

Issue
24

STAR FRONTIERSMAN Magazine

A FLOATING ECOPOLIS FOR CLIMATE REFUGEES
VINCENT CALLEBAUT ARCHITECTURES

LILYPADS



Aerial view of the Lilypad, a new dynamic and sustainable ecosystem

A FLOATING ECOPOLIS FOR CLIMATE REFUGEES
VINCENT CALLEBAUT ARCHITECTURES

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DWD
STUDIOS



Water, Water, Everywhere!

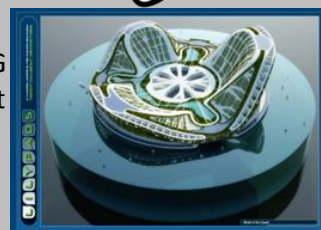
View of the Lilypad from the Auditorium Rainier III

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ON THE COVER:

LILYPAD, A FLOATING
ECOPOLIS by Vincent
Callebaut.



OTHER ART CREDITS:

» Artist Credit on images

FOREWORD

In this issue of the Star Frontiersman, we have a mix of the old and new. I suppose though that that is the case with each issue.

We have a really good vehicle supplement from Andy Campbell over at the SF-Un group on Yahoo. I have included the link here so you can check out the discussions and see what else is new.
<http://games.groups.yahoo.com/group/SF-Un/>

Last issue we got introduced to the Gold Star Cruise Lines. Now you can check out some of their competition with the 'Embecker Dance'.

On our cover, we have some great inspiration from the French architect Vincent Callebaut. I found an article with his work in it last year and he graciously allowed us to use his work in our fanzine. Check out more of his work @ <http://www.vincent.callebaut.org/>.

With our inspiration Zone, Remastered 'Going for a Swim and the Creature Section this issue, we are setting you up for a big adventure next issue, "Balneum Blue" from Ben "Rollo" Gorman. I was inspired to do a water themed issue. First from Jedion's article in Frontier Explorer #1, "Don't Go in the Water". <http://frontierexplorer.org/magazines>. The second was Vincent's work.

So get yourself and your pc's prepared for some water action.

Raise your dice hand high!
William Douglass
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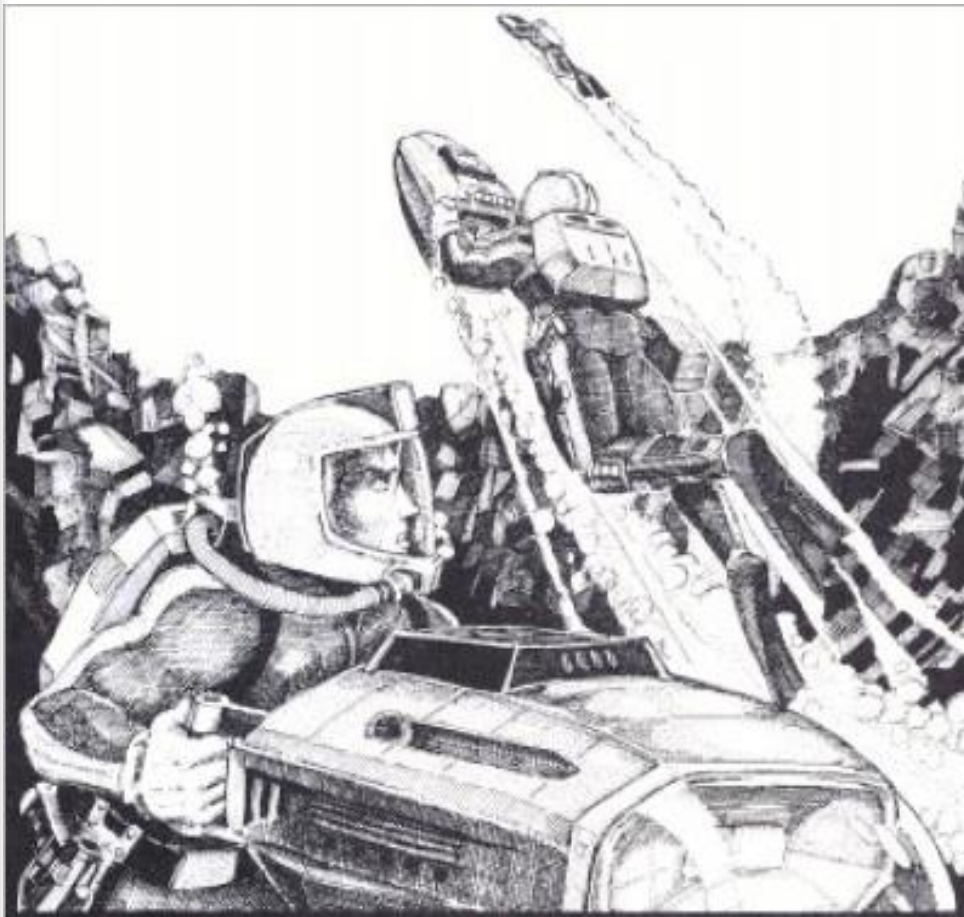
OPTIONAL RULES

Going For A Swim

By William Tracy

Underwater action in STAR FRONTIERS® gaming

From Dragon Magazine #110 June 1986



During the course of a STAR FRONTIERS® campaign, a group of adventurers might want or need to enter an underwater environment unfortunately, the rule books contain no rules for underwater play. This article attempts to rectify that situation, and some additional equipment usable in undersea environments is also presented using these rules, adventures could be created in which characters must reach an underwater city covered by a pressurized dome, escape from a damaged submarine, or swim in search of a sunken ship or crashed spacecraft. They might also encounter a sentient race that lives

underwater, and they could trade, fight, or otherwise interact with that race.

Artificial gill suits

To survive underwater for long periods, characters must employ a breathing apparatus known as an artificial gill suit (AGS), which covers the wearer's entire body. It is made of a material that is similar to that used in skinsuits, and it may be left transparent or colored as the manufacturer desires. Normal goggles may be worn by Humans, Vrusk, and Yazirian divers.

The AGS will absorb one-fourth of all damage caused by projectile and gyrojet weapons, fragmentation grenades, explosives, and melee weapons. It cannot be worn with any other suit of armor, but a screen may be used with it. When the AGS has taken 35 points of damage, it will be ruined and useless as armor.

The AGS for Humans, Yazirians, and Vrusks conforms to their basic physical shape. The AGS for Dralasites will stretch to accommodate their shape-changing abilities.

A Yazirian AGS covers the glide-wing membranes without hampering their use in swimming (see below). Much of the exterior of the AGS is covered by a series of microfilters, all made of tough, translucent plastic. These microfilters draw oxygen from the water, pumping the gas mixture through small tubes to the area of the body where the wearer inhales air. The waste gases produced are released directly from the suit.

The whole system is regulated by a computer chip and powered by a small energy cell good for five hours

before it needs to be recharged. The AGS also has a small digital display which can easily be seen by the wearer. The display shows the diver's depth, time in the water, and the amount of power left in the suit's energy cell. The suit also has a built-in low-frequency radio system, which has a range of one kilometer. The AGS weighs five kilograms and costs 800 Credits. The suit can be safely used at a maximum depth of 110 meters on Earthlike planets.

If a deeper dive is attempted, there is a cumulative 5% chance per 10 meters below the safe limit that the AGS will malfunction. This chance must be rolled for every five minutes, with an additional 1% chance of failure added for every additional five-minute period spent beyond the first. The wearer will also take one point of damage for every 10 meters he dives past the maximum safe depth. This damage will be taken every minute and is caused by increased pressure. Dralasites will not start taking pressure damage until they reach a depth of 160 meters, due to their elastic abilities. There is also a 10% cumulative chance per 10 meters of depth beyond the maximum safe limit, checked for every 10 minutes, that a Human or Yazirian character will have vivid hallucinations for five minutes as a result of nitrogen narcosis. A check against the character's Logic score lets him disbelieve the hallucinations.

If the AGS malfunctions, the character wearing it must hold his breath until he can reach the water's surface. A character can hold his breath for a number of turns equal to the character's Stamina score divided by five. If the character is still underwater after running out of breath, the character will take 2d10 damage for every turn spent under water until death occurs from drowning. If a character dives deeper than 10 meters, the character must ascend slowly (at a rate of five meters per turn) or risk getting a case of the bends. Rends are caused by nitrogen bubbles forming in the bloodstream, due to the quick change in pressure. This can cause intense pain, doing one point of damage per round until the character is placed in a freeze field or a decompression chamber to stop the loss of Stamina points. The damage from decompression will never exceed 40 points, though death can still occur as a result of it. Note that there is a chance of dying as a result of the bends, independent of the amount of damage taken, as per the table below. Dralasites do not get the bends.

Chances of Contracting the Bends

Rate of Ascent	Chance to get the Bends	Chance of Death
6 m/turn	10%	8%
7 m/turn	40%	16%
8 m/turn	60%	24%
9 m/turn	80%	32%
10+ m/turn	100%	40%

If death is indicated, it will occur in 10 minutes. During these 10 minutes, the character will lose one-tenth of his current hit point value (rounded up) every minute. This procedure can be stopped by a freeze field or a decompression chamber. A character must stay in a decompression chamber for a number of minutes equal to the lowest depth in meters that the character reached. If a character dives below 60 meters, even if he did not contract the bends, he must spend some time in a decompression chamber. If the character does not do this, he will get a case of the bends, like that described above; within 1d5 hours Dralasite characters will never contract the bends due to their unique physiology.

If characters need to dive deeper than their limits, they will have to use a submarine or an AGS designed for greater depths

Movement

Characters can swim at a rate of 10 meters per turn (or one kilometer per hour). If a character swims longer than one hour, he will lose five Stamina points for every 30 minutes he continues swimming. These movement rates can be affected by obstacles such as seaweed or coral (or alien equivalents thereof).

If a character swims through seaweed, he must move at a rate of four meters per turn if a character tries to move faster than that, he may become entangled (a cumulative 10% per every turn of movement). This should be checked for every third turn the character will be entangled for 1d10 turns (1d5 if the character has a sharp instrument with which to free himself).

If a character swims through areas containing coral reefs, he must swim at a reduced rate of five meters per turn. Faster speeds allow for a 10% chance per turn traveled that the character will be cut by the

sharp edges of the coral, causing 1d10 damage (half of which can be absorbed by an AGS suit).

Another factor that might affect movement is the presence of underwater currents. Such currents usually have speeds ranging from 1-12 meters per turn, but they can only be found at a depth of 60 meters or less. Characters may enter a current on purpose to increase their speed.

To get out of a current, a character must roll his Strength (minus 2% per meter/turn of speed the current has) or less on percentile dice. The character can attempt to leave the current once every five minutes. After a number of attempts equal to the character's Stamina score divided by five and rounded down, the character must rest 30 minutes before making any more attempts to escape the current.

The characters' movement rates might also be increased with special equipment, such as jet scooters, jet fins, and submarines.

A **jet scooter** is a streamlined cylinder made of light alloys, one meter in width and two meters long. It has a built in jet turbine which enables it to go 20 meters per turn. The character lies on top of the scooter and steers it with a steering rod, which controls small fins on the sides of the scooter. The scooter weighs five kilograms and costs 300 Credits. It is powered by a small rechargeable energy cell, which can power the scooter for five consecutive hours.

Jet fins work on the same principle as the scooter.

Jet fins enable a character to move at a rate of 13 meters per turn without requiring rest breaks every hour. A pair of fins weighs .5 kilograms and cost 50 credits. They are powered by two small, rechargeable energy cells good for two hours of use.

A **submarine** can also be used by the characters, but it can only be operated by a Technician with a skill level of five or better. This article will describe the most common type of submarine, which can be bought or rented by non-military characters. If the characters want larger or armed submarines, they must either be working with the government or willing to acquire one illegally.

A typical explorer submarine costs 20,000 Credits, but usually rents for 100 Credits, plus a 250- credit deposit, per day. The submarine has a top speed of 250 kilometers per hour, with an average cruising speed of 20 kilometers per hour. Six passengers may

be accommodated aboard it, though in VERY cramped comfort. The sub carries four in relative comfort. The cargo limit is 1000 kilograms, within a space of two cubic meters.

This submarine is powered by a parabattery (type II) which has to be recharged every 200 hours of use. The submarine's movement rates are not affected by coral reefs or seaweed, though visibility is affected.

This type of submarine can be used to a maximum depth of 200 meters. If it is used at greater depths, there is a cumulative 10% chance per 10 meters below the maximum depth that the submarine will spring a leak. This chance should be checked for every five minutes spent below the maximum depth. If a leak occurs, a person with Technical skills can repair it, but first the submarine must move to the surface. If the leak is not fixed, the submarine fills with water in 10 minutes.

The submarine contains six AGS suits in case of emergencies, but donning one in a cramped, sinking submarine can be tricky. Structural damage of 100 points or more to one area will cause a leak in the sub, which has a total of 400 structural points.

If a submarine is involved in undersea combat, a referee might want to create a modified form of the Vehicle Damage Table, found on page 32 of the Expanded Game Rules book, which would cover the sub's specific shape and details.

Character effects

The characters will be entering a new type of environment beneath the sea, and will be affected by it mentally and physically.

First of all, a character's ability scores change while underwater. A character's Dexterity and Reaction Speed scores are reduced by 25 points; also, a character's Strength score is reduced by 35 points when figuring the effects of melee on the Punching Table (page 25, Expanded Games Rules). A minimum score of 10 applies in all cases.

The STAR FRONTIERS races are each affected differently by the underwater environment. Dralasites do not care for adventuring undersea, because the AGS does not let them use their senses of touch and smell. They are not greatly affected by increases in pressure (and never get the bends). Humans are not bothered by the new environment, but Vrusks are

very nervous underwater. Vrusks swim awkwardly and, when dealing with underwater races, a Vrusk's chance to comprehend social dealings is halved. Yazirians are uneasy at first, but they come to enjoy swimming because it is somewhat like gliding. Their glider membranes grant them great maneuverability while underwater. This will be discussed later.

A character's skills and their results are also affected while underwater. The effects on Weapon skills are discussed later. The Demolitions skills work as long as the timers used are built to work underwater. Blast radii are doubled due to the increased powers of shock waves underwater.

The Martial Arts skill will work underwater with a 30% reduction on the success rate. Technician skills work if the equipment and tools are designed to work underwater. Environmental skills work normally underwater if they apply to the situation. There will be a 20% reduction on their success rates while underwater as none of the Medical skills work underwater, except for Diagnosis which has a 30% reduction on the success rate.

All Psycho-Social skills work when applicable, with a 30% reduction on success rates due to communications problems.

Underwater combat

While underwater, characters will have to deal with various modifications to the combat system. The Ranged Weapon Combat Procedure Table, on page 22 of the Expanded Game Rules book, should have the following additions and modifications when combat occurs underwater.

Swimming target	-5
Dodging target	-8
Dodging Yazirian target	-10
Target using jet fins	-3
Target riding jet scooter	-6
Attacker using jet fins	-2
Attacker riding jet scooter	-5

Sighting distance is also modified while underwater. The AGS is designed to enhance the wearer's vision so that it is not distorted even so; a character's vision will not be as good as when on the surface. Visual range

can also be affected by the amount of sediment and plankton in the area, the amount of light shining on the surface of the water, the depth, and passing schools of fish or other life forms.

It can be assumed that within 10 meters of the surface, a character will have a maximum visual range of 40 meters, if the view is not obstructed and if it is daylight. If it is at night, the character will only be able to see one meter away at best. The referee should use this as a basic foundation when trying to decide a character's visual range underwater. The final visual range is left up to the referee.

For 50 Credits, a wide-beam underwater flashlight can be found. The flashlight will be attached to the AGS, around the character's chest. The flashlight's energy cell can go for 100 hours before needing a recharge. The flashlight enables the character to always have a minimum visual range of two meters, except in extremely murky water. It illuminates a cone-shaped area, ranging from .5-2 meters at the widest part of the cone.

When fighting underwater, characters must use modified versions of the ranged weapons they usually use. These weapons cost 50 Credits extra for underwater modification. Such weapons act normally above water unless otherwise noted. Laser weapons are not used underwater, as they are too inefficient. Underwater versions of gyrojet weapons are available. When used underwater, they have the following alterations made in ranges (the rest of the statistics are normal when used underwater).

Weapon	P B	Short	Med	Long	Ext
Gyrojet pistol	-	0-3	4 - 30	31 - 60	61 - 90
Gyrojet rifle	-	0-3	4 - 50	51 - 90	91 - 130

Sonic disruptors and sonic stunners are both produced in versions that can be used underwater. These weapons have double normal ranges undersea, because of the effects of the denser medium through which the sound waves pass. The damage for the sonic disruptors is doubled accordingly.

Modified versions of grenades can be used underwater. They can't actually be thrown, but they may be dropped on characters that are at a greater depth than the attacker. Unless surprised, the victim

may be able to get out of the grenade's blast radius. The grenades will drop at a rate of six meters per turn. Grenades can also be delivered with grenade rifles modified to work underwater. Such weapons have the following ranges when used underwater:

Point Blank	Nil
Short	0-15
Medium	16-30
Long	31-55
Extreme	56-100

Underwater grenades will not work in air, but the grenade rifle can fire the regular type of grenades when used on land.

Underwater versions of the poison grenade and the doze grenade can be found, but they only have a blast radius of one meter. They release a colorless liquid into the water, which enters the microfilters of an AGS and then affect the wearer as per normal. For 50 Credits, special filters can be attached to an AGS which will keep poisons from getting to its wearer.

Underwater versions of tangler grenades and smoke grenades can also be found. They work like the regular ones, but they only have a one-meter blast radius, the smoke cloud produced by the smoke grenade has only a 15-meter blast radius, clouding the water, and it could be broken up by underwater currents.

The underwater version of the fragmentation grenade works just like the regular version, except that it only has a three meter blast radius.

Finally, underwater characters may make use of a new projectile weapon: the spear gun, which uses compressed air to shoot a heavy arrow. A compressed-air clip can fire four arrows before becoming empty. The spear can be fitted with a special head that explodes upon impact like a grenade. A regular spear does 1d10 damage, while a spear with an exploring head does 2d10 damage.

The spear gun has the following ranges:

Point Blank	0-5
Short	6-10
Medium	11-20
Long	21-30
Extreme	31-40

A cost and weight table follows:

Device	Cost (Cr.)	Weight(Kg)
Spear gun	100	4
Spear/arrow	5	1 (for 5 spears)
Compressed air clip	10	1 (for 3 clips)
Exploding warhead	30	1 (for 3 spears with heads)

Melee combat is also greatly affected while underwater. Characters cause no damage with punches, and a character's punching score should not be added to the damage caused by non-powered weapons while underwater. Only sharp melee weapons are useful underwater: short axes, knives, stabbing polearms (spears), sonic knives, sonic swords, short stabbing swords, and vibro-knives. A person using a sonic weapon underwater will not be able to surprise an opponent. The damage done by these weapons is reduced by half because of the friction of the water. These modified versions of melee weapons cost 30 Credits extra and function normally above water.

Electrical weapons are not produced for underwater use because water is such a good conductor for electricity.

Modified power screens that work above and below water cost 100 Credits extra for the water-proofing.

Final notes: Any combat which draws blood might also draw any nearby predators in the area (like sharks or beings with similar temperaments and appetites). While refereeing underwater combat, a referee should take into account the different altitudes of the combatants; those attacking from above gain a +5 bonus. A referee might wish to use the rules for weightless combat (page 26 of the Expanded Game Rules book) when conducting underwater combat, if high-recoil weapons are used without bracing.

Underwater equipment

When going underwater, characters can take a variety of equipment modified to work in that environment.

A waterproofed compass can be found for 20 credits.

A special underwater flashlight, which works like the one attached to the AGS, can be bought for 10 Credits.

An underwater version of the toxyrad gauge costs 25 Credits; its functions are slightly different from the regular type, and it will not work above water. If the red light shines, it means that there is a chemical in the area that can affect the character through his AGS, but the special filters mentioned earlier can filter them out before they reach the character. A flashing blue light indicates that there is dangerous radiation nearby. A flashing yellow light indicates that there is a chemical in the area that is so powerful that even the special filters mentioned above cannot filter them out.

An underwater version of the exoskeleton can be found for 2500 Credits; this version also works above water. While wearing the exoskeleton, a character is able to swim 20 meters per turn without having to rest. While underwater, the character has a +10 bonus to hit in melee, and does five additional points of damage.

The exoskeleton is designed to be worn outside the AGS without hampering any of the suit's functions.

Because of the heat-absorbing properties of water, an AGS cannot have built-in infrared vision capability. Freeze fields cannot work underwater, either.

An underwater radiophone can be bought for 550 credits, and will work regularly above water. It only has a range of 50 kilometers underwater, and is connected to the communications system of the user's AGS.

Underwater Solva-Way comes in small plastic bulbs which must be crushed by the entangled victim. It then spreads out and dissolve the threads, remaining potent for one turn. A bulb of underwater Solva-Way costs 15 Credits, and it will not work above water.

Regular Tornadium D-19 works underwater, but special waterproofed Variable/Timer Detonators must be used. They cost 7 Credits each and work above water, too.

Finally, special power backpacks (300 Credits) and powerclips (150 Credits) can be bought that work underwater.

Final notes

This article assumes that the area where the characters are diving has a fairly comfortable climate. If the characters dive in water with extremes in temperature, an AGS can be bought with a heating/cooling system. This modification costs 100

Credits extra and adds two kilograms of weight to the AGS. This system is powered by a small energy cell which works for four hours before needing a recharge. The system protects the character in water with temperatures ranging from -35—C to 70—C.

Special AGS's may be created if the characters are going to dive in waters which contain dangerous chemicals or poison. These AGS must be tailor-made for the body of water in which the characters are going to dive. Such suits cost an average of 1000 Credits.

The modified weapons and equipment mentioned earlier have a tendency to malfunction due to powerful pressure from deep dives, as do AGS's. Weapons and equipment must be further modified if taken into water containing powerful chemicals; this modification will cost a further 50 Credits.

The natural gravity of a planet will also affect the pressure at deeper depths. For every tenth of gravity less than one, the AGS is able to dive 10 meters deeper before a chance for malfunction occurs.

The opposite is true if the gravity is greater than one. This rule applies to the weapons and equipment, too. This article may be used as the basic foundation for running an adventure underwater. It should not be considered a strict set of rules. The final judgments are up to the individual referee.

Check out more water action in Starfrontiersman #15, in the article "From Freighters to Flying Boats".

<http://starfrontiersman.com/downloads/starfrontiersman>

And don't forget to check out the article on water hazards in Frontier Explorer #1@

<http://frontierexplorer.org/magazines>

Water adventures can add new dimensions to your game. You can find inspiration for this particular environment in many Sci-Fi books and movies as far back as "20,000 Leagues Under the Sea". (O.K., maybe as far back as Odysseus).



INSPIRATION ZONE

Inspiration from Vincent Callebaut

Compiled By William Douglass

I was looking for some inspiration on a water based city one day and ran across an article on Yahoo with 10 pieces of art for a future water city. The one that intrigued me the most was a floating city by Vincent Callebaut. I did some research and was able to contact Vincent about his artwork. I had only wanted to use his image for the floating city, but he gave me a whole lot more. He gave me access to more of his work and also to some of the write-ups for those images. I am including a couple of them here to inspire your adventures.

LILYPAD, A FLOATING ECOPOLIS FOR CLIMATICAL REFUGEES

OCEANS, 2008

2100, A LARGE CROWD OF ECOLOGICAL REFUGEES

Further to the anthropogenic activity, the climate warms up and the ocean level increases. According to the principle of Archimedes and contrary to preconceived notions, the melting of the arctic ice-flow will not change the rising of the water exactly as an ice cube melting in a glass of water does not make its level rise. However, there are two huge ice reservoirs that are not on the water and whose melting will transfer their volume towards the oceans, leading to their rising. It deals with the ice caps of Antarctic and Greenland on the one hand, and the continental glaciers on the other hand. Another



reason of the ocean rising, that does not have anything to do with the ice melting is the water dilatation under the effect of the temperature.

According to the less alarming forecasts of the GIEC (Intergovernmental group on the evolution of the climate), the ocean level should rise from 20 to 90 cm during the 21st Century with a status quo by 50 cm (versus 10 cm in the 20th Century). The international scientific scene assets that a temperature elevation of 1°C will lead to a water level rising of 1 meter. This increase of 1 m would bring ground losses emerged of approximately 0.05% in Uruguay, 1% in Egypt, 6% in the Netherlands, 17.5% in Bangladesh and up to 80% approximately in the atoll Majuro in Oceania (Marshall and Kiribati islands and step by step the Maldives islands).

If the first meter is not very funny with more than 50 million of people affected in the developing countries, the situation is worse with the second one. Countries like Vietnam, Egypt, Bangladesh, Guyana or Bahamas will see their most inhabited places swamped at each

flood and their most fertile fields devastated by the invasion of salt water damaging the local ecosystems. New York, Bombay, Calcutta, Hô Chi Minh City, Shanghai, Miami, Lagos, Abidjan, Djakarta, Alexandria... not les that 250 million of climatic refugees and 9% of the GDP threatened if we not build protections related to such a threat. It is the demonstration inflicted to reluctant spirits by a climatological study of the OECD (Organization for Economic Cooperation and Development) and that challenges our imagination of eco-conception!

The water rising being not written in the agenda of the Grenelle agreements on environment in France, it is primordial in terms of environmental crisis and climatic exodus to pass from now on from a strategy of reaction in emergency to a strategy of a adaptation and long-lasting anticipation. It is surprising, whereas some islands prepare their disappearing to see that the management of the rising of the ocean level does not seem to worry the governments beyond measure. More surprising to see that the populations of the developed countries continue to rush on the littoral to



build districts over there; houses and buildings dedicated to a certain flood

LILYPAD, A PROTOTYPE OF AUTO-SUFFICIENT AMPHIBIOUS CITY

Whereas the Netherlands and the United Arab Emirates « fatten » their beach with billions of euros to build their short-living polders and their protective dams for a decade, the project « Lilypad » deals with a tenable solution to the water rising! Actually, facing the worldwide ecological crisis, this floating Ecopolis has the double objective not only to widen sustainably in offshore the territories of the most developed countries such as the Monaco principality but above all to grant the housing of future climatic refugees of the next submerged ultra-marine territories such as the Polynesian atolls. New biotechnological prototype of ecologic resilience dedicated to the nomadism and the urban ecology in the sea, Lilypad travels on the water line of the oceans, from the equator to the poles following the marine streams warm ascending of the Gulf Stream or cold descending of the Labrador.

It is a true amphibian half aquatic and half terrestrial city, able to accommodate 50,000 inhabitants and inviting the biodiversity to develop its fauna and flora around a central lagoon of soft water collecting and purifying the rain waters. This artificial lagoon is entirely immersed ballasting thus the city. It enables to live in the heart of the subaquatic depths. The multifunctional programming is based on three marinas and three mountains dedicated respectively to the work, the shops and the entertainments. The whole set is covered by a stratum of planted housing in suspended gardens and crossed by a network of streets and alleyways with organic outline. The goal is to create a harmonious coexistence of the couple Human / Nature and to explore new modes of living the sea by building with fluidity collective spaces in proximity, overwhelming spaces of social inclusion suitable to the meeting of all the inhabitants – denizen or foreign-born, recent or old, young or aged people.

The floating structure in « branches » of the Ecopolis is directly inspired of the highly ribbed leave of the great lilypad of Amazonia Victoria Regia increased 250 times. Coming from the family of Nymphaeas, this

aquatic plant with exceptional plasticity was discovered by the German botanist Thaddeaus Haenke and dedicated to the Queen Victoria of England in the 19th Century. The double skin is made of polyester fibres covered by a layer of titanium dioxide (TiO₂) like an anatase which by reacting to the ultraviolet rays enable to absorb the atmospheric pollution by photo catalytic effect. Entirely auto sufficient, Lilypad takes up the four main challenges launched by the OECD in March 2008: climate, biodiversity, water and health. It reached a positive energetic balance with zero carbon emission by the integration of all the renewable energies (solar, thermal and photovoltaic energies, wind energy, hydraulic, tidal power station, osmotic energies, phytopurification, biomass) producing thus durably more energy that it consumes! True biotope entirely recyclable, this floating Ecopolis tends thus towards the positive eco-accountancy of the building in the oceanic ecosystems by producing and softening itself the oxygen and the electricity, by recycling the CO₂ and the waste, by purifying and softening biologically the used waters and by integrating ecological niches, aquaculture fields and biotic corridors on and under its body to meet its own food needs.

To reply to the mutation of the migratory flows coming from the hydroclimatic factors, Lilypad join thus on the mode of anticipation particular to the Jules Verne's literature, the alternative possibility of a multicultural floating Ecopolis whose metabolism would be in perfect symbiosis with the cycles of the nature. It will be one of the major challenges of the 21st Century to create an international convention inventing new special means to accommodate the environmental migrants by recognizing their rights and obligations. Political and social challenge, the urban sustainable development must more than ever enter in resonance worldly with the human sustainable development!

© Vincent Callebaut Architectures

"CORAL REEF"

MATRIX AND PLUG-IN FOR 1000 PASSIVE HOUSES

Called «The Pearl of West Indies», Haiti was during a long time the most visited country of the Greater Antilles representing the occidental third of Hispaniola Island. Devastated in 2010 by an earthquake measuring 7.0 on the Richter scale, the country has now to be rebuilt from new innovative architectural and town-planning concepts.

The Coral Reef project plans a matrix to build a three dimensional and energy self-sufficient village from one and only standardised and prefabricated module in order to rehouse the refugees from such humanitarian catastrophes. This basic module is simply made of two passive houses (with metallic structure and tropical wood facades) interlocked in duplex around a transversal horizontal circulation linking every unit.

Inspired from a Coral reef with fluid and organic shapes, the overall project presents itself as a great living structure made of two waves dedicated to accommodate more than one thousand Haitian families. These two inhabited waves undulate along the water on an artificial pier built on seismic piles in the Caribbean Sea. From concave curves to convex curves, the housing modules are aligned and piled up by successive stratum such as a great origami. Between the two inhabited waves is created a sumptuous interior canyon in pixels with terraces and

cascades of food gardens.

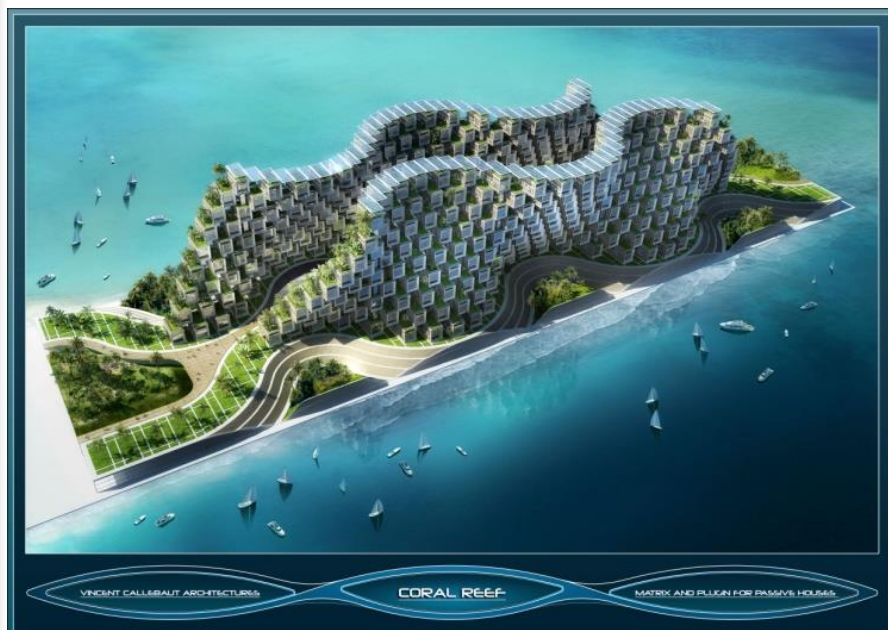
Actually, the laying-out in staggered rows of the plane-parallel base modules enables to superimpose the passive houses in cantilever and to multiply the vision axes towards an endless number of perspectives. Each roof of each module becomes then an organic suspended garden enabling to each Creole family to cultivate its own food and to use themselves their own wastage as compost.

This canyon is a true tropical ecosystem for the local fauna and the flora. Ode to the urban biodiversity, it is also the central axis of the communitarian life of this futuristic village and respectful of its environment. Between the waves of these ecological housing, the sinuous lines of the anti-seismic basement (absorbing the vibrations in case of earthquake) integrate the public functions of the social life. Aquicultural farms welcome pisciculture pools whereas the purification plant lagoons recycle the used waters before rejecting them in the sea.

The Master Plan can evolve and extends itself according to the «plug-in» principle. The urban framework of this ecological village remains thus undetermined, flexible and develops itself continuously according to the time and the space. New extension modules, also prefabricated in factory and brought by cargo will be actually added such as a giant meccano set to correspond to the needs of inhabitants completing the basic matrix.

The visible sinuosity of this built landscape is structured by eight spine columns integrating all the vertical circulations linked together by two horizontal storeys crossing through a straight line the whole village from end to end. The whole set forms a compact orthogonal system that distributes all the flows through each module.

The project is eco-designed and integrates all the bioclimatic systems as well as the renewable energies. Actually, the sea thermal energy conversion is made in the coverage of the pier by using the difference of temperature between the superficial waters and the deep waters. The



kinetic energy from marine currents is converted by hydro-turbines under the pier into electrical energy; the sinusoidal pergolas on the roof attract the solar energy by photovoltaic panels and a park of spiral wind turbines is planted in the great tropical garden that covers the logistical basis.

Taking advantage of the same natural and climatic conditions from the beginning as its neighbour island, Dominican Republic, Haiti is one of the countries that profits from one of the biggest potentials to reinvent a new sustainable urbanity and to implement the biggest challenges of reconstruction as a matter of urgency. The Coral Reef prototype project is in this context of humanitarian crisis a positive and dynamic answer fighting for the sustainable industrialised and standardised rebuilding of collective social housing of humanitarian and environmental high quality in disaster area.

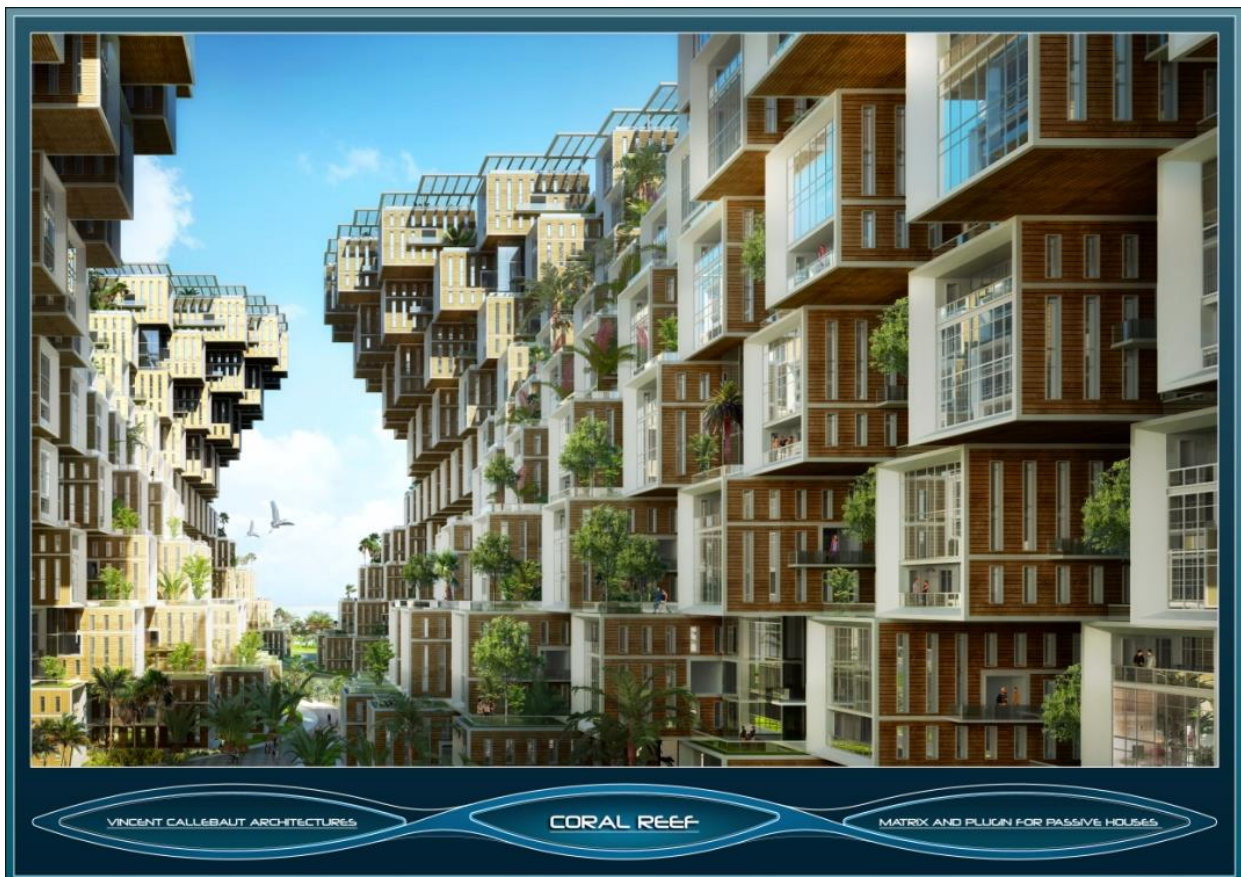
© Vincent Callebaut Architect



I hope this article will inspire some adventures for you or maybe inspire some creativity in other areas as it has done for me.-William

This game originally appeared in the pages of StarFrontiersman, #17, as a print & play game. Since then, we've commissioned artwork and built the game with high quality components. Since we originally distributed the game for free, we at Dwd Studios don't feel right charging for the professional-feeling product and haven't marked it up over cost. We sincerely hope you and your friends have a good time with this fun game of sci fi goodness!

<http://dwdstudios.com/SalvageOps>



CHARACTER RACES

Peeloven

By Ken Ryan

Physical appearance and structure

Peelovens are not humanoid. They have a short, tripedal body with two heads. The heads are flat, hairless and consist of one eye each. In addition, the mouths have lips that extend about 3 cm from their vegetarian teeth. The lips are dry and are knobbed; these function as hands. Their eyes are generally blue to green and they use their tongues as we do fingers, thumbs, etc. At the base of the necks is their skull and brain, covered by a thick mane of snow-white hair.

Their front feet are set wide apart and form an equilateral triangle with the rear foot/hoof. The mane follows the spine down to the rear foot, which can be lethal when used for kicking. Their necks can telescope or extend like a turtle's and can reach any portion of their body. Peelovens must gain status to reproduce and have no sex until this is accomplished, then the Peeloven either becomes male, female or host. Male sperm and female eggs are deposited in the fertile host, who must be fertile for insemination to occur. The act can be performed with either two separate combinations of two or a combination of all three participants.

Senses

Peelovens' chief sense is sight. Their ears are on their skull - one behind each neck. They feel and taste with their mouths and have a nostril under each eye. All senses are equivalent to Humans'.

Speech

Peeloven speech is fluent, complex and poetic upon listening. They have no difficulty speaking a less complex language like Pan Gal.

Society and customs

Peelovens are followers of what is called "heard instincts". They are generally cowards and go to extreme degrees of caution. Because of this they are easily panicked. They are advanced in culture and business, but when their "Wall St." plummets it really panics! Peelovens are shrewd business "men"; but, due to their extreme cowardice, usually transact through hired representatives. They must gain status to reproduce by making a worthwhile contribution to the whole (overpopulation because all threats are systematically dealt with).

The majority are always correct and any individuals speaking out or with different views are considered unorthodox and dangerous. Adventuring Peelovens are extremely rare, considered unorthodox, and any Peeloven who knowingly places itself in danger is insane according to the whole. This matter is also valid with unwise business transactions or risky business ventures. They are generally peaceful and are out to earn a profit and satisfy customers. They make exceptional hosts, fine politicians, brilliant artists but horrible militarists.

War is an insane activity, consisting of multitude risks with uncertain to no profit margin(s). Peeloven language had no word to express the concept of war until the Sathar threat. The word is now a blend of "insane" and "unorthodox". All Peeloven police and military activities consist mostly of robotics and hired Yazirians or Humans (Threns despise Peeloven culture). 99% of the time they back down from a bluff, even if it is a completely outrageous, silly one. When in danger they revert to running with one head low to the ground and one head held high. If cornered they attempt to hide by ducking their heads to the base of their skull and under their bodies, sitting on them much like an ostrich's buried head in the sand. They are noted to have outbreaks of nervous quivering and scientists wonder why they haven't grown a shell.

They are not athletically inclined but when frightened they can out-distance the fastest Vrusk. Since they cannot lie very well, due to the fear of detection, Sathar attempts at making Peeloven agents are usually abandoned as futile exploits. This is further magnified by Peelovens' great distrust of Sathar.

Attitudes

Peelovens get along fine with all races except Yazirians and Threns. Yazirians frighten them and Threns, who treat cowardice with capital punishment, terrorize them. Joint military efforts against the Sathar are usually funded by Peelovens and manned by the other races. Peelovens go to great lengths to appease Yazirians or Threns without being too bothersome.

Special Abilities

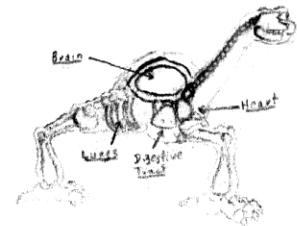
Peelovens are naturally suspicious of any person, place, thing or object. Because of this they have a base chance of +15% to detect if a person, place, thing or object poses a possible danger to it or others. In addition they learn languages extremely fast, usually upon hearing spoken words.

Additional Notes

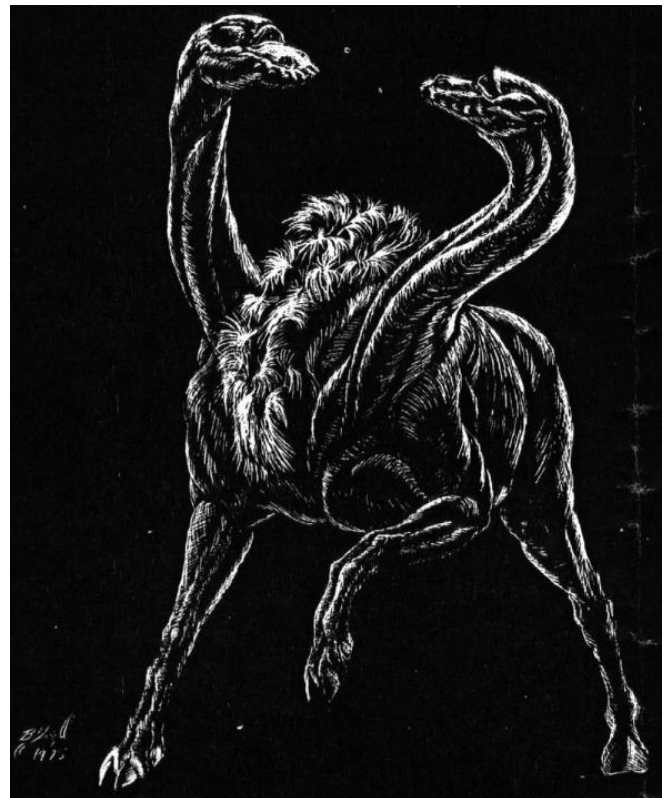
Peelovens curious gesture of staring at its own head is their equivalent to perplexity or laughing. They will go catatonic if too stressed out, a sort of involuntary opossum thing.

Peeloven are actually Niven's Puppeteers. I fell in love with this race; can you imagine their heads being mimicked by puppeteers? When I drew them they came out too blocky. They should be graceful herd animals with elongated heads to keep their faces away from snakes, etc. while grazing. They would be sleek and narrow legged hoofed deer. Their heads are small and flat though because their brain is not in them.

Ken's Sketches:



Niven's B&W Sketch:



Slirrys

By Ken Ryan

Physical appearance and structure

Slirrysi appear as 2m tall bipedal lizards. They are fully reptilian but their young are born alive. They have two eyes, no external ears and their jaws unhinge to ingest food. They have long arms with five digit hands, each with an opposable thumb. They are slight of build and smell with their tongues. Their body temperatures are maintained synthetically. They are sluggish when cold but have lightning like reflexes when warm. Their skin is a scaly grey-brown to dark green in hue. Their home planet is a jungle, swamp land setting. They have a 2 - 1.5m long tail that serves to maintain balance and as a sexual attractant. Females' tails turn bright orange, red or blue when they are fertile. Their skeletons are formed with "break-away" joints. When a finger, toe, foot, hand, leg, arm or tail is trapped they can simply break from the trapped limb. This is almost painless and the limb or digit will regrow in a period of d10 days (digit), d10 weeks (hands/feet) or d10 months (limb/tail).

average size:	2m tall
average mass:	80kg
average life span:	150 years
reproduction:	heterosexual, viviparous
body temperature:	28 - 30C & by external means

Senses

Slirrysi's main sense is smell. Their eye sight, tasting and touch are relative to Humans'. Their hearing is slightly less. They have a 6th sense; through extra-sensitive nerve endings throughout their skin they can feel vibrations. This is useful for detecting approaching enemies or ungainly rumblings in an engine housing for example.

Speech

Slirrys speech is comprised of hisses, slurrings, jaw-claps and the abrupt inhaling or exhaling of air. They have trivial difficulty speaking other languages on a Pan Gal format.

Society and customs

Slirrysi society is based on clan-like tribes with a common pheromone trait. Their clan kinsman are recognized by smell. The females become sexually fertile once each year. They spend this time (1/12th

of a standard year) preparing a nest if they can smell males-of-age in their vicinity, otherwise the time passes by. Usually mating is indiscernible from violence and in Slirrys communities the tribe participates in raising the young. In this way strong ties are built around smells and not facial recognition. There is no greater affinity for brothers or sisters or mothers or fathers other than that they all smell like the tribe. They do not mate for life and it is very common for cross-breeding between siblings, parents-to-siblings, etc. Although males are larger they have a matriarchal society in that the odor of the tribe is inherited through the females. It is not uncommon for the females to have their tails fully attired at all times. They often hiss when confronted with enemies or frightened. The young spend one year being contributed to and then begin contributing and fending for themselves. They achieve adulthood in 15 - 20 years from birth. Unguents and aromas can elicit great responses from a Slirrys.

Special abilities

Slirrysi can detect vibrations through extra-sensitive nerve endings throughout their skin. They have +10% chance to detect sounds of this nature, e.g. the approach of a hidden creature, ungainly machinery rumblings, heart murmurs in a patient, etc. This assists those that choose tech or med abilities. They can automatically detect heart murmurs in their own bodies.

In addition, Slirrysi also have break-away joints. They can simply snap off an arm, leg, hand, foot, toe, finger or tail if necessary. This isn't exactly painless and can be embarrassing among their own kind but it doesn't cause damage. A digit will regrow in d10 days; hands/feet, d10 weeks; and limbs/tail, d10 months. Certain drugs and medical supplies will cut the time in half. Also, Slirrysi may have one extra limb punch, kick or jab every other round by employing their tail. After each attempt they need a full round to "gather" their tail semblance for another attempt.



The Felpa

By Daron Patton

An Underwater Character Race for Star Frontiers Adventures

Background

The Felpa were discovered when a raid on a Sathar supply convoy turned up coordinates for an ocean world called Uzer. The Sathar apparently classified the sea-covered planet as a low priority for conquest, but had noted its existence for future visitation, presumably unfriendly.

Physical Appearance and Structure

average size	1.8 m in length (5 meters for females)
average mass	80 kg (220 kg for females)
average lifespan	120 years
reproduction	sexual, viviparous
body temperature	30 C
dietary	plankton feeder

Felpa body design is comparable to that of several fishes encountered on Uzer and other worlds. Their pectoral fins, which usually have a span equal to the Felpa's length, look very much like wings. They are virtually worthless as manipulative structures. Felpa skin is durable and rough textured like shark skin with yellow and orange spot patterns.

Felpa breathe using a series of louvered gills exposed at the rear base of their skulls. They eat by filtering tiny bits of plankton from the surrounding sea water. When adventuring in non-aqueous environs, they use intravenous nutrition injections from the enviro suits they must wear whenever they leave the water.

An intricate proboscis lies between the pair of ellipse-shaped eyes mounted on the front of their skulls. The proboscis is divided into five segments, four minor ones branching in two pairs from the main organ, which serves the same function that an opposable thumb does in many other sentient species. Anything a Felpa manipulates has to be literally in its face.

Senses

Felpa vision is on par with human vision, while their senses of taste, smell and hearing are a little more acute. Tactilely, Felpa are incredibly sensitive, often performing delicate work that normally requires robot or computer guidance. They are deemed to be some of the best surgeons in the Frontier.

Speech

Felpa click their 'fingers' on the hard surface of their 'thumb', which they can vary internally to produce solid and hollow sounds. This language is both visual (used by deaf Felpa because certain fingerings produce distinctive sounds) and aural and extremely difficult for non-Felpa to learn. Fortunately, UPF researchers working closely with Felpa scientists have developed a keyboard polyvox that allows Felpa to converse freely in Pan-Galactic. Felpa have little difficulty learning Pan-Gal and are particularly astute at Vrusk dialects due to the clicking sounds common to both species' languages.

Society and Customs

Felpa society is based on groups called droves. A drove is a familial unit consisting of a large matriarch (females are typically three times the size of males) and five to ten consorts. All of the children born of these unions are considered nieces and nephews to the males (although Felpa can now genetically identify the actual father of an offspring, the old custom of treating all males in a drove as uncles still prevails). After the young reach maturity, a large gathering is held for a regional body of water. Newly matured females establish their own droves at this time with young males from other droves forming her court of consort.

Attitudes

Felpa are a pacifistic people. No Felpa will ever take work in a military primary specialty area, or as an enforcer, or as any type of combat specialist. They only believe in violence as a means of self-defense and then only as a desperate last resort. If attacked, they will take every opportunity to flee the situation or if their friends need their aid, to remain and assist in a

non-combative role. They will NEVER, under any circumstances, use a weapon.

Special Abilities

Gills: Felpa can breathe in any underwater (not necessarily all liquids are water) environment. Treat Felpa out of water like air-breathing PCs underwater as far as holding breath and related damage are concerned.

Exoskeltonized Enviro-Suit: Every Felpa venturing out of an aqueous environment must have an EE-Suit. These suits have a powered, bipedal exoskeleton that allows their Felpa operator to travel about on land.

Although EE-suits have legs, they do not have arms as Felpa prefer to use the 'hand' on their face. The suits contain recirculating water, purified by the suit for reuse and also have a set of atmospheric lungs used to reoxygenate the recirculated water from the ambient air in atmospheric conditions. The suit is pressurized and may be used in conditions from deep ocean exploration to outer space. Felpa equip their suits with tool-kits appropriate to their professions and emergency items such as beacons, flashlights and chronocoms are standard. Beginning Felpa characters start with an EE suit.

Peldesha: Felpa social values regarding violence has produced an interesting anti-martial art called Peldesha. Peldesha, involves a ballet-like series of dodges, feints, and sprint swimming (or just plain sprinting in an EE-suit) out of harm's way. The art is effective against both ranged attacks and melee, but is even more successful against the latter.

All Felpa are taught Peldesha from their youth and beginning Felpa adventurers will have at least 1st level experience (treat as Martial Arts skill) at no initial extra cost (does not count against the initial skills for starting characters using Alpha Dawn Expanded Rules).

Creating a Felpa Character

The following Ability Modifiers are use when creating a Felpa:

STR/STA	+0
DEX/RS	+5
INT/LOG	+0
PER/LDR	+5 (LDR only)

Felpa (in EE suits) climb vertical surfaces at 5 meters per turn, walk at 10 meters per turn, run 20 meters per turn, and move long distances at 3 kilometers per hour. Felpa characters can swim 20 meters/turn, or 3 km/hour (suited and otherwise). Felpa may swim for up to eight hours before losing 5 Stamina points for every 30 minutes thereafter that they continue swimming.

The following Racial Reaction Modifiers may also be used when dealing with Felpa. Only adverse or positive effects are noted. Assume all other interactions as neutral (0). Humans, Yazirians and Dralasites have a +5 reaction bonus to Felpa. ☀

STAR CLASH



Star Clash is a quick play card game of spaceship combat where you control a fleet of ships and attempt to eliminate your opponents while keeping your ships intact. With simple rules and mechanics it can be quickly learned. Designed for 3-9 players, Star Clash also has rules for 2 players as well as solo play.

Created by Terl Obar, a.k.a. "Tom Stephens"

You can find it at **RPGNOW**,

<http://www.rpgnow.com/product/108542/Star-Clash>

EQUIPMENT

New Vehicles for Star Frontiers

By Andrew Campbell

Here is a guide to Frontier Vehicles from Andy Campbell over at the Star Frontiers Underground group on Yahoo. Thank you Andy for keeping the Frontier alive on your end.

Crawler, Military			
	Tank	Self-Propelled Artillery	APC
Cost	75,000 (tank)	65,000	70,000 (military use only - no rental available)
Top / Cruise Speed	65 kph (110 m / turn) / 45 kph (75 m / turn) (all models)		
Passengers	3	3	12
Cargo Limit	12,000 kg, 10 cubic meters	12,000 kg, 10 cubic meters	5,000 kg, 6 cubic meters

Military crawlers are widely used among planetary militias, mercenaries and megacorporate troops; UPF forces have largely abandoned them in favor of aircars and hover vehicles. Although on the verge of being obsolete, they are still deadly vehicles and were employed by the Sathar as recently as the Second Sathar War in actions on Solar Minor and Outpost #1. Note that the prices listed for these vehicles do not include weapons or vehicle computers, both of which are added later by the military force buying the vehicle.

Standard equipment on all models includes a turret with 360 degree traverse (one fixed mount with a Gyrostabilizer (ZG) for main gun in the turret, plus one swivel mount next to the turret hatch). Other equipment includes an Auto-Extinguisher (ZG), Dis-Viz

Projector (ZG), Emergency Beeper (transponder) (ZG), Emergency Beeper Receiver (ZG), 4 Level 5 Baton Locks (1 each on the driver's hatch and controls, and 1 each on the main gun and turret hatch), Radiophone and a Toxy-Rad Gauge mounted in the crew compartment. There are 10 Smoke Grenades (SF: AD) mounted on the turret exterior, which can be detonated by the crew to obscure the vehicle (NOTE: this provides the vehicle with the equivalent of "soft cover" per SF: AD, p. 43, for 10 minutes if stationary or the next turn if moving). All military crawlers will carry ammunition for at least 50 shots from the main gun and double that or more for any secondary weapons. All models are powered by a pair of Type 4 Parabatteries. Tank and SP artillery crawlers are crewed by a driver and commander / gunner, both seated in the front of the hull; weapon reloads are handled by a robotic autoloader installed in the turret. APC's are crewed by a driver (seated in the front) and gunner / commander seated in the turret; ten troopers can be seated in the back, and exit by two roof hatches (adjacent to the vehicle's extra pair of swivel mounts) or via a large hatch in the back.

Tanks have 6 layers of armor (ZG) standard at NO penalty to listed vehicle speeds. They add a second fixed, gyrostabilized weapon mount on the hull in front of the driver. Tanks also include an autoloader for the main gun (only if main gun is PGS type). The autoloader is equivalent to a Level 3 Robot (100 STA, Attack / Defense, Computer Link) which has no legs and is mounted in the gun turret; if the human crew are killed, it can jack into the gun controls and continue firing the vehicle's weapons. Tanks mount a variety of weapons as main guns - M-1 rafflurs (ZG), heavy lasers, recoilless rifles and rocket launchers are common choices for militia vehicles; Landfleet commonly mounts superheavy ordnance-class weapons (use the statistics for the Sathar "automatic cannon" in SF2 or the vehicular weapons from Alex Curylo's DRAGON article "Tanks A Lot"). Tanks are known for their ability to cross obstacles - a tank can climb over any obstacle up to 1.5 meters high and

cross a trench up to 3 meters across. With full armament a typical tank masses 50,000 kg.

Self-propelled artillery have 2 layers of armor (ZG) standard at NO penalty to listed vehicle speeds. They include an autoloader for the main gun (only if main gun is PGS type). The autoloader is equivalent to a Level 3 Robot (100 STA, Attack / Defense, Computer Link) which has no legs and is mounted in the gun turret; if the human crew are killed, it can jack into the gun controls and continue firing the vehicle's weapons. Self-propelled artillery crawlers are unique among military vehicles in that they usually mount PGS weapons only; this allows them to fire indirect shots and use different ammunition types for specific missions. Recoilless rifles, grenade mortars and rocket launchers are common main guns on militia artillery; Landfleet commonly mounts superheavy ordnance-class weapons (use the statistics for the Sathar "automatic cannon" in SF2 or the vehicular weapons from Alex Curylo's DRAGON article "Tanks A Lot"). Self-propelled artillery crawlers are capable of climbing over obstacles up to 1 meter high and crossing trenches up to 2.5 meters across without trouble. With full armament, a typical self-propelled artillery crawler masses between 20,000 and 25,000 kg.

Armored personnel carriers (APC's) have 4 layers of armor (ZG) standard at NO penalty to listed vehicle speeds. They add two swivel mounts on the roof of the vehicle (mounted to the rear of the main gun, one on each side of it), with hatches next to each for gunners to fire them; these mounts can only accept rifle-class weapons - NOT heavy weapons. The extra two swivel mounts can be bolted down so the main gun can traverse its full 360 degrees; in this position these weapons cannot be fired. There are also 5 gun ports on each side of the vehicle accessible through armored panels; troops firing out of these ports do so at a -20 penalty and any opponents attempting to shoot at the trooper through the port have a -40 penalty to hit. APC's also add three extra Level 5 Baton Locks (ZG), which lock the main rear crew hatch and the two auxiliary crew hatches. APC's mount a variety of weapons as main guns - heavy lasers, recoilless rifles, grenade mortars and rocket launchers are common choices for militia vehicles; Landfleet

commonly mounts superheavy ordnance-class weapons (use the statistics for vehicular weapons from Alex Curylo's DRAGON article "Tanks A Lot"). Secondary weapon mounts are usually machine guns. APC's have excellent off-road handling, being capable of climbing over obstacles up to 1 meter high and crossing trenches up to 2.5 meters across without trouble. With full armament they mass between 22,000 and 25,000 kg.

NOTE: On the Terrain Effects Table (SF: AD, p. 19), crawlers are considered track-mobiles. For combat purposes, military crawlers used as APC's or tanks are considered armored vehicles (200+d100 structural points, plus armor layers - 150 points for tanks and 100 points for APC's); military crawlers used as self-propelled artillery are considered heavy vehicles (100+d100 structural points plus 50 points for armor layers). Military crawlers cannot traverse deep bodies of water such as lakes or rivers, but can be driven indefinitely through shallow water up to 2.5 meters deep (such as streams or along a shoreline). All three models of military crawler are built from the same chassis, measuring 7 meters long, 3.5 meters wide and 3 meters high (to top of the turret).

REFEREE'S NOTE: Military crawlers are extremely deadly vehicles designed strictly for warfare. These vehicles are closely guarded and will not be found outside of a military base or facility. The Emergency Beepers mounted in these vehicles double as transponders, allowing their commanders to track them up to 1,000 km away. If one were stolen or otherwise acquired, all UPF military and law enforcement units in the area would make every effort to destroy the vehicle and its contents rather than let it be stolen. PC's should only encounter these vehicles in wartime (if civilian), or in the context of normal military operations (if enlisted in a military unit). These vehicles are illegal and unavailable for all non-military organizations including Star Law.

Military Crawler Vehicle Data (all models)

Accel (m/turn)	50
Decel (m/turn)	40
Top Speed (m/turn)	110
Turn Speed (m/turn)	70

Crawler, Transport	
Cost	18,000 (passenger) or 20,000 (cargo) Cr (rental - both models - is 100 Cr plus 150 Cr / day)
Top / Cruise Speed	65 kph (110 m / turn) / 50 kph (82 m / turn) (both models)
Passengers	2 (cargo transport) or 12 (passenger transport)
Cargo Limit	10,000 kg, 30 cubic meters (cargo model) 2,000 kg, 5 cubic meters (passenger transport)

Transport crawlers are designed to haul cargo and passengers across broken or rugged terrain. Rarely used on the Frontier's more heavily populated worlds (where crawlers have an annoying tendency to chew up road surfaces), they are common on moons and smaller colonies. Transport crawlers are designed to be interchangeable in most ways with regular ground transports and share many common parts (excepting the track assembly); the driver's instruments, cab size and cargo compartment are similar enough in size and design that any ground transport driver will feel instantly at home in a crawler.

The two most common models of transport crawlers are a cargo transport and passenger transport; these are identical except for the cargo compartment, which in the passenger transport is a comfortable area with seating and cargo stowage under the passenger area (the cargo stowage is accessible only from locked panels on the sides of the vehicle, just above the track assembly). Standard equipment on a transport crawler (either type) includes a Chronocom (mounted on the dashboard), Emergency Beeper Receiver, and Level 3 (Green) Card Locks on the cargo compartment (cargo model) or cargo stowage panels (passenger model). Cargo Transports are powered by a single Type 3 Parabattery. Both models of transport crawler mass roughly 15,000 kg, not including any passengers or cargo carried.

NOTE: On the Terrain Effects Table (SF: AD, p. 19), crawlers are considered track-mobiles. For combat purposes, transport crawlers are considered light vehicles (50+2d10 structural points). Transport crawlers (like their military cousins) have excellent offroad capabilities, being able to climb over obstacles

up to 1 meter high and cross trenches up to 8 meters across. Transport crawlers cannot traverse deep bodies of water such as lakes or rivers, but can be driven indefinitely through shallow water up to 1.5 meters deep (such as streams or along a shoreline).

Transport Crawler Vehicle Data	
Accel (m/turn)	40
Decel (m/turn)	40
Top Speed (m/turn)	110
Turn Speed (m/turn)	50

Crawler, Utility ("Ute")	
Cost	30,000 Cr (rental - 75 Cr plus 150 Cr / day)
Top / Cruise Speed	55 kph (90 m / turn) / 40 kph (65 m / turn)
Passengers	2
Cargo Limit	15,000 kg

Utility crawlers can be found on loading docks and construction sites on most Frontier worlds, loading and hauling heavy cargoes and building components. They do not usually carry cargo themselves, instead loading cargo onto or into transports (crawler, ground or hover) for shipment. "Utes" are also used by the militias of the Frontier to recover and repair military vehicles in the field.

The standard model includes a crane capable of lifting 15,000 kg onto the cargo bed in the rear; the crane is capable of rotating a full 360 degrees. A winch with 60 meters of cable is mounted on the front of the vehicle, capable of pulling a maximum load of 12,000 kg. The only other equipment included on a standard "Ute" are Level 3 (Green) Card Locks on the dashboard / ignition and crane control panels. Utility crawlers require two operators to operate (driver and crane operator), though a Level 3 Robot is used by some companies in lieu of an organic driver; the driver sits in the front cab, while the crane operator has a seat mounted on the side of the crane's base. Military models can mount up to 2 layers of armor with the normal speed penalties, and a single swivel mount can be installed on top of the cab. For operation in hostile

or thin atmospheres or in vacuum conditions, the driver's cab and crane operator's seats can be enclosed in airtight canopies at a cost of 3,000 Cr each; the airtight canopies provide 10 hours of life support to the vehicle's occupants. Utility crawlers are powered by a single Type 4 Parabattery. Standard utility crawlers mass approximately 25,000 kg; they are roughly 8 m in length, 3.5 m wide and 3.5 m high (including the crane).

NOTE: On the Terrain Effects Table (SF: AD, p. 19), crawlers are considered track-mobiles. For combat purposes, utility crawlers are considered heavy vehicles (100+d100 structural points). Utility crawlers are able to climb over obstacles up to 1 meter high and cross trenches up to 8 meters across.

Utility Crawler Vehicle Data	
Accel (m/turn)	30
Decel (m/turn)	40
Top Speed (m/turn)	90
Turn Speed (m/turn)	40

Launch, Assault	
Cost	112,000 Cr (base model, including armor but not weaponry) (no rental available)
Top / Cruise Speed	600 kph (1,000 m / turn) / 150 kph (250 m / turn)
Passengers	12 (2 crew + 10 troopers, or 2 troopers and 1 assault robot)
Cargo Limit	250 kg, 1 cubic meter

Assault launches carry the standard fuel load of 40 bursts, but due to the weight of their armor only accelerate at 30 m / turn per burst.

Standard equipment on assault launches includes a Dis-Viz Laser Projector (ZG), Help-Beam Receiver (ZG), and Level 7 Baton Lock (ZG) on the cockpit hatch, and a Subspace Radio. Three Type E Scanners (1 km range) (ZG) are mounted on the vehicle, including Infrared, Radar and Radioactivity; these are enclosed in the equivalent of Computer Strongboxes (ZG) with 4 layers of armor each (see Zebulon's Guide, pp.81-82

for details on this equipment). For security reasons, a radio-detonated, 500 gram charge of TD-19 is emplaced in every gunship; all crew members have orders to destroy the craft if in danger of capture, using an encrypted Fleet signal, once they have evacuated a damaged vehicle. Vehicle computers are installed on all assault launches but are not included in the base model so that Fleet officers can outfit them as needed.

REFEREE'S NOTE: Assault launches are extremely deadly vehicles; they are designed and used by Spacefleet for the sole purpose of boarding hostile vessels. These vehicles are as closely guarded as any vessel in the Fleet, and will not be found outside of a Spacefleet hangar or ship. If one were stolen or otherwise acquired, Spacefleet would make every effort to destroy the vehicle and its contents rather than let it be stolen. PC's should only encounter these ships in wartime (if civilian), or in the context of normal military operations (if enlisted in Spacefleet). These vehicles are illegal and unavailable for all forces outside of Spacefleet, including planetary militias, megacorporate mercenary troops, and Star Law.

Launch, Cargo ("OTV's" or "Orbital Transfer Vehicles")	
Cost	115,000 Cr (rental - 100 Cr plus 25 Cr / hour)
Top / Cruise Speed	1,200kph (2,000 m / turn), 120 kph (200 m / turn)
Passengers	2
Cargo Limit	10,000 kg, 30 cubic meters

Cargo launches are modified versions of large (10 passenger) personnel launches. When ships are unable to dock with a station or other ship, these workhorses of Frontier space are put to work shuttling cargo from one airlock to the other. A typical cargo launch is 4 meters wide, 2.5 meters high and 5 meters long. The pressurized cockpit occupies the front 2 meters of the vehicle, with the sealed cargo compartment (with its own hatch in the rear) in the back; the cargo compartment itself is thus 4 meters wide, 2.5 meters high and 3 meters long and may be pressurized or kept as a vacuum.

Cargo launches are common on space stations, freighters and mining vessels, and are occasionally found on large passenger liners. They operate as do normal launches (see KH, pp.29-30), with the exception that if the cargo compartment is left unpressurized life support for the 2 crewman will last for two and a half days (70 hours). In hostile environments (such as zones with large numbers of micrometeoroids or debris), cargo launches are sometimes armored (up to 2 layers total); this reduces the speed imparted by each fuel burst by 10 meters / turn.

Standard equipment includes a Dis-Viz Laser Projector (ZG), pair of Floodlights (ZG), Help-Beam Receiver (ZG), Level 5 Baton Locks on the cockpit and rear hatches (ZG), Radiophone, and a Type E Radar Scanner (1 km range) (ZG). Operators of cargo launches usually add a simple vehicle computer to the vehicle, but these are not considered standard equipment. They rarely mount weaponry, but can accept a single mount (fixed or swivel) on the roof of the cab if necessary. In combat, they are considered heavy vehicles (100+d100 structural points); if damaged in combat, they follow the Vehicle Damage Table as described in KnightHawks.

Launch, Heavy Assault ("Gunship")	
Cost	181,715 (base model, including armor but not weaponry) (no rental available)
Top / Cruise Speed	1,440 kph (2,400 m / turn) / 360 kph (600 m / turn)
Passengers	3
Cargo Limit	500 kg, 1 cubic meter

Heavy assault launches, or "gunships" as they are usually called, are among the toughest opponents in space short of a full-size spacecraft. Although a single shot from any full-sized ship's weapons would vaporize a gunship in a single shot, they are capable of taking a larger vessel or station to pieces in a short amount of time. Gunships were designed in the wake of the First Sathar War, when Spacefleet's planners saw a need for small vehicles capable of breaching the hulls of ships and stations without destroying their target completely. Launches had already been used to ferry boarding parties onto crippled ships, so they

were the logical prototypes for the new gunships. Gunships themselves carry only 3 crewmen, although the vehicles are the size of a 10-passenger model; the remaining space is given over to weaponry and fuel. The role of gunships in a space battle is to protect the assault launches which deliver boarding troops to their target, and to "soften up" the target by destroying weapons turrets, breaching the hull in critical spots, and crippling or destroying any launches or workpods attempting to escape the target.

Gunships are designed solely with combat in mind, and outperform all other launch designs in this role. A gunship carries double the fuel of an ordinary launch (80 bursts), and can expend up to three bursts in a single turn from its high-performance thrusters; although each burst only produces 30 meters of thrust, a gunship can easily outrun a fleeing launch or pod. Gunships are considered armored vehicles for combat purposes and have 200+2d100 structural points (plus 100 points for their armor).

Gunships come with the following standard armament: 4 layers of armor, 1 swivel mount in the nose, 2 swivel mounts on the roof (1 in the front, 1 in the rear), and 1 swivel mount on each side; each weapon mount has an integral infrared Floodlight to aid in sighting targets or "highlighting" them for incoming assault troops. Typically, the nose and roof mounts are energy weapons (either heavy / KE-5000 lasers or M-1 rafflurs) and rockets or missiles are mounted on the sides of the vehicle (either a rocket launcher / missilier with Type II missiles or a 6-tube MLTC with Type II missiles). Additional armor can be added, with each added layer reducing acceleration by 5 meters / turn per fuel burst. Each energy weapon mounted is powered by its own Type 3 Parabattery (3 are included in the base vehicle cost).

Standard equipment on a gunship includes a Dis-Viz Laser Projector (ZG), Help-Beam Receiver (ZG), Level 7 Baton Lock (ZG) on the cockpit hatch, and Subspace Radio. Three Type E Scanners (1 km range) (ZG) are mounted on the vehicle, including Infrared, Radar and Radioactivity; these are enclosed in the equivalent of Computer Strongboxes with 4 layers of armor each (see Zebulon's Guide, pp.81-82 for details on this equipment). For security reasons, a radio-detonated,

500 gram charge of TD-19 is emplaced in every gunship; all crew members have orders to destroy the craft if in danger of capture, using an encrypted Fleet signal, once they have evacuated a damaged vehicle. Vehicle computers are added to all gunships, but are not included in the base model so that Fleet officers can outfit them as needed.

REFeree'S NOTE: Gunships are extremely deadly vehicles; they are designed and used by Spacefleet for the sole purpose of destroying any opposition to a boarding attack. These vehicles are as closely guarded as any vessel in the Fleet, and will not be found outside of a Spacefleet hangar or ship. If one were stolen or otherwise acquired, Spacefleet would make every effort to destroy the vehicle and its contents rather than let it be stolen. PC's should only encounter these ships in wartime (if civilian), or in in the context of normal military operations (if enlisted in Spacefleet). These vehicles are illegal and unavailable for all forces outside of Spacefleet, including planetary militias, megacorporate mercenary troops, and Star Law.

Launch, Suborbital ("Hopper")	Small	Large
Cost	60,000 Cr(rental -100 Cr plus 50 Cr/ hour)	75,000 Cr (cargo model) or 90,000 Cr (passenger model) (rental - 100 Cr plus 75 Cr / hour)
Top / Cruise Speed	(all models) 3,000 kph in Zero-Gee / variable - see below	
Passengers	4	2 (cargo) or 10 (passenger)
Cargo Limit	500 kg, 2 cubic meters	5,000 kg, 20 cubic meters (cargo) or 1,000 kg, 4 cubic meters (passenger)

Suborbital launches are similar to the small craft used to ferry passengers and cargo between spaceships (see Launches, Knight Hawks Campaign Book pp. 29-30). However, unlike spacefaring launches, suborbital launches are designed specifically for use on very low gravity moons and asteroids. Made of superlight alloys, equipped with powerful burster engines and

extra fuel tanks, suborbital launches are the "aircraft" of the Frontiers' lunar colonies. Though unable (except in near zero-gee conditions) to achieve escape velocity from a small moon, hoppers can traverse great distances and fly above all but the tallest obstacles. Small, 4-passenger hoppers are used much like personal jetcopters on larger planets; large hoppers are available in both cargo or passenger models, and fill much the same function on moons as aircars do on planets.

The single biggest difference between hoppers and all other flying craft is their use of chemical fuel rockets rather than parabatteries for propulsion. This is due to the fact that low-gee moons rarely have any but the most tenuous atmosphere if they have any at all, making parabattery-driven turbofans useless. Hoppers do carry a Type 2 Parabattery to run electrical systems and maintain life support (one is included in the initial purchase price). Consult the tables below for hoppers' fuel capacities, burn rates and average ranges. All launches carry 20 hours of life support for their maximum passenger load (4 for small models and 10 for large).

A standard hopper includes the following equipment in the initial purchase price: 2 Additional (Spacesuit) Life Support Packs (KH), a Dis-Viz Laser Projector (ZG), 2 Emergency Beepers (ZG), 1 Emergency Beeper Receiver (ZG), 4 Extra Spacesuit Patches (8 Patches total), 2 Flashlights, 1 Floodlight (ZG), a Level 5 Baton Locks on the cockpit hatch (ZG), 1 Radiophone, 100 m of Rope, a Type E Radar Scanner (1 km range) (ZG),

1 Techkit and 2 Toxy-Rad Gauges. Since hoppers are built as lightweight as possible to achieve a decent travel range, they cannot be armored in any way. Hoppers are therefore rarely used except as transportation by the Frontier's militaries, who prefer to rely on armed landing shuttles and airtight military crawlers instead.

Below are tables detailing hoppers' fuel and movement characteristics:

Launch, Suborbital Fuel Capacity	Small	Large
Cost	200 bursts/ 100cr	400 bursts/ 200cr
Top / Cruise Speed	(all models) 3,000 kph in Zero-Gee / variable - see below	
Passengers	4	2 (cargo) or 10 (passenger)
Cargo Limit	500 kg, 2 cubic meters	5,000 kg, 20 cubic meters (cargo) or 1,000 kg, 4 cubic meters (passenger)
Suborbital Launch Fuel Capacity	200 bursts	400 bursts
Fuel Burn Rate	up to one vertical and one horizontal burst / 6-second Alpha Dawn turn (each burst accelerates the hopper at 50 meters / AD turn)	
Vertical Fuel Bursts Required to Maintain Altitude	Per Turn	Per Hour
@ 0.0 G's	0	0
@ 0.1 G's	1 / 8 turns	75 / hour
@ 0.2 G's	1 / 4 turns	150 / hour
@ 0.3 G's (design limit for hopper use)	1 / 3 turns	200 / hour

*All examples assume the hopper uses 100 fuel bursts

to accelerate / decelerate and 100 bursts to counter gravity (except the zero-gee example, where all bursts are used to accelerate). The trip would begin by accelerating to cruise speed, cruising, then decelerating as the hopper neared its destination; the hopper would be continually firing bursts to counter gravity during the entire trip (except in zero-gee). In these examples the hopper is skimming the ground and therefore using no bursts to gain altitude per se. Also, these are idealized examples where the craft does not need to expend extra fuel bursts to evade obstacles, etc. Actual trip ranges are 20-60% shorter depending on terrain, desired altitude, and keeping fuel reserves rather than completely emptying the tanks. Note that large hoppers carry 400 bursts of fuel and have correspondingly greater ranges.



Art by Khairul Hisham

Balneum Blue, coming soon.

Travel Times and Ranges on 200 Bursts of Fuel (examples)*

	Total Accel. / Decel. Time	Total Accel. / Decel. Dist.	Max. (Cruise) Speed	Cruise Time	Cruise Dist.	Total Trip Time	Total Trip Dist.
@ 0.0 G's	20 minutes	500 km	5 km / turn	18 hrs., 40 min.'s	56,000 km	20 hours	56,500 km
@ 0.1 G's	10 minutes	125 km	2,500 m / turn	69.6 minutes	1,740 km	79.6 minutes	1,865 km
@ 0.2 G's	10 minutes	125 km	2,500 m / turn	30 minutes	750 km	40 minutes	825 km
@ 0.3 G's	10 minutes	125 km	2,500 m / turn	19.8 minutes	495 km	29.8 minutes	620 km

LEV (Lunar Excursion Vehicle) (from 2001 A Space Odyssey module)	
Cost	12,000 Cr (rental 75 Cr plus 100 Cr / day)
Top / Cruise Speed	42 kph / 18 kph
Passengers	4
Cargo Limit	750 kg, 5 cubic meters
Power	Type 3 Parabattery (good for 1,000 km of travel)

LEV's are similar to the "Explorer" class of vehicle found in the ALPHA DAWN game rules, but small and designed specifically for lunar use. Large windows are located front and rear, and the airlock hatch is on one side. A radiophone is included.

Treads are the primary movement power, but power struts ("legs") are also mounted, enabling the vehicle to jump. The horizontal range of a jump is 46-55 (1d10+45) meters from a stationary position, or 72-90 (2d10+70) meters when executed at maximum speed. The maximum height of a jump is 1/3 the jump range, reached at midpoint. Modification of the jump characteristics requires Level 3 Technician Skill and 3-30 hours of time.

To make a moving jump, the driver must make a Technician Skill check for Operating Machinery. A -20% penalty applies unless the driver has 3 or more months' experience at LEV operation. If failed, each passenger takes 1d10 damage, and devices carried may also be damaged.

LEV Vehicle Data	
Accel (m/turn)	40
Decel (m/turn)	30
Top Speed (m/turn)	70
Turn Speed (m/turn)	50

Magnitrucks and Magni-Cargo Trailers (from SFAD6 Dark Side of the Moon)	
Cost	2,000 Cr (Magnitruck), 1,000 Cr (Trailer) (no rental - fees charged based on travel)
Top / Cruise Speed	60 kph (100 m / turn) / 25 kph (42 m / turn)
Passengers	2 (Magnitruck) or 4 (Cargo Trailer)
Cargo Limit	200 kg (Magnitruck) or 1,000 kg (Cargo Trailer; reduce by 150 kg / passenger if any)

These vehicles are a common fixture of Frontier space stations, asteroid bases and lunar colonies. Magnitrucks and trailers serve as a cheap transit system for large and small facilities, transporting cargo and passengers alike safely and efficiently. Magnitrucks run along magnetic steel rails, using a magnetic generator in the truck to accelerate and decelerate; cargo trailers have no engine of their own and must be towed by a truck unit. Both magnitrucks and cargo trailers are 2.5 meters long and 1.5 meters wide. Since magnitrucks run on electricity conducted through the guide rails, they require no parabatteries and carry none; a battery equivalent to a powerclip is built into the vehicle to power the control panel, chronocom and life support system for up to 20 hours in the event of a power failure.

Each truck and trailer includes a control panel (with an intercom, buttons for each station / destination, and an emergency stop button); a Chronocom is built in to each unit allows passengers to place calls and transmits a distress signal to the switching center if the emergency stop button is pressed. All truck shafts have handholds installed every 2 meters along the wall in case a truck needs to be evacuated. Truck cars in large installations and moons typically have automatic restraint systems installed (adds 250 Cr to cost of magnitruck, 500 to cost of cargo trailer; when active requires Strength check to free oneself), and may have a bubble canopy as well (adds 1,500 Cr to cost of either vehicle, and if necessary provides 20 hours of life support for all passengers).

NOTE: In a low- or zero-gravity environment, it is important that passengers strap themselves into their seats; any passenger not strapped in when a truk's engine kicks in risks being thrown from the car (strength check to remain in seat) the next time the truk whips around a turn (1d5+10 points damage, halved if the character makes a successful Reaction Speed check). Also note that magni-truks (like standard trains) are limited to travelling along track systems.

Magnitruck Vehicle Data	
Accel (m/turn)	20
Decel (m/turn)	20
Top Speed (m/turn)	100
Turn Speed (m/turn)	100

Rover, Desert ("Dune Buggy")	
Cost	7,500 (rental - 75 Cr plus 50 Cr / day)
Top / Cruise Speed	120 kph (200 m / turn) / 75 kph (125 m / turn)
Passengers	3
Cargo Limit	200 kg

Desert rovers are rugged wheeled vehicles designed for offroad travel. They are common on colony planets due to their low cost, and are also popular with field scientists (biologists, geologists, etc.), security forces, and offroad racing enthusiasts. Desert rovers (like others of the vehicle class) are open vehicles and offer little protection from the elements or other hazards to their passengers. Factory models come with a compass, floodlight and radiophone installed. If using Zebulon's Guide, desert rovers can add up to 2 layers of armor (with the appropriate speed penalties) and a single swivel-weapon mount in the rear of the vehicle; if the weapon being mounted is a heavy weapon, only 2 passengers can be carried.

Desert rovers are powered by Type 2 parabatteries (one is included in the purchase price), and come with the following equipment factory-installed: a Compass, Floodlight (ZG), and Radiophone.

NOTE: Due to their offroad suspension and high ground clearance, rovers are treated as Explorers on the Terrain Effects Table (SF:AD, p. 19). Since rovers are open-topped, passengers only receive the Soft Cover modifier (-10) if fired on. For combat purposes, desert rovers are considered light vehicles (50+2d10 structural points).

Desert Rover Vehicle Data	
Accel (m/turn)	80
Decel (m/turn)	40
Top Speed (m/turn)	200
Turn Speed (m/turn)	70

Rover, Lunar ("Moon Buggy")	
Cost	2,500 Cr (base model) (rental - 25 Cr plus 25 Cr / day) 6,250 Cr (excursion model) (rental - 75 Cr plus 50 Cr / day)
Top / Cruise Speed	40 kph (65 m / turn) / 25 kph (40 m / turn)
Passengers	2
Cargo Limit	200 kg (350 kg if only 1 passenger)

NOTES	
Length	3.1 meters
Vehicle Mass	250 kg (including 25 kg Type 1 Parabattery)
Total Loaded Mass	750 kg
Volume (packed)	0.9 m3

The lunar rover is a rugged, dependable vehicle used on the moons of the Frontier's planets. Powered by a Type 1 Parabattery, rovers can be found in the garages of nearly every lunar base and colony on the Frontier. They are cheap and easily repaired, making them especially popular with miners and science teams. Rovers function equally well in vacuum or atmospheric environments. If using Zebulon's Guide rules, a rover can add up to 1 layer of armor (reducing max and cruise speeds by 15 kph) and 1 weapon mount (usually a swivel).

Rovers are available as base models (the basic chassis) or as excursion models which add the following to the vehicle:

Excursion Package - includes 2 Additional Life Support Packs, 2 Emergency Beepers (ZG), 1 Emergency (adds 3,750 Cr and Beeper Receiver (ZG), 4 Extra Spacesuit Patches (8 Patches total), 2 Flashlights, 75 kg to base model) Freeze Field, Floodlight (ZG), 1 [spare] Type 1 Parabattery, Radiophone, 100 m Rope, Techkit, 2 Toxy-Rad Gauges

NOTE: Rovers are open vehicles with no crew cabin or independent life support system - passengers must remain in spacesuits at all times! Due to their offroad suspension and high ground clearance, rovers are treated as Explorers on the Terrain Effects Table (SF:AD, p. 19). Since rovers are open-topped, passengers only receive the Soft Cover modifier (-10) if fired on. For combat purposes, lunar rovers are considered light vehicles (50+2d10 structural points).

Lunar Rover Vehicle Data	
Accel (m/turn)	25
Decel (m/turn)	40
Top Speed (m/turn)	65
Turn Speed (m/turn)	50

Rover, Military ("Gun Buggy")	
Cost	12,000 Cr (military use only - no rental available)
Top / Cruise Speed	105 kph (175 m / turn) / 75 kph (125 m / turn)
Passengers	3
Cargo Limit	200 kg

Military rovers are common among planetary militia and corporate mercenary troops, who use them for reconnaissance and hit-and-run missions. Rovers are popular in this role because they are less conspicuous than aircraft, handle rough terrain better than hover vehicles, and are faster than standard explorers. Their ability to carry heavy weapons also makes them valuable infantry support vehicles in broken ground. They are roughly the same size as civilian dune and lunar rovers, and are cheap enough that they can be deployed in large numbers. Standard crew for all

rovers is three - a driver (usually the vehicle's NCO), heavy weapon gunner (in rear of vehicle), and a spotter / reloader (in passenger seat).

Military rovers are powered by a Type 3 Parabattery. They come with the following equipment factory-installed (listed specs for speed, accel/deceleration, etc. already reflect this): Air Brakes (ZG), 1 layer of Armor, an infrared Floodlight (ZG), Gyrostabilizer (ZG), Radiophone, Rocket Booster with 4 extra charges, and 2 swivel mounts (1 for a rifle-sized weapon up to 5 kg in front of the passenger seat, 1 for a heavy weapon up to 25 kg in mass in the rear of the rover). Rovers can add up to 2 additional layers of armor at the usual penalties to maximum and cruise speeds, but usually operate with just the factory armor and rely on their speed to stay out of harm's way.

Common heavy weapons mounted on rovers include heavy lasers, machine guns or grenade launchers (recon and infantry support role); heavy lasers, recoilless rifles or rocket launchers (anti-armor role); if using Zebulon's Guide, recon rovers may also mount a M-1 Rafflur, and anti-armor rovers may mount a Popper (with 6 micromissiles and fastrack reloads) or 6-tube MLTC with Type I Missiles.

NOTE: Due to their offroad suspension and high ground clearance, rovers are treated as Explorers on the Terrain Effects Table (SF:AD, p. 19). Since rovers are open-topped, passengers only receive the Soft Cover modifier (-10) if fired on. For combat purposes, military rovers are considered heavy vehicles due to their special alloy construction (100+d100 structural points).

Military Rover Vehicle Data	
Accel (m/turn)	100
Decel (m/turn)	60
Top Speed (m/turn)	175
Turn Speed (m/turn)	70

Hypersonic Transport (Scramjet)	
Cost	350,000 Cr* (no rental available)
Top / Cruise Speed	Mach 20 (approx. 21,200 km / hr) / Mach 12 (approx. 12,720 km / hr)
Passengers	40 plus 6 crew (passenger airliner) or 4 crew (cargo carrier)
Length	40 meters
Wingspan	35 meters
Cargo / Passenger Bay	12 meters by 5 meters
Takeoff Mass	150,000 kg
Maximum Altitude	50 km
Fuel	Semi-liquid ("slush") hydrogen (equivalent to chemical rocket fuel - see Knighthawks); consumes 2,000 Cr worth of fuel per flight.
Runway required	2,500 meters
Cargo Limit	15,000 kg / 180 cubic meters (cargo carrier), or 40 passengers plus 5,000 kg / 30 cubic meters cargo (airliner)

*Price assumes purchase at a Class I Construction Center; at Class II Centers increase to 395,000 Cr and at Class III Centers increase to 625,000 Cr. Scramjets are slightly cheaper than typical shuttles of their size and type due to a standardized design by Trans-Travel which has been copied across the Frontier.

Scramjets are suborbital transports intermediate between aircraft and shuttles. Designed with "air-breathing" rocket engines which oxidize hydrogen, they travel at hypersonic speeds at altitudes which graze the edge of space. These vehicles are the fastest transport available for shuttling passengers and cargo across the planets of the Frontier. Typically operated by planetside airline companies, many are also owned by governments and the megacorps for their own use. On smaller planets (Light or Outpost population code), they are sometimes owned and operated by Trans-Travel (the megacorp) or by individual entrepreneurs (usually former spacers). Although scramjet flights are usually between 2 points on a planet's surface and just graze the edge of space, they are capable of acting as normal shuttles if

necessary.

Hypersonic transports are coated with a reflective heat shielding material which is equivalent in all respects to a Reflective Hull; they also include Astrogation Equipment (Shuttle) (KH), an Intercom Panel (in the cockpit) and 2 Intercom Speakers/Microphones (in the cargo / passenger compartment) (both from KH), a Life Support System (36-60 supported) (KH), a Radar Unit (KH), a Subspace Radio, and 2 Videocom Radios (1 in the cockpit and 1 in a booth in the passenger / cargo area) (KH). All hypersonic transports have 6 Portholes (forming a continuous wraparound window for the cockpit) (KH), and passenger airliners will have an additional 24 Portholes (12 to a side) lining the passenger compartment. The cockpit area hatch and each of the two computers on a scramjet are secured by Level 5 Baton Locks (ZG). Government or megacorp-owned scramjets can be equipped with up to 2 Decoys (at an extra 20,000 Cr each) (KH) and / or 2 Escape Pods (at an extra 30,000 Cr each) (KH); if either or both of these options are mounted, passenger capacity drops to 10 and cargo capacity to 1,000 kg (also reduce the craft's cargo capacity by 4 cubic meters per Decoy and 16 cubic meters per Escape Pod).

All scramjets are equipped with a main computer (Level 2, 18 FP) including a Level 2 Alarm Program (2 Function Points), Level 1 Astrogation Program (Shuttle Type, 3 Function Points), Level 3 Computer Lockout Program (2 Function Points), Level 2 Damage Control Program (4 Function Points), a Level 1 Drive Program (Chemical Type, Size A, 3 Function Points), and a Level 1 Life Support Program (4 Function Points). A secondary computer (Level 2, 11 FP) includes a Level 1 Commerce Program (3 Function Points), Level 1 Communication Program (3 Function Points), Level 1 Installation Security Program (3 Function Points) and a Level 1 Maintenance Program (2 Function Points). Both computers are individually encased in Strongboxes (ZG) with 5 layers of armor. In truly desperate circumstances, a scramjet can mount a single Assault Rocket.

KnightHawks Statistics

Hull Size 3 Shuttle

ADF 1

MR 4

Hatches 1

Engines 2

DCR 80

Hull Points 10

Walker, Cargo

Cost 22,000 Cr (rental - 75 Cr plus 150 Cr / day)

Top / Cruise Speed 50 kph (82 m / turn) / 30 kph (50 m / turn)

Passengers 8

Cargo Limit 2500 kg, 5 cubic meters with 8 passengers or 5,000 kg, 25 cubic meters with none

Similar in design to the smaller survey walkers, cargo walkers are large, hexapedal (6-legged) vehicles designed to transport heavy cargo loads through rough terrain. They are also used by small science expeditions as mobile base camps. The vehicle has a small cab in the front (roughly 2.5 meters high, 4 meters wide and 2 meters long), from which a small door opens into the passenger / cargo area (roughly 2.5 meters high, 2.5 meters wide and 4 meters long); the vehicle's legs keep its main body about 2.5 meters off the ground, and can walk through bodies of water up to that height with little difficulty. The rear of the passenger / cargo area has a large hatch in the rear (with a retractable ramp) and a smaller side hatch with a retractable step ladder). Cargo walkers are very rarely used by the military due to their slow speed, but they can add a single layer of armor at the usual speed penalty; they can add up to 3 weapon mounts (either fixed or swivel) - 1 under the "chin" of the cab and 1 each at the front and back of the cargo area roof.

Cargo walkers are powered by a Type 3 Parabattery (included in the purchase price) and come with the following equipment factory-installed (these are included in the initial purchase price): Compass,

Chronocom, Dis-Viz Laser Projector (ZG), Emergency Beeper Receiver (ZG), Floodlight (ZG), Radiophone, a Techkit, and a Toxy-Rad Gauge (mounted on front of unit, displays status in cockpit). The standard model is not airtight, but can be modified for use in vacuum or poisonous atmospheres at a cost of 12,000 Cr (makes cockpit airtight and includes 20 hrs life support for 8 passengers). Although it is rarely done, 2 heavy duty arms can be mounted under the cab for 2,500 Cr.

NOTE: Although these vehicles move on legs, their movement type is treated as "slithering" on the Terrain Effects Table (SF:AD, p. 19) due to their ability to pick their way through difficult terrain. For combat purposes, cargo walkers are considered heavy vehicles (100+d100 structural points). They require above average maintenance due to the complicated hydraulic systems in the legs; in game terms, the vehicle requires a successful repair roll (SF:AD Repair Machinery or SF:ZG Vehicle Repair) for every 100 km travelled, or the vehicle will automatically break down in the next 100 km of travel (roll d100 for the exact km it breaks down at).

Cargo Walker Vehicle Data

Accel (m/turn) 40

Decel (m/turn) 20

Top Speed (m/turn) 82

Turn Speed (m/turn) 40

Walker, Survey

Cost 10,000 Cr (rental - 75 Cr plus 75 Cr / day)(9,000 Cr if equipped with standard arms, 7,500 Cr if no arms mounted)

Top / Cruise Speed 65 kph (110 m / turn) / 45 kph (75 m / turn) biped

Passengers 2

Cargo Limit 200 kg, 1 cubic meter

Survey walkers are bipedal (2-legged) vehicles, designed for short range survey missions through extremely rough terrain. They are usually deployed in areas such as boulder fields, light woodlands, and heavily cratered zones. On such terrain the agility of the walker's legs makes up for its slow speed and

small cargo capacity compared to other ground vehicles. They are rarely employed by military or security forces, except as mobile guard posts, due to their slowness and lack of armor. Survey walkers are roughly 3.5 meters in height, with a pair of 2 meter legs attached at the midpoint of a cab 2.5 meters high and 2 meters wide / deep. The cab has space for a driver and one passenger, who strap into reclined seats; a small, sealed cargo area (accessible from hatches inside and outside the cab) occupies the space below the seats. If using the Zebulon's Guide rules, survey walkers can up to 2 layers of armor at the usual speed penalty, and a single fixed or swivel mount weapon above the cab.

Survey walkers are powered by a Type 2 parabattery (included in the vehicle's purchase price). The standard model is equipped with a pair of heavy duty arms (equivalent to heavy duty robot arms in size and strength); these are used for moving cargo or heavy objects, but may be replaced by a standard pair of arms for fine manipulation (a common practice for walkers used by biologists) or by a pair of fixed weapon mounts (forward-firing, and can only mount rifle-sized weapons or smaller).

Survey walkers come with the following equipment factory-installed (these are included in the initial purchase price): Compass, Chronocom, Emergency Beeper Receiver (ZG), Floodlight (ZG), Radiophone, a Techkit, and a Toxy-Rad Gauge (mounted on front of unit, displays status in cockpit). The standard model is not airtight, but can be modified for use in vacuum or poisonous atmospheres at a cost of 4,000 Cr (makes cockpit airtight and includes 20 hrs life support for 2 passengers).

NOTE: Although these vehicles move on legs, their movement type is treated as "slithering" on the Terrain Effects Table (SF:AD, p. 19) due to their ability to pick their way through difficult terrain. For combat purposes, consider survey walkers to be light vehicles (50+2d10 structural points). They require above average maintenance due to the complicated hydraulic systems in the legs; in game terms, the vehicle requires a successful repair roll (SF:AD Repair Machinery or SF:ZG Vehicle Repair) for every 100 km travelled, or the vehicle will automatically break down

in the next 100 km of travel (roll d100 for the exact km it breaks down at).

Survey Walker Vehicle Data	
Accel (m/turn)	50
Decel (m/turn)	30
Top Speed (m/turn)	110
Turn Speed (m/turn)	40

Zeppelin, Civilian	
Cost	30,000 Cr (rental - 100 Cr plus 75 Cr / day)
Top / Cruise Speed	145 kph (240 m / turn) / 75 kph (125 m / turn)
Passengers	12 (human-sized) or 4 (Vrusk-sized)
Length	243 ft (73 meters)
Total Mass	6000 kg
Net Mass (inflated)	600 kg (propellers provide lift)
Cargo Limit	500 kg / 2 cubic meters with full passenger load, 1500 kg / 10 cubic meters with no passengers aboard

Zeppelins are semi-rigid airships supported by internal struts of composite materials, unlike blimps which are simple inflated gasbags. They are powered by 2 Type 3 Parabatteries which drive a pair of propellers; the propellers can swivel and serve as secondary steering (in addition to the rudders) for the craft. A zeppelin can take off and land either vertically (like a copter) or on an ascending angle (like an airplane), and require no runway.

Although not popular on Core planets dominated by aircars and such, zeppelins are very useful on colonies, low-tech planets, and for explorers due to their low maintenance, low cost, and good handling (a zeppelin can rotate in place and hover much like a helicopter). The zeppelin's gas bags (called "cells") are inflated with helium, making it non-flammable.

Due to their similar sizes, there have been cases where camouflaged airships have been used as decoys for landed Hull Size 4 ships by smugglers and pirates;

use of a zeppelin in this way to evade pursuit by law enforcement officers is a felony on all UPF member planets and is vigorously prosecuted.

Zeppelin Vehicle Data	
Accel (m/turn)	20
Decel (m/turn)	20
Top Speed (m/turn)	240

***MOVEMENT AND COMBAT NOTES:

For aerial combat modifiers and the results table, use the jetcopter entries (SF:AD, p. 33) for zeppelins; they can increase or decrease altitude by 20 meters / turn and are capable of hovering as do aircars and jetcopters. If a zeppelin is damaged in a high-wind storm, add +5 per 50kph of the storm's wind speed to rolls made on the Flying Vehicle Damage Table (SF:AD, p.33).

In combat, a zeppelin (gasbag and gondola combined) has structural points equal to a heavy vehicle (100+d100); if only the gondola or the gasbag is targeted, treat the individual components as equivalent to a light vehicle's structural points (50+2d10). If using the vehicle armor rules from SF:ZG (p. 83), a maximum of two layers of armor can be applied to a zeppelin (anymore and it could not take off); in addition to the speed penalties listed in ZG, armored zeppelins lose the capacity for 3 passengers or 500 kg of cargo per layer of armor added. In addition to regular armor layers, it is possible to add a coating of reflective paint to the gasbag and gondola; this adds 2,000 Cr to the vehicle's cost and makes it impossible to conceal. A maximum of 3 swivel mounts can be added to the gondola (1 in the nose and 1 to each side) for weapons; see SF:ZG (p. 83) for costs and restrictions.

Zeppelin, Survey (from SFKH2 Mutiny on the Eleanor Moraes)	
Cost	10,000 Cr (rental not available)
Top / Cruise Speed	100 kph / 50 kph
Passengers	20
Cargo Limit	1000 kg in 100 cubic meters
Range	20,000 km; multi-fuel turbine engine

These semi-rigid lighter-than-air vehicles are used primarily for survey and colonization. Their economical operation, high cargo capacity, extensive range, and low-tech design make them useful and versatile. Gondolas are custom-designed for specific applications.

Survey robots act as tugboats for the assembly, inflation, mooring, and remote landing of these airships.



SPACESHIPS

The Embecker Dance

By Dominic (Nick) Pelletier

The Embecker Dance	
Luxury Passenger Liner	
Hull Size	8
ADF	3
MR	3
DCR	44
Hull Points	40
Life Support	
Main	188
Backup	90 (back up A), 90 (back up B)
Number of Engines	2
Engine Type	Atomic Class B
Weapons	Laser Battery
Defenses	None
Accommodations	
1 st Class	20 passengers
Journey Class	68 passengers
Storage Class	80 passengers
Crew	20 crew
Computer	
Level	5
FP	474
Programs	
Atomic Engines (lv 5), Life Support Main (lv4), Life Support Backup A (lv 3), Life Support backup B (lv3), Alarm (lv 2), Computer Lockout (lv 2), Astrogation (lv 4), Entertainment (lv 5), Laser Battery (lv 1), Medical Lab (lv 3)	
Onboard Vehicles	1 Life Boat, Multiple Escape Pods, 1 Work Pod
Other Equipment	
Subspace Radio, Intercom, Videocom Radio, Radar, Several service & maintenance robots.	

History:

The Embecker Dance originally started her service as a military vessel whose mandate was escort duty for unarmed civilian ships. Though lightly armed, her captain and crew were drafted into full combat operations during the First Sathar War. Fortunately, the ship and her crew were located near Prenglar when the call arrived. They were among the first to arrive and provide assistance at the rally point. Under her flag, the Embecker Dance was made the command ship of a strike force for the coming battle. After engaging the enemy, the strike force headed by the Embecker Dance proved very capable and destroyed many Sathar warships before receiving heavy combined fire herself. The ship was heavily damaged and taken out of commission but was still salvageable after the battle was over.

Being unsuited to return to combat duty, she was purchased by a private consortium and was retrofitted into a luxury passenger liner. The Embecker Dance has changed hands many times and has proved to be a solid and reliable ship.

Currently, the Embecker Dance is employed for luxury cruises to nearby stellar phenomenon. A trip onboard is not designed to get her passengers to their destination quickly. Instead, passengers are treated to a wonderful multi-stop tour of several nearby nebulae, dust clouds and other stellar sights with ports of call from Fromeltar, Dramune, Cassidine, and Madderly Star systems.

As the name implies, trips onboard the Embecker Dance are entertaining and humorous. Many trips have themes with a party-like atmosphere. Often, the entertainment crew hosts elaborate events, such as 'mysteries', costume Balls and other special celebrations for the passenger's enjoyment.

Most passengers onboard tend to be Dralasites and Humans though some Vrusk also take the trip. It is

rare to find Yazirian passengers as the theme of the trips often proves too much for Yazirians to bear.

Passengers who have taken the trip on the Embecker Dance have high reviews for the entertainment and vistas provided to them.

One of the special features of the Embecker Dance is that she has a far larger rescue capacity than most ships of similar size. Having been a warship, most of the former weapon hard-points have been converted into Life Pod docks. The Embecker Dance is one of the only active ships that sport enough Life Pods and Rescue Boats to evacuate the entire passenger list and crew capacity including Storage Class.

The Embecker Dance is an old ship. There are many mysterious creaks and groans to her hull, despite several attempts at solving these. The ship has proved herself many times both during combat and in other emergency situations and has always been able to recover. Since being re-serviced as a luxury ship, only 2 deaths have ever occurred onboard.

The Embecker Dance

The name of the Embecker Dance is taken from the infamous dance from ancient feudal human history that originated from the Embeck Duchy. The original dance was a farce that involved several partners dancing in a complex pattern in which the participants make rude, and sometimes obscene, jesters to each other. The Embecker Dance, as it became known as, is recognized as the first example of what became known as Participation Comedy.

Though the popularity of the Embecker Dance faded fairly quickly from Human history, it has found resurgence with Dralasite historians who discovered the dance while studying Human history.

Decks:

Deck 1, Observation:

The topmost deck serves as the mess hall for passengers. A fully stocked galley is located here and there is almost always food of some sort available at all times. Regular meals are served buffet style at set times. This deck is surrounded with Plaststeel windows covering as much of the 'walls' & 'ceiling' as possible. It is without a doubt, the best seat in the house for stellar viewing. A large Holo-screen is also

located here for entertainment purposes. Lift #1 does not go to this deck.

Deck 2, Recreation:

Most recreational activities are held on this deck. There are several lounges around the hull with expansive viewports to take in the sights as the ship travels. Each lounge is equipped with a Holo-screen for passenger enjoyment. The middle of this deck is taken up by the Multi-Purpose room. This room can be changed as needed depending on what activities are planned. Currently, it is set up as a Holo-Theater. This deck also houses what was originally the Weapon Control Deck. This has now been converted to a service deck for the Entertainment Officer.

Deck 3, First Class:

First Class accommodations. Each First Class berth has room for two passengers with their own washroom facilities. Though not as large as other ships' First Class berths, these are quite comfortable. This is also the location of the Main Bridge.

Deck 4, Journey Class 1:

Main deck for Journey Class passengers. Each berth has a double bunk. Washroom facilities are shared by all Journey Class passengers on this deck. The Navigation Bridge is also located on this deck.

Deck 5, Journey Class 2:

Much the same as Deck 4, this deck is also where the Main Airlocks are located on both the port and starboard sides. This is the first deck passengers see when boarding the ship before being directed to their berths. A secondary Bridge/Command center is also located on this deck. If needed, this bridge is capable of running all of the ships functions but in a limited capacity.

Deck 6, Crew Deck:

Lift #3 brings passengers to the Medical Bay if needed. All other lifts will only come to Deck 6 for authorized crew. This deck provides the quarters and off-time facilities for all the ship's crew. Between the Captains quarters and the Officers' quarters, is the Captain's Mess. A dedicated room for the captain and officers.

Deck 7, Cargo 1:

This deck is only accessible to authorized crew members. All cargo is stored on this deck. Deck 7 itself consists of the upper section that opens up to Deck 8 which is the main cargo hold. Deck 7 is primarily used for crew items and storage of smaller items or those with special storage considerations.

Deck 8, Cargo 2:

Main Cargo Hold is only accessible to authorized crew members. This deck is mostly open through Deck 7 and provides ample storage space for cargo and personal belongings of crew and passengers. This is also where Storage Class passengers are kept.

Deck 9, Environmental:

This deck is only accessible to authorized crew members. A service shaft provides the only access to this deck. Machinery related to environmental controls is located here.

Deck 10, Computer:

This deck is only accessible to authorized crew members. A service shaft provides the only access to this deck. This deck houses the ships computer core and logic centers.

Deck 11, Systems:

This deck is only accessible to authorized crew members. A service shaft provides the only access to this deck. Internal control and communication systems are accessible on this deck.

Deck 12, Engineering 1:

This deck is only accessible to authorized crew members. A service shaft provides the only access to this deck. This is the access point for several systems related to the operation of the ship.

Deck 13, Engineering 2:

This deck is only accessible to authorized crew members. This deck is where the ships' engineers spend most of their time monitoring the ships systems as well as providing damage control.






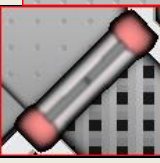
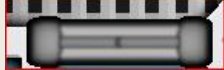
Deck 14, Main Engine:

This deck is only accessible to authorized crew members. Access to the ships engines is through here. This is also where monitoring and resupply of the engines is performed.

Deck 15, Machine Shop:

This deck is only accessible to authorized crew members. A full function repair and manufacturing shop for repairs and minor fabrication are done. There is also an aft airlock that accesses a workpod for external repairs and maintenance if needed.

Legend:

Life Pods:		Lift:	
Pressure Hatch:		Floor/Ceiling Hatch:	
Spacesuit/Survival Gear Locker:		Security Door:	
Sliding Door:			

I ran across the main picture for the Embecker Dance while looking for some sci-fi pictures online. Every once in a while too, I will search for Star Frontiers stuff hoping to find something new. Well, Nick was kind enough to share this ship and its history with us. I hope you have some time to travel across the stars. - William

The Embecker Dance

- Deck 1, Observation
- Deck 2, Recreation
- Deck 3, First Class
- Deck 4, Journey Class 1
- Deck 5, Journey Class 2
- Deck 6, Crew Deck
- Deck 7, Cargo 1
- Deck 8, Cargo 2
- Deck 9, Environmental
- Deck 10, Computer
- Deck 11, Systems
- Deck 12, Engineering 1
- Deck 13, Engineering 2
- Deck 14, Main Engine
- Deck 15, Machine Shop

Side View



Top Down View



Deck 1, Observation



Deck 2, Recreation



Deck 3, First Class



Deck 4, Journey Class 1



Deck 5, Journey Class 2



Deck 6, Crew Deck



Deck 7, Cargo 1



Deck 8, Cargo 2



Deck 9, Environmental



Deck 10, Computer



Deck 11, Systems



Deck 12, Engineering 1



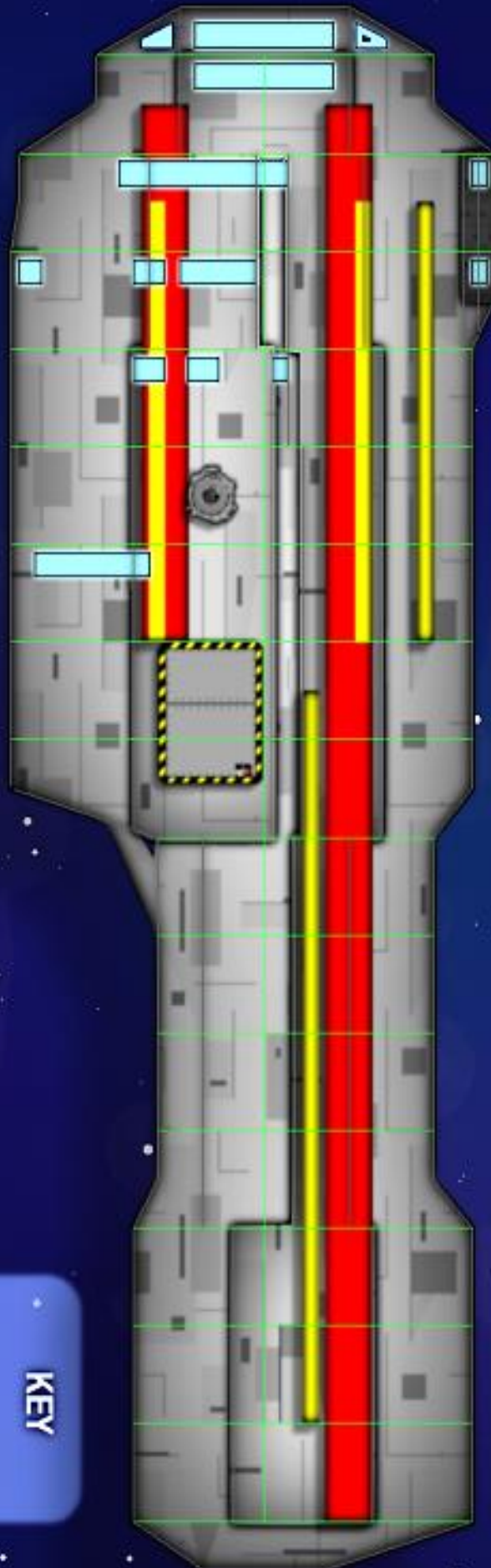
Deck 13, Engineering 2



Deck 14, Main Engine



Deck 15, Machine Shop



Deck 1, Observation

Deck 2, Recreation

Deck 3, First Class

Deck 4, Journey Class 1

Deck 5, Journey Class 2

Deck 6, Crew Deck

Deck 7, Cargo 1

Deck 8, Cargo 2

Deck 9, Environmental

Deck 10

Deck 11

Deck 12

Deck 13, Engineering

Deck 14, Main Engine

Deck 15, Machine Shop

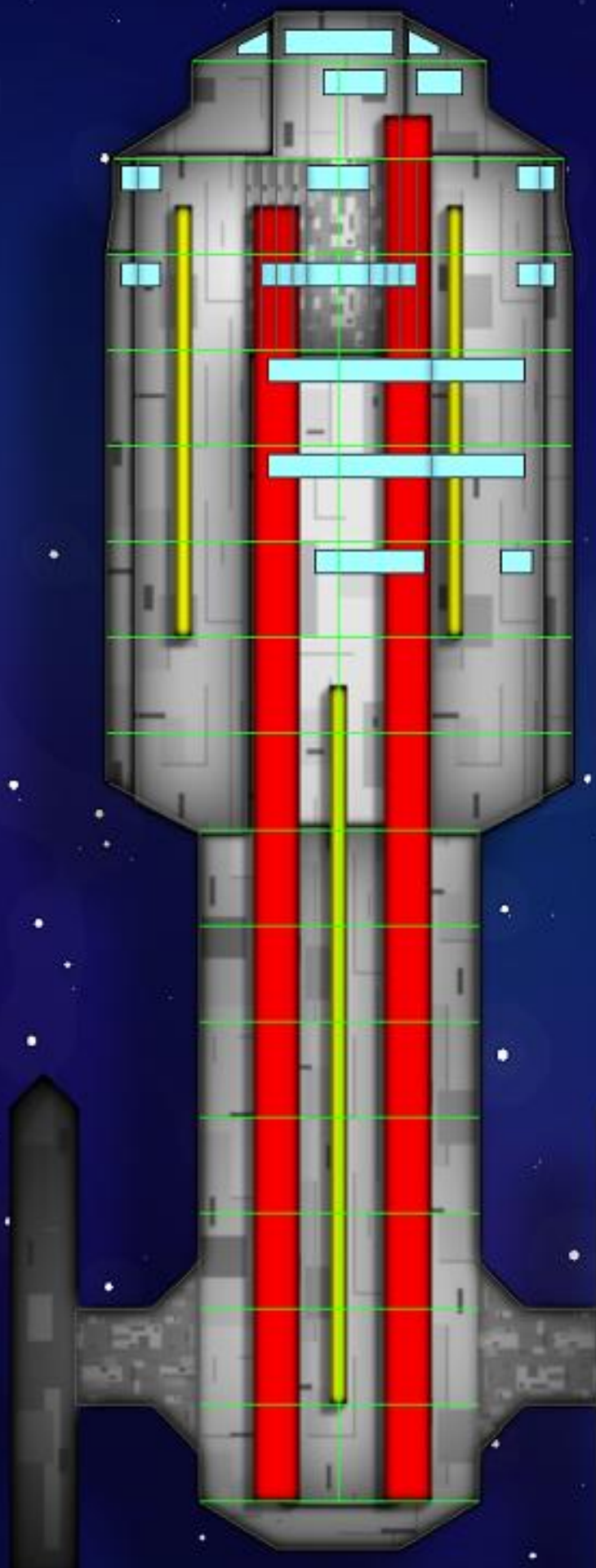
KEY

Elevator Lift

View Port

Access Chute

Bridge Area



Deck 1, Observation

Deck 2, Recreation

Deck 3, First Class

Deck 4, Journey Class 1

Deck 5, Journey Class 2

Deck 6, Crew Deck

Deck 7, Cargo 1

Deck 8, Cargo 2

Deck 9, Environmental

Deck 10

Deck 11

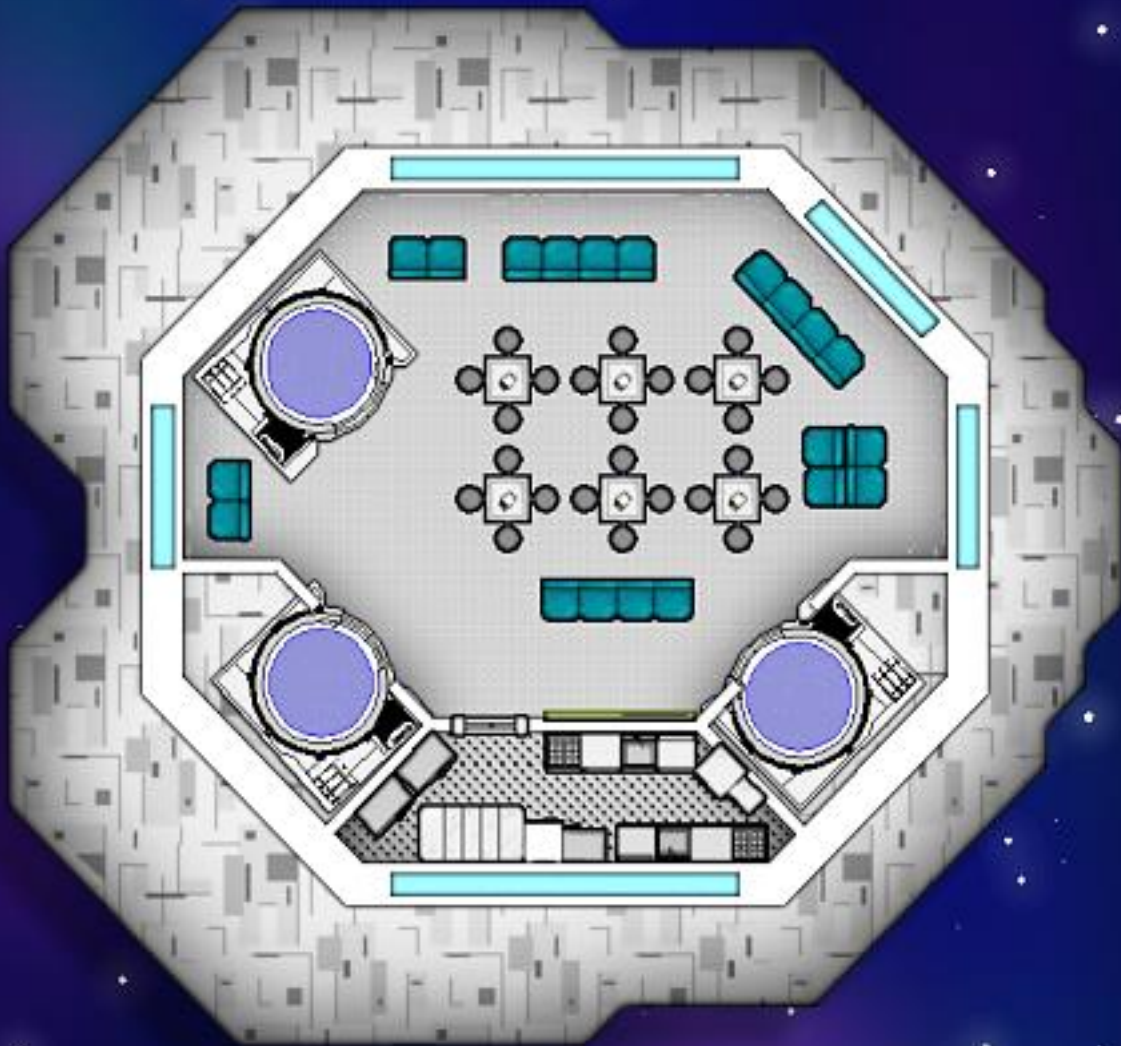
Deck 12

Deck 13, Engineering

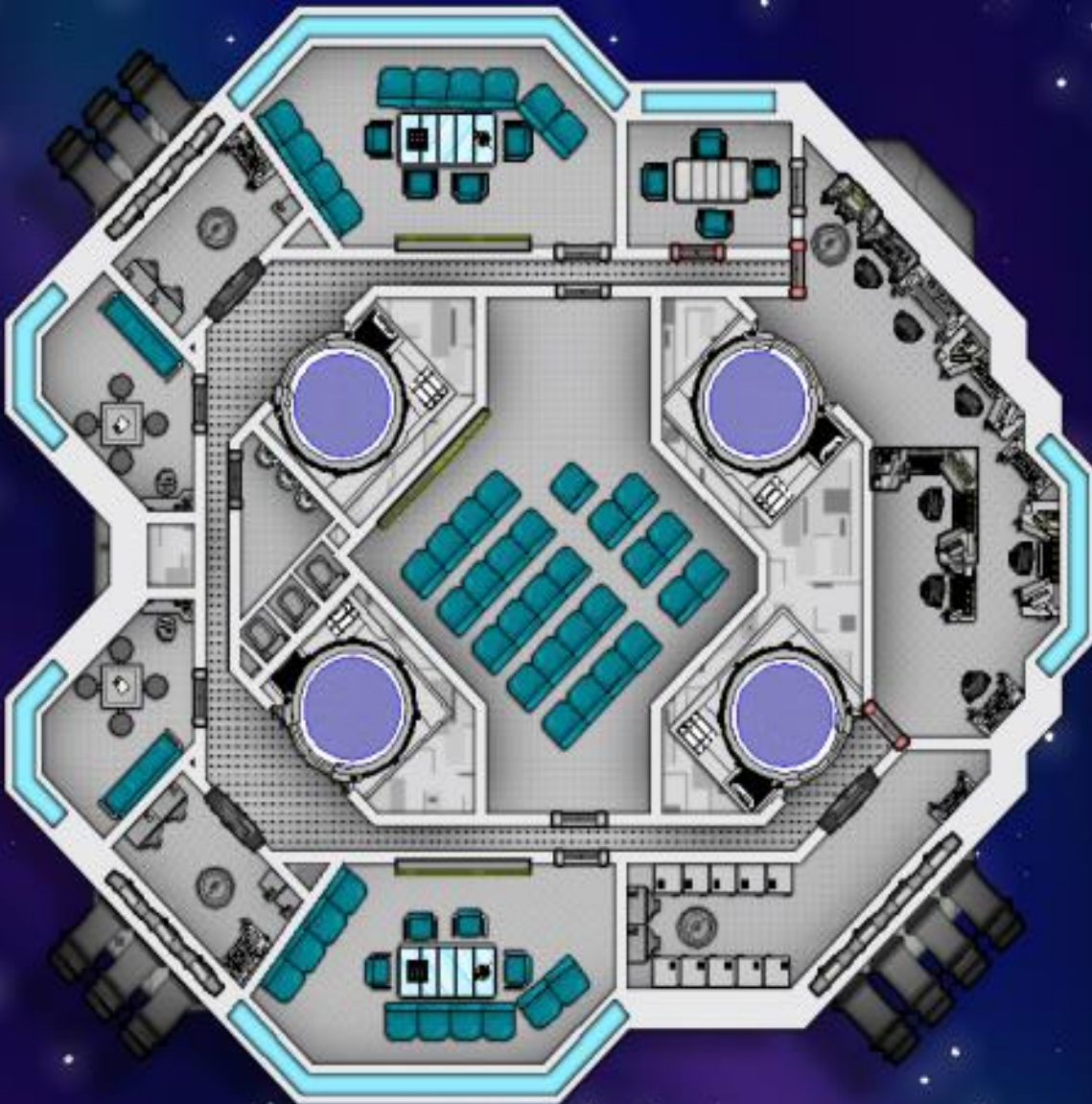
Deck 14, Main Engine

Deck 15, Machine Shop

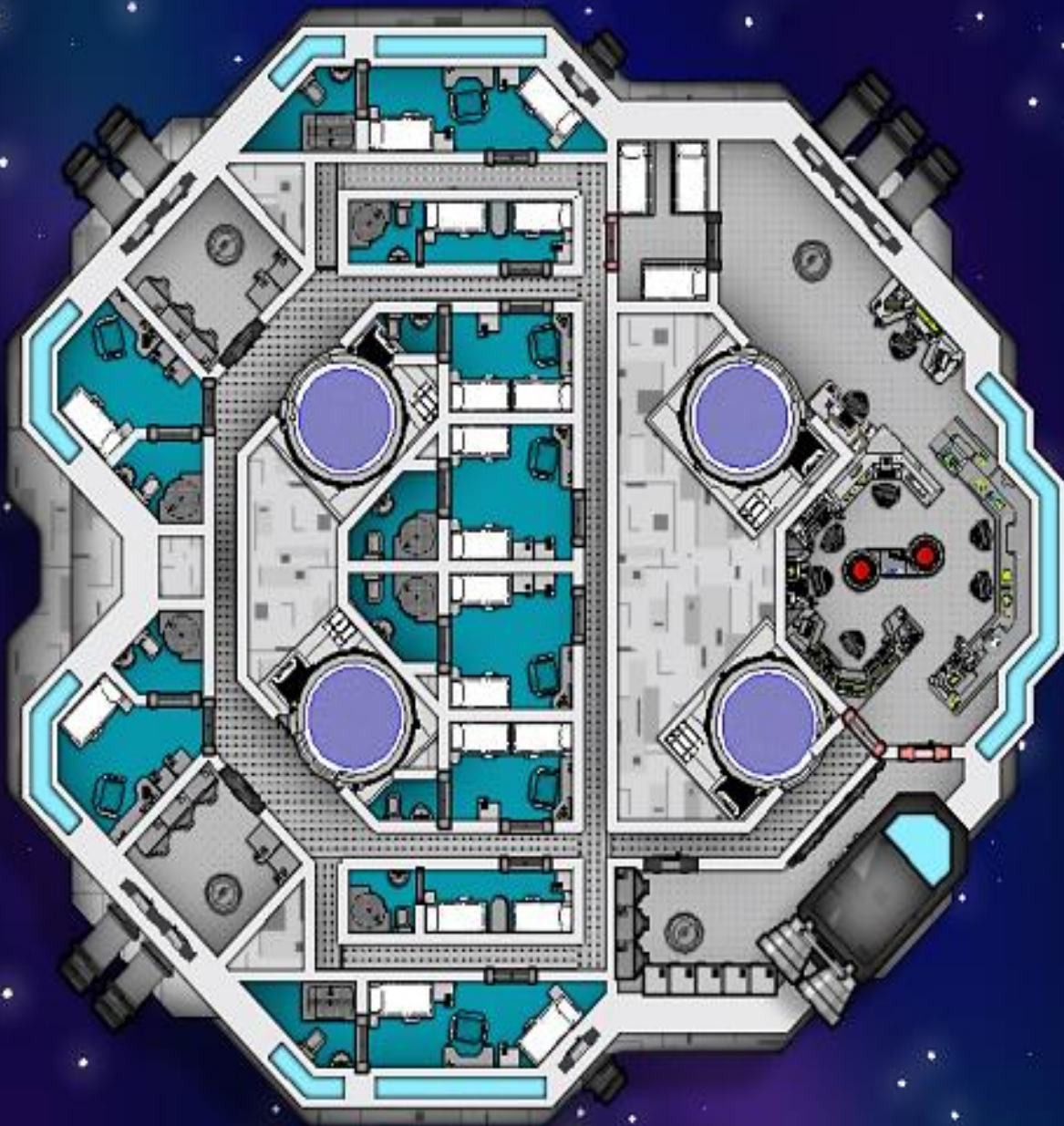
Deck 1, Observation



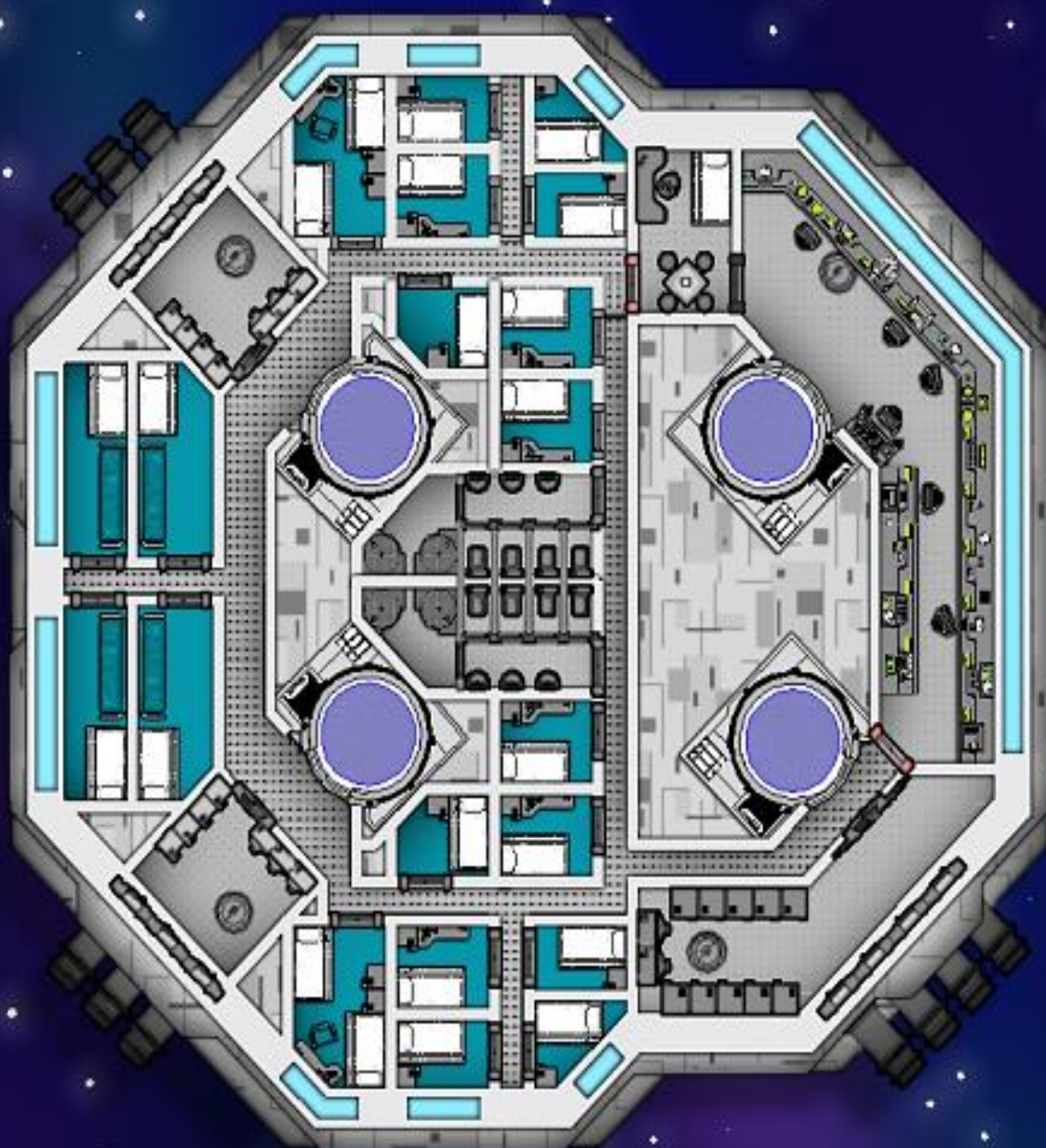
Deck Z, Recreation



Deck 3, First Class



Deck 4, Journey Class 1



Deck 5, Journey Class 2



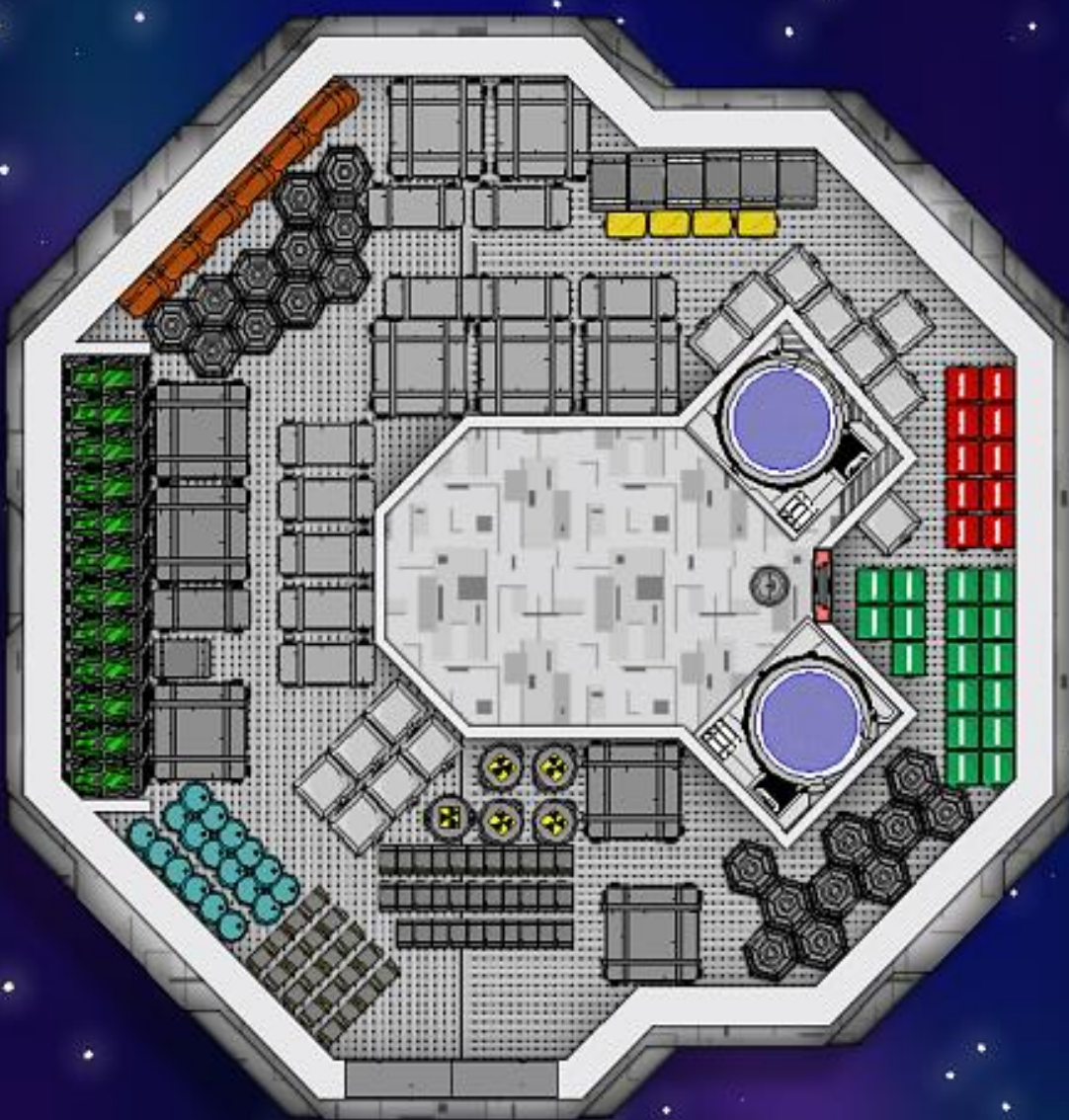
Deck 6, Crew Deck



Deck 7, Cargo 1



Deck A, Cargo Z



Deck 3, Environmental Controls



Deck 10, Computer



Deck II, Control Systems



Deck 12, Engineering 1



Deck 13, Engineering 2



Deck 14, Main Engine



CREATURES OF THE FRONTIER

The following creatures were created by Ben Gorman as extra creatures for the upcoming *Balneum Blue* adventure. Enjoy the artwork from all of the great artists over at Deviant Art. For those creatures we do not have art, let your imagination take you away.

Balneum Blue Creatures

By Ben "Rollo" Gorman

Arrowhead Prawn	
Type	Medium Carnivore
Number	1d10
Move	Fast
IM/RS	+6/60
Stamina	40
Attack	75
Damage	2d10 Claw
Special Attack	If the claw attack succeeds, then an additional 2d10 is automatically delivered as the arrow-shaped head is forced into the body of the victim. After that, 1d10 damage is automatically delivered every turn as the creature begins feeding.
Special Defense	Armored shell can absorb 50 points of damage from inertial and laser beam damage before the creature is harmed.
Native World	Balneum Blue

DESCRIPTION: This creature can grow to about 2 m (7 ft) in length. It swims through the water by taking in water and forcefully ejecting it through a pair of orifices on either side along its belly. In this way the arrowhead prawn can move very fast and with great precision.

When attacking, the creature will rush at its target and strike at it with both of its front claws simultaneously. If they strike (each will do 1d10), they are imbedded in the victim giving the prawn the opportunity to ram its arrow-shaped head into the flesh of the target (for an additional 2d10). The following round, the creature will begin feeding – eating its victim alive if the initial assault didn't kill it.

Earwig	
Type	Medium carnivore
Number	1d10
Move	Medium
IM/RS	+6/60
Stamina	80
Attack	60
Damage	1d10
Special Attack	Poison-After a successful bite, the target must roll a STA check or take +2d10 damage.
Special Defense	Exoskeleton-the creature's exoskeleton can withstand 40 points of damage (from inertial and laser beam sources) before the creature begins to take STA damage.
Native World	Balneum Blue

DESCRIPTION: This creature is very bug-like. Though it can swim, it is more comfortable actually walking on the sea floor where it sifts through debris and pokes around crevices in the coral looking for prey. Once a victim is found, the earwig bites and injects it with a fast-acting poison. It has hollow fangs and venom sacs similar to a spider and seems equally at home out of the water as it is in the water. In fact, it can leave the water indefinitely if it wishes, but it must briefly return to a water source from time to time in order to stay moist.

It frequents the atoll-like islands that dot the planet and preys upon a large crustacean that lives on these islands and feeds on the plant matter that can be found there.

Flat Crab

Type	Medium Carnivore (parasite)
Number	1d10
Move	Medium
IM/RS	+5/55
Stamina	50
Attack	60 Bite.
Damage	1d10
Special Attack	If the initial bite is successful, then the creature's spear-shaped head is lodged in the flesh of the victim. The victim loses 1d5 STA per day thereafter unless the creature is removed.
Special Defense	Armored shell can withstand 100 points of damage (from inertial and laser beam sources) before the creature can be harmed.
Native World	Balneum Blue

DESCRIPTION: The flat crab is a large parasite. It can grow to a length of about 2 m (7 ft). It subsists on larger creatures, attaching itself to the skin in hard to reach areas where it thrusts its spear-like head into the flesh. Once lodged in its host, the flat crab consumes the blood of the beast. Usually this siphoning of bodily fluids is harmless to larger creatures as they tend to regenerate health faster than the flat crab can consume it. However, several flat crabs infesting one creature can cause it to weaken and die.

Against smaller creatures, flat crabs are extremely aggressive, seeking to skewer the victim and drain it dry in a matter of moments.

Barbeled Shark

Type	Large Carnivore
Number	1D10
Move	Fast
IM/RS	+5/55
Stamina	75
Attack	60
Damage	3D10
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The barbeled shark is a graceful fish that can reach lengths of about 6 meters. It is usually a dark gray color on its dorsal aspect and light gray along its belly.

This fish hunts by cruising the seabed and using its barbels as feelers to sift through the sand in search of fish hidden just below the sediment. Once a fish is flushed from its hiding place, the barbeled shark will quickly pounce upon it and tear it to shreds with its razor-sharp teeth.

Surfing Ray

Type	Large Carnivore
Number	1d10
Move	Medium
IM/RS	+5/50
Stamina	200
Attack	None
Damage	None
Special Attack	Can accidentally capsize surface craft
Special Defense	None
Native World	Balneum Blue



Art by Christopher Stoll

<http://christopherstoll.deviantart.com/>

DESCRIPTION: The surfing ray spends much of its time close to land where it glides about in the breakers. The turbulence of the waves stirs up sediment and is particularly attractive to small fish and swimming crustaceans upon which the surfing ray feeds. When seen 'surfing', the ray is actually moving swiftly through the water from the bottom to the surface with its mouth gaping, filtering the miniscule creatures. This often ends in the surfing ray breaching the surface and 'surfing' for a short distance.

This creature is generally quite docile but when feeding, it can accidentally collide with surface craft and capsize or damage them.

<i>Flatflake Crab</i>	
Type	Large Carnivore
Number	1
Move	Medium
IM/RS	+5/50
Stamina	150
Attack	55
Damage	4d10 Bite
Special Attack	None
Special Defense	Armored Shell can withstand 100 points of damage (from inertial and laser beam sources) before the creature will be harmed.
Native World	Balneum Blue

DESCRIPTION: The flatflake crab is a large swimming crustacean. Its shell is usually red in color which is darker along the dorsal side than the ventral side. The creature can attain a length of about 5 m (16 ft).

It will attack and try to consume anything that is smaller than it is. When it attacks it simply swims in close and latches onto its victim with its two fang-like mandibular protrusions. Then it begins biting away at the flesh, stopping only if the victim breaks away and escapes (often leaving the flatflake crab with a mouth full of flesh).

The flatflake crab is edible and quite tasty by human standards.

<i>Flatflake Pinniped</i>	
Type	Large Carnivore
Number	1D10
Move	Fast
IM/RS	+6/65
Stamina	100
Attack	65
Damage	2d10
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The flatflake pinniped is a green, mottled creature with a distinctive flat tail fluke. It is a surprisingly adept and agile swimmer that seems to effortlessly glide through the water with great speed. It is also a very curious creature, though not terribly aggressive. Instead it is more likely to swim in close to an unknown creature to investigate it, relying upon its agility and speed to get it out of trouble if the creature turns out to be dangerous.

They also enjoy manipulating objects with their front, hand-like fins. They will grasp and carry off gear that is not securely tied down if given the opportunity, though out of curiosity rather than maliciousness. Often they will drop

whatever they have absconded with after determining that it is not edible or of any use to them. They particularly like shiny objects or things that make sounds.

<i>Snot Fish</i>	
Type	Small Carnivore
Number	1d10
Move	Medium
IM/RS	+5/50
Stamina	10
Attack	40
Damage	1d10
Special Attack	None
Special Defense	When alarmed, the Snot fish can quickly exude a viscous gel-like substance into the surrounding water (covering an area of up to 10 meters in a matter of moments! This gel quickly solidifies into rubbery, interlocking tendrils that are extremely tough, taste extremely bad and are exceptionally toxic if ingested (causing 2d10/hour for 24 hours, half damage if a STR check is made).
Native World	Balneum Blue

DESCRIPTION: The snot fish is a homely creature that grows to a length of about 1 m (3 ft). It is not particularly dangerous unless provoked and even then, as long as the provoker is not attempting to eat the fish, is still easily evaded as it is fairly slow and much more interested in fleeing than attacking. Its intriguing defense can pose issues to passing creatures or craft.

The snot fish has keen visual acuity and can detect movement (especially shadows) from a great distance away (up to 50 m [164 ft] which is pretty good underwater!) and it startles easily. If a creature or craft happens to be passing closely enough it could easily become entangled in the mucous-like glob secreted by the fish. Therefore, unless manually removed, this could cause serious impediments to movement.

The snot fish spends most of its time in water that is 91 m (300 ft) deep or less, sifting the bottom for mollusks which it swallows in one gulp. It has a gizzard-like organ similar to a bird, which crushes up the shells so that the flesh may be digested. The shells are later regurgitated.

<i>Flying Fish</i>	
Type	Medium Carnivore
Number	2-20
Move	Very Fast
IM/RS	+6/60
Stamina	50
Attack	60
Damage	4d10 Screech
Special Attack	Screech-causes sonic damage
Special Defense	Immune to sonic damage
Native World	Balneum Blue

DESCRIPTION: The flying fish is a multicolored fish that can reach a length of up to 3 m (11 ft). It's elaborate fins are in fact, modified wings which it uses to 'fly' through the water. It is capable of incredible speeds and can breach the surface and launch itself into the air. This is not gliding but is actually true flight. It can survive for up to an hour at a time out of the water. Flying through the air seems to be an adaptation which enables the fish to escape marine predators.

When feeding, the flying fish uses its screeching attack to direct an intense wave of sonic energy at its target. The assault is usually enough to completely disrupt the internal organs of their small victims and kill them outright. The fish will then swoop in and scoop them up, unhindered.

Flying fish are edible, though a bit bland by human standards.

<i>Rasp</i>	
Type	Small Carnivore
Number	1
Move	Medium
IM/RS	+6/60
Stamina	10
Attack	60
Damage	1d10
Special Attack	Anesthetic saliva deadens pain so that the rasp may feed unnoticed. 1D10 per hour thereafter with no chance to miss until the rasp drops off on its own or is removed.
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The rasp is a seemingly harmless fish-like creature. It's relatively small size (about .5 meters [2 ft.]) allows it to often go unnoticed. They are usually light blue in color with a mottled appearance along their dorsal aspect where irregular dark blue spots can be seen. They have two sets of adapted barbells, one set positioned adjacent to the rasping mouth and the other set located near the tail.

When feeding, the rasp will approach its intended victim from behind and attach itself to the target's back using its adapted barbells to wrap around protrusions and hold the fish in place. It then uses its rasping mouth parts to chew a small hole in the skin of the victim. Once the skin is breached, the rasp will feed on the bodily fluids of the creature. The saliva of the rasp works to numb the surrounding tissue so that the victim cannot feel the wound being created or feel the fish feeding after the damage has been done. The fish will feed until it has consumed 20 STA worth of 'fluids' at which point it will drop off and go about its business.

The jaws of the rasp are powerful enough to chew through soft protective suits if given enough time to do so. In this way, not only can this fish cause harm to the victim, but it can also cause harm to the victim's equipment.

<i>Sand Spitter</i>	
Type	Medium Carnivore
Number	1d10
Move	Medium
IM/RS	+5/55
Stamina	65
Attack	65
Damage	4d10 Weaponized Sand.
Special Attack	Weaponized sand. The sand spitter has an organ in its throat that allows it to spit grains of sand at high velocity. The sand is able to achieve a speed conducive to super inertial cavitation which, in essence, creates a bubble in its wake. This grain of sand and subsequent bubble (due to its velocity) become a solid projectile similar to a bullet fired from a firearm.
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The sand spitter is a fairly docile creature that can reach a length of about 3 m (11 ft). It frequents the sandy sea bottom in relatively shallow areas (not beyond 100 m [328 ft]) where it can be seen scooping up mouthfuls of sand. When the fish spots a prey item, it spits the mouthful of sand at it causing a shotgun-like effect out to a range of about 15 m (49 ft). For the prey items that the sand spitter hunts, such an impact is usually devastating, tearing the smaller creature to pieces.

Static Wisp

Type	Small Carnivore
Number	2d10
Move	Medium
IM/RS	+5/50
Stamina	10
Attack	65
Damage	1d10 Electrical discharge
Special Attack	Any creature coming within 5 m (16 ft) of the static wisp is subject to its electrical discharge. The discharge will also stun any target within 5 m (16 ft) for 1d100 turns unless a STA check is made.
Special Defense	Immune to electrical energy
Native World	Balneum Blue

DESCRIPTION: The static wisp is a small creature, growing to a length of about half a meter. It is vaguely jelly-fish like except that it has only one robust tentacle rather than a large collection of them. It can swim through the water using its tentacle like a fluke, swishing it from side to side.

This creature always glows with bio-luminescence. The glow slowly shifts between various colors; usually varying shades of blue, green and red. This creature also puts off a continuous electrical discharge that shocks everything within 5 m (16 ft). At the top of the creature's bell is a round oral cavity which stays open continuously as the static wisp swims. In this way the creature is able to stun its prey and then collect it as it swims along. Mostly this results in the creature collecting microscopic creatures but they can occasionally collect small fish as well.

Stinging Lotus

Type	Small Carnivore
Number	2d10
Move	Slow
IM/RS	+2/20
Stamina	10
Attack	65
Damage	5d10 Sting (poison)
Special Attack	Poison sting-A successful attack will immediately cause 5d10 poison damage and complete paralysis (a successful STR check will reduce that by half and negate the paralyzing effect – if paralyzed, the condition will last 12 hrs with a STR check allowed for each hour) and an additional 1d10 per half hour for 12 hrs (a successful STR check each half hour will reduce the amount of damage for that half hour by half).
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The stinging lotus is a multicolored plant that drifts among thick kelp beds and can be extremely difficult to distinguish while in that environment. They can sometimes be found drifting in open water but are easily avoided if you know what you're about to encounter since they cannot move to hide or ambush or even attack. They are completely reliant upon happenstance for their existence.

They feed upon any creature that happens close enough to trigger the reflex action which causes their stinging tendrils to quickly retract. Once a creature has been subdued, the plant will send out runners to the body. These runners will burrow into the flesh and begin feasting upon the fluids caused by the poison turning the flesh into a soupy consistency. The process of feeding causes spores to become implanted in the corpse which will sprout and begin a new life cycle within 37 hrs.

Even if found dead, washed up upon a beach, the stinging cells of this creature can fire reflexively, delivering their poison to whatever contacted the creature.

Spiketail

Type	Medium Carnivore
Number	1d10
Move	Medium
IM/RS	+6/55
Stamina	60
Attack	75
Damage	2d10 Bite or 2d10 Tail Slap
Special Attack	None
Special Defense	None
Native World	Balneum Blue



Art by Robert Schilling @ <http://schillingart.deviantart.com/>

DESCRIPTION: The spiketail is a mid-sized fish that looks somewhat like a lizard. It can reach a length of about 2.5 meters. It uses its front, clawed fins to dig through bottom sediment in search of prey – burrowing worms and eels.

If threatened, the creature can deliver a painful bite or slap the intruder with its tail.

Stone Crab

Type	Giant Omnivore (scavenger)
Number	1d10
Move	Medium
IM/RS	+5/45
Stamina	250
Attack	50
Damage	6d10 Claw
Special Attack	None
Special Defense	Twice-Armored shell-The shells of the stone crab are two-fold. It has a personal shell that is physically part of the crab's body. That shell can withstand 100 points of damage (from inertial and laser beam sources) before the creature will be harmed. The second shell is one that another creature makes, but that the stone crab takes over and lives inside of. This shell can withstand 600 points of damage (from inertial and laser beam sources) before the creature's personal shell will begin taking damage. There is a 75% chance that this shell will be struck, instead of the creature itself, each time the stone crab is attacked.
Native World	Balneum Blue

DESCRIPTION: The stone crab looks something similar to a hermit crab except on a much larger scale. It can grow to a diameter of about 15 m (49 ft) with a height to match. They eat anything that happens to be lying around where ever they happen to be wandering but are particularly fond of rotting flesh.

They aren't particularly aggressive, but are quite capable of defending themselves if need be and if hungry, they will go after live flesh if the opportunity presents itself.

Stone crabs are edible, if you can kill one.

Tunneling Worm

Type	Small Carnivore
Number	2d10
Move	Fast
IM/RS	+6/60
Stamina	5
Attack	65
Damage	1d10 Bite
Special Attack	If attack is successful, the creature does not need to roll to attack again unless the victim makes a successful STR check to yank the beast from its flesh (which causes 1d10 damage).
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The tunneling worm is an ugly little beast. It can reach a length of about .5 m (2 ft). It has four eyes and can see fairly well underwater. Its face is framed by three hook-like fangs in a triangular pattern around the mouth.

These fangs are designed to be sunk into flesh and anchor the beast in place. The mouth will then extend from the creatures face and scoop away enough flesh with the first bite to allow the creature to wriggle into the wound about 1/3 of its body length. The following turn the process will be repeated and so to, the third turn. If the creature has not been successful torn from the victim's flesh by then, it will take surgery to remove it. Once completely inside the body, the creature will digest its meal over the course of a day before burrowing deeper (over the course of three more turns on this following day). This process will repeat until the host dies at which point, the worm will shed the lower 1/3 of its body inside the corpse and then burrow its way free.

Once free of the corpse the worm will go about its way. But the segment of itself that it left behind will begin to grow into another worm. Over the course of a day this new worm will emerge, fully developed but about 1/3 the length of the adult – and so continues the life cycle of the tunneling worm.

Emerald Pinniped

Type	Large Carnivore
Number	1d10
Move	Medium
IM/RS	+5/55
Stamina	125
Attack	65
Damage	3D10
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The emerald pinniped is somewhat seal-like in appearance with a greenish hue to its coat. It seems like a lazy creature as it swims slowly with a misleading side-to-side swish of its tail. But it is, in reality, a very fast and fierce predator when it wants to be. They average about 4 meters in length and will attack anything smaller than they are. They hunt in packs and will always try to separate their victim from the rest of the group through bumping maneuvers and rushing in and grabbing the prey; dragging it away from the rest of the group so that it can be individually attacked by the rest of the pack.

Mottled Pinniped

Type	Large Carnivore
Number	2d10
Move	Medium
IM/RS	+5/50
Stamina	150
Attack	60
Damage	4d10
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The mottled pinniped is a very aggressive and voracious carnivore. It hunts in packs and often kills for the joy of doing so, leaving the carcass for the scavengers after it has slain its victim. As such it often targets prey much larger than itself, relying upon its numbers to get the job done. A favorite tactic is for the pack to surround the victim(s) and relentlessly dart in, tear at any target of opportunity and then dart away. This tactic serves to wear down larger prey over a period of time.

They are fairly curious creatures and will investigate nearby disturbances. Sound is particularly enticing to them and will certainly draw their attention and bring them closer.

Crabray

Type	Giant Carnivore
Number	1
Move	Medium
IM/RS	+5/50
Stamina	225
Attack	60
Damage	4d10
Special Attack	Ambush predator-80% chance to remain hidden until it strikes. +20% chance to strike for that initial surprise attack.
Special Defense	Chitinous exoskeletal dorsal plate acts as armor, absorbing 100 points of damage from any attack that strikes it (60% chance per hit to strike the armor plate instead of the fleshy parts of the creature).
Native World	Balneum Blue

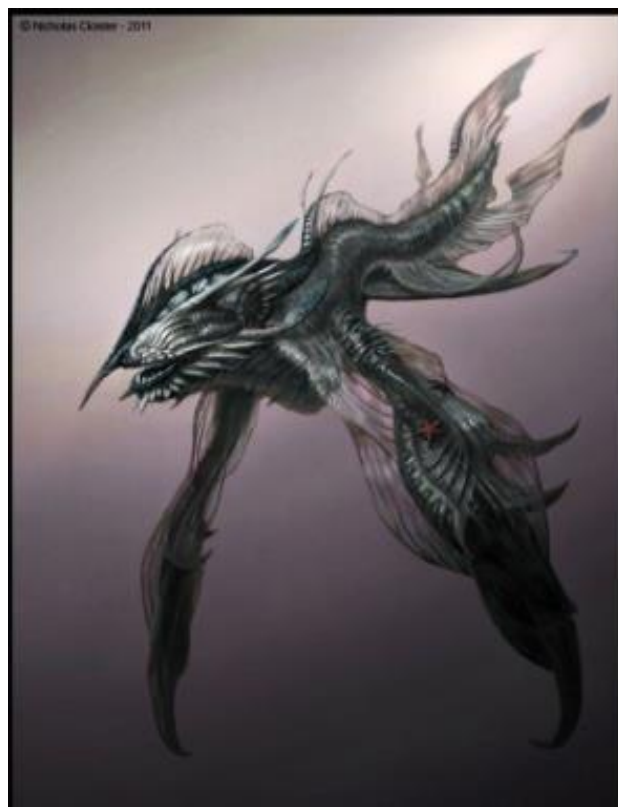
DESCRIPTION: The crabray is an ambush predator that measures about 8 meters in length and 5 meters in width. They tend to be a silt-gray color so that they can blend in with the sea floor.

The crabray spends most of its time buried just beneath the top layer of sediment on the sea floor. When a prey item passes close enough, it pops out quickly, grasping the unfortunate victim with its tentacles and dragging it into the bony plates that line its mouth. Once inside the mouth, the victim is quickly crushed and ground to a lumpy paste

before being swallowed. Though the crabray can strike quickly, it is generally slow and clumsy when swimming.

Shrouded Serpent

Type	Giant Carnivore
Number	1
Move	Medium
IM/RS	+5/50
Stamina	300
Attack	60
Damage	7d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue



Art by Nicholas Cloister @ <http://cloister.deviantart.com/>
And <http://monstersbyemail.com/>

DESCRIPTION: The shrouded serpent is a generally drab creature as far as coloration goes. But the fins of the creature are wispy and ethereal, lending an angelic aspect to the beast. It can reach a length of up to 16 meters in length with a 'wingspan' of about 28 meters.

It propels itself through the water by 'flapping' its 'wings' slowly, making it appear graceful and majestic.

It is still a carnivore however and as such, can be dangerous to creatures that are smaller than it is.

Tentacled Whale

Type	Giant Carnivore
Number	1
Move	Medium
IM/RS	+4/40
Stamina	400
Attack	50
Damage	6D10 Tentacles. Once a hit is successful, no further strikes need be rolled against a held creature, the damage is automatic until the creature frees itself or stops struggling.
Special Attack	10 arms allows for 8 attacks per turn against targets that are at least 10 meters in length, otherwise just 1 attack per target.
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The tentacled whale is a ponderous, slow beast. It is huge, attaining a length of about 20 meters. It has ten tentacles that it uses for grasping and dragging prey to its toothy mouth.

The tentacled whale is a bottom feeding creature. It slowly cruises just above the sediment on the sea floor, using its grasping tentacles to sift through the silt as it goes. Whenever it flushes a creature large enough to make a meal, it lashes out with its tentacles in an attempt to ensnare the victim and drag it to its waiting mouth. Once ensnared, the victim will be quickly crushed to death by the constricting force of the tentacles.

Flatnosed Eel

Type	Giant Carnivore
Number	1
Move	Fast
IM/RS	+5/50
Stamina	550
Attack	65
Damage	10d10
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: This creature can reach a length of up to 50 meters. It preys on giant cephalopods and has adapted speed and grace to enable it to dart in and deliver a killing bite before its victim can retaliate. It often attacks from stealth, charging its victim at full speed and impacting the target with its mouth wide open. This serves to stun its prey and deliver a massive wound before the victim even knows it is in danger.

The favored prey of the flatnosed eel often pulses with bioluminescence. For that reason, the flatnosed eel is attracted to sources of light underwater.

Snaggle-toothed Pinniped

Type	Giant Carnivore
Number	1
Move	Fast
IM/RS	+7/65
Stamina	350
Attack	65
Damage	8d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue



Art by Spiralfish @ <http://spiralfish.deviantart.com/>

DESCRIPTION: The snaggle-toothed pinniped can reach a length of about 10 meters. It is a blue-green color and spends most of its time cavorting amongst the kelp beds in shallower waters. It is a very inquisitive creature and will investigate anything that catches its attention. It is also a very playful creature despite its imposing size and fierce appearance. It can be dangerous simply because of its size and it will defend itself if threatened.

It hunts a specific type of fish almost exclusively. But its playful and curious nature may cause it to 'play' with watercraft. The trouble is, its size and power can cause considerable damage!

Crab-clawed Crocodilian

Type	Large Carnivore
Number	1D5
Move	Medium
IM/RS	+5/50
Stamina	150
Attack	65
Damage	6D10
Special Attack	None
Special Defense	Partial chitinous shell can absorb any damage on a 50% chance
Native World	Balneum Blue

DESCRIPTION: This crocodile-like creature can reach a length of about 8 meters. They tend to be dark brown in color with a ruddy shell that covers the head, forelimbs and part of the back. Each front limb is an armored claw similar to that of a lobster or crab, but on a much larger scale. These claws are used to snip prey into pieces so that the creature will have an easier time swallowing the chunks of flesh.

Crab-clawed crocodilians are quick-tempered beasts and will aggressively pursue anything they view as potential prey. Potential prey is anything that is their size or smaller.

Tentacled Worm

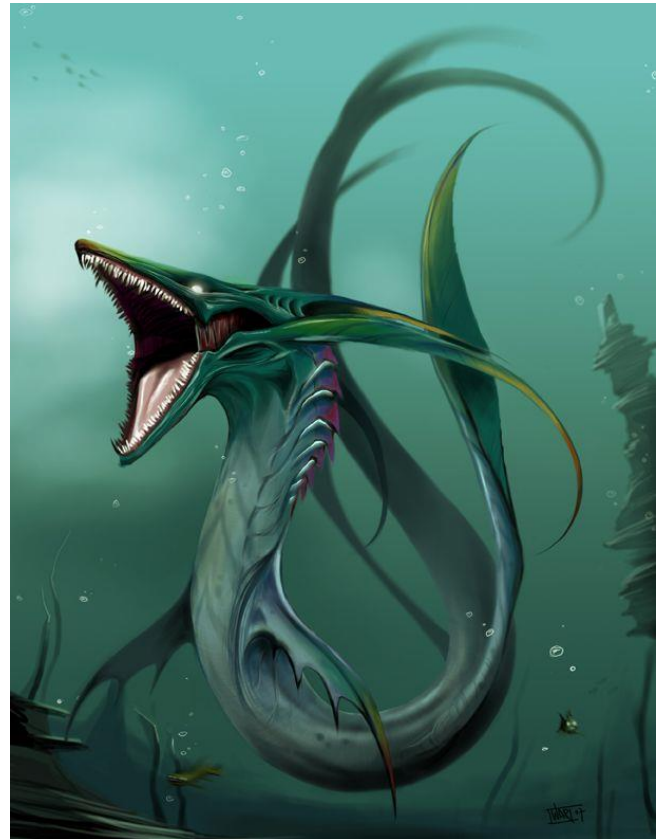
Type	Giant Carnivore
Number	1
Move	Medium
IM/RS	+4/40
Stamina	325
Attack	60
Damage	10d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The tentacled worm is an immense creature measuring about 75 meters from its gaping maw to the tip of its posterior tentacles. It sports long, flat fins running laterally down its body from just behind its head and extending about 1/3 of the way toward its tail. They tend to be a pale pink color.

Tentacled worms are fearsome predators that can unhinge their jaws in order to bite and consume prey that is larger than itself, which it frequently does. The posterior tentacles are often employed to entangle the flukes of its prey in order to hamper its movements while the worm savages the victim's anterior areas with its viscous teeth.

Frilled Serpent

Type	Large Carnivore
Number	1
Move	Medium
IM/RS	+6/60
Stamina	175
Attack	65
Damage	4d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue



Art by urbanklaw @ <http://urbanklaw.deviantart.com/>

DESCRIPTION: The frilled serpent can grow to a length of about 4 meters. Its skin is a dull gray color with some yellow markings along its frills and fins. The back of its head is a mottled red-blue color.

This creature is quite territorial and will attack anything that enters its area. Furthermore, it is fairly aggressive and hunts anything that is smaller than it is.

Horned Octopus

Type	Large Carnivore
Number	1d5
Move	Medium
IM/RS	+5/50
Stamina	100
Attack	65
Damage	3d10 Bite
Special Attack	Entangle- when attacking, the horned octopus will always envelope its victim, entangling it with its tentacles while clipping away at it with its scissor-like beak. If the beak attack is successful then so is the entangle. The victim may roll a STR check -20 to break free but may do nothing else while entangled. Any bite attacks made against an entangled target automatically hit.
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The horned octopus has two distinctive goat-like horns just above its row of six eyes. The creature is aggressive and is particularly attracted to light. It's body measures about 5 meters in diameter and it has a tentacle span of about 10 meters.

Squidray

Type	Large Carnivore
Number	1d10
Move	Medium
IM/RS	+5/55
Stamina	65
Attack	55
Damage	2d10 Bite
Special Attack	None
Special Defense	Can leap from the water and fly through the air for up to 25 meters.
Native World	Balneum Blue

DESCRIPTION: This beast is distinctive in that when it opens its mouth a dozen tentacles come forth to grapple with its prey. In the center of the tentacle mass is a beak-like structure that is used to tear up its victims and swallow them. The tentacles can reach a distance of 3 meters. These tentacles are too weak to grapple anything larger than a meter; it usually feeds on small fish.

The squidray can reach a length of about 5 meters and though it is not generally an aggressive creature, it can defend itself with surprising tenacity if it feels threatened.

Clawed Shark

Type	Giant Carnivore
Number	1d2
Move	Fast
IM/RS	+5/50
Stamina	250
Attack	60
Damage	10d10 Bite or 5d10 claws (x2)
Special Attack	None
Special Defense	Armored shell can withstand 150 points of damage before the creature can be harmed
Native World	Balneum Blue

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A New World of Creatures



Art by Nicholas Cloister @ <http://cloister.deviantart.com/>
And <http://monstersbyemail.com/>

DESCRIPTION: The clawed shark can reach a length of 40 meters. Aside from its mouth full of teeth, the clawed shark also has crab-like pinchers that it can attack with. It will often grasp its prey with its claws and then relentlessly bite at it until it ceases its struggles.

This creature is ill-tempered and very aggressive. It primarily hunts whale-like creatures and is attracted to noises.

Six-eyed Grappler

Type	Medium Carnivore
Number	1d10
Move	Medium
IM/RS	+5/55
Stamina	100
Attack	75
Damage	3d10 Bite
Special Attack	Grapple-The modified tongue of the six-eyed grappler can be shot out (like the tongue of a chameleon) to a distance of 15 meters (damage and chance to hit listed above). Once grappled, the target is 'reeled' in and eaten (3d10 damage automatically delivered each turn after a successful strike). A victim can break free of the grapple if a successful STR check is made.
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: This creature tends to slowly swim along the seabed, cruising for prey. Once a tasty morsel is found, it will use its modified tongue to lash out from a distance and lock its jaws onto the victim. It will then drag the victim into its mouth and swallow it. It will often take 1 turn to drag the victim in.

Angler Eel

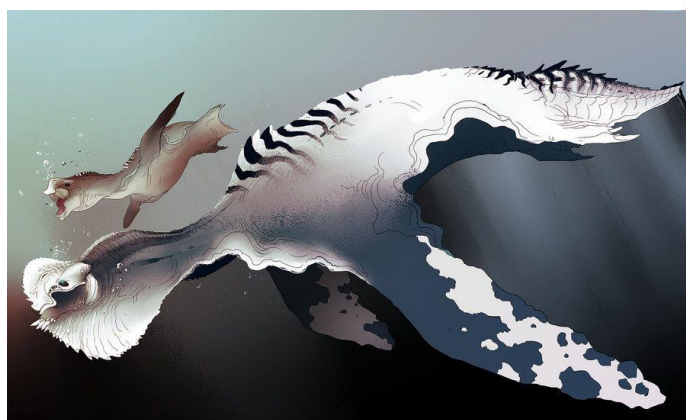
Type	Medium Carnivore
Number	1d10
Move	Medium
IM/RS	+6/60
Stamina	55
Attack	65
Damage	2d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The angler eel is a dull-colored creature that can grow to about 3 meters in length. Situated upon its lower lip is worm-like fleshy protrusion which the eel can wriggle around to mimic the movements of a small creature moving around beneath the sand.

The angler eel hunts by covering itself with sand on the bottom of the sea. It leaves its lower lip sticking out and wiggles it about to attract the attention of other fish. Once a potential victim comes close enough it will strike quickly, clamping its powerful jaws around the creature.

Bearded Serpent

Type	Giant Herbivore
Number	2d10
Move	Slow
IM/RS	+4/35
Stamina	650
Attack	50
Damage	10d10
Special Attack	None
Special Defense	None
Native World	Balneum Blue



Art by Chelsea @ <http://fowlboss.deviantart.com/> and <http://www.chelseakubesh.com>

DESCRIPTION: The bearded serpent is a gigantic creature measuring about 50 meters in length, 25 meters in diameter with each pectoral fluke measuring 30 meters in length. They are usually off-white to gray color with black stripes. Along the top of their heads, stretching from the brow to the base of the head is a serrated ridge of bone. When threatened, they use that bony ridge as a battering ram. The configuration of the ridge coupled with their sheer mass serves to create dreadful wounds in the flesh of any unfortunate creature that has invoked their wrath. They are quite aggressive when another creature passes too closely and can easily be provoked to attack by simple proximity.

<i>Sea Mantis</i>	
Type	Medium Carnivore
Number	1d10
Move	Very Fast
IM/RS	+8/80
Stamina	100
Attack	75
Damage	3d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The sea mantis can grow to a length of 3 meters and has two pairs of fins (one on either side) which aid in movement. It also has a powerful flat tail to help propel it through the water. This configuration results in an incredibly fast and exceptionally agile creature.

Aside from their obvious physical prowess, the sea mantis also displays an uncanny degree of intelligence; seemingly more than a simple animal. They are capable of learning fairly quickly and if one approach isn't working, they may well try a different tactic. They seem to possess a rudimentary form of communication and even seem to use basic tactics to their advantage when hunting. They often hunt in groups, making them even more dangerous.

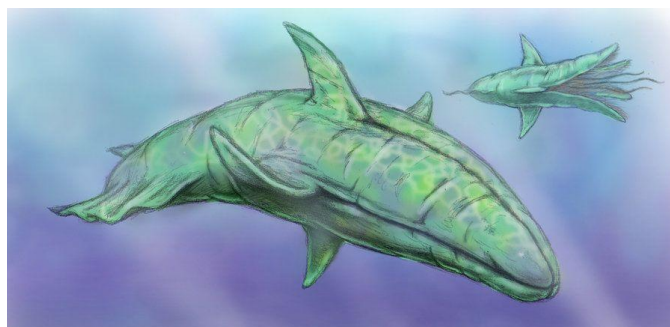
<i>Sea Mole</i>	
Type	Medium Omnivore
Number	1d5
Move	Slow/Fast
IM/RS	+5/50
Stamina	65
Attack	55
Damage	1d10 Bite
Special Attack	None
Special Defense	Tunneling-The sea mole is a very fast digger and can disappear into the soft sediment of the sea floor in 3 turns
Native World	Balneum Blue

DESCRIPTION: The sea mole is a rotund creature with small, close-set eyes and a mouth that is arraigned in a vaguely star-shaped pattern. This modified mouth is used primarily for digging as the beast is able to store enough soil in its cheeks for the hole it has created to be large enough to enable the front legs some purchase to begin their work. When not threatened though, the sea mole can be observed taking big mouthfuls of soil and chewing a bit before spitting it out. A few moments later and the remnants of a bivalve shell will be observed being spat out. Then the creature repeats the process.

The sea mole seems slow and ponderous and it is when

swimming about in the water. However, when threatened, the creature can seemingly swim through the sand of the sea floor with incredible speed and grace. It uses its torpedo-shaped head and uniquely modified mouth to 'dive' into the soft, upper layer of sediment. Then it sets its front feet into action, churning the sand to create a thick cloud in a matter of mere moments. This cloud obscures the sea mole while it continues its escape (attacks against the sea mole while it is in the cloud are at -50 unless the attacker has some form of sonar). Finally, it sets its hind feet into motion and quickly burrows beneath the sand. Three turns later the sand cloud will dissipate, leaving no trace of the creature.

<i>Four-jawed Squid</i>	
Type	Medium Carnivore
Number	1d10
Move	Fast
IM/RS	+6/60
Stamina	80
Attack	65
Damage	2d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue



Art by grumbleputty @

<http://grumbleputty.deviantart.com/>

DESCRIPTION: The four-jawed squid is an extremely aggressive creature. It will attack anything twice its size or smaller. It can achieve a length of about 3 meters. The configuration of its fins and its streamlined shape makes it a fast swimmer.

This creature looks something like a finned cigar until it opens its four-jawed mouth and extends its modified tongue. The tongue is comprised of three tentacles that can shoot out to a length of 10 meters to grasp its prey and yank it back into the creature's waiting mouth. The four jaws are each lined with row upon row of needle-like teeth which profusely perforate any unfortunate victim contained within.

<i>Luminous Slug</i>	
Type	Small Carnivore
Number	2d10
Move	Medium
IM/RS	+5/50
Stamina	15
Attack	60
Damage	1d10
Special Attack	None.
Special Defense	Particularly resistant to acidic environments.
Native World	Balneum Blue

DESCRIPTION: The luminous slug grows to a length of about half a meter and can be as much as 20cm in diameter. They can be fairly mobile when they want to, but usually just plod along slowly. In addition to four modified barbels that are bio-luminescent, the luminous slug can cause its entire body to glow.

Its slow mobility, fat juicy appearance and glowing aspect all serve to present this creature as a tasty morsel to be snapped up quickly. Indeed, that is the niche that this creature fills – serving to be eaten. But the luminous slug always gets the last laugh as it is often gulped down by larger creatures; swallowed whole. But once inside this larger fish, the luminous slug turns the tables and begins to feed upon its new host from the inside out.

<i>Horned Salamander</i>	
Type	Small Carnivore
Number	1d10
Move	Fast
IM/RS	+6/60
Stamina	25
Attack	60
Damage	1d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The horned salamander can grow to a length of about 1 meter. It has two forelegs with webbed feet that it uses to turn over debris on the sea floor while it roots around for prey. It has no rear legs.

This creature will usually flee from a threat if given a chance, but if forced to defend itself, it is quite capable of delivering a painful bite.

<i>Whiptail Shrimp</i>	
Type	Giant Carnivore
Number	1
Move	Medium
IM/RS	+5/45
Stamina	300
Attack	55
Damage	6d10 Bite
Special Attack	None
Special Defense	Armored shell can withstand 100 points of damage before the creature is harmed.
Native World	Balneum Blue



Art by unded @ <http://unded.deviantart.com/>

DESCRIPTION: Though the whiptail shrimp looks vaguely shrimp-like, it is more like a whale than a shrimp. It is very large, measuring about 9 meters long and 4 meters in diameter. It feeds on smaller creatures, mostly fish – but anything that is about 4 meters in length or smaller is potential prey.

<i>Horned Crab</i>	
Type	Giant Carnivore
Number	1d2
Move	Medium
IM/RS	+5/45
Stamina	150
Attack	50
Damage	10d10
Special Attack	None
Special Defense	Armored shell can withstand 500 points of damage before the creature is harmed
Native World	Balneum Blue

DESCRIPTION: The horned crab's body is 10 meters in diameter and it has a leg span of 25 meters! Its pinchers are extremely powerful and capable of snipping a 3 meter diameter column of coral cleanly in half with little effort.

This beast is an opportunistic scavenger but it will also capture and kill prey if given a chance. Despite its size, it can be fairly nimble when it wants to be and is capable of catching passing fish in a claw.

Big-eyed Walrus

Type	Large Carnivore
Number	1d10
Move	Medium
IM/RS	+5/50
Stamina	170
Attack	60
Damage	5d10 Electrical burst
Special Attack	Electrical burst- Once per turn, this creature can cause an electrical burst that will cause damage to anything within 5 meters. Victims will be stunned for 1d100 turns unless a STA check is made.
Special Defense	Immune to electricity
Native World	Balneum Blue

DESCRIPTION: The big-eyed walrus only vaguely resembles a walrus. It is a purely aquatic creature and does not need to surface to breathe. It can reach a length of 4 meters and is usually a light greenish-brown color along its back and a light pink color along its belly. The big-eyed walrus uses its tusks to dig through the sediment on the sea floor while it searches for mollusks to eat. When threatened, the creature can emit a burst of electrical energy, causing damage to anything within 5 meters.

Sail Worm

Type	Large Carnivore
Number	1d5
Move	Medium
IM/RS	+5/50
Stamina	165
Attack	65
Damage	4D10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The sail worm is a particularly viscous creature it a mouth full of dangerous teeth. It can reach a length of up to 5 meters and is usually a tawny, mottled color with brightly colored frills; purples, blues and reds.

It is very aggressive and will investigate and attack anything that is smaller than it. It likes to hang out in crevices and beneath debris on the sea floor and depths no greater than 100 meters.

Blunt-tailed Crocodilian

Type	Medium Carnivore
Number	2D10
Move	Medium
IM/RS	+6/55
Stamina	100
Attack	75
Damage	2d10 Bite
Special Attack	None
Special Defense	Touch hide acts as a skein suit with no maximum amount of damage that it can absorb.
Native World	Balneum Blue



Art by jan222 @ <http://jan222.deviantart.com/>

DESCRIPTION: This creature can grow to a length of about 3 meters. It is dark gray along its dorsal aspect and generally light gray, almost white ventrally. It tends to roam the seas in packs as there is safety in numbers and it makes it easier to wear down prey. As such this creature can easily harass and kill creature many times its size and they do so on a regular basis.

Cyclopic Squid

Type	Medium Carnivore
Number	1d10
Move	Medium
IM/RS	+5/55
Stamina	100
Attack	60
Damage	2d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The cyclopic squid is a one-eyed creature that is about 3 meters in length and is usually a dull gray color. It is generally a fairly docile creature but will attack if approached too closely or harassed.

Pugilist Prawn

Type	Medium Carnivore
Number	1d10
Move	Medium
IM/RS	+7/70
Stamina	30
Attack	75
Damage	2d10 Pummel
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: This large prawn can reach a length of 2 meters. It varies in color from dark reds, black and browns in an irregular mottled appearance. The pugilist prawn has two claw-like modified legs positioned at the front of its body. The creature is able to quickly strike with these modified legs and deliver a solid, pummeling attack with the back edge of the 'claws'. Once a victim has been dispatched, the prawn then uses those same claws to skewer the corpse and tear at it in order to break it up and make it easier to consume.

Deep Maw

Type	Giant Carnivore
Number	1
Move	Medium
IM/RS	+5/45
Stamina	300
Attack	55
Damage	6D10
Special Attack	Six arms allow for four attacks per turn
Special Defense	None
Native World	Balneum Blue

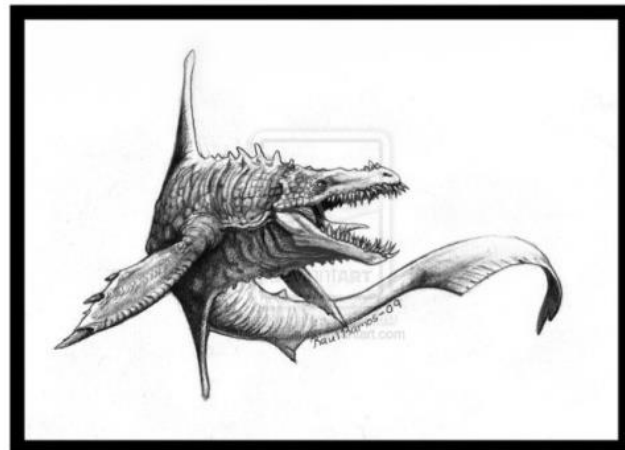
DESCRIPTION: The deep maw is a gigantic cephalopod with six arms and a gaping, tooth-filled mouth. The beast measures about 50 meters in diameter from arm tip to arm tip and about 15 meters from the base of the arms to the top of the mantle.

This creature is absolutely voracious, attacking and consuming anything that is smaller than it is – and even some creatures that are larger! It is attracted to movement and noise and will investigate anything that it thinks might be edible.

Being a cephalopod, the deep maw can slip into rocky crevices that are easily 1/5th its size in pursuit of prey or if it is fleeing something more dangerous than it is. It can also exist for short periods of time (1-2 hours) out of water and will sometimes follow prey into cave systems on the sea floor that lead to air-filled chambers. Victims of the deep maw will sometimes hide in these cave systems in an attempt to flee, but the deep maw has adapted to such an environment and will go right in after them.

Armored Shark

Type	Large Carnivore
Number	1d10
Move	Fast
IM/RS	+6/60
Stamina	150
Attack	65
Damage	4d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue



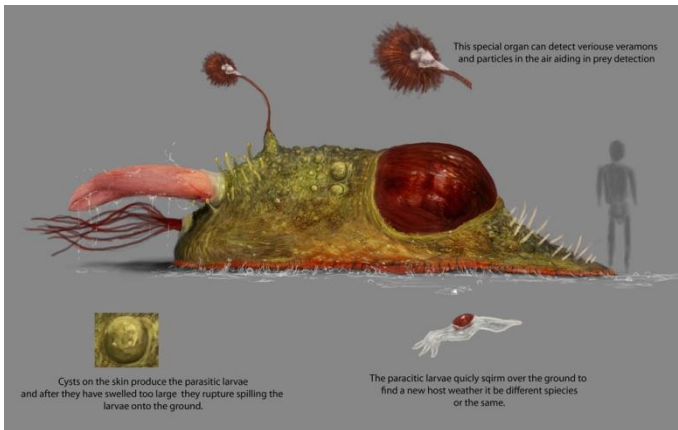
Art by Raul Ramos @ <http://daitengu.deviantart.com/>
And
<http://www.deviantart.com/users/outgoing?http://raulramosart.blogspot.com/>

DESCRIPTION: The armored shark is a reptilian, shark-like creature that can grow to a length of 5 meters. They are usually dark gray in color with a light gray belly.

It has a nasty disposition and will attack anything that is nearby whenever it is hungry. Though they are usually a solitary beast, they can quickly gather and form a frenzied school when there is blood in the water. In this way they can often be seen swarming over much larger creatures, eventually killing and consuming them.

Tentacled Slug

Type	Giant Carnivore
Number	1d10
Move	Medium
IM/RS	+5/45
Stamina	250
Attack	55
Damage	5d10 Bite
Special Attack	The grappling tentacles of this creature can entangle their prey, causing immobility while the modified tongue can go about the business of live dissection. A STR check is required to break free.
Special Defense	Immune to sonic attacks
Native World	Balneum Blue



Art By Semiconductor @

<http://semiconductor.deviantart.com/>

DESCRIPTION: The tentacled slug is a large slug-like beast that can grow to a length of about 6 meters and a height and width of about 3 meters. It is usually a collage of colors ranging from sickly greens and yellows to putrescent orange colors.

s creature will attack and consume anything that is smaller than it is. It uses its tentacles to grapple with its victim. Once grappled, the creature will extend its tongue which is equipped with a set of muscular jaws that contain hundreds of triangular, serrated teeth which are especially good at cutting through flesh and bone. Once a lump of flesh has been cut away from the struggling victim, the tongue will recoil so that it can be swallowed. Then the process is repeated until the victim manages to break free or until the creature has eaten its fill.

Mottled Shark

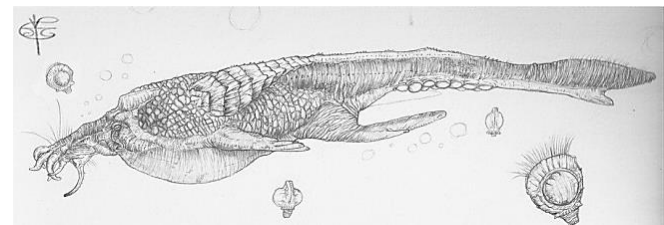
Type	Giant Carnivore
Number	1d10
Move	Medium
IM/RS	+6/55
Stamina	250
Attack	60
Damage	6d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The mottled shark can reach a length of about 13 meters. It has two pairs of long pectoral fins which makes it an agile swimmer. It also has two modified fins that look something like trailing streamers which are used during mating. The creatures sport a stripped pattern of colors over their hides of alternating gray and light gray which makes them difficult to see amongst the mottled light patterns in the water when they are between the surface and a depth of about 75 feet - where they hang out most of the time. They feed on anything smaller than themselves.

Squid-faced Crocodilian

Type	Medium Carnivore
Number	1d10
Move	Medium
IM/RS	+6/60
Stamina	100
Attack	75
Damage	3d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue

Art by Vincent @ <http://v4m2c4.deviantart.com/>



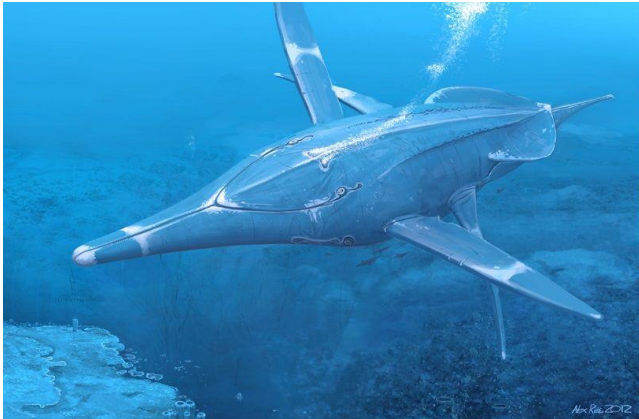
DESCRIPTION: The squid-faced crocodilian can reach a length of about 3 meters, though some 4 meters specimens can be seen from time to time. They tend to be a gray-green color with a light brown underbelly.

These creatures are moderately aggressive and will attack anything that is smaller than they are. They are wary beasts though and will usually flee if their prey puts of a decent fight or if something larger shows up to challenge their claim to the prey. Bright lights also tend to ward them off.

Beaked Shark

Type	Giant Carnivore
Number	1d2
Move	Medium
IM/RS	+5/50
Stamina	225
Attack	55
Damage	6d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue

Art by abiogenesis @ <http://abiogenesis.deviantart.com/>



DESCRIPTION: The beaked shark can grow to a length of about 9 meters. Its skin is a gray-green color and it has an odd, beak-like mouth that is filled with vicious, dagger-like teeth.

This creature is aggressive and will attack anything that is smaller than it is.

Bi-winged Squid

Type	Giant Carnivore
Number	1
Move	Fast
IM/RS	+5/50
Stamina	225
Attack	55
Damage	5d10
Special Attack	None.
Special Defense	None.
Native World	Balneum Blue

DESCRIPTION: The bi-winged squid is light blue-green in color and can grow to a length of about 6 meters. Its jaws open from side to side and resemble the beaked jaws of a dolphin, complete with cone-shaped teeth. It has four eyes, two above its jaws and two below. This gives it an excellent range of vision to enable it to track prey above, below or on either side.

Its fin configuration enables it to move with speed and grace through the waves. It can turn quickly even at top speed, almost at right angles. This creature tends to stay in shallower seas as its coloration blends in well with the water at shallow depths.

Clawed Eel

Type	Medium Carnivore
Number	1d10
Move	Medium
IM/RS	+6/55
Stamina	75
Attack	70
Damage	2d10 Claw
Special Attack	A successful RS check allows the beast to take a second attack against the current target with the other claw that turn.
Special Defense	Armored shell partially covers the creature and can withstand 100 points of damage before the creature is harmed. The shell is hit 60% of the time.
Native World	Balneum Blue

DESCRIPTION: The clawed eel can reach a length of 3 meters and is a mottled dark gray and brick red color. It is short-tempered and will attack anything that draws too close. It primarily hunts fish that are smaller than it in size.

Armored Fish

Type	Medium Carnivore
Number	1d10
Move	Medium
IM/RS	+5/55
Stamina	70
Attack	60
Damage	2d10 Bite
Special Attack	None
Special Defense	Armored hide can withstand 50 points of damage before the creature will be harmed
Native World	Balneum Blue

DESCRIPTION: The armored fish can achieve a length of about 2.5 meters. It is covered with thick scales that act as armored plates to protect the fish. Its coloration is a green-gray mottled pattern that allows it to blend in well to the sandy bottom of shallow areas. It has two barbels on either side of its mouth which it used to sift through the sediment on the sea floor in search of hidden creatures to eat.

Flowering Worm

Type	Medium Carnivore
Number	2d10
Move	Slow
IM/RS	+4/40
Stamina	20
Attack	40
Damage	1D10 Piercing tendrils
Special Attack	Three piercing tendrils attack per turn
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: The flowering worm is a mimic creature. It looks like a flowering plant to entice small fish closer. But once they come within range, the worm strikes with its tendrils.

The worm's tendrils have a claw-like structure on the end which, when the tendril is thrust forward, penetrates into the target's flesh. Once a tendril has a firm hold, it continues burrowing through the victim's flesh until it stops thrashing. Then the victim is drawn into the worm's mouth and swallowed.

The flowering worm doesn't move about much as it is an ambush predator. Its tendrils can reach about 3 meters from where the worm has anchored itself.

Three-jawed Whale

Type	Giant Omnivore
Number	1d10
Move	Slow
IM/RS	+4/40
Stamina	650
Attack	60
Damage	10D10 By being crushed inside the mouth
Special Attack	None
Special Defense	None
Native World	Balneum Blue

DESCRIPTION: This whale can grow to lengths of up to 200 meters. It swims in pods of 2-9 other whales and can usually be seen at or near the surface. These whales are opportunistic feeders. They simply swim slowly about with their huge mouths gaping wide open, swallowing anything that happens to be caught inside once they close their mouths. Upon closing, the jaws of this whale press firmly against the beast's tongue, crushing everything inside and forcing the water out through the seams where the jaws meet.

When swimming about, these whales don't seem to pay particular attention to their surroundings. In this way,

surface craft could accidentally be capsized or submersible craft damaged by a passing pod of three-jawed whales.

Spiny Crocodilian

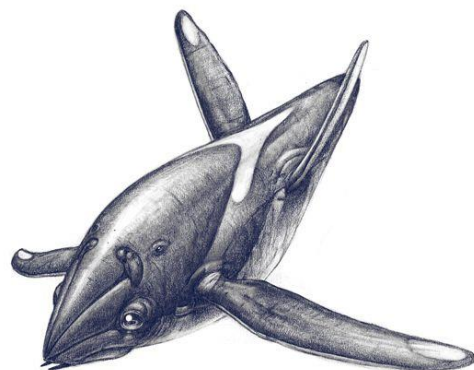
Type	Giant Carnivore
Number	1
Move	Medium
IM/RS	+5/50
Stamina	400
Attack	55
Damage	10d10
Special Attack	None
Special Defense	Armored hide can absorb 100 points of damage (evenly split between the armor and the beast until the armor is penetrated).
Native World	Balneum Blue

DESCRIPTION: The armored crocodilian can reach a length of 25 meters. It has a row of spines along its back that stretches from just behind its head to the base of its tail. It is an indiscriminate eater and will go after anything that is smaller than it is. This creature is attracted to noise and will always investigate noises that it perceives.

Bi-winged Whale

Type	Large Carnivore
Number	1d10
Move	Fast
IM/RS	+5/50
Stamina	200
Attack	65
Damage	3d10 Bite
Special Attack	None
Special Defense	None
Native World	Balneum Blue

Art by abiogenesis @ <http://abiogenesis.deviantart.com/>



Abiogenesis

DESCRIPTION: The bi-winged whale's skin is covered in a mottled black and white coloring. It has no tail. Rather it propels itself through the water using a dual pair of fins designed to make the creature fly through the water like a bird through the air. It is quite a graceful and fast swimmer. Its jaws are also strangely configured; six jaws all total that form a cone when closed and look somewhat star-shaped when opened - each jaws is covered with cone-shaped teeth. It can grow to a length of about 5 meters.

These whales are particularly fond of hunting pinnipeds and will often hunt in groups. They could mistake submersible craft for prey and attack them.

More Animals of the Frontier

By Victor M. Gil de Rubio

	Small	Medium	Large	Huge
Number	20+4d10	20+2d10	10+2d10	1d10+2d5
Move	20m	20m	15m	10m
IM/RS	7/70	6/60	6/60	5/50
Stamina	20	40	60	80
Attack	1	1	1	1
Damage	1-2	1-5	1-10	2-20
Special attack	Trample	Trample	Trample	Trample
Special defense	Alertness	Alertness	Alertness	Alertness
Native world	Varies	Varies	Varies	Varies

This will hopefully be one of several Articles that will offer up many new Animals for use in your Star Frontiers Game. I've chosen to include only animals that exist in the inhabited worlds of the Frontier and Rim Coalition. Some of these animals have been domesticated by the people of the Frontier, and some might even be considered as pets. I would also like to say that entries that denote a creature as coming from various homeworlds most often means that there are several species that are almost identical to the

creature or that particular species has been successfully transplanted throughout the Frontier which is often the case for Animals that are used for food, pets or steeds.

Animal, Herd

Description: The stats listed below are for a wide variety of grazing animals common throughout the Frontier. These animals generally travel in herds and are often domesticated and used as food by the native population of the planet they are from. Though individually these animals do not pose much of a threat, large groups of frightened herd animals can pose a much greater hazard as they flee from danger and trample anything in their way.

A frightened herd flees as a group in a random direction (but always away from the perceived source of danger). They literally run over anything of their size or smaller that gets in their way dealing damage for every five animals in the herd. Characters caught in the path of a frantic herd must roll a Reaction speed check with a -5 to the roll for every five creatures in the herd.

Unless otherwise stated by the Referee herd animals have exceptional hearing and/or vision (treat as having an intuition of 60) and can roll an Intuition check with a -5 penalty per 5 points of Dexterity over 50 possessed by the approaching creature to detect their approach within a range of 30 meters.

Most herd animals tend to live their lives migrating across the landscape of their planet grazing on whatever plants are abundant on the planet, or using their snouts or fore-limbs to dig up ground dwelling insects or small rodents which they eat. Most herd animals are docile creatures, though they are excitable. They generally have hardy constitutions as well.

Herd animals are very social creatures, and the only time that a single creature of this type is encountered usual means that the creature is old or sick. Herd animals usually mate once a year

and a large percentage of these creatures mate for life. Most female herd animals give birth after 2-5 months and bear live young. Smaller herd animals may give birth to 2-5 young at one time, while larger herd animals give birth to one calf.

The young calf is usually cared for its parents, but can expect much assistance from other members of the herd, especially when it comes to protecting calves from predators. Calves grow to maturity rather quickly growing to maturity usually within one year, and can defend themselves after 6 months.

Anthrope	
Number	2 +1d10
Move	20m
IM/RS	8/80
Stamina	45
Attack	1 (Head butt)
Damage	1d5
Special attack	Trample
Special defense	Alertness
Native world	Cassidine

Descriptions: Anthropes stand 1.3 meters tall at the shoulder and are about 1.9 meters long. They are short furred creatures with refined features, including a slender snout and two large almond shaped eyes set in such a way that they have a wide field of vision. An Anthrope has two pointed ears on the top of their head that can move independently from each other and can swivel around within a 180° arc allowing them a wide range of hearing. Anthropes have four slender limbs that end in a cloven hoof, and their tail is short and spade-like. Anthropes fur ranges in color throughout the grays and is generally dark along their spine becoming nearly white beneath them. Male Anthropes sport two small horn-like nubs set right above their eyes.

Anthropes sense of vision and hearing is exceptional which grants them a relatively high Intuition (Intuition 60). This allows an Anthrope to detect creatures long before they detect the Anthrope. Anthropes make Intuition checks if creatures are within 60 meters of it (30% +5% per

two creatures in the group moving towards them). An Anthrope who is startled will flee in a random direction, but always away from perceived danger. Any character directly in the path of a fleeing band of Anthropes must make a Reaction speed check (at -5% per Anthrope in the group) or they are trampled suffering 1d5 points of damage/Anthrope in the band. Anthropes that are cornered will charge at opponents and head butt them for 1d5 points of damage. This is usually done just to push the target out of the way so the Anthrope can flee.

Anthropes are beautiful herbivores that live in the wooded regions in the northern parts of the planet. They group together in bands consisting of an Anthrope family and are most active during the early hours of the morning, or just after sundown. Anthropes are docile creatures that prefer to flee rather than fight, but if their cubs are threatened the females can be vicious.

Anthropes are territorial animals that claim a territory roughly 1 kilometer in diameter per adult member of the band, that is centered around the communal den of the band. The band usually consists of an extended family of Anthropes. Twice a year Anthropes with female cubs who have come into maturity will seek out neighboring bands of Anthrope where willing males will challenge other males to contests or displays of strength and agility with the winners choosing mates from the young females. Once all the females in both bands have been chosen by the victorious males they leave their old bands and join their new families. Females that have not been chosen that season remain with their band and may be chosen when they next come into season. It should be noted that Anthropes mate for life.

Female Anthropes give birth to one baby after a three month gestation period, and baby Anthropes are blind and helpless for the first two weeks of its life. Baby Anthropes are cared for by the entire band, and grow to maturity rather quickly (growing to maturity in one year). Anthrope females remain fertile throughout their lives and because of this Anthrope populations can become

a problem requiring Cassidians to yearly have to cull the Anthrope population. Fortunately Anthrope meat is edible by most Frontier species. Yazirians find Anthrope meat to have a type of sedating quality to it, and many Yazirians become sluggish for several hours after they eat Anthrope (-5 to Reaction speed for 2-5 hours after a meal).

Anthrope, Golden horned	
Number	1d5 +4
Move	20m/turn
IM/RS	6/60
Stamina	60
Attack	1 (either a head butt or kick)
Damage	1d10
Special attack	Trample
Special defense	Alertness
Native world	Cassidine

Description: Golden horned Anthropes are related to the common Anthrope of Cassidine, and can be found in roughly the same climate as its smaller cousin. These animals stand about 1.6 meters at the shoulder and are about 2 meters long. They have a stocky, muscular build with squarish features, and large almond shaped eyes that are set to allow it a broad range of vision. The golden horned Anthrope has pointed ears that are set on the top of its head and can move independently of each other. Each ear can swivel around in a 180° arc giving the creature a wide range of hearing.

The Golden horned Anthrope gets its name because it sports two semicircular horns of a dull bronze color that grow on either side of its head. These horns are covered in scaly ridges. Once a year old layers of horn flake off which coincide with the weather becoming warmer. Golden horned Anthropes are long limbed creatures with cloven hooves. They all possess a short spade-like tail. Golden horned Anthropes are covered by a shaggy coat of golden tan fur. Males generally grow exceptionally thick fur around their sinewy neck,

and as they age are known to grow beard like tufts of chin fur.

Golden horned Anthropes sense of vision and hearing is so exceptional that it grants them a high Intuition (Intuition 60). This allows the animal to detect creatures long before they encounter the animal. Golden horned Anthropes make Intuition checks if creatures are within 60 meters of it (30% +5% per two creatures in the group moving towards them). A golden horned Anthrope who is startled will flee in a random direction, but always away from perceived danger. Any character directly in the path of a fleeing band of these animals must make a Reaction speed check (at -5% per animal in the group) or they are trampled suffering 1d10 points of damage/Golden horned Anthrope in the group.

A Golden horned Anthrope that feels threatened and cannot escape will either charge at its opponents and head butt them for 1d10 points of damage, or will rear up and lash out with its forelimbs causing 1d10 points of damage on a successful hit. Golden horned Anthropes can be quite vicious opponents and rarely retreat if cornered or defending their band.

As was stated earlier these animals are related to the common Anthrope of Cassidine, but are only found in the foothill area of the few mountain ranges near the icecaps of the planet. These hardy Anthropes tend to travel in small bands of related Anthropes, and are led by a strong Alpha male. All the adult female Golden horned Anthropes in a band are all mates of the Alpha male. Subordinate males in the band are usually adolescent males who have yet to find mates.

These creatures are territorial and generally stake a claim of about one mile per adult in the band, and the alpha male defends this territory with great ferocity. Once a year these animals go into heat, and the eligible males in the band will begin making a throaty call that can be heard for miles in the hope of attracting a female. If he does attract a female they remain together for life, and will travel for several miles before claiming a new

territory for their new family. Each season the male repeats this process until he has gathered 3-9 mates.

A female Golden horned Anthrope gives birth to one live young after a three month gestation period. The just born Golden horned Anthrope is blind and helpless for the first two weeks of its life and depends on its mother for food and defense. Golden Horned Anthropes grow to adulthood rather quickly (within one year).

Golden horned Anthropes are edible to almost all beings in the Frontier, though most people find the meat to be tough. Yazirians are quite fond of this meat, and often import these creatures to be used in the High Hunt ritual before Gift-Tyde. Like their cousins though Golden horned Anthrope meat has a sedative quality that makes Yazirians lethargic for several hours after a meal (-5 to Reaction speed and Intuition for 1-5 hours after a meal).

Blue gill	
Number	1 (rarely 1-5)
Move	Swim 10m/turn
IM/RS	7/70
Stamina	60
Attack	1
Damage	1-10 +5
Special attack	Jump
Special defense	Resistant to blunt damage
Native world	Cappella (Faire)

Description: A Blue Gill is a large fish that averages about 2.1 meters from its mouth to its tail. Specimens however sometimes grow to an excess of 3 meters long. These fish are a dark midnight blue in color except for around their gills where the blue becomes milky in color. Blue gills are nearly silent swimmers and prefer murky water.

Blue Gills are known to be able to propel themselves out of the water to attack certain birds that fly just above the surface of the ocean hunting for fish that swim close to the surface. Blue Gills can leap up to 4 meters requiring

characters to roll a Reaction speed check with a penalty of -10 or they are struck by the Blue Gill and suffer 1d10 points of damage. In addition if they were standing on a boat or flying they must make a second Reaction speed check or they fall into the water.

Blue Gills have exceptional vision enabling them to see in murky water up to 20 meters away. These fish's bodies are covered by a fine layer of interlocking scales much like a snake that provide them with some defense against bludgeoning attacks. Damage taken by these creatures from bludgeoning attacks are reduced by -1 point/die of damage and can even be reduced to zero damage, due to their tough scaly hides.

A Blue Gill is able to swallow whole any creature that is no more than 1.2 meters tall if they succeed on a to hit roll of 01-05. A creature swallowed by a Blue Gill suffers 1-5 points of damage/turn from a combination of suffocation and gastric acid. The being can attempt to escape from the Blue Gill by cutting himself free if he has a small handheld weapon (such as a vibro-knife), but must cause 6 points of damage to the Blue Gill to do so.

Blue Gills are a predatory fish that stakes a claim roughly 10-15 kilometers in diameter. These fish are indiscriminate eaters who are known to occasionally bite a passing fish or swimmer just out of curiosity.

Blue Gills are generally solitary fish that stay in an area for as long as there is a steady supply of food. Blue Gills have very few natural enemies. Once a year Blue Gill females will begin a journey northward, and will mate with several males, depositing bunches of eggs in the few reefs that they find along their course. These eggs hatch after 3 weeks, and the young Blue Gills attack one another for several minutes, eating the weak. Once sated the survivors begin to swim towards the deeps to begin their lives. A Blue Gill grows to maturity in roughly 6 months, and it is unknown how long a Blue Gill will live for.

Blue gills can be eaten by most Frontier races, though their meat is rather rubbery it has an exquisite taste.

Blue Terrapin	
Number	1-5
Move	2m/turn, Swim 1m/turn
IM/RS	5/50
Stamina	10
Attack	1
Damage	1-5 (+ Poison)
Special attack	Poison
Special defense	toxic hide
Native world	White Light

Description: Blue Terrapins are only found in thickets or dense, overgrown swamp areas. They have a dull blue-gray shell of about 2 decimeters across and they have a 3 decimeter long snake-like neck that allows them to bite an opponent. Blue Terrapins skin where visible is a royal blue in color.

A character who is bitten by a Blue Terrapin must make a Stamina check at -10 or they begin to suffer from a fast acting poison that affects the character's muscles. Starting the following turn after the poison is injected into the victim through the bite of the Blue Terrapin he suffers a 5 point reduction to his Dexterity and Strength and suffers 1-5 points of damage as his muscles cramp and spasm. This is repeated for 1-5 turns after the initial effect. It should be noted that a creature who is already poisoned by a Blue Terrapin cannot be poisoned again by Blue Terrapin poison for 24 hours. A character who has suffered muscle damage from Blue Terrapin poison can only be healed of this damage in a medical facility, requiring major surgery to repair the damage to the muscle tissue suffered by the victim.

Creatures who bite into a Blue Terrapin must make a Stamina check or they suffer 1-5 points of damage from the toxicity of the Blue Terrapin.

Blue Terrapin are rather ill-tempered turtles that dwell in thickets and reed beds on the edges of

the planet's swamps, and wetlands. They are solitary creatures that stake out an area several hundred meters in diameter that is centered on a dirt mound that is where the blue terrapin lairs. Once a year the male Blue Terrapins climb to the top of their mounds and begin a gravelly, throaty cry while they stretch out their heads upward as far as they can. Females are drawn to the nests by the male's songs, and begin dragging reeds into the mound until they have built a nest. Once they have built an adequate nest the males will enter the mound and the two terrapins will mate. After mating the male will abandon his nest and find a new territory. The female will lay a clutch of 21-30 eggs, which she will look after until the young terrapins are hatched after 3 weeks.

A female Blue Terrapin will eat any young who she senses are not strong enough to survive and afterwards will abandon the survivors. Blue Terrapins will grow to maturity after a year, and generally live several decades over a hundred years. Blue Terrapins, are extremely toxic to most races in the Frontier, though Humma find their meat to have a pleasing sting to it.

Carp, Silverback	
Number	1-5
Move	Swim 10m/turn
IM/RS	7/70
Stamina	50
Attack	1
Damage	1-5
Special attack	Jumping slam
Special defense	none
Native world	Cassidine

Description: This fish is very similar to the Carp found on Earth in appearance except that it generally grows to about 1.9 meters from its mouth to its tail. The fish gains its name because of the bright silver-white scales that cover its back. These scales become a rich silver blue on its sides that becomes an almost black on its underside. Silverback carp tend to swim near the surface of the water and are easily startled.

A startled Silverback carp can propel itself out of the water crossing a distance of up to 5 meters in a straight line, requiring anyone caught in its way to roll a Reaction speed check with a -10 penalty or be struck by the fish. A person hit suffers 1d10 points of bludgeoning damage and must make a Dexterity check if they are standing up or they are knocked prone (or knocked into the water if they are on a boat).

A Silverback carp is generally not aggressive, but it will bite if it feels threatened. These creatures have excellent vision in the water being able to see up to 20 meters even in murky water. They also possess a web of hyper-sensitive nerve endings along their snout which can detect minute vibrations in water up to 1 kilometer away, which the fish uses to hunt.

Silverback Carp tend to live their lives swimming aimlessly near the surface of the Great Lake region of their homeworld. They are easily startled by larger things moving in the water and often will jump out of the water rather than dive beneath the waves.

Silverback Carp generally go into season twice a year and the females release strings of eggs in the water. Males will release clouds of gametes which will fertilize as many strings of eggs as possible. These eggs hatch after one week releasing clouds of tiny Silverback Carp. If the young survive their three month infancy they will have grown to small size, and after another three months they grow to maturity.

Silverback Carp are edible by most Frontier species, and their rather large birth rate ensures that the fish rarely drops to a level where they become endangered.

Cave Raptor	
Number	10 +2d5
Move	5m/turn, Flight 20m/turn
IM/RS	5/50
Stamina	50
Attack	1 (Talons, or beak)
Damage	3-7 (1d5 +2)
Special attack	Diving attack
Special defense	Immune to blinding attacks
Native world	Dixon's Star

Description: The Cave Raptor is a medium sized avian about 1.2 meters long with a wingspan of about 2.4 meters. The Cave Raptor has dull white feathers covering its body, and has blue-white razor sharp talons, and beak. The Avian's beak has nostrils that are exceptionally large. Female cave raptors are larger and more aggressive than the males.

A Cave Raptor that gains surprise can make a devastating diving attack against an opponent. The Cave Raptor gains a +10 to its attack bonus when making this attack, and if it succeeds it doubles the damage it causes from its claws slashing its prey.

Cave Raptors are blind creatures that possess millions of nerve endings throughout their feathers that are sensitive to changes in air density enabling them to navigate in complete darkness exceptionally well. The Cave Raptor can sense beings moving at distances within a 40 meter diameter area around the Raptor. Because of their blindness Cave Raptors are immune to all manner of blinding attacks.

These predatory avian have adapted to living beneath the surface of their arid planet, and thrive in the many dark caverns of their world. Cave Raptors are social creatures that gather in large numbers in many of the larger caverns beneath the surface of Laco. These avian mate for life and go into season once a year. The female Cave Raptor generally lays a clutch of 2-5 eggs which she sits on until the eggs hatch in 4 weeks.

During this time the male Cave Raptor will hunt and provide food for his mate. When the eggs hatch, the two raptors take turns hunting for food for their young. Young Cave Raptors grow to maturity after 12 weeks.

Cave Raptors seem able to sense when their population has grown too large for the area to support them, and at these times they will turn on the old and young and kill off enough of them until their numbers again reach a level that can be supported by the environment. These dead Cave Raptors though are not eaten by the other birds and are left for other creatures to consume. Ecologists speculate that this is done to draw new prey into the area to insure the survival of these creatures.

Cave shrike	
Number	4-40
Move	5m, Flight 20m
IM/RS	8/ 80
Stamina	10
Attack	1 (beak or talon)
Damage	1-5
Special attack	Rake
Special defense	Immune to blinding attack
Native world	Zebulon, Volturnus

Description: Cave Shrikes are small avian with a 5 decimeter wide wingspan. These avian have snow white feathers, large gaping beaks with a serrated edge and bluish white talons. These avian have inaudibly high cries that only creatures with heightened hearing can hear on an Intuition check (1/2 Intuition roll). Cave Shrikes generally eat fungus and lichens, but if starving can and will attack other creatures.

Cave Shrikes are blind and use a form of echolocation to navigate in the winding caverns where they make their homes. This ability allows them to detect creatures that are within 20 meters of the Cave Shrike. Because the Cave Shrikes are blind they are immune to all manner of light based blinding attacks. However Cave

Shrikes are exceptionally vulnerable to sonic attacks, and take double damage from sonics.

Cave Shrikes are social avian that have evolved to survive deep underground on Volturnus. These birds stake out a territory of caves and caverns that run several hundred yards beneath the earth, and are extremely territorial.

Cave Shrikes tend to live in large caverns deep underground, and build nests of lichen, feathers and fur from their victims in niches in the cave walls. Cave Shrikes will attack creatures far larger than they are who stumble into their territory. Twice a year the female shrikes go into season and begin to sing. The males are drawn to the singing, and will mate as many times as they can within a two week period.

Once the Cave shrikes are impregnated the females lay 1-6 eggs after 2 weeks, and then they will warm them for 2 weeks until they hatch. At this point the just hatched young will attack their mother and consume her, before flying off to find their own groups of Cave Shrikes. Young Cave Shrikes grow to maturity within 2 months of their hatching.



Kar'tix Xag-Xin's Field Guide to Frontier Creatures, Volume III

By Allen Trussell

In 100 fy, the UPF commissioned a reference work detailing known creatures of the Frontier. Led by Dr. Kar'tix Xag-Xin of the Vrusk Institute of Xenotics on Kawdl-Kit, this encyclopedia has compiled data of all known flora and fauna, natural and engineered, found throughout the Frontier. Presented here is an excerpt from that collection.

Charrik	
Type	Tiny Omnivore
Number	1-4
Move	Medium (50 meters/turn)
IM/RS	8/80
Stamina	5
Attack	50
Damage	1d3 bite
Special Attack	None
Special Defense	Shriek (the charrik emits a loud shriek in an attempt to scare enemies. Characters must make a LOG check to avoid becoming frightened, fleeing from the charrik if possible)
Native World	Groth; plains and forests

Description:

This tan-furred creature looks much like any variety of small rodents (rats, squirrels, rabbits, etc.). It has large incisors, a sleek body and bushy tail. The charrik differs primarily in its complex vocalizations, which many xenolinguists have classified as a primitive language. Generally peaceful, these creatures have developed a powerful scream which can drive away predators. If raised from pups, charriks can be somewhat domesticated, and can serve as excellent living alarms.

Danager's Ripper	
Type	Medium Carnivore
Number	1-3
Move	Fast (100 meters/turn)
IM/RS	7/75
Stamina	70
Attack	80
Damage	2d10 bite, 1d10 claw (x2)
Special Attack	Pounce (Danager's rippers can make a running leap of up to 30 meters, and make a single attack which deals 2d10 damage if successful), Rend (if a Danager's ripper makes successful bite and claw attacks, it can deal an additional 1d10 damage without an additional attack roll)
Special Defense	None
Native World	Terledrom; desert, plains and jungles

Description:

Danager's rippers are predators covered in short, tawny fur. Standing on two powerful hind legs, rippers are just under 1.5 meters tall, and over 2 meters long, snout to tail. The claws on their feet and the hands of their tiny, dangling arms are long and sharp, especially the 12 cm long dewclaw on their feet. Despite their general appearance suggesting a reptilian or avian creature, rippers are closer to monotreme mammals, laying eggs but nurturing their young in with milk from teats.

Danager's rippers are a protected species, as only a few thousand of these creatures exist in the wild. Some unscrupulous types capture these creatures when young and raise them to become attack animals. It is illegal to own these creatures.

Douterre	
Type	Large Herbivore
Number	1-6
Move	Medium (40 meters/turn)
IM/RS	4/40
Stamina	150
Attack	60
Damage	3d10 gore
Special Attack	Trample (when rushing an opponent, the douterre makes an attack at +30, dealing 4d10 crushing damage as it runs over its target)
Special Defense	Bony hide (thick bony plates cover the douterre, making it immune to needler weapons and all other non-energy attacks are reduced by half)
Native World	Kdikit; savannah and scrub plains

Description:

Douterres are huge, lumbering beasts with bad tempers. An adult douterre is 4 meters high and just as long, and is covered in thick, bony plates under its gray-brown skin. Its large head has several long, sharp horns, and its eyes that jut out on either side, allowing it vision on either side of its large body. This vision is poor except close up, though it keeps the douterre alert to motion on all but its rearmost quarter. It is very hard to surprise a douterre; it has an effective INT score of 80, but only for the purpose of noticing motion or detecting stealthy enemies.

Fahgren	
Type	Medium Carnivore
Number	1-2
Move	Medium (60 meters/turn)
IM/RS	6/65
Stamina	75
Attack	80
Damage	3d10 bite
Special Attack	Bloodlust (each combat turn, the fahgren has a 20% chance to enter bloodlust, which increases its attack and STA by 20, and gives it an extra attack every turn. This state lasts until the end of combat or the fahgren dies)
Special	None

Defense

Native World	Kdikit; deserts, jungles, savannah and scrub plains
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Description:

Fahgrens are a reptilian menace on Kdikit, and have proven difficult to eradicate due to their fecundity. Measuring 1.7 meters in length, with dappled and striped hides, these fanged predators are adept and dangerous predators, using stealth, speed and their powerful jaws to take down prey, which is anything that draws its attention.

Hiss'teh	
Type	Giant Carnivore
Number	1
Move	Medium (70 meters/turn)
IM/RS	5/50
Stamina	360
Attack	65
Damage	7d10 bite
Special Attack	Swallow whole (any creature the hiss'teh bites can be swallowed whole, taking 3d10 damage per turn while in the creature. A swallowed creature may escape if it can do 45 points of damage to the hiss'teh, taking a -30 penalty to attacks)
Special Defense	Burrower (see below)
Native World	Lossend; deserts

Description:

The hiss'teh is a very large reptilian predator. A subsurface dweller in the Zakram desert of Lossend, it has a rust-brown coloration that blends with these ochre sands. It is a plated horror, with numerous small limbs along its sides that allow for rapid motion through and atop the sands (its burrowing and land speeds are the same). Its huge maw can open wider than its body, much in the manner of most serpents, allowing it to swallow most creatures. As a burrower, the hiss'teh can attack from surprise, and can only be noticed before it attacks on a successful INT check at -40. Its plated hide is adapted for its subterranean existence, giving it protection equal to a skeinsuit (half damage from all non-energy attacks). Due to

similarities in appearance, there are many who believe the hiss'teh is the basis used by the Sathar in the creation of slithers, but the two creatures share no DNA. While these creatures are rare on Lossend, they are considered a menace and large bounties are offered for the destruction of hiss'teh.

Hrassk	
Type	Medium Carnivore
Number	1-2
Move	Fast (90 meters/turn)
IM/RS	7/70
Stamina	90
Attack	80
Damage	2d10 bite
Special Attack	Heat breath (the hrassk can exhale a cone-shaped area of intense heat, out to 10 meters, dealing 1d10 heat damage to everything in the cone)
Special Defense	Heat resistance (a hrassk can ignore up to the first 10 points of heat damage inflicted upon it)
Native World	Pale; volcanic regions

Description:

This reptile is 2 to 3 meters in length, with a wedge-shaped head which is ringed with a frill. The beast's scaly hide is reddish-brown in color, and the male's frill is bright with vivid red, orange and yellow patterns. Hrassk are hunter-scavengers, seeking the path of least resistance when searching for food. They are generally not hostile, but are dangerous when hungry, in danger or during the mating season, when males become especially aggressive.

Lhoric	
Type	Tiny Energyvore
Number	1-10
Move	Very Slow (5 meters/turn)
IM/RS	2/20
Stamina	10
Attack	20
Damage	1 point bite
Special Attack	Energy beam 1d10
Special Defense	Energy drain 1d10 SEU per turn, beam attacks heal for 1d10 per hit
Native World	Laco; any terrain

Description:

The lhoric is a pest found throughout Laco, especially in highly industrialized areas. Originally a natural solar feeder, the lhoric has adapted over the centuries to feed on other energy sources. These tiny, silvery mollusks feed on power cables, SEU clips, power backpacks and backpacks, and so on. While they can bite, their main defense is to fire a beam of focused energy at an attacker. Their ability to heal from energy attacks, as well as their rapid breeding (like slugs, lhorics are hermaphroditic, and each mating makes both fertile partners pregnant), makes them difficult to eradicate. Lhorics have made their way off Laco as well, and can be found throughout the Frontier and Rim.

Mastaral	
Type	Giant Herbivore
Number	1-6
Move	Slow (35 meters/turn)
IM/RS	4/40
Stamina	300
Attack	50
Damage	1d10 stomp
Special Attack	Trample (2d10), Gore (1d10), Ram (2d10)
Special Defense	Thick hide (acts as a skinsuit)
Native World	Hargut; plains and deserts

Description:

This a huge, shaggy creature, with four large tusks and two curved horns on its massive head. Generally non-aggressive, when threatened mastarals are dangerous. A mastaral in defense mode will typically stand its ground, and charge if its aggressor doesn't back off. Once a mastaral charges (at a +30 to attack), it will trample and gore anything in its path. Its thick hide and shaggy coat provide it protection against many forms of projectile damage. Mastarals are otherwise foul-tempered and foul-smelling beasts best avoided.

Syrriith	
Type	Small Carnivore
Number	1
Move	Medium (70 meters/turn)
IM/RS	6/65
Stamina	20
Attack	70
Damage	1d10 bite
Special Attack	Fluid siphon (when a syrriith bites, it attaches itself to the victim and drains 1d10 points of STA per round. A victim bitten by a syrriith can remove the creature with a successful STR check at -20)
Special Defense	None
Native World	Gollywog; swamps and forests

Description:

Contrary to common belief, there are some animals native to Gollywog; one of these is the syrriith. A syrriith looks like a small snake with a membrane on either side of its 50 cm long body, but it is more properly a mollusc. Syrriith are ambush predators, waiting in tree branches and gliding down upon prey by spreading out their side membranes. Once a syrriith successfully bites, it then wraps itself around the prey, holding on tightly and begins to drain body fluids (blood, bile, etc.).

**: This creature has been adapted from the article "An Alien's Best Friend" by Darron Patton.*

***: This creature has been adapted from the article "Zeb's Guide to Animals of the Frontier" by Victor M Gil de Rubio.*

Truane's Hound	
Type	Medium Omnivore
Number	1
Move	Slow (25 meters/turn)
IM/RS	5/50
Stamina	75
Attack	60
Damage	2d10 bite
Special Attack	Engulf (when Truane's hound attacks, it may engulf any prey up to one size larger than itself. A character may make a RS check at -30 to avoid this. Once engulfed, a character make escape on a successful STR check at -60. An engulfed character takes 2d10 damage per turn while engulfed.)
Special Defense	Adaptive Form (Truane's hounds are adept at shaping their bodies into any sort of animal, plant or inanimate forms. A character may make an INT check at -50 to notice some imperfection that reveals the false form of the hound.)
Native World	Pale; any terrain

Description:

Truane's hounds are rarely seen in their natural form, which is a translucent, brownish blob of flesh, around 1.5 meters in diameter. More often, the hound is encountered disguised as something else, where it waits for prey. Truane's hounds are dangerous predators, and detecting them has proven difficult as they produce no discernible body heat and thus cannot be detected with IR sensors. Thankfully, they are rare, and usually avoid the civilized areas of Pale.



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