credits

Martian saucers are symbols of the power and might of the Polar Cities, patrolling Martian interests in the Belt and off Jupiter. Saucers have up to eight fusion rockets spread around the rim. Many hulls have rotating elements to generate gravity fields for the occupants as well as stabilize the craft.

The practical Martians have stuck with this proven design for decades. The vessels have numerous different hull designs, each city branding its own saucers. They also figured prominently in UFO siting in the 40's and 50's, till the Selenites sent them packing.

Saucers usually use C-beams similar to the Ganymedans. The Ganymedans claim the Martians stole this technology. Some saucers use mass driver weapons to save money. The saucers have large living quarters for everyone from troops and prisoners to diplomats and other elites. They are very agile in a fight, though relatively slow over long distances. Critics say the saucers are armored very lightly and all offense. The Martians feel it is better to avoid being hit than to withstand damage.

Saucers may hail vessels suspected of smuggling or piracy. Squadrons of three operate in anti-piracy sweeps. Ships intercepted may be required to fill out lengthy paperwork (on real paper!) before they are released.

Mining Picket

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Picket	3 months Travel x1	18/21	10	64	4d6	0	
Steps	0	-1	0	+1	0	0	0
Cost	0	-10%	0	+5%	0	0	-5%

Travel Multiplier: x1

Modifications: Mining Equipment.

Cost: 30.87 million Credits

Monthly Cost: 98,000 Credits

Mining Pickets are ubiquitous in the Asteroid Belt. Martian, Terran and Ganymedan pickets have the same capabilities. Callistan ships have UUD reactors and only cost 29.4 million Credits. A mining picket is a bare bones affair. Mining is done by crew or bots

Pirate Raider

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Scout	1 month x1 Travel	14/17	4 (6)	8	6d6	2	
Steps	0	-1	+1	-1	+1	0	0
Cost	0	-10%	+10%	-5%	+20%	0	+15%

Travel Multiplier: x1

Modifications: None

Cost: 32.2 million Credits

Monthly Cost: 39,000 Credits

Independent pirates lack the construction facilities of the established clans. Their spacecraft are converted from captured tramp freighters. These raiders have the typical hodge podge look of Terran vessels, leading other worlds to greatly inflate the number of Terran pirates. Non-Terran pirates are fine with this. The ships often wait for a Belter to file a claim, then lurk there for mining ships to show up. This leads many Belters to refuse to file claims officially or even hire other pirates for security.

Pirates modify their ships to use boron reactors and reduce their cargo space to add guns and increase their threat level. Cargo space is often converted to staterooms to account for any prisoners, or a prize crew to handle any ships that are captured intact.

SECONDARY CRAFT

Outposts, stations and larger vessels all operate smaller vessels. Secondary craft can defend remote installations and augment the fire power of their mother ship. They can also serve more quotidian purposes as landers, tenders, and cargo shuttles.

Interceptor

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Micro	12 hours x1 Travel	14/17	3	0.5	4d6	2	
Steps	-1	+1	+1	-1	+2	-2	0
Cost	-10%	+20%	+10%	-5%	+40%	-20%	+35%

Travel Multiplier: x1

Modifications: None

Cost: 945,000 Credits

Monthly Cost: 7,200 Credits

Small and deadly in sufficient numbers, these fighters are designed to destroy bombers and smaller enemy ships before they can fire torpedoes and cripple escorts and transports trying to land troops. Interceptors are used by most Space Age Societies with similar capabilities. They are referred to as short winded with a big bite. Interceptors have cramped cockpits with very little life support supplies. They are almost always encountered near a base or mothership.

Gig

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Micro	12 hours x1 Travel	2/4	1/3	16	2d6	1	
Steps	-1	-1	+1	+2	0	-1	0
Cost	-10%	-10%	+10%	+10%	-	-10%	-10%

Travel Multiplier: x1

Modifications: None

Cost: 630,000 Credits

Monthly Cost: 7,200 Credits

Gigs are typically used for transferring small amounts of cargo or passengers. They are useless in combat. They are very common around a port, ferrying cargo and people to the ground and having fuel and time for merchant vessels.

Bomber

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Micro	12 hours x1 Travel	14/17	1	0.5	5d6	1	
Steps	-1	+1	0	-1	+2	-1	0
Cost	-10%	+20%	-	-10%	+40%	-10%	+30%

Travel Multiplier: x1

Modifications: 2 Torpedoes, Boron Fusion

Cost: 980,000 Credits

Monthly Cost: 7,200 Credits + Torpedoes

Terran torpedoes are a game changer in space combat. They allow tiny vessels to mount a weapon capable of crippling a destroyer, or an even larger vessel in sufficient numbers. Bombers are the platform to carry out torpedo attacks. As Terrans begin building more torpedoes and bombers other worlds are scrambling to develop countermeasures and build escorts.

Some bombers use their Cargo to carry extra torpedoes. Others reduce Cargo to 1 and add a second crewman to assist in operations. Bombers defend major installations or carry out raids on the most vital targets.

Pirate Fighter

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Micro	12 hours x1 Travel	7/9	1	0.5	4d6	2	
Steps	-1	0	0	-1	+2	0	0
Cost	-10%	-	-	-10%	+40%	0	+25%

Travel Multiplier: x1

Modifications: None

Cost: 875,000 Credits

Monthly Cost: 7,200 Credits

A cheap, disposable fighter. These sorts of ramshackle fighters are an inexpensive way to multiply your forces, and an expensive way to waste good pilots. Pirates and despots in the outer reaches often field them. They are dangerous in numbers. They have cheap engines that hurt performance and often lose Position to better fighters but again make up for it in numbers.

Skiff

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Micro	12 hours x1 Travel	2/4	1 (9)	8	1d6	1	
Steps	-1	-1	+3	+1	-1	-1	0
Cost	-10%	-10%	+30%	+5%	-10%	-10%	+5%

Travel Multiplier: x1

Modifications: None

Cost: 735,000 Credits

Monthly Cost: 6,600 Credits

Skiffs transport people and cargo. They have enough armor and guns to give them a small chance in a fight. They are prized as transports to carry a squad on special missions or a team for field research. They can also operate away from a base or carrier for some time, letting them take on missions to remote locations.

A passenger version of the skiff. The Earth Defense Force uses Express Transports to land personnel. The ship's small cargo capacity only has space for personal equipment.

Micro Landers

Hull Type	End.	Armor	Crew	Cargo	Guns	Agility	Total
Micro	12 hours x1.5 Travel	7/9	1 (3)	8	1d6	1	
Steps	-1	0	+2	+1	-1	-1	0
Cost	-10%	-	+20%	+5%	-10%	-10%	-15%

Travel Multiplier: x1.5

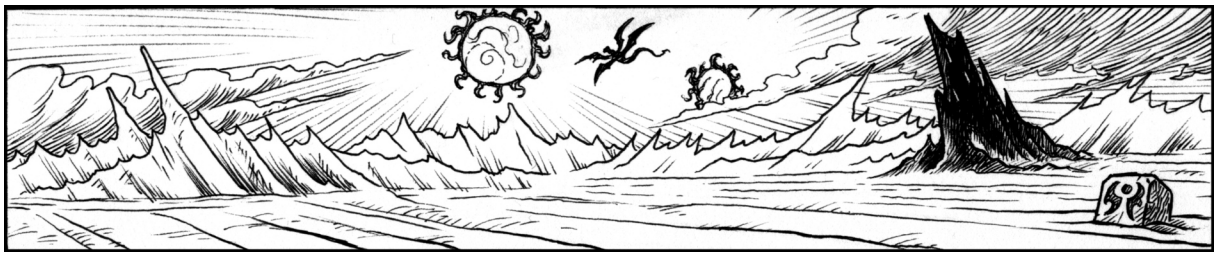
Modifications: None

Cost: 595,000 Credits

Monthly Cost: 5,300 Credits

Landers are popular for ships operating away from a port or that won't pay for a port shuttle to move their passengers and cargo. The lander has some weapons removed to increase its cargo capacity. It can move nine passengers and eight tons of cargo. Another version reduces passengers to zero and increases cargo to 16 tons. It is a very slow craft for long hauls and typically only used for orbital transfers. It's cheap and the pilot often doubles as his own flight engineer!

Terrans and Callistans favor landers over equipping their craft with Airframes, which are costly and easily damaged. Terrans in particular take a fierce pride in their little underdogs and stay with them for years.



SPACE HAZARDS

Pulp style space travel is full of dangers! Radiation, meteors and other space phenomena all menace spacecraft and crews. Hazards are easy for Referees to develop. Simply assign 1 to 6 dice of damage to the hazard. The crew must work together to avoid the hazard. Typically, this requires the sensor operator to spot and understand the hazard (Technology or Knowledge skills), the engineer to handle any damage from the hazard (Technology), and the pilot to roll their Vehicles skill to avoid the Hazard. There may be penalties based on the type of hazard.

As an alternative, it is possible to run a hazard as a 5-turn long space combat. Roll or assign a Position value to the Hazard and have the pilot of the ship roll for Position until they escape. If the Hazard has Advantage for the round, the ship takes damage..

Here are some sample hazards, some harder to avoid than others. Each has a modifier listed for its Position rolls. If the players simply need to make a skill roll to avoid the hazard.

TURN BREAKDOWN

Turn 1 Sensor Scan: A Technology roll will alert the ship's crew to the danger. Success gives +1D to the Course change.

Turn 2 Course change plotted: A Knowledge roll gives a +1D to evade.

Turn 3 Evade! Evade!: the Pilot can avoid the danger with a Vehicles roll. Failure inflicts damage on the vessel.

Turn 4 Damage! The engineer can make a Technical roll to negate most of the damage Failure means the ship takes additional damage!

Turn 5 Escape or repeat turns 1-5. The sensor tech, and engineer make their Technology rolls. Each success gives the pilot +1D to escape. Otherwise repeat

steps 1-4.

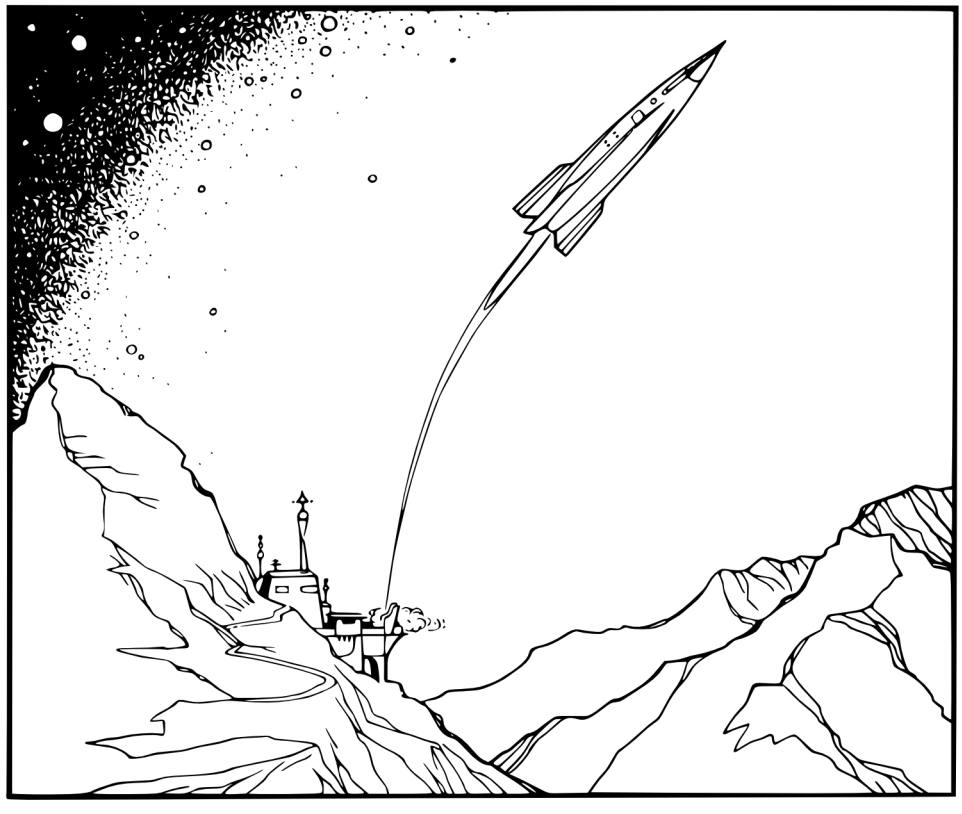
Space Vortex: -1D to Vehicle rolls. Each failed Vehicles roll adds a day, week or month to a ship's travel time, depending on the length of the original voyage. A flight taking less than a week has a day added, a trip less than a month has a week added. Voyages of a month or more have a month added. If five turns go by without the spacecraft escaping, the ship is flung across space and ends up at a completely different destination (referee's choice): perhaps even another star! Rolling a natural '12' at any time snaps the ship free and halves its flight time.

Radiation Storm: No modifier. Each failed Technology roll subjects the ship to a 6d6 damage attack. If this causes Regular Damage, then each crew member has a 1-in-6 chance of radiation exposure: this causes 1d6 x 10 rads. If the ship takes Critical Damage each crew has a 3-in-6 chance of radiation damage doing 3 x 10 radsd6. If five turns go by without the ship escaping, the storm passes either way. To avoid rolling for ships with large crews, assume that 15% of the total crew suffer radiation damage on a Regular Damage result, and 50% of the total crew suffer radiation damage on a Critical Damage result.

Ion Storm: -2D to detect this event. On a failed Tech roll by the Engineer roll 1d6: the ship takes that many dice in damage from the ionized space.

Asteroids: +1D. On a failed roll, roll 1d6. The ship takes that many dice in hits from collisions. If the ship is equipped with a Point Defense Grid, the crew can use it to negate one hit per each successful Pom Pom gun roll (1-3 on 1d6).

Foul Weather: 0D to -2D to avoid Regular Damage. Ships encounter Foul Weather when landing on a world with an atmosphere to land or take off. This can result in a hard landing that armor can't protect against. On a Vehicles roll of 2, the craft takes 3 Regular Damage. An engineer can negate one of these hits (their choice) if avoiding Damage!



TECHNOLOGY

ROBOTS

Earthlings excel at automating things. Because of automation, their ships can have greatly reduced crew complements. They also use robots for dangerous or menial tasks. The Ganymedans view using robots to avoid danger as a weakness of character. Instead, they send living servants. The Martians have an aversion to autonomous robots because they are immune to psionic probing. However, they use larger model drones for construction and other tasks. Selenites use robots with High Simulated Intelligence brains.

The following robots are built by Earthlings and see ready markets on Callisto and the Belt. They were built according to the rules for Robots in *FTL: Nomad*. Humans use Neural Brains, an early model of the Simulated Intelligence brains of the Interstellar Age.

Low Neural Brain (Late Space Age, 12,000 Credits): This level of intelligence allows the robot a limited ability to function in a crisis. Robots with Low Neural Brains have 3 Skill points to allocate and can allocate a maximum of 2 to any given skill. Unskilled tasks are penalized by -2D.

High Neural Brain (Late Space Age, 15,000 Credits): The robot has some ability to function in a crisis. High Neural Brains grant 4 Skill points to allocate to skills, to a level 2 maximum in a skill. Unskilled tasks are penalized by -2D.

In a crisis or emergency, the following robots with Neural Brains will have at least a -1D to actions, even if they possess the required skills.

Spy-'der Bot (29300 Credits, Late Space)			
Size	Small	**Durability**	14
Speed	Multi-Legged, normal move, climb wall at 1/2 speed.	**Protection**	4
Brain	High Neural -4 Skill points, max 2, Combat 2 Stealth 2. Unskilled -2D	**Upgrades and Equipment**	Laser Rifle, OmniComm

Built to explore and reconnoiter, this robot is often used for more nefarious purposes. The bot can operate independently though an operator can advise it when communications are reasonably safe. The bot's small size may give it a +1D bonus to Stealth rolls.

Shop Bot (25500 Credits, Late Space)			
Size	Medium	**Durability**	10
Speed	Two legs; normal	**Protection**	4
Brain	Low Neural High Neural -2 Skill points, max 2, Physical 2 Technology 1 . Unskilled -2D	**Upgrades and Equipment**	OmniComm, +1D bonus when using its arms for lifting, 1d6 in melee.

This robot is an integral and ubiquitous part of the systems that maintain ships and vital installations.

Mech Trooper (31500 Credits, Late Space)			
Size	Large	**Durability**	18
Speed	Two legs; normal speed	**Protection**	12
Brain	Combat 2, Stealth 1, Vehicles 1; Unskilled -2D	**Upgrades and Equipment**	Assault Rifle, OmniComm, Spacesuit 2 x Work arms., +1D when using its arms for lifting, 1d6 in melee.

This combat bot is deployed when heavy opposition is expected. Generally, a few are carried by Earth Patrol Cruisers.

Muscle Bot (24500 Credits, Late Space)			
Size	Extra Large	**Durability**	18
Speed	Tracks; normal speed, no stairs.	**Protection**	6
Brain	Drone	**Upgrades and Equipment**	4 x Work Arms +1D when using its arms for lifting, 1d6 in melee Comm.

This bot can be accurately described as dumb.They are common around ports moving cargo and giving the sporty stevedores rides. There is always a handler nearby.

Titanium (20900 Credits, Late Space)			
Size	Medium	**Durability**	14
Speed	2 legs; normal speed	**Protection**	2
Brain	High Simulated Intelligence. Four skill points, max skill 2, -2D unskilled.	**Upgrades and Equipment**	Humaniform arms with Multi-Purpose option (concealed).

The Titanium model is popular on Terra and in spacecraft crews. Several embarrassing incidents on Io and Ganymede led to them being banned in the Jovian moons. The Antarctic Confederation prizes them for work in their cold climate.

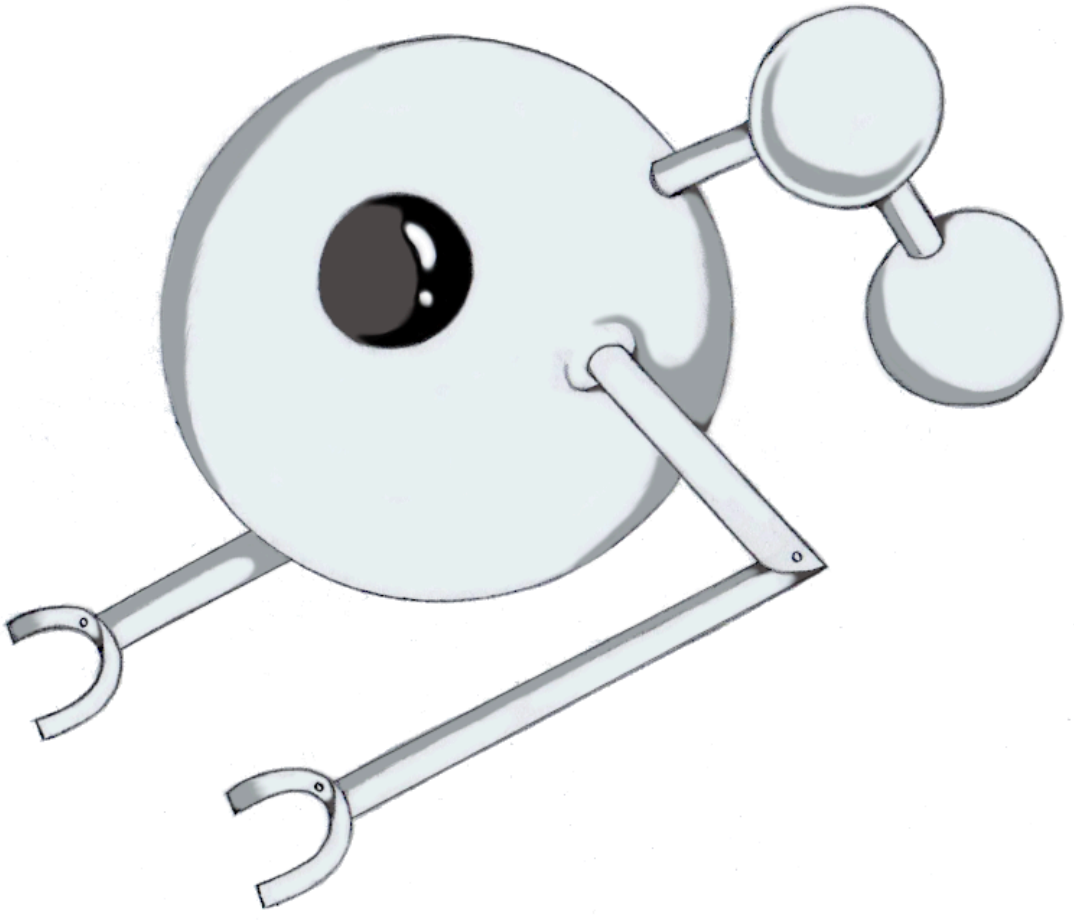
Usuform Robot (16000 Credits, Late Space)			
Size	Medium	**Durability**	14
Speed	Wheeled; normal movement	**Protection**	2
Brain	Low Neural. Three skill points, max skill 2, -1D unskilled.	**Upgrades and Equipment**	Multi-Purpose arms, Modular Brain

Usu (short for Usuform) bots are ubiquitous. Several companies make their own models that are virtually identical. They are used in factories, construction and any job that doesn't require much initiative. Usu bots are often grouped into squads led by a human or Titanium model.

The bots' modular brain upgrade allows owners to have several specialized brains with optimized skills for different jobs. While a modular brain is expensive it is still cheaper than an entire bot! Extra brains also allow for swapping a brain if one is damaged or glitching.

Ionian Guardian (31700 Credits, Early Galactic)			
Size	Tiny	**Durability**	6
Speed	Anti-Gravity; triple movement; flies.	**Protection**	2
Brain	Low A.I. 5 Skill points to allocate and can allocate 2 levels to any given skill. Knowledge 2, Social 2 Stealth 1. All unskilled tasks are penalized by -1D. Stealth rolls receive +1D due to small size.	**Upgrades and Equipment**	Hardwired Night Visor Multiscanner OmniComm

Ionians will dispatch a Guardian bot to aid (and report on) outworlders visiting. The bots are very attentive and in constant communication with its masters.



Selenite Floater (19100 Credits, Late Interstellar)			
Size	Medium	**Durability**	14
Speed	Thrusters; double movement; flies.	**Protection**	2
Brain	Low simulated intelligence 3 Skill points to allocate, maximum of 2 to any given skill. Combat 1 Physical 1 Stealth 1. Unskilled tasks are penalized by -1D.	**Upgrades and Equipment**	x2 Work Arms . +1D when using its arms for lifting, 1d6 in melee OmniComm.

These robots were infamous in abduction reports in the 70's and 80's on Earth. Their stumpy bodies, pincer arms, wrinkled covering, and lack of eyes or faces lend them an aura of fear. One of these found in a wrecked Lunar Sphere. The robots have advanced thrusters letting them hover.

TECHNOLOGY - OTHER *FTL: NOMAD* SUPPLEMENTS

FTL: Nomad can provide examples of Interstellar or more advanced Tech Ages to provide prototypes or artifacts. Copies by Terrans, Martians or Jovians may have flaws or drawbacks and none of these will be available off the rack.

Referees seeking to further spice up their Retro Rockets campaign may find these supplements of use:

Mecha! by Josh Peters, from Stellagama. Giant robots to lend an epic feel to mining, exploration or combat!

Synthoids by Robert Garitta (ahem) from Stellagama. Synthoids can replace robots or sub for the androids in many near future stories. The Callistans are at Early Interstellar Age for producing Synthoids.

Spacecraft Go! By Robert Garitta (see previous ahem) from Stellagama, Various new systems for your spacecraft. The referee is warned, Ionians and Selenites ships corresponding to their Tech Age can easily over power Late Space Age Craft. The supplement also deal with chemical engines when nuclear rockets are too dangerous (landing in Lower Manhattan comes to mind.)