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Introduction:

Welcome to the battle for the future of the Earf Sphere!

The document you are reading at this very moment is hopefully the first book in a long line about the Noah role playing universe; the events that both have and will shape itself and the destinies of its inhabitants. This is my first serious attempt at web-publishing this story, which has been an on-going and constantly evolving project of mine since the early 1990s.

Underwater Combat Unit: N.O.A.H., otherwise known as Noah for short, is an alternate universe inspired by many different works of science fiction, including a large selection of Japanese animated films; all set to work with the **Mekton Zeta Plus** role-playing game system.

This document in your hands was created to provide you with as much information and structure as possible to allow you to run a gaming campaign with your players set in this world of giant robots, wars, revolutions, and much more.. While at the same time, still giving you just enough freedom and inspiration to allow you to craft this world to your own preferences where and when needed.

To play, you will need a copy of the **Mekton Zeta** role playing book, the **Mekton Zeta Plus** advanced technical manual, and understand how both of them work for starters. In addition, you may also want to have some other source material from any of the other **Mekton** publications, or other related materials that you can find on the internet. Several suggested resources will be referred to throughout this document in case you need to expand on something in particular.

Warning about Printing this Document:

This book was created with the idea in mind that being in black and white will help in limiting any difficulty in printing multiple copies for your own personal use by not requiring you to use up expensive inks for heavy color graphics. Unfortunately, even when the best of intentions are to make things simple, it can lead to only more complications later down the road.

So at this point I would like to apologize for any problems that you may or may not have in printing copies for your own use. I am a bit old fashion when it comes to preferring the feel of a "dead-tree copy" in my hands over a digital format on a glowing screen, and would like to enable my fellow Luddites to have the same level of indulgence.

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Additional support for the Mekton gaming system can be found at Atomic Rocket Games: <http://www.atomicrocketgames.com/> And when in doubt, there is always the Mekton Zeta Mailing List, or MZML: <http://www.mektonzeta.com/mzml.php> Some additional inspiration came from materials published by Dream Pod 9: <http://www.dp9.com>

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My motivation during this entire project to create this document was as a show of my support for all of their outstanding work and creativity as a fan. This document is to be considered as nothing more than as a work of fan made fiction, otherwise known as a "Fan-Fic," and is to be shared with other fans on a non-profit basis.

First off, a personal note:

This document represents the sum total of the gaming universe that I have run for my different gaming groups over the last 20 or so years. Producing this book has been a labor of love for not just my own creativity, but also an attempt at sharing those same feelings and devotion as a fan of role-playing games, anime, and giant mecha with my other peers.

In no way did I set forth to write a “perfect” world, nor should such expectations be placed upon this document.

I am sure there will be more than a few flaws or mistakes that I will have made while writing this book, since putting this book together was a mostly lone endeavor. But then again, that is part of the creative license that comes with writing anything in the realm of science fiction. Consistency is always a large burden to maintain, especially when logic likes to constantly try to stick its beak into every little thing. So therefore, any mistakes that may or may not exist will be retro-conned, erased, edited, denied, covered up, debated, or simply amended in any future supplements, if there are ever going to be any.

Also, the other goal of this project was to show what can be done when one puts their mind to it.

I have tried a few times before to write this book but have constantly ran up against obstacles that had either stopped me from progressing further, or have distracted me altogether from completion. Some of these were placed in my own path by myself, which is unfortunately a part of the eternal curse of being a perfectionist.

One of the biggest obstacles in question was the attempt to redesign everything during the process of writing it all down; few things are as difficult as reinventing the wheel while you are rolling down the road at high speed.

At worse, I hope that this book will entertain other fans of mecha, anime, or role-playing.

Or at best, I might inspire someone else to try to lay out their own worlds upon endless fields of text and graphics.

If you do choose to use this book to run a few adventures for yourself and your friends, or any of the other materials, rules, etc with in, please give credit where credit is due.

Praise and comments go a long way in helping to cope with the many nights of lost sleep.

Also, if you happen to have any constructive feed back or questions that you may wish to share, feel free to email me at: (Noah.Offical@Gmail.com)

Notes to both Players and GMs:

As you may have guessed by now, Noah was heavily influenced by the Japanese anime “*Mobile Suit Gundam*,” in addition to many other resources. This series has been popular with mecha fans for over three decades now, and it is only natural that some small or a large part of its influence will be noticeable with in the scope of the Noah universe itself. Understandably, some may question why this is the case.

First off, this was done to give the players and GMs a sense of familiarity for the world, events, and the people involved.

If both sides of the gaming screen are acquainted and comfortable with the material presented to them, their enjoyment will be enhanced so that everyone is more likely to have an gratifying gaming experience together.

Second, at the same time as things may seem to be well known to them, there is still more than plenty of room to throw in new developments, material, concepts, ideas, etc to spice up every thing. Anyone reading this document should be warned to not simply assume anything is as they suspect. As the popular word of advice used in the military goes, “*when you assume anything, you only wind up making an ASS out of U and ME.*”

This is one of the many reasons why Noah takes place in an entirely different universe of its own, great effort was made to distant itself from what may be familiar as possible while still offering many new elements to interact with.

One difference that is brought up by others is that all characters with in Noah are anthropomorphic animals called collectively “Anthrokind,” or in some other circles known as “Furries.” With this detail alone, it gives them a much different perspective on their world and ours than we would normally have. If you feel that you are not comfortable with or do not desire to use such “funny talking animals” in your game, you are more than free to work around it. There are no bonuses or other rules that come into play due to whatever species a character may be. In most cases, it is simply a reflection of their personalities. This detail was added to the game to make it more unique than its original sources of inspiration.

Also, for your entertainment, there are a few jokes planted here and there to liven up the mood a little. So chances are, if you see something that takes you a bit by surprise, then more than likely it was done on purpose.

Notes to Players:

If you are reading this as preparation for an upcoming game being run by your regular or irregular GM, please be careful to not read over any restricted material which may spoil your gaming experience, or may give you an advantage over your GM in how they are running their game.

Doing so will unbalance everything in the game, and bring about a large amount of unnecessary stress and friction with in your group, which will undoubtedly ruin the shared gaming experience over all. Role playing is about having fun, not solely about winning. If you are still unsure about the point I am trying to make here, I suggest you go and read the comic “*Knights of the Dinner Table*” and see how some of the characters there handle themselves and their role playing habits. (<http://www.kenzerco.com/>)

Note to GMs:

This document was meant to help you create new worlds for your players to interact in. It is both a guide, and a suggestion.

If you feel as though some parts of it may not be comfortable for you to run “as is,” then you are given the liberty to change some and/or all details if you feel it necessary. Such as if you feel that running the characters as “funny talking animals” is not your thing, then there is very little to stop you from running them as all being human.

On the other hand, a lot of work has gone into keeping a certain balance in the game mechanics, such as in the rules or even the stats of the given vehicles or characters. As a warning, altering some of these details may cause problems, such as tilting the scale in favor of or against your players. Those involved should feel challenged by the situations they are placed in, and since not all players are equally equipped or motivated in the same ways, it is the role of the GM to keep a watchful eye on such things.

All I ask is that despite any changes that you make, that you will still give credit where credit is due to both me as the writer of this document, and to the other people who have contributed in their own ways to the creation of this universe and book.

Please do not copy or distribute anything from this document without giving credit to the responsible parties in question.

And now, let us enter the world of Noah, and the Earf Sphere....

The Series Synopsis: a quick primer for players for most general details about the world of Noah.

Series Name: Underwater Combat Unit: N.O.A.H.

Basic Premise: World at war theme, combat is happening in all of occupied territories and space, very few places are safe from the violence and chaos.

Synopsis:
The setting is based around the planet Earf, a world very similar to our own Earth, inhabited by a race of anthropomorphic creatures known collectively as “Anthrokind,” who are caught up in an on going war fueled by the wills and desires of the several factions that exist amongst its population living on its surface, beneath the waves of its oceans, to even its moon and orbital colonies.

For the last 300 years, the planet has been through a golden age and a great global tragedy, which has caused its people to move out into space to rebuild their lives and seek their futures. As with any form of life, Anthrokind has spread about far as it can go, like the water from an overturned pail while at the same time it has also tried to keep its world in a rigid structured form. Noah is about the struggles between these two forces of will and philosophical thought. Between the unstoppable force of dreams and desires, and the unmovable structure of order.

Genre: Mecha – Science Fiction

Realism: As realistic as possible with in the confines of anime reasoning. Tech level will be on average around 6 or 7 in most cases. But despite the advanced science and technology available, the conditions and practices during the war reduces many situations down to a primitive level in many cases, forcing all of those involved to rely on their own abilities and skills. Further expansion and explanations are available in the General Technology section.

Character Creation:

- Character Creation is as normal, with a recommended level of 60-70 points to be allocated to the following stats:
INT, EDU, REF, COOL, EMP, TECH, LUCK, ATT, MA, BOD, and *AM*. The last stat will be explained later in its own section.
No stat may be over 10 without the permission of the GM. Highest starting stat is recommended to be no more than 8.
Skills can be increased over +10 over time, but should not be higher than +5 or +6 at the beginning per GM's permission.
Characters can use either Rookie or Professional templates.
Due to the overlap between mecha related combat skills, Mecha Missiles is combined with Mecha Gunnery, as well as Mecha Hand-to-hand is with Mecha Melee, respectively. Thus, the only necessary skills for mecha combat are Mecha Piloting, Mecha Gunnery, and Mecha Melee.
- Since the scale of combat spans to all regions of inhabited space and across the planet, pretty much any civilian or military role can be played out. Some players may want to consider to play as more than one character at a time in the group so as to allow more resources to deal with situations, though it should require consent from your GM. It is also suggested that players be encouraged to expand their skills as widely as possible so as to not be limited to a few select skill sets, making them more of an “well rounded person” than an “idiot savant.”

Rules in Effect:

- Missile and Projectile travel times are strictly enforced. G-Factor is in effect. So, bribe your GM heavily whenever possible.
- Let's Active! and extra actions are allowed, and are in fact encouraged. Melee Charging, Melee Swinging, and Missile Priming are permitted actions.
Anime Leaps are allowed in zero-gee environments only.

Allowed Animal Species:

- Almost any form of animal should be allowed with in reason, though it really does not matter since there are no advantages granted based up your selection. It is more of a reflection of the character than anything else.
Though if you really insist on it, some charts have been included to help randomize the selection process.
- Since the Chinese zodiac does play a role in this world, it is possible to encounter or play as characters that are either snakes, dragons, or najas. To help simplify things, these creatures are considered to be humanoid in shape, and gain no additional bonuses or disadvantages as being such. Snakes will have slender bodies, limbs, and tails. Najas are much larger and more muscular than their snake cousins, with larger scales and some horns. Dragons are larger versions of their other reptilian kin, with hard scales and horns. Otherwise, they are just big lizards.

Animal Selection Charts:

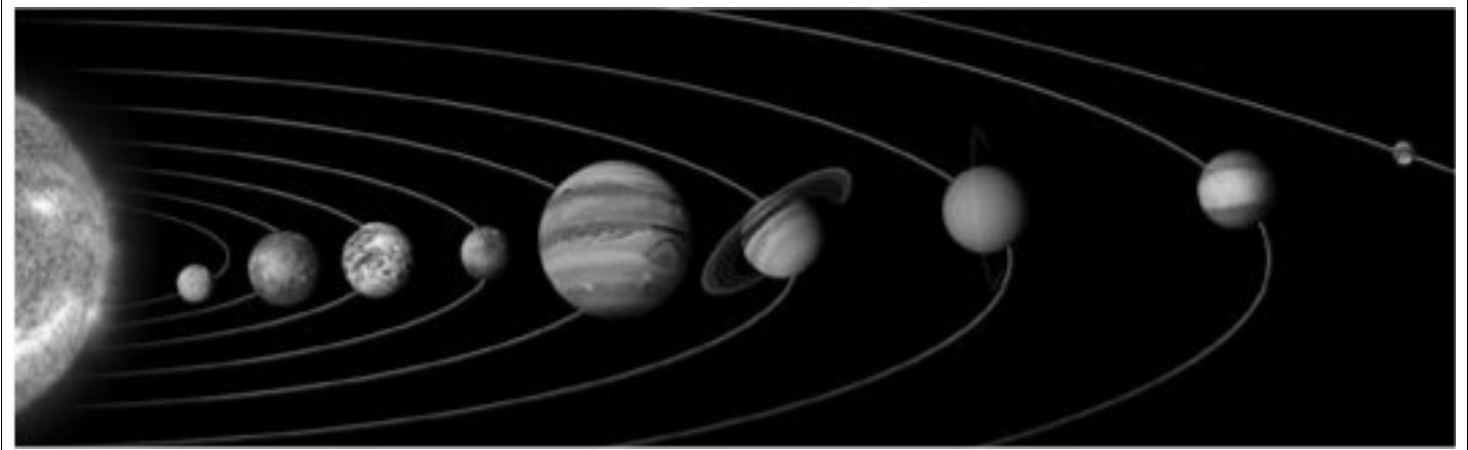
Roll D6:	Which Animal Chart to use?
1 – 2	GM or PC gets to choose.
3 – 4	Roll on Chinese Horoscope Chart.
5 – 6	Roll on Generic Animal Chart.

Roll D12:	Generic Animal Chart:	First D6:	Second D6:	Chinese Horoscope Animal Chart:
- 01 -	Raven / Crow	1	Even	Ox, Water Buffalo, or any other form of cattle.
- 02 -	Hawk / Falcon / Owl	1	Odd	Rat or Mouse.
- 03 -	Lizard / Snake	2	Even	Pig, Boar or Elephant.
- 04 -	Horse / Donkey / Zebra	2	Odd	Dog: Choose any canine, wild or domesticated.
- 05 -	Wolf / Coyote / Fox / Dog (Domestic or Wild)	3	Even	Rooster or Hen: domesticated species only.
- 06 -	Bear / Panda / Polar Bear / Red Panda	3	Odd	Monkey: Choose any kind of monkey, other primate.
- 07 -	Parrot / Peacock / Other exotic bird species	4	Even	Goat: Choose any form of Sheep or Goat.
- 08 -	Monkey / Ape / Lemur	4	Odd	Horse: Choose any breed of Horse.
- 09 -	Cougar / Leopard / Cheetah / Lion / Tiger	5	Even	Snake: Choose any species of Snake.
- 10 -	Weasel / Ferret / Mink / Otter / Stoat	5	Odd	Dragon or Naga - see notes.
- 11 -	Mole / Shrew	6	Even	Rabbit or Cat: Choose any breed of Rabbit or small Feline species.
- 12 -	Bat / Flying Fox / Colugo	6	Odd	Tiger or Leopard.
- 13 -	Tapir / Rhinoceros / Hippopotamus / Elephant			
- 14 -	Rat / Mouse / Squirrel / Flying Squirrel			
- 15 -	Jackal / Hyena / Cape Town Dog			
- 16 -	Toad / Frog / Salamander			
- 17 -	Cat (Domestic or Small Wild) / Bobcat / Lynx			
- 18 -	Deer / Moose / Reindeer / Antelope			
- 19 -	Sloth / Anteater / Armadillo / Pangolin			
- 20 -	Badger / Wolverine / Skunk / Capybara / Beaver			
- 21 -	Small or Domesticated Bird			
- 22 -	Hare / Rabbit / Pika			
- 23 -	Porcupine / Hedgehogs / Echidnas			
- 24 -	Opossum / Possum / Glider / Raccoon / Ringtail Lemur			

SOL Overview:

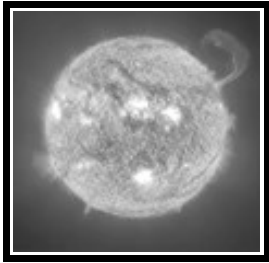
The Sol star system consists of the star Sol and the astronomical objects gravitationally bound in orbit around it, all of which formed from the collapse of a giant molecular cloud approximately 4.6 billion years ago. The vast majority of the system's mass (well over 99%) is in the G2V class star "Sol" itself, at the center of the Sol System. Of the many objects that orbit around Sol, most of the mass is contained within nine relatively solitary planets whose orbits are almost circular and lie within a nearly flat disc of the ecliptic plane.

Since the earliest time that its inhabitants have been aware of it, the Sol system has been broken down into several "zones" based upon varying systems of classifications. The most current system of division in use is based upon the level of habitation and exploitation in both current and proposed forms.



Inner Zone:

The "Inner Zone" is composed of the system's star Sol, and its two innermost planets Mercury and Venus. Both planets have extreme conditions that make them very unsuitable for colonization by Anthrokind, and there are no known large or small scale plans for exploration in the near future. About the only bit of civilization that could be found in this zone would be the few automated remote monitoring stations that serve as scientific platforms directed at the parent star for research and as early warning systems for any solar flare activity.



Inhabited Zone:

This zone represents the current extent of space exploration, habitation, and expansion for Anthrokind; composed of both the "Earf Sphere" and Sol-L2, which will be described in more detail in their own dedicated sections.

Even though Mars is included in this zone, there are no future plans for colonization due to the current conditions of this planet. Even though it is theoretically possible to "terraform" Mars to better suit the purposes of colonization, many have speculated that early on in the move to expand out further into the Sol system that the expense of colonizing in a gravity well was already complicated enough without considering the environmental engineering that would be required. Though a more cynical opinion, and perhaps a little closer to the truth, is that those in power may have saw it being easier to exert control over a large number of nearby artificial colonies than a much more distant planet.



Resource Zone:

Past the planet Mars is the domain of the Harvester Fleets, and other smaller scale mining operations. From the methane deposits of Saturn's moon Titan, to the rich clouds and moons of Jupiter, to the rocky ring of the Asteroid belts; a near constant river of processed materials flows to the Earf Sphere to feed its ever demanding hunger for resources. Few, if any, colonies exist this far out into space; as per its charter the Harvester Fleets are allowed to manage its own administration and facilities in exchange for its neutrality, and few have ever questioned this. As a result, little information is available about life this far from Sol.



Outer Zone:

The rest of the Sol system has remained mostly unexplored, with very few venturing much further than Saturn due to the extreme distances and great risks involved. Very little is known about what is out there, or if there is anything to be discovered or explored.

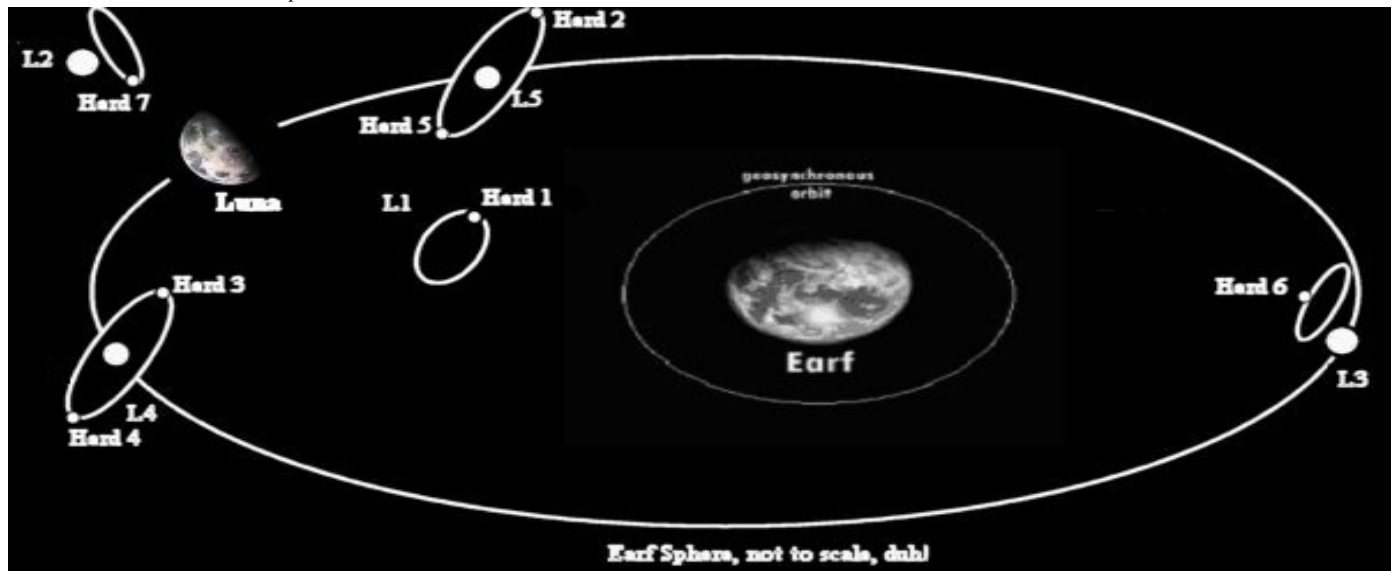


Historical Time Line:

"It all began with a golden age.... and ended in a great tragedy..."

0000 GA (2071 AD) through 0010 GA (2081 AD)

- Due to the growing population of Earf now reaching over 14 billion and the many weakening governments struggling to manage them, the governments of the world came together to form a new global governing and military body to be known as the Organization of the Nations of Earf; or otherwise known as ONE for short. Its founding charter outlining its new role in maintaining the new world order and peace, and guiding Anthrokind towards a greater future.
As a result of the seemingly impossible level of diplomacy and cooperation, a new feeling of great optimism washed over the world. This new zeal that would later be seen as the hallmark of this new age was so great, that a new "Golden Age" calender system was inaugurated to distinguish this new period from the rest of prior history.
With the new resources at its disposal as a new centralized governing body, ONE begins a global push to motivate the population of Earf to strive for the new goals of the age, to advance the ever expanding body of knowledge and science, and to explore all new possibilities that were now available.
As part of this new age, ONE sets out on an ambitious program to promote a new wave of immigration into space; with numerous incentives being offered for the brave souls that choose to leave Earf, including the purchase of property and land left behind by local authorities or ONE.
- The Colony Administration and Construction Authority is established to over see the future construction of orbital colonies in space. Seven separate corporations are chartered under CACA to build the colonies around the Lagrange points of the Earf sphere:
Pharos (Herd 1), Bodrum (Herd 2), Rhodes (Herd 3), Giza (Herd 4), Media (Herd 5), Ephesus (Herd 6), and Phidias (Herd 7).
- The first commercially available fusion reactors start to come on line, ending much of the planet's dependence upon fossil fuels.
- New forms of "nanomaterials" create many new types of both construction and production for every day use.
- The introduction of a limited form of artificial intelligence control systems are created, leading to a new generation of machines that become a force multiplier for construction, manufacturing, and even warfare.
- First armed battle ship of the ONE Space Fleet is commissioned, the OS Sol.
- To meet the ever growing demand for resources and political pressures, ONE creates the independent Harvester fleets as a neutral body to provide the seemingly endless material demands of the Earf Sphere; as ships operating under its charter mine the asteroid belts and gas giants such as Jupiter for Helium-3. Its charter also declares the Sol L2 as its base of operations.



0055 GA (2124 AD)

- All colony construction comes to a slow grinding stop as the apparent demand for new habitats in space appears to have been met, the numbers of those who chose to immigrate to space were greatly lower than originally predicted. It is now estimated that of the current 24 billion in the Earf Sphere itself, only roughly half live in space. Despite the sheer scale of it all, ONE and CACA manage to keep things under a reasonable level of organization.
- Earf's population by all estimates is stable at around 14 billion, with the growth in population keeping pace with those immigrating from the planet for the last fifty years to the point both almost cancel each other out. This is worrisome to CACA, whose member corporations have invested heavily in to the construction of the orbital colonies and other newly created "orbital real estate" projects, and not seeing any returns as a result.
- Luna:** Five major cities, and several smaller cities with a combined of population around 600 million.
- L1:** Herd 1, with 100 open cylinder pairs. Population: over 1.4 billion.
- L2:** Herd 7, with 100 closed cylinder pairs. Population: over 1.4 billion.
- L3:** Herd 6, with 100 open cylinder pairs. Population: over 1.4 billion.
- L4:** Herds 3 and 4, each with 100 open cylinder pairs. Population: over 1.4 billion each.
- L5:** Herds 2 and 5, each with 100 open cylinder pairs. Population: over 1.4 billion each.
- Sol L2:** 1 "sun flower shield" with four closed type cylinder pairs. Population: 10 million.

0057 GA (2126 AD)

- The discovery of comet 57 M2, later to be known as “the Harbinger Comet,” by Dr. Drakein is the first signal of the end of this golden age. Shortly after its discovery it is realized that the previously unknown comet is on an impact orbit with Earf, and is a prime candidate for causing an Extinction Level Event. Almost immediately ONE begins preparations to deal with the new threat, mobilizing every ship in its growing fleet as every possible option available is considered. The optimism that was the hallmark of the golden age slowly erodes into fear and panic as all resources that were originally devoted to spreading life out to the stars is now brought to defend it against the approaching comet.

0058 GA (2127 AD)

- The first attempt is made to stop the comet as the gathered fleet of the ONE space forces converge upon the Harbinger before it enters the asteroid belt. Several nuclear weapons are used against it, becoming the largest use of nuclear arms in Earf's history, with little or no difference being made. Initial intelligence gathered prior to the attack was proven wrong as the comet's composition is shown to be much denser than pure dust and ice, as with more traditional comets. The ONESF fleet hurries home after the failed attack to set up the new line of defense against the Harbinger comet.

0059 GA (2128 AD)

- Prior to its approach into the Earf Sphere, the ONESF launches yet another attack upon the Harbinger comet, using a much greater amount of force against it than before, including the use of a hastily constructed massive solar mirror array. The second attack at first appears to have been effective, but hope turned to fear once more as the comet's core breaks down into a series of smaller masses still being drawn in by the gravity of Earf. Some of the new core fragments are vaporized or pushed away while still in space, but the last seven remnants of the Harbinger comet continue on to impact with the surface of Earf. The resulting devastation is wide spread, the impacting remnants hit with the power of several millions of megatons, totally altering the landscape and atmosphere of the planet.
- The first effects of the impact are the numerous tsunamis that are caused by two of the comet cores crashing into Earf's ice caps, instantly vaporizing the large ice masses, causing the sea levels to rise over 60 meters, and reaching deep inland. These impacts would later fuel the year long “Age of Storms,” which created several hyper-canes that buffeted all of the continents. The other five comet cores struck in North America, South America, Africa, and the Middle East, throwing millions of tons of debris into the atmosphere bringing about a nuclear winter, not to mention the destruction of several countries.
- Over the following year, it is estimated that 7 billion have perished in the impact and the following cataclysmic events. The scattered remnants of the ONE forces struggle to reestablish order and lines of infrastructure to reunite any survivors. It is decided that it would be best to move as many as possible into space so as to allow the Earf to heal itself, and limiting the Earf population to just 4 billion. ONE officially declares the end of the GA calender, with 0061 GA (2132 AD) becoming 0000 AT of the new “After Tragedy” calender system.
- At first, the forced migration is slow because of the lingering confusion, then each nation forms its own lottery to determine who will be forced to relocate. Some claim that a “brain drain” is occurring since many of the early waves of migration were mostly made up of educated and skilled individuals, leaving behind the poor and illiterate to seemingly die on Earf. In nearly all of the less developed countries, riots rage on while different factions fought for either the right to leave Earf, or against the forced exodus. Eventually order was established through military intervention by ONE forces, and the forced migration into space was begrudgingly accepted as reality. Meanwhile colony construction takes on a whole new fevered pitch as many new colonies are almost quite literally “built over night.” At the same time, new population controls are enforced to keep what limited colony space available as colony construction is resumed in earnest.



Sources: <http://www.johnstonsarchive.net/environment/waterworld.html>
<http://www.johnstonsarchive.net/spaceart/cylmaps.html>

0075 AT (2207 AD)

- Despite strict population controls, the population of the Earf Sphere explodes to 25 billion. Colony construction still continues on strong as space becomes a premium, and CACA tries to stay a head of the population growth trends. Managing it all becomes next to impossible as many citizens move from one colony to another for little to no reason. Conditions in some colonies worsen as several become more disproportionately crowded than others as the dynamic population shifts occur at random. Eventually things settle down as more space is made available over time.
- Earf's population by all estimates is stable at around 4 billion, numbers are kept in strict check with frequent “forced re-locations” for families that grow too large outside of given quotas, with politics sometimes playing a role as well for certain individuals.
- **Luna:** Eight major cities, and several smaller cities with a combined of population over 1.2 billion.
- **L1:** Herd 1, with 200 open cylinder pairs. Population: estimated 3 billion.
- **L2:** Herd 7, with 200 closed cylinder pairs. Population: estimated 3 billion.
- **L3:** Herd 6, with 200 open cylinder pairs. Population: estimated 3 billion.
- **L4:** Herds 3 and 4, each with 200 open cylinder pairs. Population: estimated 3 billion each.
- **L5:** Herds 2 and 5, each with 200 open cylinder pairs. Population: estimated 3 billion each.
- **Sol L2:** 2 “sun flower shield” with four closed type cylinder pairs. Population: estimated 18-24 million.

02 - 17 - 0095 AT (2227 AD)

- In a seemingly unimportant event, a Daniel Abraham Angelus arrives at Herd 7 from a transfer shuttle. Almost immediately as he steps off of the shuttle, he begins to preach his unique spiritual philosophy, which he refers to as “Angelism.” And more importantly on his political theories of self rule for of all the space and lunar colonies from Earf. At first few would listen, but over time his teachings would garner more attention and become wider spread.

02 - 05 - 0107 AT (2239 AD)

- In a surprise announcement, the entire Herd 7 colony group declares its independence from ONE, CACA, and all other Earf based authorities, and seeks to be recognized as its own sovereign nation under the name of the “Cosmic Heavens,” and the leadership of Daniel Abraham Angelus.
- ONE is immediately taken back by the declaration as it is the first threat to its rule in over one hundred years, and attempts to enforce economic sanctions upon the former Herd 7 colony group. But these are soon proven ineffective due to the Harvester Fleets maintaining its stated neutrality by continuing to supply the new nation state with the resources that it needs, as it does with the rest of the Earf Sphere. As well as CACA, who fears that any resulting military action might endanger their investments in the wayward colonies, tries to broker some form of agreement between all parties involved to little or no avail.
At the same time out of fear, the other colony herd groups all declare their own level of neutrality in the matter, deciding that it was best to not appear to be against either the newly founded Cosmic Heavens or ONE for their own level of security. None are as loud or as vocal as the Herd 6 group in declaring its own neutrality, in of which its representatives respectfully asks for the removal of all ONE and Cosmic Heavens military forces from its colonies and surrounding orbital zones.
- Over time, it became apparent that the politicians were determined to prevent any open hostilities or military action that more than likely would only worsen the situation from happening, a “cold war” began to take shape between ONE and the Cosmic Heavens. A policy of containment against the new nation state and a large scale display of force was enacted by ONE, as it began a new armament program for its entire space based fleets. As well as the creation of several new asteroid bases, such as Mons Calpe and Mons Abila, around the other LaGrange points to lessen their presence in the orbital colonies that were still considered “friendly.”

0109 AT (2241 AD)

- Professor Miguel Babel announces the discovery of the “Babel particle” while experimenting with his own theories of nuclear physics, potentially ushering in a whole new generation of physics. Despite the discovery, his theories are not widely accepted, hampering his progress to fully study the new phenomenon related to this new field of physics. He is soon later personally invited by Daniel Angelus to immigrate to the Cosmic Heavens with an offer of full funding for his research. While there, Miguel Babel establishes the Babel Physics Society to bring together other like minded scientists to further the new field of science.

0115 AT (2247 AD)

- Daniel Abraham Angelus dies under suspicious circumstances. On his death bed, he declares Habakkuk Iscariot as the new Lord Dominion of Cosmic Heavens. Following the ascension to the position of Lord Dominion, a series of purges and public trials are enacted to remove Angelus' closest followers through out the entire colony group. Friends and family of the former leader suffered greatly, many facing public humiliation, angry mobs, and even execution. Those that could tried to escape via any means available, though none were successful in escaping with their lives, including his own children.

0116 AT (2248 AD)

- The Emphyrean and Shehaqim Corporations are founded by the Cosmic Heavens to develop new weapons in conjunction with its own research groups. The Cosmic Heavens begin experimenting with the use of Babel particles for military uses, resulting in the creation of scattering systems and the powerful Lucifer particle cannons.
- First ships of the Kismet (training / combat) class are commissioned by Cosmic Heavens.
- The ONESF commissions the Thermopylae and Grose Bochse classes of ships to replace the Bastion and Gagarin class space vessels that were already in service.

0118 AT (2250 AD)

- The Cosmic Heavens begins construction of the Cairn mobile base in the asteroid belt in conjunction with the Harvester Fleets.
- Due to growing fears of his research being used for unethical purposes, professor Miguel Babel defects from the Cosmic Heavens with help from inside sources and ONE agents. Once with in ONE territory, almost immediately he helps ONE start their own research programs to close the technology gap between the two powers, including some new concepts that he was developing secretly while with the Cosmic Heavens. New weapons are upgraded to all ships in earnest as a new rearmament program begins.

01 - 23 - 0119 AT (2251 AD)

- The Shehaqim Corporation reveals the first avatar prototype model created for production, the A-1 Lepus, to the public and goes into mass production. In secret, the Pluto and Neptune class ships and Vulpecula class of avatars are quietly commissioned into service.
As more avatars become available, the first training battalions are formed and sent on missions accompanying the Harvester Fleets friendly to the Cosmos Heavens so as to develop new tactics and skills far away from the view of ONE.

0121 AT (2253 AD)

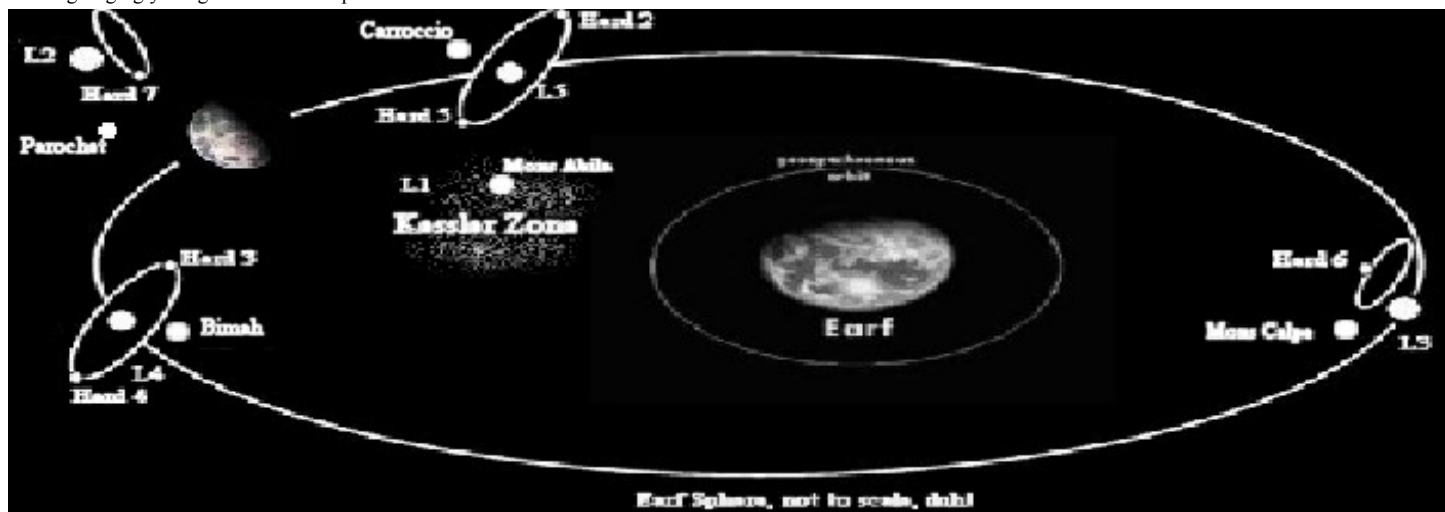
- Out of partial concern about the future and practical use of Avatars, ONE begins its own development program with the “Sisyphus Project” late in the year. Minor gains are made through several crash programs, assisted with early espionage efforts to acquire information from the Cosmic Heavens’ very own development programs.
- The Shehaqim Corporation’s Lupus program is started to produce a new main combat unit after beating out the rival Emphyrean Corporation’s Lynx in a design competition.

0124 AT (2256 AD)

- By all appearances, Earf’s population has remained stable at around 4 billion, thanks to the strict regulations and laws in place.
- **Luna:** Eleven major cities, and several smaller cities with a combined of population around 2 billion.
- **L1:** Herd 1, with 250 open cylinder pairs. Population: 3 billion.
- **L2:** Herd 7, with 300 closed cylinder pairs. Population: 5 billion.
- **L3:** Herd 6, with 300 open cylinder pairs. Population: 4 billion.
- **L4:** Herds 3 and 4, each with 300 open cylinder pairs. Population: 4.25 billion each.
- **L5:** Herds 2 and 5, each with 300 open cylinder pairs. Population: 4.25 billion each.
- **Sol L2:** 4 “sun flower shield” with four closed type cylinder pairs. Population: estimated 60 million.

02 - 15 - 0125 AT (2257 AD)

- At 12:00pm UTC on 02-15-0125, the Cosmic Heavens transmitted a declaration of war on all public ONE frequencies. The message was a video recording made by Dominion Lord Habakkuk Iscariot stating the declaration and a short explanation all totaling 45 seconds in length. The message was repeated during the following five minutes. Before the end of the seventh repeat of the message, the first nuclear missiles had just hit their targets among the Herd groups at L5. Then the chaos began.
- ONE attempted to put up a line of defense, but unfortunately the element of surprise was greatly utilized by the Cosmic Heavens as they set about to indiscriminately use nuclear and chemical weapons upon the colonies. The high concentration of babel particles made communications difficult as all available forces were mustered, and rescue operations began. In the chaos, the normal chain of command failed as several ship commanders took it upon themselves to not only defend the colonies, but try to take the fight back to the Cosmic Heavens.
- The fleets at L1 and L4 were launched to meet the attacking Cosmic Heaven fleets at L5, but were again caught by surprise when 48 hours later another surprise attack was launched on the lightly defended colony herds at L4. The herd 3 colony group immediately surrendered without a shot being fired, while the forces in the herd 4 group attempted to make a stand and suffered high losses.
- Less than a week after the first attacks, a third wave is sent against the main body of the ONE space fleets at the Pharos colony herd at L1, resulting in the complete destruction of all of the colony deuces. Not only are the same atrocities repeated with the blatant use of nuclear and chemical weapons, but the new Avatar machines were put to their full use, and showed their full potential as several ace pilots make their names and reputations in the field of combat. In addition, several operations were attempted to engineer the forced deorbit of a colony deuce so as cause it to be dropped upon Earf. Three attempts were made with the colony deuces Madrid, Luxembourg, and London. The first two operations were thwarted when the fleets involved were intercepted by coordinated ONE forces. But it was during the third operation, the “battle of London,” that a colony drop was successful when the remains of the colony deuce impacted into the Southern African continent, even though it missed its original target of the ONE headquarters in the northern region. It was also during this operation that the Cosmic Heavens captured admiral Reisman and his flagship “Devon.” Heavily losses were sustained by both sides as hostilities eventually grind to a halt over the following two weeks of sporadic fighting with little changed in the status or shape of the battle lines.
- The fighting comes to a temporary stop as negotiations slowly open up to full talks, representatives of ONE and the Cosmic Heavens attempt to bring about some form of “peace” after the unimaginable scale of destruction that was been wrought upon the Earf Sphere. The process goes back and forth as the situation is weighed by both sides. The Cosmic Heavens refusal to release its captured territories at L4, move either of its two asteroid bases at L4 or L5, or to pay for damages it had inflicted during combat, claiming it was justified in its actions. While ONE fought with itself and its member nations, many factions broke out either wanting “peace at any cost” or “to completely punish the Cosmic Heavens for its crimes against Anthrokind.” The ONE representatives were close to surrendering and finally recognizing the Cosmic Heavens as a sovereign nation when the negotiations were interrupted by the recently escaped admiral Reisman, where he gave his “They are exhausted” speech to the shocked representatives. The negotiations quickly collapsed as it became very clear that no more bargaining was possible since neither side had a position of strength over the other. A few agreements were finally formalized in the “Treaty of Olives” on the prohibition of the use of unconventional weapons (nuclear, chemical, biological, and colony drops), the treatment of prisoners of war and civilians, and the recognized neutrality of Luna, the Harvester Fleets, and the Ephesus colony group (Herd 6). While the discussions came to a close and the representatives all went home, an atmosphere of mixed hopes that the “cold war” that had existed between ONE and the Cosmic Heavens before the war would become the status quo once more begrudgingly hung over the Earf Sphere.

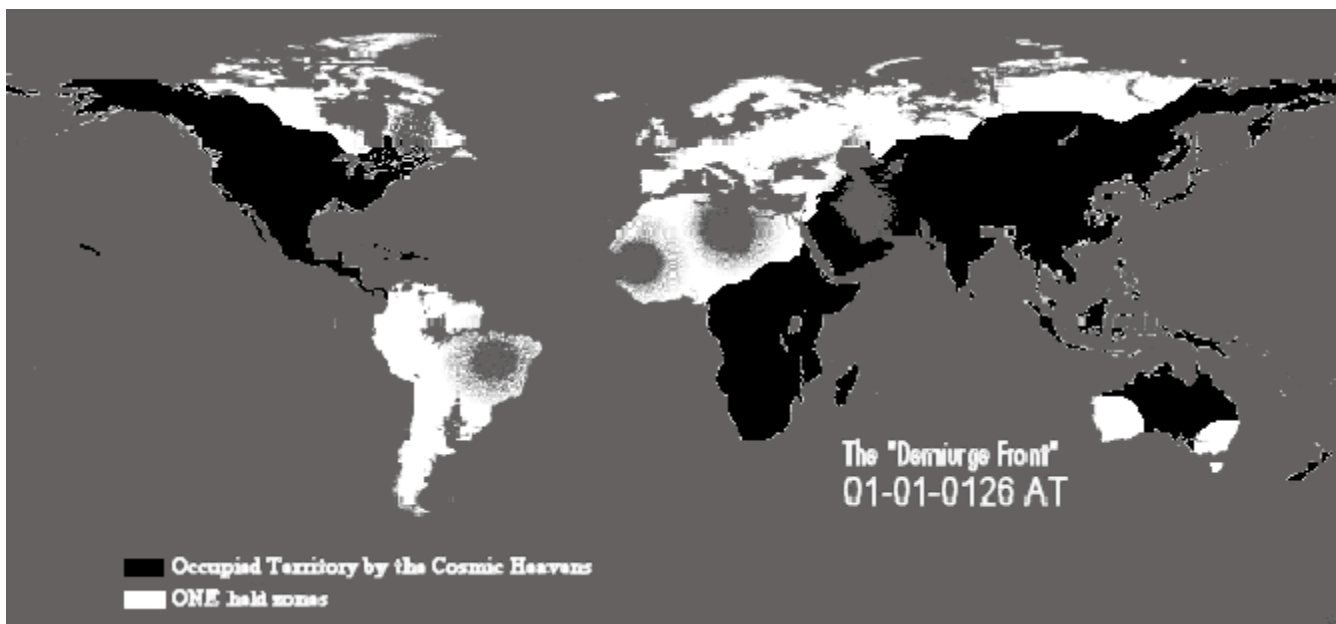


04 - 0125 AT (2257 AD)

- Apparently undeterred by the massive loss of life in the “30 days of Hell,” the Cosmic Heavens quietly begin to reorganize its forces for what it refers to as the “Demiurge Front” offensive, the planned invasion of Earf itself. Each division is named after one of the four classical elements, and is given a specific function/role in the invasion.
 - **Air:** Main command over all other branches of the Cosmic Heavens military; main function is to direct all combat forces and transportation support in space through out the Earf sphere.
 - **Earf:** Main command over all surface combat and associated support networks for the “Demiurge Front” on Earf. Second in command to Air. Also responsible for the collection and transportation of captured resources back to the homeland.
 - **Water:** Naval combat branch for the “Demiurge Front,” answerable to Earf in the chain of command. Tasked with securing all aquatic regions and networks to prevent any groups or agencies from reestablishing themselves into an effective counter force to the occupation operation.
 - **Fire:** Separate from the other three branches of the military hierarchy, with only some limited authority over the other branches, all the while still answerable to Air. In charge of all unconventional or asymmetric warfare, intelligence gathering, and experimental weapons through out all war zones. Also oversees all resource gathering from the captured zones, and their transport to the home land in cooperation with Air and Earth.
- The Rapture Foundation is established as a public face for a secret project to investigate the “awakened mind” phenomena.
- Despite the accepted “peace,” many officials in ONE hurriedly places more emphasis on its Sisyphus Project, giving the very underfunded program more resources and a much higher priority to develop any kind of new weapon(s) that might give ONE an advantage against the Cosmic Heavens in case hostilities erupt again. The Noah project is one of many given greater priority as it is one of the few early programs to show any initial promise.

10 - 15 - 0125 AT (2257 AD)

- Exactly eight months to the start that the “30 days of Hell,” the Cosmic Heavens commences a new series of offensive operations under the banner of the “Demiurge Front” as its forces invade the planet Earf.
 - The first attack involved landing of forces to secure the ONE space ports at Baikonur, and then to spread out west and south to capture large swaths of territories throughout Europe and the Middle East as more units are brought in.
 - The second attack came in the form of several landings along along the west coast of North America to capture the military assets, and then the food production centers located in the Midwestern areas.
 - The third wave is composed of three separate landings of naval units in the Atlantic, Pacific, and Indian oceans near the established Cosmic Heavens zones to disrupt all traffic and to systematically eliminate all ONE naval forces.
 - The fourth and final wave brought in larger mobile assets such as the construction machinery and mobile bases to begin the plundering of the Earf's resources in the captured zones.
- All was going according to plan; the majority of the land forces were able to steamroll over any resistance they encountered. But despite the large amounts of naval forces that were brought in from orbit, losses began to increase suddenly when unknown resistance forces started to become active through out the aquatic territories, which gave the ONE forces more time to regroup and rebuild in the non-occupied zones.
- After several weeks, the expansion of captured territories slows down to a crawl as the Cosmic Heavens strengthen their hold on what assets they have already secured. What remnants of the ONE forces that were still operational are isolated in various pockets scattered across the European, South American, and Northern African sectors.



General Technologies Overview:

Average Tech Levels: *Between 6 to 7 in most areas.*

Medicine:

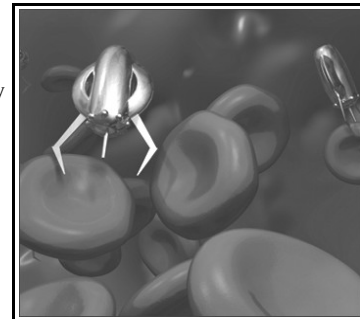
"Meat cloning, simple nanotechnology."

Medicine has come a long way over the last two hundred years. The majority of all known diseases have been cured, or at least has some form of treatment available for it.

Most organs can be cloned with in 12 to 36 hours by using a 3D printer to aligned artificially cloned stem cells, supported by scaffolding made from nanomaterials into the right shape and then allowed to grow together. Entire limbs can be also grown, but must be done in stages over several days, making the process very rare and expensive. The brain still posses a challenge, and can only be repaired through surgery.

Cybernetic parts are available, artificial limb and organ replacements are at least equal to their organic counterparts at lower costs compared to cloned organs. Direct neural interfaces are still a far ways in the future.

Simple nanotechnology is in regular use, most people have nanites in their body that monitor their life signs and biological processes which can then be read by an external scanner; such as in medical equipment or even by devices embedded in the person clothes. Some more advanced forms of nanites are available to help repair internal damage, but are very short lived and will have to be replaced regularly till healing is complete.



Computers:

"Strong AI, non-sentient, idiot-savant systems."

Computers are every where! Nearly every personal item has some form of electronics built in to it, including clothing.

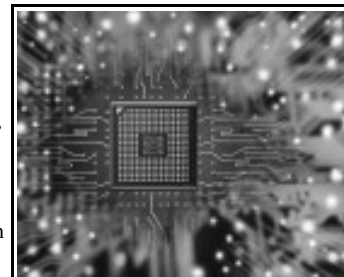
Most people wear a wristwatch like device that has the same functionality as a modern smart phone, it allows one to make phone calls, access the internet, home or office computer, act as a GPS or digital map, access the sensors in clothing or body to monitor your health, debit card, etc. Everything from a person's home, car, office, and even personal devices are networked together.

Though despite being extremely advanced, using room temperature superconductors, conductive plastics, and holographic recording media, no computer system has shown any signs of "true" sentience so far. The age old dream of creating a "thinking machine" has yet to be achieved, but has come pretty close.

Most manufacturing and construction machines are automated enough that they can function for long periods of time without being supervised. But they can only function with in a certain set of perimeters and conditions. If presented with a new situation, most will either go into stand by mode to wait for an operator to make a decision, or in some cases make a choice on its own if it has more than enough information to meet certain guide lines.

With current levels of automation, most ships can be maintained and operated with much smaller crews. Factories can build almost anything if given the blue prints and materials. With the on going war, a space battle ship can be built with in one to two weeks, or repaired in a matter of hours depending on severity of the damage.

Most of the combat vehicles in the ONE arsenal, in particular aircraft, are AI controlled drones. The drones function in highly networked "hunting packs," capable of directing each other in delivering their payloads, protecting each other by neutralizing threats or even acting as decoys to protect the "pack." Even the larger combat ships function in much the same way, but with the advent of the use of Babel particles on the battlefield, this has caused a major rethinking in the centuries old practices of the ONE armed forces.



Power Sources:

"Nuclear fusion, solar, electric-powered vehicles, etc."

Most electrical needs are met with solar, fusion, wind, geo-thermal, water, neo-lithium batteries, or fuel cells. Some fossil fuel burning engines are still around, though mostly in the use of heavy machinery or vehicles, or antiques owned by collectors. Most cars are electrical, powered by battery or by metal rails built into most roads.

Fusion power plants are often used in large ships, or in stationary power stations. Normally fueled by regular hydrogen or H-3 mined from space, fusion power plants have developed a rather long track record of safety. In most cases fusion reactors will simply vent out their plasma through specially designed ducts and shut down if there is a problem. Otherwise, if heavily damaged by weapon fire or sabotage, they can go critical and explode.

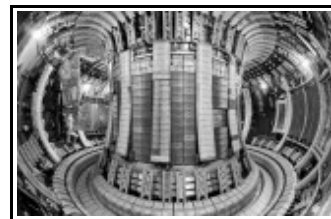
Gaming Notes:

Most fusion power plants will be considered "Hot," except for stationary power stations which are "cool" due to the extra shielding and redundant systems. The only vessels that will have a "cool" fusion power plant are character ships to keep key characters or players from blowing themselves up.

Most civilian vehicles will be electrically powered, while a large portion of large military vehicles will run on internal combustion power plants. Though this ratio completely changes in the orbital and lunar colonies, where all vehicles are electrically powered.

There will be some occasions where different type of power plants might be encountered; such as combustion, power cell, tethered or even back up power plants. Where these occur will have some notes to explain the effect created by such systems, or you can find more general rules spelled out at the link below.

(source link: <http://www.mektonzeta.com/archive/advpowerplants.php>)



Material Technologies:

There are several different forms of alloys, plastics, and ceramics in every day use, much of which is possible due to the mining of the asteroid fields and Luna. And it is not uncommon for many manufactured goods to be composed of interwoven layers of carbon nanotubes for extra strength.

Personal Equipment:

For the sake of saving space, almost any of the equipment provided in any of the other Mekton related books or sources should be permitted, except those of a much higher tech level than what is used in this game, such as anything based on "anti-gravity," energy shields, or what not. It should be fairly obvious what is permitted.

Factions:

ONE, Organization of the Nations of Earf, One Nation Earf



Revelation 13: 1- 2

Then I stood on the sand of the sea. And I saw a a beast rising up out of the sea, having seven heads and ten horns, and on his horns ten crowns, and on his heads a blasphemous name. Now the beast which I saw was like a leopard, his feet were like the feet of a bear, and his mouth like the mouth of a lion. The dragon gave him his power, his throne, and great authority.

During the 2070s of the original Anno Domini calender, it was realized by the larger national powers of the world that a more centralized form of government body was needed to better maintain the peaceful balance of international relations and trade due to a constantly changing environment of new technologies, fading boundary lines, uncertain climate changes, and an ever increasing global population. Unlike its predecessors such as the League of Nations and the United Nations, the Organized Nations of Earf, otherwise known as ONE, quickly evolved to meet its stated aims to facilitating cooperation in international law, international security, economic development, social progress, universal rights, and achievement of world peace by providing a much stronger platform for international dialogue and cooperation with many more mechanisms to enact and enforce its policies.

Over time, its powers and authority have caused many boundary lines between nations to blur ever further as it took over more control of its own member nations.

Some have come to view ONE as becoming an obstacle to not only itself, but to all of Anthrokind. Instead of promoting growth and prosperity, it has become an enforcer of the status quo and close minded thinking. Its citizens becoming more than merely comfortable in their situations where they have little control or say, while their leaders enjoy their own niches of power while further securing their own positions for themselves. Advancement in technology has slowed to a crawl as it has become more difficult to apply new knowledge and inventions to existing situations; businesses are kept imprisoned under layers of oppressive regulations and taxation; the ability of the citizen to bring about change on their own has been strictly limited by endless rows of bureaucratic barriers and red tape.

ONE's five primary organs are:

- **ONE RULE**, or the Representative Union of Legislative Executives.
- **ONE ACTION / PEACE**, or Assess and Confirm all Threats to International Operations and Nations, with its military branches under the Protect, Enforce, and Aid all Citizens of Earf .
- **ONE POINT**, or the Promotion of Opportunity In all Nations and Territories.
- **ONE LAW**, or the Legal Advisory of the World.
- **ONE HEAD**, or the "Highest standards of Efficiency, Ability, and Devotion to duty."

Other prominent ONE system agencies also include:

- **ONE COST**, or the Committee of Over Sight and public Trust.
- **ONE HOPE**, or the Health Organization for Prevention and Epidemiology.
- **ONE CEF**, or the Children Emergency Fund.
- **ONE IFP**, or the International Food Program.
- **ONE AEAE**, or the Atomic Energy Agency of Earf.
- **ONE ESCO**, or the Educational, Scientific and Cultural Organization.
- **ONE AFO**, or the Agriculture and Food Organization.
- **ONE HARM**, or the High Advocate for Refugees and Migrations.
- **ONE CACA**, or the Colony Administration and Construction Authority.

ONE RULE:

RULE, or the general assembly, makes up the main body of ONE, and is the only body in which all member nations have equal representation. Its powers are to oversee the budget of ONE, appoint the non-permanent members to ACTION, receive reports from other parts of ONE and make recommendations in the form of resolutions. It has also established a wide number of subsidiary organs.

The general assembly meets under its own president, or with the Secretary-General, in regular yearly sessions the main part of which lasts from September to December and resumed part from January until all issues are addressed. It can also reconvene for special and emergency special sessions. Its composition, functions, powers, voting, and procedures are set out in Chapter IV of the ONE Charter.

Voting in the RULE on important questions – recommendations on peace and security; election of members to organs; admission, suspension, and expulsion of members; budgetary matters – is by a two-thirds majority of those present and voting. Other questions are decided by majority vote. Each member country has one vote. Apart from approval of budgetary matters, including adoption of a scale of assessment, RULE resolutions are binding on the members. The Assembly may make recommendations on any matters within the scope of ONE, except matters of peace and security under ACTION consideration. The one state, one vote power structure theoretically allows states comprising just eight percent of the world population to pass a resolution by a two-thirds vote.

ONE POINT:

POINT serves as the central forum for discussing international economic and social issues, and for formulating policy recommendations addressed to Member States and the ONE system. It is responsible for the coordination of the economic, social and related work of 17 ONE specialized agencies, its functional commissions and five regional commissions. POINT has 68 members and holds one substantive session each year, in July, for a duration of four weeks. It has also held a meeting each April with finance ministers heading key committees of the World Bank, Lunar Bank, and the Earf Sphere Monetary Fund.

ONE LAW:

LAW, or often referred to as the World Court, is the primary judicial organ of ONE. Its main functions are to settle legal disputes submitted to it by states and to provide advisory opinions on legal questions submitted to it by duly authorized international organs, agencies, and ONE RULE.

ONE HEAD:

ONE's most visible public figure is the Secretary-General, and they are assisted by a staff of international civil servants and agencies worldwide known as HEAD. It provides studies, information, and facilities needed by ONE bodies for their meetings. It also carries out tasks as directed by ACTION, RULE, POINT, and other ONE bodies. This agency receives its name from the ONE Charter that states that its staff must be chosen by "the application of the highest standards of efficiency, ability, and devotion to duty," with due regard for the importance of recruiting on a wide geographical basis. The Charter provides that the staff shall not seek or receive instructions from any authority other than ONE. Each ONE member country is enjoined to respect the international character of HEAD and not seek to influence its staff. The Secretary-General alone is responsible for its staff selection.

The Secretary-General's duties include helping resolve international disputes, administering peacekeeping operations, organizing international conferences, gathering information on the implementation of ACTION decisions, and consulting with member governments regarding various initiatives. Key HEAD offices in this area include the Office of the Coordinator of Anthrokind Affairs and PEACE. The Secretary-General may bring to the attention of ACTION any matter that, in his or her opinion, may threaten international peace and security.

ONE ACTION:

ACTION is charged with the maintenance of international peace and security. Its powers, outlined in the ONE Charter, include the establishment of peacekeeping operations, the establishment of international sanctions, and the authorization of military action. Its powers are exercised through ONE ACTION resolutions.

There are 17 members of ACTION, consisting of seven veto-wielding permanent members (China, France, Germany, Australia, the Russian Federation, the United Kingdom, and the United States) and 10 elected non-permanent members with two-year terms selected by RULE. This basic structure is set out in Chapter V of the ONE Charter. ACTION members must always be able to meet at any given moment, via in person or through long distance communications, to be able to respond to any situation quickly which was a weakness of the League of Nations since that organization was often unable to respond quickly to a crisis.

Under Chapter Six of the ONE Charter, ACTION "may investigate any dispute, or any situation which might lead to international friction or give rise to a dispute". ACTION may "recommend appropriate procedures or methods of adjustment" if it determines that the situation might endanger international peace and security. These recommendations are not binding on ONE members.

Under Chapter Seven, ACTION has broader power to decide what measures are to be taken in situations involving "threats to the peace, breaches of the peace, or acts of aggression". In such situations, ACTION is not limited to recommendations but may take action, including the use of armed force "to maintain or restore international peace and security". Decisions taken under Chapter Seven, such as economic sanctions, are binding on ONE members.

The list of powers and functions that ACTION has are:

- Investigate any situation threatening international peace.
- Recommend procedures for peaceful resolution of a dispute.
- Call upon other member nations to completely or partially interrupt economic relations as well as sea, air, postal, and radio communications, or to sever diplomatic relations.
- Enforce its decisions militarily, or by any means necessary.
- Avoid conflict and maintain focus on cooperation.
- Authority to refer cases to LAW, where the world court could not otherwise exercise jurisdiction.
- Responsibility to protect populations from genocide, war crimes, ethnic cleansing and crimes against Anthrokind, especially during peacekeeping operations.
- It can also recommend the new Secretary-General to the General Assembly.

ONE PEACE:

The ONE PEACE is the main body of the armed forces under ONE control. All member nations are expected to provide a specified quota of personnel, materials, machines, and weapons at any given time to full fill any given operation or resolution that the ONE ACTION passes. Over time, many nations slowly stopped maintaining their own separate forces and simply merged their military branches completely with ONE PEACE. The last nation with forces of its own was the United States before it too eventually merged its forces with ONE PEACE. Despite that various uniforms used by ONE PEACE forces in diverse environments, they are always recognized as such by their purple sashes, emblems, helmets and berets. ONE PEACE is composed of all four military branches; Army, Navy, Orbit, and Space.

ONE Army:

The largest of the ONE armed forces, the modern army is composed of its land, and transport assets. In addition, the land forces have their own air wings of autonomous drones. Over the years the military technology in use in the ONE forces evolved to rely heavily on information control, and automation to the point that the original air forces were reduced to fleets of drones under control of either the Army or Navy, which maintains its own fleets as well. What is left of the former air force is the air transport wings that is under Army control and administration.

Despite the increased use of information technology and automation, the rest of the modern army resembles its ancestral roots; armored units are still operated by men and women, and the foot soldier is still the most flexible weapon in use. Even though ordinance and direct attacks can be directed remotely from a long distance with high precision, it is still the boots on the ground that has to enter the field to hold an objective or maintain the peace.

Typical organization structure for ONE Army:

Corps:

A Corps usually consists of two or more Divisions and is commanded by a Lieutenant General.

Division:

Each division is commanded by a Major General, and usually holds three Brigades including infantry, artillery, engineers and communications units in addition to logistics (supply and service) support to sustain independent action. The basic building block of all ground force combat formations is the infantry division. A typical division would hold three infantry brigades.

Brigade:

A Brigade is under the command of a Brigadier General or sometimes is commanded by a Colonel and comprises three or more Battalions of different units depending on its functionality. An independent brigade would be one that primarily consists of an artillery unit, an infantry unit, an armor unit and logistics to support its actions. Such a brigade is not part of any division and is under direct command of a corps.

Battalion:

Each battalion is commanded by a Colonel or sometimes by Lieutenant Colonel who commands roughly 600 to 750 soldiers. This number varies depending on the functionality of the regiment. A regiment comprises either three batteries or four companies - and other arms excluding armored units that are organized into squadrons each under the command of a major and comprising individual subunits called sections, which are further divisible into platoons and squads.

Military ranks is the same as for the United States Army for simplicity, and is not listed here to save space.

But for a quick link to help when needed: http://en.wikipedia.org/wiki/United_States_Army_officer_rank_insignia

http://en.wikipedia.org/wiki/United_States_Army_enlisted_rank_insignia



ONE Navy / ONEN:

Over the last two hundred years, the ONE Navy have evolved from its original roots to its current form, which can be summed up in the phrase: "One Fleet, One Mind." The current modern navy is based upon the concept of a network of smaller ships working together as one larger vessel. Each fleet is built around a command cruiser, or up to four command cruisers acting as one, which then controls the other cruisers or smaller classes of ships in their fleet as if they were simply an extension of the same ship. The networked fleet can sense all around it, and react to any threat detected as a singular force. This allows for a much more affordable and modular naval force without having to invest in oversized ships such as battleships that are now considered to be either relic dinosaurs or the prized personal toys of equally dinosaur admirals.

Typical arrangement would be composed of one command cruiser of the Axiom or August class, with two Armory, one to two Aviary, two to four Bulwark, and six or more Cutlass ships. Though this can be changed depending upon the mission or situation at hand. The only class of ship that does not participate in this cooperative action are submarines, troop carriers, and tender ships.

In addition to its fleet of ships, the Navy also maintains its own fleet of autonomous drones as its own air force like the Army.

Typical organization of the navy:

Task-force:

A task-force is a formation composed of several ships from different fleets and squadrons, assembled for a particular mission or function. The task force is then further divided into smaller squadrons under the command of their own admiral or commanding officer, depending upon circumstances. Each task-force is named after the operation they are a part of, or the name of its highest ranking officer in command.

Fleet:

A fleet is an administration level of organization, based upon what ocean or body of water the ship normally operates out of. Each fleet is named after where it is based at, and if more than one is active in the area, followed by a number.

Squadron:

Smallest group or unit that ships can be a part of, majority of the time all being of the same class or type, numbering in between two and six, with three being the most common. Squadrons are often named after a particular part of the operation it is involved in, numerical designation, or after its commanding officer.

Military ranks is the same as for the United States Navy for simplicity, and is not listed here to save space.

But for a quick link to help when needed: http://en.wikipedia.org/wiki/United_States_Navy_officer_rank_insignia
http://en.wikipedia.org/wiki/United_States_Navy_enlisted_rates

Gaming Notes:

All ships in the fleet smaller than a Axiom or Apex class have the Inter-Mecha linking system on their main weapons, giving any Axiom present control over them. The August cruiser class have the same ability, but are always subservient to any Axiom or Apex when a part of the same fleet. This arrangement leaves the individual ships to be on alert for the fleet's defense while the command vessels can coordinate the projection of its offensive strength. All ships must remain within 20 hexes of the command cruiser to function as part of the "fleet mind."

ONE Space Navy / ONESN:

The youngest of all the ONE military branches, the Space Navy was initially devoted to patrolling and being a first response mission to any emergency involving the orbital or lunar colonies; by being able to bring forth the necessary force to deal with any threat or carrying troops and personnel to the scene. Then slowly as the orbital populations grew, a line of distrust and resentment began to form between those administrations on Earf and the people living in space, the function of the space forces slowly changed to project an always present reminder to those living amongst the stars that their lives were controlled by those on the ground.

This was momentarily put to the side when the Harbinger Comet was discovered, and the ONE council discovered exactly how unprepared or unable it was to deal with the sudden threat to not only itself, but to the future of Anthrokind as well. The existing fleets lacked the abilities or the firepower needed; even when armed with nuclear weapons. After the Harbinger Impact, a new push was made to create a new generation of much more powerful "big gun" ships to deal with future threats, and slowly the projection of ONE's strength over the orbital colonies returned.

The ONESN is composed of twelve main fleets of ships, organized in the same manner as its aquatic cousins, each based at one of the Lagrange points except at L2 and L3 due to political disputes, which were then moved to the new asteroid bases set up near L4 and L5. Each fleet possesses its own small force of marines for boarding of other vessels or colonies. Though as the war progressed more and more troops from the ONE Army were brought in for occupying the colonies.

In addition, ONESN has administrative control over the ONE asteroid bases in the Earf Sphere.

Much like its ancestral roots, ONESN uses the same system of ranks as the ONEN.

Asteroid Base "Mons Abila":

Dimensions: 222 km × 182 km × 130 km

Mass: 1.47×10E+19 kg

In the early days of the first orbital construction projects, "Resource Unit 1" was brought to the L1 Lagrange point to serve as the source of building materials for the first orbital colony herd. Over time it had been nearly completely hollowed out by mining operations, and even before the Cosmic Heavens declaration of independence, it had been used as a naval base by the ONESN. In 107AT, the asteroid was the center of a major rearmament program to fortify it and others as a series of autonomous bases to support the overall enforcement of ONE's authority. Like its sister fortress, Mon Abila is armed with numerous turrets and missile silos, as well as a classified number of docking bays for battleships.

During the final offensive of the "30 days of Hell," the asteroid took heavy damage from the heavy nuclear bombardment which resulted in a large part of it fracturing away from the main body, though still remaining close together due to gravitational pull.

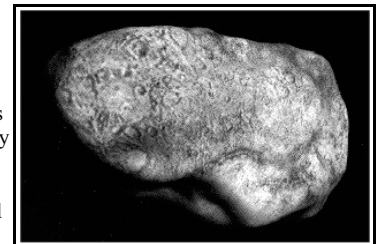
Asteroid Base "Mons Calpa":

Dimensions: 205 km × 185 km × 170 km

Mass: 1.28×10E+19 kg

Stationed at L3, after the first weeks of the war it became one of the very last secure footholds in space for ONE forces. Originally moved to the Lagrange point to serve as building material for the Herd 6 colony group as construction was first begun, it was pressed into service as a naval base after all ONESN ships were asked to leave as according to the terms of the statement of neutrality by the Herd 6 group in 107 AT.

The base has twelve "harbors" deep within its solid body, hollowed out from previous mining operations, each with enough docks for over one hundred ships in addition to several repair "dry docks." Meanwhile its surface is dotted with numerous turrets armed with everything from AA guns to Lucifer cannons, as well as countless silos for launching missiles.



ONE Space Watch – Oversight Reconnaissance & Deterrent / ONE - SWORD

In the early days of its formation, the ONE member nations were able to bring their governments, militaries and infrastructures together through the deployment of several sophisticated satellite systems to better observe, and communicate with each other. To maintain this network, ONE SWORD was created to monitor everything that is observed, detected, or transferred through its countless lines of communication. Almost nothing could occur on Earf, or enter/leave the atmosphere without ONE SWORD knowing about it. For organization purposes, ONE GOD uses the same rank system as ONE Army.

BAST:

The “all seeing eye” of ONE SWORD, constantly scanning the surface of Earf for hostile activity by non-member states and other possible parties. Composed of several different reconnaissance satellites using high resolution radar and optical systems, very few places on Earf are safe from its constant gaze, even several meters underground or water. In addition, BAST could monitor for possible near Earf objects that might threaten to impact with the planet.

IRIS:

The dedicated military communications network that maintains the important flow of data and voice communications between ground, naval, air, and space. Even capable of serving as a secondary back bone for its sister constellation AERTEN when needed during emergency situations. Like its sister system HECATE, both are the only satellite networks that have elements in both Earf and Lagrange orbit, connecting all orbital and lunar colonies.

HECATE:

All civilian lines of communications is controlled by the HECATE system, from personal phones calls and data traffic, to major industrial and banking transmissions, forming a virtual cross roads of information exchange for all non-military transmissions in and between Earf and its colonies.

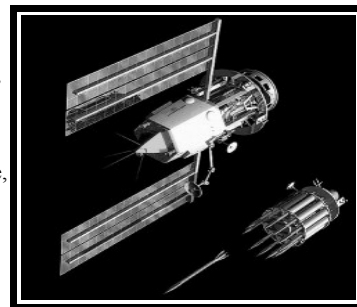
ONE Global reach Operations support and kinetic Deterrent / ONE - GOD:

(see link: <http://www.weeklystandard.com/Content/Public/Articles/000/000/005/700oklkt.asp>)

If the control over the flow of information was not enough, the real power held by ONE SWORD was its dedicated constellations of kinetic bombardment satellites known as ONE GOD. With the ONE-GOD system, ONE was able to detect, respond to, and deliver any level of required ordinance to any specific location in the world with in a matter of minutes once a vote of action has passed. In many cases, it took longer for the parliamentary motions to be carried and votes counted than it took for the orbital system to enact the decisions of ONE ACTION.

The effectiveness of the ONE-GOD was so great, it almost made all of the other Earf based military branches nearly obsolete, if it wasn't for the fact that some form of occupying or patrolling force was still required to control or monitor any situations on the ground. Nonetheless the other military branches often fought hard for their own funding due to the growing over reliance upon the system of satellite weapons.

Unfortunately for ONE, the entire weapons network was quickly destroyed by the invading Cosmic Heavens in their first wave of the Demiurge Front invasion, assuring their ability to capture and secure several large territories around the globe. Several attempts had been made to launch replacement satellites to reestablish some form of strike ability during the war, but each launch was quickly intercepted by the Cosmic Heavens forces.



The system is made up of three separate satellite constellations arranged in layers:

GOD - AERTEN:

The main targeting, tracking and communications network for the GOD system, able to identify multiple potential targets and plot the necessary delivery course for the Non-Explosive very High Kinetic Energy Penetrators (NvHKEP) fired by both DIANA and SKADI to any where on the surface of Earf.

GOD - SKADI:

Firing and delivery system of the strategic system, each satellite carrying several of the heavy ordinance version of the NvHKEP. Each “round” is made up of a 10-foot-long (3.0 m), 1/2-foot-diameter (0.15 m) tungsten rod capable of destroying a target with the force of a small nuclear weapon with no effects of radiation. Even deeply buried bunkers are no defense against this weapon as it can penetrate several hundred feet of dirt, rock, and concrete.

GOD - DIANA:

Firing and delivery system of the tactical system, each satellite carrying several hundred of the light ordinance version of the NvHKEP designed to destroy smaller targets ranging from anti-aircraft and anti-armor, to even anti-personnel. Capable of delivering a precise attack equivalent to a 225 kg bomb or a large cluster munitions blast with numerous self dispersing flechette rounds.

Major ONE Military Bases:

Codename: “Agartha”

Agartha is the headquarters of the ONE PEACE military central command during the Demiurge Front War and the years after. It is a massive underground complex in the heart of the Sahara desert, between the bays of Mauritania and Libya. Because of its subterranean location, Agartha is impervious to conventional and nuclear assaults, which was why it was a target for the attempted colony drops during the “30 Days of Hell.” Agratha's exact location is also a strict ONE secret. Built in a series of cavernous reaches, Agartha is a megacity in of itself, along with housing factories, spaceships docks, and many other types of facilities. Even several locks and dams to move ships from the Atlantic to Mediterranean seas.

Some of ONE's early avatar factories are located in Agartha, which during the Demiurge Invasion produced hundreds upon hundreds if not thousands of avatars during the last days of the war.



Codename: “Rainmaker”

Rainmaker is a series of naval and army bases along the southern tip of the African continent, the majority of which were overrun or outright destroyed during the Demiurge invasion. Some were captured and put into use by the Cosmic Heavens forces or used as refugee camps.

Codename: “El Dorado”

Covering almost the entire length of the western coast of the former United States, El Dorado is the largest series of aerospace and naval bases in the ONE arsenal. During the initial phases of the Demiurge Invasion, the majority of the bases were captured and put into use to service the Cosmic Heavens fleets.

Codename: “Mount Olympus”

Like its sister bases on the west coast, Mount Olympus was its equivalent on the east coast of the former United States.

Codename: “Kamohoalii”

Major naval and aerospace base and facilities built on the Hawaiian islands, encompassing the original Pearl Harbor base, and several artificial islands.

Codename: “Mount Buzhou”

Major base facility located near the city of Beijing.

Codename: “Bhogavati”

A collection of naval bases scattered along the Indian coast. Many were destroyed during the Demiurge Invasion.

Codename: “Hy-Brasil”

Major naval base in the former United Kingdom.



Codename: “Rainbow Serpent” and “Walujapi”

Located near the city of Brisbane, Rainbow Serpent is one of the few strong foot holds for ONE. With its sister base Walujapi located near the city of Perth, both were able to coordinate with each other to prevent the total loss of the Australian continent when the Cosmic Heavens succeed in splitting the land mass in two

Codename: “Germelshausen”

Constructed as a second underground city in the middle of the European zone, Germelshausen served as an auxiliary command post to Agarthia. Its own automated factories produced numerous tanks and drones to support the land forces throughout the war.

Codename: “Tlillan-Tlapallan”

A research facility in the South American zone, Tlillan-Tlapallan was responsible for many of the advances in weapon technology s used by ONE during the war, in particular its range of Babel particle weapons.

Codename: “Tamoanchan”

A major complex of army bases in the middle of the South American continent with several automated facilities for weapons production.

Codename: “Hvergelmir”

Built in the heart of Sweden, Hvergelmir was constructed as another underground facility with its own automated factories for weapons production.

Codename: “Aeaea”

Floating island base in the middle of the Atlantic ocean, had docking facilities for both submarines and surface vessels. Heavily damaged during initial attacks, several of its platforms were sunk as a result.

Codename: “Buyan”

Located in the Indian ocean near the submerged colony of Lemuria,

Codename: “Scheria”

Submarine base located one hundred miles from the coast of Japan, was destroyed by Cosmic Heaven forces after the initial invasion.

Other prominent ONE system agencies:

ONE COST:

The Committee of Over Sight and public Trust is a separate branch under its own authority to investigate and prosecute any responsible parties in ONE for charges of corruption, abuse of power, and war crimes. Its investigators, referred to as Inquisitors, have complete jurisdiction in pursuing any possibly guilty members or agencies.

ONE HOPE:

Health Organization for Prevention and Epidemiology is responsible for the monitoring of health trends and disease control to quickly isolate and stop any epidemics that might occur. Is often on call with the Colony Administration and Construction Authority when any communicable illness breaks out in one of the colonies, or into zones occupied by the military when such events occur on Earf.

ONE HARMM:

Agency for the management of moving populations from any area or zone designated to be no longer habitable to a new zone, or more often, to the orbital colonies. Works very closely with the Colony Administration and Construction Authority.

ONE CACA:

The Colony Administration and Construction Authority is an organization of multinational corporations chartered to build and maintain the colonies around the Lagrange points of the Earf sphere. The corporate members of the CACA are: Pharos (Herd 1), Bodrum (Herd 2), Rhodes (Herd 3), Giza (Herd 4), Media (Herd 5), Ephesus (Herd 6), and Phidias (Herd 7).

ONE CEF:

ONE CEF provides long-term humanitarian and developmental assistance to children and mothers in developing countries. It is one of the members of the ONE Development Group and its Executive Committee. ONE CEF relies on contributions from governments and private donors; governments contribute two thirds of the organization's resources; private groups and some 6 million individuals contribute the rest through the National Committees. ONE CEF's programs emphasize developing community-level services to promote the health and well-being of children.

ONE IFP:

The International Food Program is the food aid branch of ONE, and the world's largest good will organization addressing hunger worldwide by working to help people who are unable to produce or obtain enough food for themselves and their families. It is a member of the ONE Development Group and part of its Executive Committee.

ONE AEAE:

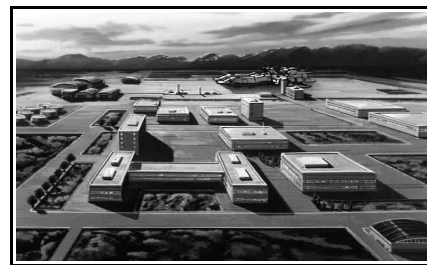
The Atomic Energy Agency of Earf is an international organization that seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons. The AEAE was established as an autonomous organization on 29 July 1957. Though established independently of ONE through its own international treaty, the AEAE Statute, the AEAE reports to both the ONE RULE and ONE ACTION.

ONE ESCO:

The Educational, Scientific and Cultural Organization is a specialized agency of ONE. Its stated purpose is to contribute to peace and security by promoting international collaboration through education, science, and culture in order to further universal respect for justice, the rule of law, and universal rights along with fundamental freedoms proclaimed in the ONE Charter. It is the heir of the League of Nations' International Commission on Intellectual Cooperation.

ONE AFO:

The Agriculture and Food Organization is a specialized agency of ONE that leads international efforts to defeat hunger. Serving both developed and developing countries, AFO acts as a neutral forum where all nations meet as equals to negotiate agreements and debate policy. AFO is also a source of knowledge and information, and helps developing countries and countries in transition modernize and improve agriculture, forestry and fisheries practices, ensuring good nutrition and food security for all.



ONE Character Creation:

It is more than likely that your characters will be encountering various members of the ONE leadership or bureaucracy at some point or another during your game sessions. The following charts were made so that you could create such NPCs on the fly without having to stop in the middle of an encounter to create them. Though for characters that will play a larger role in your story lines, it is suggested that you create them like any other character to give them more depth so they will fit in with your constructed narrative. The following is mainly to create "throw away" characters.

First part, the names of the NPC, roll 1D10 to select the proper chart, then roll a second 1D10 to settle on the name, sex, and nationality. Species can be rolled using the animal charts given earlier in the book.

Chart #01	D10	Name:	Sex:	Nationality:	Chart #06	D10	Name:	Sex:	Nationality:
	1	Allitt, Beverley	F	Britain		1	Buono, Angelo	M	America
	2	Asratyan, Valeriy	M	Russia		2	Calva, José Luis	M	Mexico
	3	Ballesteros, Francisca	F	Spain		3	Chi-Tat Ng, Charles	M	Hong Kong
	4	Báthory, Elizabeth	F	Hungary		4	Chikatilo, Andrei	M	Russia
	5	Behram, Thug	M	India		5	Christie, John Reginald	M	Britain
	6	Bianchi, Kenneth Alessio	M	America		6	Çolak, Adnan	M	Turkey
	7	Bilancia, Donato	M	Italy		7	Constanzo, Adolfo	M	Mexico
	8	Brady, Ian	M	Britain		8	Cooke, Eric Edgar	M	Australia
	9	Britland, Mary Ann	F	Britain		9	Cotton, Mary Ann	F	Britain
	10	Bunting, John	M	Australia		10	Daglis, Antonis	M	Greece
Chart #02	D10	Name:	Sex:	Nationality:	Chart #07	D10	Name:	Sex:	Nationality:
	1	Dengiz, Özgür	M	Turkey		1	Haapoja, Matti	M	Finland
	2	Dutroux, Marc	M	Belguim		2	Hansen, Robert Christian	M	America
	3	Dyer, Amelia	F	Britain		3	Higgins, Margaret	F	Ireland
	4	Dzhumagaliyev, Nikolai	M	Kazakhstan		4	Hindley, Myra	F	Britain
	5	Filho, Pedro Rodrigues	M	Brazil		5	Iqbal, Javed	M	Pakistan
	6	Flannigan, Catherine	F	Ireland		6	Ishikawa, Miyuki	F	Japan
	7	Garavito, Luis	M	Columbia		7	Lucas, Henry Lee	M	America
	8	Godino, Cayetano Santos	M	Argentina		8	Lupo, Michael	M	Italy
	9	Golovkin, Sergey	M	Russia		9	Maake, Cedric	M	South Africa
	10	Griswold, Ubel	M	Germany		10	Maeue, Hiroshi	M	Japan
Chart #03	D10	Name:	Sex:	Nationality:	Chart #08	D10	Name:	Sex:	Nationality:
	1	Mansour, Ramadan Abdel Rehim	M	Egypt		1	Mrázek, Václav	M	Czech
	2	Manuel, Peter	M	Scotland		2	Mudgett, Herman Webster	M	America
	3	Marchwicki, Zdzislaw	M	Poland		3	Nakamura, Seisaku	M	Japan
	4	Marroquin, Raúl Osiel	M	Mexico		4	Nesset, Arnfinn	M	Norway
	5	Marti, Enriqueta	F	Spain		5	Nilsen, Dennis	M	Britain
	6	Mashiane, Johannes	M	South Africa		6	Okubo, Kiyoshi	M	Japan
	7	Maudsley, Robert	M	Britain		7	Onoprienko, Anatoly	M	Ukraine
	8	Mazurkiewicz, Wladyslaw	M	Poland		8	Overbye, Dagmar	F	Denmark
	9	Miyazak, Tsutomu	M	Japan		9	Pekalski, Leszek	M	Poland
	10	Modzelewski, Stanislaw	M	Poland		10	Pengli, Liu	M	China
Chart #04	D10	Name:	Sex:	Nationality:	Chart #09	D10	Name:	Sex:	Nationality:
	1	Pereira, Francisco de Assis	M	Brazil		1	Rodriguez Vega, José Antonio	M	Spain
	2	Petiot, Marcel	M	France		2	Romulus, Veres	M	Romania
	3	Petrovs, Kaspars	M	Latvia		3	Rube, Aleksandr	M	Estonia
	4	Pickton, Robert	M	Canada		4	Ryakhovsky, Sergei	M	Russia
	5	Pieydnagelle, Eusebius	M	France		5	Saltykova, Darya Nikolayevna	F	Russia
	6	Plut, Silvo	M	Slovenia		6	Simons, Norman Afzal	M	South Africa
	7	Quansah, Charles	M	Ghana		7	Sithole, Moses	M	South Africa
	8	Renczi, Vera	F	Romania		8	Slovák, Jozef	M	Slovakia
	9	Rigo, Ondrej	M	Slovakia		9	Sobhraj, Charles	M	Hong Kong
	10	Rimaru, Ion	M	Romania		10	Spesivtsev, Alexander	M	Russia
Chart #05	D10	Name:	Sex:	Nationality:	Chart #10	D10	Name:	Sex:	Nationality:
	1	Suradj, Ahmad	M	Indonesia		1	Vargas, Dorangel	M	Venezuela
	2	Swanenburg, Maria	F	Netherlands		2	Villegas, Manuel Delgado	M	Spain
	3	Taneski, Vlado	M	Macedonia		3	Vlassakis, James	M	Australia
	4	Thomas, John Floyd	M	America		4	Wagner, Robert	M	Australia
	5	Thwala, Sipho	M	South Africa		5	Watts, Carl Eugene	M	America
	6	Tkach, Serhiy	M	Ukraine		6	Williams, David Russell	M	Canada
	7	Toole, Ottis	M	America		7	Wuornos, Aileen	F	America
	8	Trobec, Metod	M	Slovenia		8	Xinhai, Yang	M	China
	9	Unterweger, Jack	M	Austria		9	Yong, Huang	M	China
	10	Vacher, Joseph	M	France		10	Young-chul, Yoo	M	South Korea

ONE Characters:

Name/Rank:		Typical ONE Soldier / Sailor / Pilot					
Species:		Various					
Born:		Average age 24, 18 – 40 years of age.					
Unique Features:		Varies by individual.					
Fur:	Various	Hair:	Various	Eyes:	Various		
Height:	4' 8" - 6' 8"	Weight:	88 lbs – 250 lbs				
INT:	5	EDU:	3	Athletics	2	Hand to Hand	3
COOL:	7	Stability:	18	Auto weapons	3	Rifle	4
REFLEX:	7	Run:	21 m	Awareness	4	Stealth	2
ATT:	5	Jump:	1.75 m	Basic Repair	1	Survival	4
EMP:	4	ZG Leap:	7 m	Blade	2	Shadow/Avoid Pursuit	1
TECH:	5	Stun:	6	Dodge & Escape	3	Swimming	1
LUCK:	5	Lift:	60 Kg	Driving	2	Exp: Heavy Weapons	3
Move:	7	EV:	4	First Aid	2		
BODY:	7	Throw:	20 m	Hand Gun	2		
AM:	0			Zero Gee	1		



Background:

The average ONE soldier, sailor, or pilot is often a career military man or woman, born on Earf. Even though there are educational opportunities and other benefits available to those that serve, the military is often seen as a secure job to have in comparison to other more civilian or government work. And even with the sporadic dust ups with non-member states, combat was a very rare event. At least until the war started.

It is typical practice for all military personnel to serve in other areas far from where they were originally recruited or initially trained at as per the ONE charter. This was done as a break away from the original practice of standing national armies, and to keep any possible national interests out of military functions or operations. This practice is much harder to enforce in space since the majority of all personnel serving in the ONESN were born in the colonies or on the moon, which has caused some “down on the ground” to be suspicious of them. This has lead to the quiet policy of many officers serving in the ONESN to be selected from the Earf forces as a possible insurance against the perceived threat of mutiny in the space forces.

Any individual born in or is a citizen of a ONE member state can volunteer for service, minimum requirement is often 6 years. Since the start of the war in space some plans have been put forth for conscription, but this has appeared to be almost unnecessary since a large influx of volunteers have poured in since the Cosmic Heavens invaded the Earf. Whether this is out of patriotism, or desperation from their own personal situations, is unclear.

The stats given above represent the “average” ground soldier; other more elite or specialized troops will have even higher skills or different training, such as those who pilot vehicles or serve in more technical roles. It is typical for soldiers to be equipped with hybrid armor plating, side arm, rifle, basic communication equipment, survival gear, and the occasional heavy weapon.

Sailors are often equipped similarly with their land counter parts, though with much less armor due to drowning risks while at sea, and much lighter weapons since firing anything more powerful than a machine gun in the confines of a ship is extremely risky at best.

Pilots are almost some what of a misnomer, since the majority of all aircraft in the ONE air forces are drones, and the only “real” pilots are often flying just transport craft. This has created a level of somewhat resentment from the other branches towards the drone pilots, who are often viewed as being situated too far from any war zone to be even be considered “true combatants.”

Space crews are even more lightly equipped than their land or aquatic cousins, with even light armor being restricted to security teams, and most weapons being laser based, or non-lethal in general. When under combat conditions, the crew of any space ship are expected to be in their space suits in case of hull breach, or other such emergencies.

Officers:

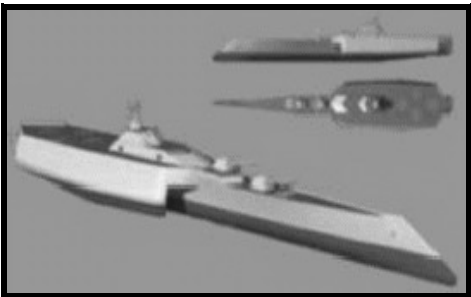
Officers will generally have slightly higher stats and skills than the average given above, and it is suggested to the GM that they raise/lower any skill/stat to suit the situation of their session, such as to make it easier/harder for their PCs. Though keep in mind that excellence is not always what propels a person up to a higher rank, and it is not uncommon to come across officers who are not much better, if not worse, than the men they are supposed to be leading. Or to make it even more interesting, you could use the exact same stats of your PCs to create NPCs for them to interact with. Or even give the Doppelgänger some additional bonuses.

But to make it simple, you can use the following chart if you need to roll up one or more ONE officer NPCs on the fly:

1D6	Result:
1	Base line: stats are the same as sample soldier.
2	“Follows Orders”: -1 to INT, Tech, Luck; +1 to REF, Move, Body(max 10)
3	“Dunning–Kruger effect”: +1 to INT, Tech, Luck(max 10); -1 to REF, Move, Body
4	“Competent Officer”: +1 to INT, Tech, Luck; +1 to REF, Move, Body(max 10)
5	“The Peter Principle”: -1 to INT, Tech, Luck; -1 to REF, Move, Body
6	“Ideal Officer”: +2 to all stats, +1 to all skills(max 10).

ONE Navy / ONEN Ships: Apex class Battleship

Name:		Crew Complement:		Weight (Full):		Cost:		Length / Width / Draft:	
Apex class battleship		220 crew members		65,000 Tons (72 Tons)		781,001.25 points		270.4 m / 72.2 m / 8.8 m	
Form:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Boat Form (scale x100)		-8	2	0	0	3	+2 Int / +2 tech		
Base: 8+1D10		-5 for shooting	5			(3 x 1 Mod)	+67% MP		
Power Plant:		Source:		XS:		Misc:			
Main - Super-Charged		Fusion (Hot)		0					
Maneuver Pool		(+67% MP)							
Cockpit:		Controls:		Loc:		Enc.:			
Main		Screen		Main Bridge		Enclosed			
"Arcade" Drone Command Deck		Screen		Hull		Enclosed			
Sensors:		Class:	Loc:		Kills:	Range:	Comm:		
Main Sensor Suite		Medium Striker	Main Bridge		100	700 Km	100,000 Km		
- R/R Analyzer			Main Bridge						
- Spotting Radar			Main Bridge - Mount		400	7,000 Km			
- Marine Suite			Hull						
Secondary Sensor Suite		Striker	Main Bridge		100	400 Km	80,000 Km		
Reserve Back-Up Sensor Suite		Striker	Hull		100	400 Km	80,000 Km		
Movement Systems:		Loc:		MA:		Kills:			
Hydro-Jets Propeller #1		Hull		(1 MA) (x1 underwater modifier)					
Hydro-Jets Propeller #2		Right Outrigger		(1 MA) (x1 underwater modifier)					
Hydro-Jets Propeller #3		Left Outrigger		(1 MA) (x1 underwater modifier)					
Options:		Loc:		Modifiers:					
Six Spotlights		One for each surrounding hexes							
Damage Control Packages		All locations							
3 x Weapon Mounts		Two on Hull, One on Main Bridge							
Stat Boost		Main Bridge		+2 to Int, and Tech.					
2 x Micro-manipulators		Two in Hull		"Cargo Cranes"					
Flight Deck: Hangar and Landing pad 300 tons									
Drone Bay: 600 tons									
Multipliers:		Loc:		Modifiers:					
Monocoque Construction				See technology section.					
Environmental Protection				Arctic, & EMP					
Internal Automation #1		Main Bridge		Lv 5, Port 5 (Mecha Piloting, Awareness, Navigation, Expert: Military Vehicles, Mecha Tech.)					
Internal Automation #2		Main Bridge		Lv 5, Port 5 (Mecha Piloting, Awareness, Navigation, Expert: Military Vehicles, Mecha Tech.)					
Self Repair System				See technology section.					
Targeting System		Main Bridge		+3 to MV for shooting attacks.					
Marine Hydraulics									
Servos:		Class:	Type:		Space:	Kills:	Armor:	DC:	Modifiers:
Main Bridge		Medium Striker	Head		6	400	200 / 300	100	Belted Armor, see rules.
Hull		Striker	Torso		9	600	200 / 300	100	Belted Armor, see rules.
Right Outrigger		Medium Striker	Pod		4	400	200 / 300	100	Belted Armor, see rules.
Left Outrigger		Medium Striker	Pod		4	400	200 / 300	100	Belted Armor, see rules.
Front Turret #1		Striker	Head		5	300	300	100	
Front Turret #2		Striker	Head		5	300	300	100	
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
*All weapons are scale x10									
1 x Mjöllnir Rail Cannon #1		150 K	(+2)	210	44100	150 K	-	Main Turret #1	Long Range, Hyper-Velocity, Multi-Feed 2
--Ammo #1						80 K each	20	Hull	Tracer, Kinetic
--Ammo #2						80 K each	20	Hull	Blast 10, Kinetic
1 x Mjöllnir Rail Cannon #2		150 K	(+2)	210	44100	150 K	-	Main Turret #2	Long Range, Hyper-Velocity, Multi-Feed 2
--Ammo #1						80 K each	20	Hull	Tracer, Kinetic
--Ammo #2						80 K each	20	Hull	Blast 10, Kinetic
4 x Bubo CIWS		10 K / (1K)	(+1)	10	100	10 K	-	Two in each Hull mount	All Purpose, beam weapon.
4 x Torpedo Countermeasures Launchers		(1K)	0	-	-	10 K each	10	Two in each Hull mount	Counter-Only. Linked and Inter-Mecha linked.
3 x "Missile Blocks"								One in Hull, and each Outrigger	All Missile Blocks are linked to each other, and Inter-Mecha linked.
Each containing:									
50 x Pilum Missiles		10 K	(+2)	80	6400	30 K each	-	Missile Block	Long Range, Anti-Missile var.
10 x Ballista Missiles		30 K	(+2)	90	8100	20 K each	-	Missile Block	Long Range
10 x Pelican ASROC Missiles		10 K	0	60	3600	10 K each	-	Missile Block	Smart 2, Skill +6, Blast 10



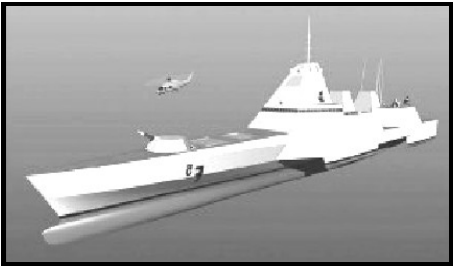
Overview:
The Apex class battleship is an oddity in the ONE naval arsenal, and is regarded as both a relic of a by gone era or as a dinosaur by today's navy standards. A literal lumbering monstrosity of a "jack of all trades," able to provide heavy firepower, manage a whole networked fleet, and operate its own drone squadron; all the while very hard to maneuver and to maintain out at sea. Not to mention being a very large target.
Despite the push for smaller, more capable ships to fill its naval fleets with, the few remaining vessels of the Apex class have all managed to survive the countless swings of the budgetary ax. Sometimes by the protective influences of a high ranking admiral or two wishing to keep their favorite vessel from being struck from the operational list. Or simply by being much more expensive to dispose of than it would be to maintain them. Whether serving as an admiral's personal toy or a much needed asset, the battleships have more than demonstrated their usefulness during the early days of the Demiurge Front, and their ability to dominate the seas even in this modern age.
Typical of most ships in the ONE navy, the Axiom is a based upon a trimaran hull layout, with the main hull and one outrigger hull on each side to provide extra stability.

Carried Vehicles:
Two Percheron tilt rotor VTOL aircraft, mainly for transferring of cargo or personnel. Several submersible drones are carried to function as towed arrays for underwater reconnaissance. In addition, the Apex can carry and maintain a small squadron of its own drone aircraft on its own.

Inter-Mecha Linkage Range: 200 scale x1 Hexes, all combat ships are subservient to any Apex or Axiom class ship(s) in the fleet designated as the flagship.

ONE Navy / ONEN Ships: Axiom class Command Cruiser

Name: Axiom class Command Cruiser		Crew Complement: 180 crew members		Weight (Full): 28,000 Tons (36 Tons)		Cost: 418,802.80 points		Length / Width / Draft: 252 m / 57 m / 9.1 m	
Form:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Boat Form (scale x100)		-6	4	0	0	3	+2 Int / +2 tech		
Base: 8+1D10		-5 for shooting		5		(3 x 1 Mod)			
Power Plant:		Source:		XS:	Misc:				
Main - Standard		Fusion (Hot)		0					
Maneuver Pool									
Cockpit:		Controls:		Loc:				Enc.:	
Main		Screen		Main Bridge				Enclosed	
"Arcade" Drone Command Deck		Screen		Hull				Enclosed	
Sensors:		Class:	Loc:		Kills:	Range:	Comm:		
Main Sensor Suite		Striker	Main Bridge		100	400 Km	80,000 Km		
- R/R Analyzer			Main Bridge						
- Spotting Radar			Main Bridge - Mount		400	4,000 Km			
- Marine Suite			Hull						
Secondary Sensor Suite		Striker	Hull		100	400 Km	80,000 Km		
Movement Systems:		Loc:		MA:		Kills:			
Hydro-Jets Propeller #1		Hull				1 MA			
Hydro-Jets Propeller #2		Right Outrigger				1 MA			
Hydro-Jets Propeller #3		Left Outrigger				1 MA			
Options:		Loc:		Modifiers:					
Six Spotlights		One for each surrounding hexes							
Damage Control Packages		All locations							
3 x Weapon Mounts		Two on Hull, One on Main Bridge							
Stat Boost		Main Bridge				+2 to Int, and Tech.			
2 x Micro-manipulators		Two in Hull				"Cargo Cranes"			
Flight Deck: Hangar and Landing pad 200 tons									
Drone Bay: 200 tons									
Multipliers:		Loc:		Modifiers:					
Monocoque Construction				See technology section.					
Environmental Protection				Arctic, & EMP					
Internal Automation #1		Main Bridge		Lv 5, Port 5 (Mecha Piloting, Awareness, Navigation, Expert: Military Vehicles, Mecha Tech.)					
Internal Automation #2		Main Bridge		Lv 5, Port 5 (Mecha Piloting, Awareness, Navigation, Expert: Military Vehicles, Mecha Tech.)					
Self Repair System				See technology section.					
Targeting System		Main Bridge		+1 to MV for shooting attacks.					
Marine Hydraulics									
Servos:		Class:	Type:		Space:	Kills:	Armor:	DC:	Modifiers:
Main Bridge		Striker	Head		5	300	100 / 200	100	Belted Armor, see rules.
Hull		Light Weight	Torso		6	400	200 / 200	100	Belted Armor, see rules.
Right Outrigger		Striker	Pod		5	200	200 / 200	100	Belted Armor, see rules.
Left Outrigger		Striker	Pod		5	200	200 / 200	100	Belted Armor, see rules.
Front Turret		Light Weight	Head		3	200	200	100	
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
*All weapons are scale x10									
1 x Gungnir Rail Gun		60 K	(+2)	175	30625	60 K	-	Front Turret	Long Range, Hyper- Velocity, Bv 3, Anti-Missile var., Inter-Mecha Linked.
--Ammo #1						25 K	30	Hull	Tracer
--Ammo #2						7 K	8	Hull	Scatter Shot, Blast I
2 x Bubo CIWS		10 K / (1K)	(+1)	10	100	10 K	-	One in each Hull mount	All Purpose, beam weapon.
4 x Torpedo Countermeasures Launchers		(1K)	0	-	-	10 K each	10	Two in each Hull mount	Counter-Only. Linked and Inter-Mecha linked.
3 x "Missile Blocks" Each containing:								One in Hull, and each Outrigger	All Missile Blocks are linked to each other, and Inter-Mecha linked.
50 x Pilum Missiles		10 K	(+2)	80	6400	30 K each	-	Missile Block	Long Range, Anti-Missile var.
10 x Ballista Missiles		30 K	(+2)	90	8100	20 K each	-	Missile Block	Long Range
10 x Pelican ASROC Missiles		10 K	0	60	3600	10 K each	-	Missile Block	Smart 2, Skill +6, Blast 10



Overview:

The Axiom is the most common class of command ship in use in the ONE Navy, forming the center piece of any fleet operations and demonstrates the principles of the "One fleet, One mind" philosophy that dominates the current ONE naval strategy. Each vessel carries at its heart two advanced AI computers that can network and control an entire fleet as though it was in fact just one large war ship. If needed, multiple Axioms will work together in the same role to administrate all functions for very large fleet formations.

In addition to its twin AI super computers, the ship also has at the center of its command deck its "arcade," where squadrons of drones and remote controlled ships are monitored and directed to their targets or missions. With the push of a button, any one of the near countless automated weapons can be sent in to any combat zone.

With its high powered Gungnir rail gun, the Axiom can control and maintain an entire battle theater, and even defend a fleet or area from incoming ICBMs or other long range attacks. This has been demonstrated several times with the disabling or destruction of LEO satellites with a very high and precise level of accuracy, or even delivering long range inland support to ground missions when needed.

Typical of most ships in the ONE navy, the Axiom is a based upon a trimaran hull layout, with the main hull and one outrigger hull on each side to provide extra stability.

Carried Vehicles:

Two Percheron tilt rotor VTOL aircraft, mainly for transferring of cargo or personnel. Several submersible drones are carried to function as towed arrays for underwater reconnaissance.

Inter-Mecha Linkage Range: 200 scale x1 Hexes, all combat ships are subservient to any Apex or Axiom class ship(s) in the fleet designated as the flagship.

ONE Navy / ONEN Ships: Armory class Support Cruiser

Name:	Crew Complement:		Weight (Full):		Cost:		Length / Width / Draft:		
Armory class support cruiser	50 crew members when crewed		14,000 Tons (72 Tons)		237,523.8 points		180.0 m / 24.6 m / 8.4 m		
Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:			
Boat Form (scale x100)	-5	5	0	0	4	+1 Int / +1 tech			
Base: 8+1D10					(4 x 1 Mod)				
Power Plant:	Source:		XS:	Misc:					
Main - Standard	Fusion (Hot)		0						
Maneuver Pool									
Cockpit:	Controls:		Loc:		Enc.:				
Main	Screen		Main Bridge		Enclosed				
Sensors:	Class:	Loc:		Kills:	Range:	Comm:			
Main Sensor Suite	Striker	Main Bridge		100	400 Km	80,000 Km			
- R/R Analyzer		Main Bridge							
- Spotting Radar		Main Bridge - Mount		400	4,000 Km				
- Marine Suite		Hull							
Secondary Sensor Suite	Striker	Main Bridge		100	400 Km	80,000 Km			
Movement Systems:		Loc:	MA:		Kills:				
Hydro-Jets Propeller #1		Hull	(1 MA) (x1 underwater modifier)						
Hydro-Jets Propeller #2		Hull	(1 MA) (x1 underwater modifier)						
Hydro-Jets Propeller #3		Hull	(1 MA) (x1 underwater modifier)						
Hydro-Jets Propeller #4		Hull	(1 MA) (x1 underwater modifier)						
Options:		Loc:		Modifiers:					
Six Spotlights			One for each surrounding hexes						
Damage Control Packages			All locations						
2 x Weapon Mounts			Two on Hull						
Stat Boost			Main Bridge		+1 to Int, and Tech.				
2 x Micro-manipulators			Two in Hull		"Cargo Cranes"				
Flight Deck: Hangar and Landing pad 100 tons									
Multipliers:		Loc:		Modifiers:					
Monocoque Construction					See technology section.				
Environmental Protection					Arctic, & EMP				
Internal Automation			Main Bridge		Lv 4, Port 5 (Mecha Piloting, Awareness, Navigation, Expert: Military Vehicles, Mecha Tech.)				
Self Repair System					See technology section.				
Marine Hydraulics									
Servos:		Class:	Type:		Space:	Kills:	Armor:	DC:	Modifiers:
Main Bridge		Light Weight	Head		3	200	100 / 200	100	Belted Armor, see rules.
Hull		Superlight	Torso		3	200	200 / 200	100	Belted Armor, see rules.
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
*All weapons are scale x10									
2 x Bubo CIWS		10 K / (1K)	(+1)	10	100	10 K	-	One in each Hull mount	All Purpose, beam weapon.
4 x Torpedo Countermeasures Launchers		(1K)	0	-	-	10 K each	10	Two in each Hull mount	Counter-Only. Linked and Inter-Mecha linked.
10 x "Missile Blocks"								One in Hull, and each Outtrigger	All Missile Blocks are linked to each other, and Inter-Mecha linked.
Each containing:									
40 x Pilum Missiles		10 K	(+2)	80	6400	30 K each	-	Missile Block	Long Range, Anti-Missile var.
8 x Ballista Missiles		30 K	(+2)	90	8100	20 K each	-	Missile Block	Long Range
8 x Pelican ASROC Missiles		10 K	0	60	3600	10 K each	-	Missile Block	Smart 2, Skill +6, Blast 10



Overview:

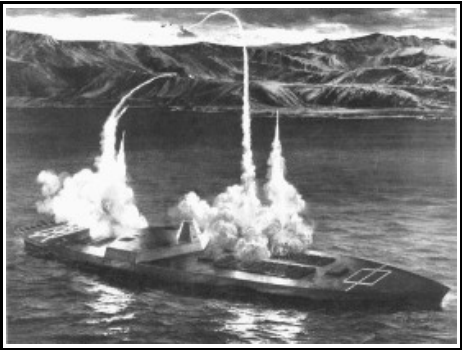
The Armory class is quite literally a floating missile platform, designed to simply be a large vessel packed to the gills with over five hundred missile tubes to serve as a “modular component” to any fleet controlled by a command cruiser, such as an Axiom, or even an Apex. Completely automated and remote controlled, most Armory class vessels are not even staffed with full time crews. About the only time a person may be even seen on board is during inspection, or maintenance. The AI systems can even dock the ship by themselves in port when a fleet's mission is complete.

Their secondary function is to provide a additional defensive capability, even to act as a physical shield for any command vessel, being completely expendable despite the high amount of firepower carried by them. Unlike most ships in the ONE navy, the Armory is a based upon a single mono hull layout, with the main hull containing all weapons and equipment.

Carried Vehicles:

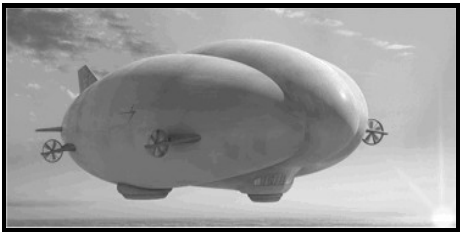
None, landing pad has enough space for two Percheron tilt rotor VTOL aircraft to transfer of cargo or personnel. No drones are carried.

Inter-Mecha Linkage Range: 200 scale x1 Hexes, all combat ships are subservient to any Apex or Axiom class ship(s) in the fleet designated as the flagship.



ONE Navy / ONEN Ships: Auspice class support blimp

Name:		Crew Complement:		Weight (Full):		Cost:		Length / Width / Height:		
Auspice class support blimp		20 crew members		1,000 Tons (30.0 Tons)		14,957.43 points		110.4 m / 26.0 m / 26.0 m		
Form:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:			
Helicopter Form (scale x10)		-5	5	0	6*	0	+2 Int			
Base: 8+1D10		*Helicopter rules								
Power Plant:		Source:		XS:		Misc:				
Main - Standard		Fusion (Hot)		0						
Maneuver Pool										
Cockpit:		Controls:		Loc:					Enc.:	
Main		Screen		Main Bridge					Enclosed	
Sensors:		Class:		Loc:		Kills:	Range:	Comm:		
Main Sensor Suite		Striker		Hull		100	40 Km	8,000 Km		
- R/R Analyzer				Hull						
- Spotting Radar				Hull		400	400 Km			
Secondary Sensor Suite		Striker		Main Bridge		100	40 Km	8,000 Km		
Movement Systems:		Loc:		MA:		Kills:				
Special – see rules for helicopters		Hull		0		0				
Options:		Loc:		Modifiers:						
Six Spotlights		One for each surrounding hexes								
Damage Control Packages		All locations								
Stat Boost		Main Bridge				+2 to Int				
Vehicle Bay: 20 tons		Main Bridge								
Multipliers:		Loc:		Modifiers:						
Monocoque Construction				See technology section.						
Environmental Protection				Arctic, Desert, & EMP						
Self Repair System				See technology section.						
Servos:		Class:		Type:	Space:	Kills:	Armor:	DC:	Modifiers:	
Main Bridge		Mediumweight		Head	9	60	30	10		
Hull		Heavy Striker		Torso	15	100	20	10		
Right Weapon Pod		Mediumweight		Pod	18	0	30	10		
Left Weapon Pod		Mediumweight		Pod	18	0	30	10		
Center Weapon Pod		Mediumweight		Pod	18	0	30	10		
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:	
*All weapons are scale x10										
3 x Bubo CIWS		10 K / (1K)	(+1)	10	100	10 K	-	One in Hull (Forward), One in Hull (Rear), One in Main Bridge	All Purpose, beam weapon.	
3 x "Missile Blocks"										
Each containing:										
30 x Pilum Missiles		10 K	(+2)	80	6400	30 K each	-	Missile Block	Long Range, Anti-Missile var.	
8 x Pelican ASROC Missiles		10 K	0	60	3600	10 K each	-	Missile Block	Smart 2, Skill +6, Blast 10	



Overview:

The Auspice is perhaps considered an odd addition to the modern naval fleet formation, but the lighter than air craft does function as a reliable platform to defend the fleet from long range or submerged threats. Its on board systems are networked as any other member of the fleet, lending its abilities as a “eye in the sky” to detect enemy vessels or craft in the combat theater, and to launch the necessary response or countermeasures when needed.

Like its early ancestor the Zeppelin, the craft keeps its shape due to its rigid internal structure, while making use of many more modern features such as electric thrust vectoring, or automatic ballast shifting to maintain is stability while in flight. Like the other “modular” ships of the fleet, the Auspice can be remote controlled from the ground by a command vessel, but often does have a small crew of ten to twenty to give it some level of independence in fulfilling its duties. When not in flight or on patrol, many Auspices would be carried on the deck of an Aviary drone carrier for maintenance or resupply.

During the war, the Auspice does prove its worth in battle as its unique position above the sea keeps it out of range of many of the Babel particle dispersing systems, and hence could use its radar to monitor and defend against missile attacks. Few avatars could fly high enough to attack it, and it was not uncommon for the Auspice to be even ignored during an attack. But this did not protect it from the powerful long range weapons that the Cosmic Heavens forces brought with them.

Inter-Mecha Linkage Range: 200 scale x1 Hexes, all combat ships are subservient to any Apex or Axiom class ship(s) in the fleet designated as the flagship.

ONE Navy / ONEN Ships: Aviary class Support Cruiser

Name:		Crew Compliment:		Weight (Full):		Cost:		Length / Width / Draft:		
Aviary class Support Carrier		50 crew members when crewed.		22,000 Tons (20.4 Tons)		196,786.8 points		180.0 m / 75.6 m / 8.4 m		
Form:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:			
Boat Form (scale x100)		-5	5	0	0	4	+1 Int / +1 tech			
Base: 8+1D10		(4 x 1 Mod)								
Power Plant:		Source:		XS:		Misc:				
Main - Standard		Fusion (Hot)		0						
Maneuver Pool										
Cockpit:		Controls:		Loc:		Enc.:				
Main		Screen		Main Bridge		Enclosed				
Sensors:		Class:	Loc:		Kills:	Range:	Comm:			
Main Sensor Suite		Striker	Main Bridge		100	400 Km	80,000 Km			
- R/R Analyzer		Main Bridge								
- Spotting Radar		Main Bridge - Mount		400	4,000 Km					
- Marine Suite		Hull								
Secondary Sensor Suite		Striker	Main Bridge		100	400 Km	80,000 Km			
Movement Systems:		Loc:		MA:		Kills:				
Hydro-Jets Propeller #1		Hull		(1 MA) (x1 underwater modifier)						
Hydro-Jets Propeller #2		Hull		(1 MA) (x1 underwater modifier)						
Hydro-Jets Propeller #3		Hull		(1 MA) (x1 underwater modifier)						
Hydro-Jets Propeller #4		Hull		(1 MA) (x1 underwater modifier)						
Options:		Loc:		Modifiers:						
Six Spotlights		One for each surrounding hexes								
Damage Control Packages		All locations								
2 x Weapon Mounts		Two on Hull								
Stat Boost		Main Bridge		+1 to Int, and Tech.						
2 x Micro-manipulators		Two in Hull		"Cargo Cranes"						
Flight Deck: Hangar and Landing pad 1000 tons										
Multipliers:		Loc:		Modifiers:						
Monocoque Construction				See technology section.						
Environmental Protection				Arctic, & EMP						
Internal Automation		Main Bridge		Lv 4, Port 5 (Mecha Piloting, Awareness, Navigation, Expert: Military Vehicles, Mecha Tech.)						
Self Repair System				See technology section.						
Marine Hydraulics										
Servos:		Class:	Type:		Space:	Kills:	Armor:	DC:	Modifiers:	
Main Bridge		Light Weight	Head		3	200	100 / 200	100	Belted Armor, see rules.	
Hull		Superlight	Torso		3	200	200 / 200	100	Belted Armor, see rules.	
Right Outrigger		Superlight	Pod		2	200	100 / 200	100	Belted Armor, see rules.	
Left Outrigger		Superlight	Pod		2	200	100 / 200	100	Belted Armor, see rules.	
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:	
*All weapons are scale x10										
2 x Bubo CIWS		10 K / (1K)	(+1)	10	100	10 K	-	One in each Hull mount	All Purpose, beam weapon.	
4 x Torpedo Countermeasures Launchers		(1K)	0	-	-	10 K each	10	Two in each Hull mount	Counter-Only. Linked and Inter-Mecha linked.	
2 x "Missile Blocks" Each containing:								One in Hull, and each Outrigger	All Missile Blocks are linked to each other, and Inter-Mecha linked.	
40 x Pilum Missiles		10 K	(+2)	80	6400	30 K each	-	Missile Block	Long Range, Anti-Missile var.	
4 x Ballista Missiles		30 K	(+2)	90	8100	20 K each	-	Missile Block	Long Range	
8 x Pelican ASROC Missiles		10 K	0	60	3600	10 K each	-	Missile Block	Smart 2, Skill +6, Blast 10	



Overview:

Like the Armory class, the Aviary class carrier is a completely automated and remote controlled aircraft carrier designed to operate with in fleet formations, serving as another "modular component" to another command vessel such as an Axiom, or Apex. Able to provide launch, and repair facilities for over eighty drone aircraft at any one time, the Aviary class forms a major part of the strike capability for any fleet. Crews tend to be fairly small, mainly stationed to monitor all activities while the AI does the majority of the work, even docking in port. Drones are kept in a partially disassembled form until needed, where they are then assembled, fueled, armed, and then sent to the flight deck for launch. Two drones can be launched or received every 20 seconds.

During the war with the high attrition rate of drones and some carriers being completely depleted of their air compliment, some Aviary carriers have been converted into emergency platforms for refugees or injured soldiers as their large flight decks offer large amounts of flat space to set up tents and other temporary structures.

Carried Vehicles:

The normal amount of drone aircraft carried usually range around 80 drones, either of the Hummingbird or Osprey class. Some drones are even outfitted to serve as flying refueling drones. In an emergency situation, the Aviary can serve as a landing point for an Auspice class blimp.

Inter-Mecha Linkage Range: 200 scale x1 Hexes, all combat ships are subservient to any Apex or Axiom class ship(s) in the fleet designated as the flagship.

ONE Navy / ONEN Ships: Bulwark class Destroyer

Name:	Crew Compliment:	Weight (Full):	Cost:	Length / Width / Draft:				
Bulwark class destroyer	120 crew members	14,800 Tons (28.5 Tons)	307,680.8 points	180.0 m / 24.6 m / 8.4 m				
Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Boat Form (scale x100)	-5	5	0	0	4	+1 Int / +1 tech		
Base: 8+1D10					(4 x 1 Mod)			
Power Plant:	Source:	XS:	Misc:					
Main - Standard	Fusion (Hot)	0						
Maneuver Pool								
Cockpit:	Controls:	Loc:	Enc.					
Main	Screen	Main Bridge	Enclosed					
Sensors:	Class:	Loc:	Kills:	Range:	Comm:			
Main Sensor Suite	Striker	Main Bridge	100	400 Km	80,000 Km			
- R/R Analyzer		Main Bridge						
- Spotting Radar		Main Bridge - Mount	400	4,000 Km				
- Marine Suite		Hull						
Secondary Sensor Suite	Striker	Main Bridge	100	400 Km	80,000 Km			
Movement Systems:	Loc:	MA:	Kills:					
Hydro-Jets Propeller #1	Hull	(1 MA) (x1 underwater modifier)						
Hydro-Jets Propeller #2	Hull	(1 MA) (x1 underwater modifier)						
Hydro-Jets Propeller #3	Hull	(1 MA) (x1 underwater modifier)						
Hydro-Jets Propeller #4	Hull	(1 MA) (x1 underwater modifier)						
Options:	Loc:	Modifiers:						
Six Spotlights	One for each surrounding hexes							
Damage Control Packages	All locations							
2 x Weapon Mounts	Two on Hull							
Stat Boost	Main Bridge		+1 to Int, and Tech.					
2 x Micro-manipulators	Two in Hull		"Cargo Cranes"					
Flight Deck: Hangar and Landing pad 200 tons								
Multipliers:	Loc:	Modifiers:						
Monocoque Construction		See technology section.						
Environmental Protection		Arctic, & EMP						
Internal Automation	Main Bridge	Lv 4, Port 5 (Mecha Piloting, Awareness, Navigation, Expert: Military Vehicles, Mecha Tech.)						
Self Repair System		See technology section.						
Marine Hydraulics								
Servos:	Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:	
Main Bridge	Light Weight	Head	3	200	100 / 200	100	Belted Armor, see rules.	
Hull	Superlight	Torso	3	200	200 / 200	100	Belted Armor, see rules.	
Turret #1	Lightweight	Head	3	200	200	100		
Turret #2	Lightweight	Head	3	200	200	100		
Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
*All weapons are scale x10								
1 x Gae Bulg Rail Gun #1	30 K	(+2)	175	30625	60 K	-	Front Turret #1	Long Range, Hyper- Velocity, Bv 3, Anti-Missile var., Inter-Mecha Linked.
--Ammo #1					20 K	30	Hull	Tracer
--Ammo #2					10 K	6	Hull	Scatter Shot, Blast I
1 x Gae Bulg Rail Gun #2	30 K	(+2)	175	30625	60 K	-	Front Turret #2	Long Range, Hyper- Velocity, Bv 3, Anti-Missile var., Inter-Mecha Linked.
--Ammo #1					20 K	30	Hull	Tracer
--Ammo #2					10 K	6	Hull	Scatter Shot, Blast I
2 x Bubo CIWS	10 K / (1K)	(+1)	10	100	10 K	-	One in each Hull mount	All Purpose, beam weapon.
4 x Torpedo Countermeasures Launchers	(1K)	0	-	-	10 K each	10	Two in each Hull mount	Counter-Only. Linked and Inter-Mecha linked.
3 x "Missile Blocks"							Three in Hull	All Missile Blocks are linked to each other, and Inter-Mecha linked.
Each containing:								
33 x Plium Missiles	10 K	(+2)	80	6400	30 K each	-	Missile Block	Long Range, Anti-Missile var.
8 x Ballista Missiles	30 K	(+2)	90	8100	20 K each	-	Missile Block	Long Range
8 x Pelican ASROC Missiles	10 K	0	60	3600	10 K each	-	Missile Block	Smart 2, Skill +6, Blast 10

Overview:

The Bulwark class frigate is a multifunction ship that can operate in either littoral or deep water operations. Sometimes alone on independent missions, or as part of a larger fleet when additional protection or surveillance abilities are required. Its main function is in the realm of anti-submarine warfare and patrol missions, though it can provide long range support of inland operations. If a command vessel is not present or has been disabled, a Bulwark destroyer's AI network can assume control of a fleet in an emergency, or even work with other Bulwarks in range to share the work load.

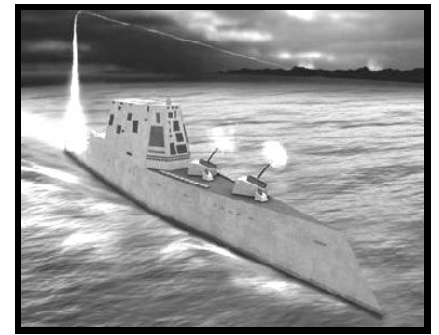
Its wave-piercing tumblehome hull form with sides sloping inward above the waterline creates a reduced radar cross-section, returning much less energy than a more hard-angled hull form, making for a stealthily vessel that can patrol any of the Earl's seas.

Carried Vehicles:

There is enough space for one Percheron tilt rotor VTOL aircraft to land and function, while a second one can be in the hangar being serviced or stored.

Standard drone load is 4 to 8 Buri, with an additional 1 to 2 serving as towed arrays.

Inter-Mecha Linkage Range: 200 scale x1 Hexes, all combat ships are subservient to any Apex or Axiom class ship(s) in the fleet designated as the flagship. In an emergency, a Bulwark or group of Bulwarks can assume command of a fleet if no higher ranking vessels are present.



ONE Navy / ONEN Ships: Buttress littoral combat support ship

Name: Buttress littoral combat support ship		Crew Compliment: 30 crew members + 30 mission crew		Weight (Full): 3,100 Tons (20.2 Tons)		Cost: 105,591.2 points		Length / Width / Draft: 127.4 m / 31.6 m / 4.3 m									
Form: Boat Form (scale x100) Base: 8+1D10		Mv: -5	Max Ref: 5	Ground: 0	Flight: 0	Water: 5 (5 x 1 Mod)	Misc: +1 Int / +1 tech										
Power Plant: Main - Standard Maneuver Pool		Source: Fusion (Hot)		XS: 0		Misc:											
Cockpit: Main		Controls: Screen		Loc: Main Bridge		Enc.: Enclosed											
Sensors: Main Sensor Suite - R/R Analyzer - Spotting Radar - Marine Suite Secondary Sensor Suite		Class: Striker		Loc: Main Bridge Main Bridge Main Bridge - Mount Hull Main Bridge		Kills: 100 400 4,000 Km 100 400 Km		Range: 400 Km 4,000 Km		Comm: 80,000 Km 80,000 Km							
Movement Systems: Hydro-Jets Propeller #1 Hydro-Jets Propeller #2 Hydro-Jets Propeller #3 Hydro-Jets Propeller #4 Hydro-Jets Propeller #5		Loc: Hull Right Outrigger Hull Left Outrigger Hull		MA: (1 MA) (x1 underwater modifier) (1 MA) (x1 underwater modifier) (1 MA) (x1 underwater modifier) (1 MA) (x1 underwater modifier) (1 MA) (x1 underwater modifier)		Kills:											
Options: Six Spotlights Damage Control Packages 2 x Weapon Mounts Stat Boost 2 x Micro-manipulators Flight Deck: Hangar and Landing pad 200 tons Vehicle Bay: 400 tons		Loc: One for each surrounding hexes All locations Two on Hull Main Bridge Two in Hull		Modifiers: +1 to Int, and Tech. "Cargo Cranes"													
Multipliers: Monocoque Construction Environmental Protection Internal Automation Self Repair System Marine Hydraulics		Loc: Main Bridge		Modifiers: See technology section. Arctic, & EMP Lv 4, Port 5 (Mecha Piloting, Awareness, Navigation, Expert: Military Vehicles, Mecha Tech.) See technology section.													
Servos: Main Bridge Hull Right Outrigger Left Outrigger Turret #1		Class: Superlight Superlight Lightweight Lightweight Superlight		Type: Head Torso Pod Pod Head		Space: 2 3 4 4 2		Kills: 100 200 100 100 100		Armor: 100 / 100 100 / 200 100 / 200 100 / 200 100		DC: 100 100 100 100 100		Modifiers: Belted Armor, see rules. Belted Armor, see rules. Belted Armor, see rules. Belted Armor, see rules.			
Weapons: *All weapons are scale x10 1 x 60mm Cannon --Ammo #1 --Ammo #2 2 x Bubo CIWS 2 x Torpedo Countermeasures Launchers 2 x "Missile Blocks" Each containing: 20 x Pilum Missiles 4 x Ballista Missiles 8 x Pelican ASROC Missiles		Damage: 20 K 10 K / (1K) (1K)		Wa: (+2) (+1) 0		Range: 20 10 -		Max Range: 400 100 -		Kills: 20 K 10 K 10 K 10 K each -		Shots: - 10 10 10 -		Loc: Front Turret Hull Hull One in each Hull mount One in each Hull mount One in each Outrigger		Special: Long Range, Bv 4 Tracer Tracer All Purpose, beam weapon. Counter-Only. Linked and Inter-Mecha linked. All Missile Blocks are linked to each other, and Inter-Mecha linked. Long Range, Anti-Missile var. Long Range Smart 2, Skill +6, Blast 10	





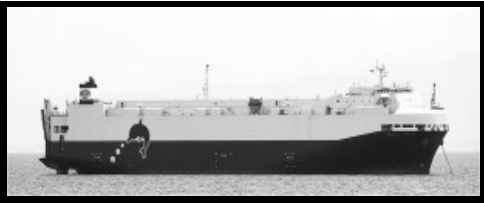
Overview:
The Buttress class corvette is a multifunction ship that can operate in either littoral or deep water operations in a supporting role to other vessels as it was never intended to directly attack large vessels. Its large bays can hold several modular multiple mission containers to alter its functionality in a short period of time. Though it is used mostly as a carrier for amphibious assaults, or the general moving of land vehicles and equipment. Its other main functions are in the realm of anti-submarine warfare and patrol missions.

Carried Vehicles:
There is enough space for one Percheron tilt rotor VTOL aircraft to land and function, while a second one can be in the hangar being serviced or stored. Its vehicle bay can hold up to ten Defender tanks or the same number in APCs.

Inter-Mecha Linkage Range: 200 scale x1 Hexes, all combat ships are subservient to any Apex or Axiom class ship(s) in the fleet designated as the flagship.

ONE Navy / ONEN Ships: Burro class carrier

Name: Burro class "crab pot" carrier		Crew Compliment: 30 crew members + 30 support team + 30 or more Pilots		Weight (Full): 10,000 to 35,000 Tons (27.0 Tons)		Cost: 15,413.2 points		Length / Width / Draft: 63.0 m / 16.0 m / 1.3 m	
Form: Boat Form (scale x100) Base: 8+1D10		Mv: -5	Max Ref: 5	Ground: 0	Flight: 0	Water: 4 (4 x 1 Mod)	Misc:		
Power Plant: Main - Standard		Source: Fusion (Hot)		XS: 0		Misc:			
Maneuver Pool									
Cockpit: Main		Controls: Screen		Loc: Main Bridge		Enc.: Enclosed			
Engineering		Screen		Hull		Enclosed			
Launch / Maintenance Bay "Crabpots"		Screen		Hull		Enclosed			
Sensors: Main Sensor Suite (x100 scale)		Class: Striker		Loc: Main Bridge		Kills: 100		Range: 400 Km	
- R/R Analyzer				Main Bridge				8,000 Km	
- Marine Suite				Hull					
Secondary Sensor Suite		Striker		Hull		100		400 Km	
Movement Systems: Hydro-Jets Propeller #1		Loc: Hull		MA: (1 MA) (x1 underwater modifier)		Kills:			
Hydro-Jets Propeller #2		Hull		(2 MA) (x1 underwater modifier)					
Hydro-Jets Propeller #3		Hull		(1 MA) (x1 underwater modifier)					
Options: Six Spotlights		Loc: One for all six surrounding hexes		Modifiers:					
Damage Control Packages		All locations							
4 x Micro-manipulators		Hull		"Cranes"					
2 x Weapon Mounts		Hull							
Cargo Bay: 3200 tons									
Multipliers: Monocoque Construction		Loc:		Modifiers: See technology section.					
Environmental Protection				Arctic, & EMP					
Self Repair System				See technology section.					
Marine Hydraulics									
Weight Inefficiency									
Servos: Main Bridge		Class: Medium Striker		Type: Head		Space: 6		Kills: 400	
Hull		Medium Striker		Torso		12		800	
						200 / 200		100	
								100	
Weapons: *All weapons are scale x10		Damage:		Wa:		Range:		Max Range:	
4 x Bubo CIWS		10 K / (1K)		(+1)		10		100	
								10 K	
								-	
								Two in each Mount	
								All Purpose, beam weapon.	
2 x Torpedo Countermeasures Launchers		(1K)		0		-		-	
						10 K each		10	
								Two in Hull	
								Counter-Only. Linked and Inter-Mecha linked.	



Overview:
The Burro is the name assigned to any cargo vessel that has been converted to carry armed worker submersible pods, nicknamed "crab pots," in to battle. The majority of which were often smaller ships hastily modified to have the necessary support equipment, bays, "moon pool" and defensive systems to carry out their dangerous function. As the war went on, some ships were built from the ground up to serve as a submersible pod carrier using the same construction techniques used for the victory ships of the second world war. In essence, a Burro carrier is nothing more than a empty armored shell to protect the cargo inside, and hopefully can bring its load of submersible combat vehicles back home or to the next war zone.

Either as a converted or purpose built ship, the Burro is a very vulnerable vessel, most defensive armaments are installed as a second thought, and none can take advantage of using a fleets control network to defend itself with. In most formations, the Burros are often kept near the command vessels for protection. But since they themselves are often targets for attack, this often does not make the Burros' situation any easier.

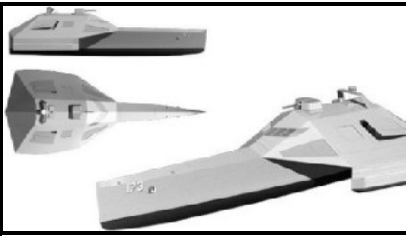
Carried Vehicles:
Normally, most Burros will have a dozen to even three dozen crab pots on board, occasionally more can be crammed in if the situation requires it.

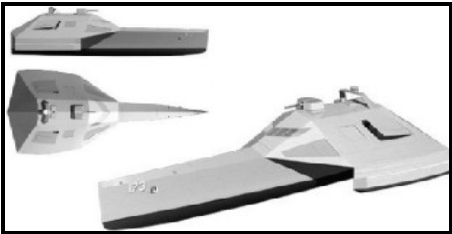
The launching of which can be done in a very fast, if not chaotic, manner as all submersible pods are dumped out through the bottom of the ship in a series of chutes and quickly dispersed. Retrieving the pods after a battle is often a very long drawn out process, and can take several hours.

Inter-Mecha Linkage Range: None of the systems on a Burro class vessel are linked with those of another, command and operation of the ship is done solely by its crew.

ONE Navy / ONEN Ships: Clipeus patrol vessel

Name:		Crew Compliment:		Weight (Full):		Cost:		Length / Width / Draft:	
Clipeus patrol vessel		20 crew members + 10 special team		600 Tons (48.0 Tons)		15,413.2 points		63.0 m / 16.0 m / 1.3 m	
Form:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Boat Form (scale x10)		-5	5	0	0	5	+1 Int / +1 tech		
Base: 8+1D10						(5 x 1 Mod)	+67% MP		
Power Plant:		Source:		XS:	Misc:				
Main - Supercharged		Fusion (Hot)		0					
Maneuver Pool		(+ 67% MP)							
Cockpit:		Controls:		Loc:		Enc.:			
Main		Screen		Main Bridge		Enclosed			
Sensors:		Class:		Loc:	Kills:	Range:	Comm:		
Main Sensor Suite (x100 scale)		Lightweight		Main Bridge	100	200 Km	5,000 Km		
- R/R Analyzer				Main Bridge					
- Marine Suite				Hull					
Secondary Sensor Suite		Lightweight		Hull	100	200 Km	5,000 Km		
Movement Systems:		Loc:		MA:		Kills:			
Hydro-Jets Propeller #1		Right Outrigger		(1 MA) (x1 underwater modifier)					
Hydro-Jets Propeller #2		Hull		(3 MA) (x1 underwater modifier)					
Hydro-Jets Propeller #3		Left Outrigger		(1 MA) (x1 underwater modifier)					
Options:		Loc:		Modifiers:					
Four Spotlights		Three for forward hexes, One rear hex							
Damage Control Packages		All locations							
Stat Boost		Main Bridge		+1 to Int, and Tech.					
Cargo Bay: 20 tons									
Multipliers:		Loc:		Modifiers:					
Monocoque Construction				See technology section.					
Environmental Protection				Arctic, & EMP					
Internal Automation		Main Bridge		Lv 4, Port 5 (Mecha Piloting, Awareness, Navigation, Expert: Military Vehicles, Mecha Tech.)					
Self Repair System				See technology section.					
Marine Hydraulics									
Servos:		Class:		Type:	Space:	Kills:	Armor:	DC:	Modifiers:
Main Bridge		Heavy Striker		Head	8	50	40 / 40	10	Belted Armor, see rules.
Hull		Heavy Striker		Torso	15	100	40 / 60	10	Belted Armor, see rules.
Right Outrigger		Heavy Striker		Pod	3	60	30 / 60	10	Belted Armor, see rules.
Left Outrigger		Heavy Striker		Pod	3	60	30 / 60	10	Belted Armor, see rules.
Turret #1		Lightweight		Head	3	20	30	10	
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
*All weapons are scale x10									
1 x Bubo CIWS		10 K / (1K)	(+1)	10	100	10 K	-	One in Turret	All Purpose, beam weapon.
2 x Torpedo Countermeasures Launchers		(1K)	0	-	-	10 K each	10	Two in Hull	Counter-Only. Linked and Inter-Mecha linked.
1 x "Missile Blocks"								One in each Outrigger	All Missile Blocks are linked to each other, and Inter-Mecha linked.
Each containing:									
20 x Pilum Missiles		10 K	(+2)	80	6400	30 K each	-	Missile Block in Hull	Long Range, Anti-Missile var.
2 x Ballista Missiles		30 K	(+2)	90	8100	20 K each	-	Missile Block in Hull	Long Range
2 x Pelican ASROC Missiles		10 K	0	60	3600	10 K each	-	Two in each Outrigger	Smart 2, Skill +6, Blast 10





Overview:

The Clipeus class is a small multifunction ship that can operate in either littoral or deep water operations, even deep inland via many rivers. Small, quiet, and stealthy, it is a very capable watercraft for many different types of missions ranging from insertion/recovery, to reconnaissance, and fleet defense. When large fleets need additional layers of defense, many Clipeus are pressed into duty to form an outer layer around the fleet, or even may serve as small packs of hunting ships to drive underwater or surface targets into range of the larger ships. In many cases, several Clipeus will be unmanned and remotely controlled by a command vessel to provide protection to a larger fleet or just for the flagship itself.

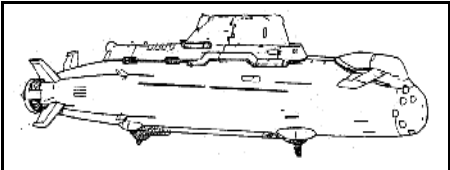
Carried Vehicles: One to two Buri submersible drones serving as towed arrays.

As Remote Controlled Ships: Treat as if the command ship has a CM of 4 for Augusts and Bulwarks, 6 for Axioms, and 8 for Apexes; with control ranges of 20, and operation range of infinite.

Inter-Mecha Linkage Range: 200 scale x1 Hexes, all combat ships are subservient to any Apex or Axiom class ship(s) in the fleet designated as the flagship.

ONE Navy / ONEN Ships: Bonito class Hunter Submarine

Name: Bonito class Hunter Submarine			Weight: 7,000 Tons (20 Tons)			Cost: 11,544.66 points			Length: 120.0 meters			Beam (width): 15.0 meters														
Form: Submarine Form Scale x10			Mv: -5			Max Ref: 0			Flight: 0			Water: 5			Misc: +2 Int											
Base: 8+1D10												(10 x 1/2 Mod)			-4 Silent / +100% MP											
Power Plant: Main - Over-Charged			Source: Fusion (Cool)			XS: 1			Misc: +1 MV																	
Maneuver Pool			0																							
Cockpit: Main			Controls: Screen			Loc: Bridge			Type: "Commander"			Enc.: Enclosed														
Drone "Arcade"			Screen			Bridge			Drone control			Enclosed														
Sensors: Main			Class: Lightweight			Loc: Hull			Kills: 10			Range: 20 Km			Comm: 5,000 Km											
R/R Analyzer						Hull																				
Resolution Intensifiers			x16 audio			Hull																				
Secondary			Lightweight			Hull			10			20 Km			5,000 Km											
Back-Up			Super Light			Hull			0			10 Km			3,000 Km											
Movement Systems: Hydro-Jets			Loc: Hull			MA: (5 MA) (1/2 underwater modifier)			Kills: 0																	
Options: 3 x Spotlights			Loc: Two in Torso			Modifiers: Each Location																				
Damage Control Package						Hull																				
100 tons of Cargo Space						Hull																				
1 x Micro-manipulator																										
Silent Running												-4 for Hydro-Jets														
Stat Boost												+2 Int														
2 x Maneuver Pods						Hull						One in each end of Hull.														
Multipliers: Monocoque Construction			Loc: All Locations			Modifiers: See Rules																				
Self Repair Systems																										
Marine Hydraulics																										
Environmental												Arctic, and EMP														
Stealth												Advanced Stealth, see rules.														
A.C.E.												+100% MP														
Servos: Hull			Class: Light Heavy			Type: Torso			Space: 21			Kills: 140			Armor: 30 / 60 / 90			DC: 10			Modifiers: Scaled, Belted Armor. See rules.					
Weapons: 6 x Torpedo Tubes			Damage: 10 K			Wa: (+2)			Range: 30			Max Range: 900			Kills: 10 K			Shots: 8			Loc: One set in Hull			Special: Long Range, Bv 6, built as projectile weapon.		
- Ammo Bay #1															10 K			8			Hull			Tracer		
- Ammo Bay #2															10 K			8			Hull			Tracer		
- Ammo Bay #3															10 K			10			Hull			Blast 10		
- Ammo Bay #4															10 K			8			Hull			Standard		
- Ammo Bay #5															10 K			8			Hull			Standard		
6 x Torpedo Countermeasures Launchers			(1K)			0			-			-			10 K each			10			Six in Hull			Counter-Only. Linked.		



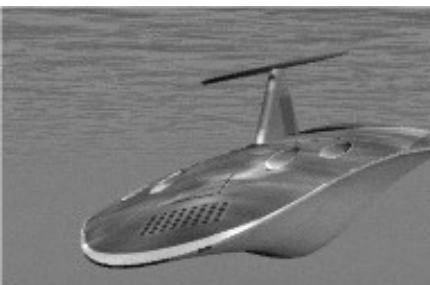
Overview:
The Bonito class hunter submarine is the main stay of the submersible fleet, quietly patrolling both deep ocean and coast lines for any possible threat ranging from hostile submarine forces from non-aligned nations to pirates and slave traffickers. Unlike their surface combat cousins, the submersible fleet has never adopted the "One fleet, One mine" philosophy, and pushed for a more individual minded form of tactics and strategy. When a fleet is on patrol, the submarines will be on the prow with full orders to freely respond to any detected threat.
With the majority of the Cosmic Heavens naval fleets being submersible, the Bonito has come into its own often being the only reliable defense against the enemy vessels and avatars.

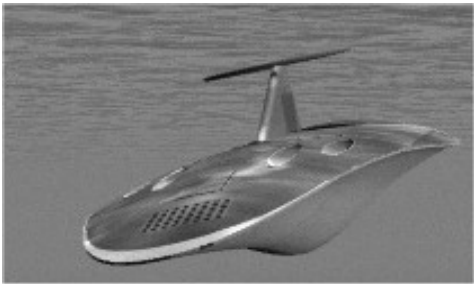
Carried Vehicles: Standard drone load is 4 to 8 Buri, with an additional 1 to 2 serving as towed arrays.

Inter-Mecha Linkage Range: None of the weapons are inter-Mecha linked.

ONE Navy / ONE Army - Drone Watercraft:

Name:		Weight (Dry):		Weight (Full):		Cost:		Length / Wingspan:		
Buri Submersible Drone		2.0 tons		2.8 tons		145.74 points		6.3 m / 4.0 m		
Form:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:			
Submarine Form x1/5 Scale		-5	5	0	0	8	+1 Int / -3 silent			
						(16 x 1/2 Mod)				
Power Plant:		Source:		XS:		Misc:				
Main - Standard		Fusion (Hot)		5						
Maneuver Pool										
Cockpit:		Controls:		Loc:		Enc:				
Main		Screen		Torso		Enclosed				
Sensors:		Class:		Loc:		Kills:	Range:	Comm:		
Main		Striker		Torso		1	4 Km	80 Km		
R/R Analyzer				Torso						
Resolution Intensifiers		x8 audio		Torso						
Movement Systems:		Loc:		MA:		Kills:				
Hydro-Jets		Torso		8 (16)		0				
Options:		Loc:		Modifiers:						
2 x Spotlights				Two in Torso						
1 x Manipulator				One in Torso						
Silent Running						-3 Hydro-Jets				
Stat Boost				Torso		+1 Int				
Multipliers:		Loc:		Modifiers:						
Monocoque Construction										
Marine Hydraulics										
Internal Automation		Torso		Level 4, Port 4 (Mecha Piloting, Mecha Gunnery, Awareness, Expert: Tactics)						
Environmental Protection				Arctic, and EMP						
Stealth				Standard, see rules.						
A.C.E.				+100% MP						
Servos:		Class:		Type:		Space:	Kills:	Armor:	DC:	Modifiers:
Fuselage		Super Heavy		Torso		10	6	4 / 6	1	Scaled Armor
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:	
One of the following x1/5 scale payloads:										All are Inter-Mecha linked.
45 x Light Torpedoes		1 K	(+2)	10	100	3 K each		45 in Torso		
6 x Medium homing torpedoes		4 K	0	8	64	2 K each	-	One set in one mount	Smart 1, Skill +6	





Overview:
The Buri submersible drone is the mainstay unit for the underwater navy, able to quietly sneak in to hostile waters for reconnaissance or anti-mine duty. With its very small form, stealth, and high speed, its only limitation is the lack of being able to absorb a lot of damage.
Like all drones, they are capable of working together in groups; planning their own pattern of attack, selecting targets, or even volunteering to serve as decoys for the others during the execution of a mission. These “wolf packs” are very dynamic and capable on their own, but they can still be controlled from long range by the remote operators in an “arcade” on a ship, carrier, or at a stationary base. The weapon systems are networked together, and can all be fired at once by one command issued by the drone “in charge,” or by the remote operators.
The versatile nature of the drone also allows it serve as a towed sonar array for a larger vessel, such as either the Bulwark and Bonito.

Variants:
None.

Inter-Mecha Linkage Range:
When working as part of a squadron or “wolf pack,” all of the drones participating in an attack must be with in 20 scale x1 Hexes of another formation member for them to be able to fire their weapons payload together as one action. This can be a flexible arrangement since any of the drones can be the “leader” at any time, and combat functions can be distributed throughout the formation.

As a Towed Sonar Array: Treat as a unarmed remote with a scale x1 sensors, with a control multiplier of 2, and cable control/operation range of 20.

ONE Navy / ONEN – Submersible Converted Worker Pod:

Name:		"Crab Pot" converted submersible worker pod			Weight (Dry):		8.4 tons		Weight (Full):		12.15 Tons (42 tons)		Cost:		90.5 points		Height:		6.5meters			
Form:		Crush Depth:		Mv:		Max Ref:		Ground:		Flight:		Water:		Misc:								
Humanoid		4,500 m		-6		4		0		0		8		+100% MP								
		14,800.0 ft										(24 x 1/3 Mod)		+1 Int, +1 Tech								
Power Plant:		Source:		XS:		Misc:																
Main - Standard		RTG Power Cell (Cool)				1		24 hours combat time / 72 hours emergency support														
Maneuver Pool																						
Cockpit:		Controls:			Loc:			Enc.:														
Main		Screen			Torso			Escape Pod						Enclosed								
								Anti-Theft (code lock)														
Sensors:		Class:			Loc:			Kills:		Range:		Comm:										
Main		Striker						Head		1		4 Km		80 Km								
Back-Up		Striker						Torso		1		4 Km		80 Km								
Marine Suite					Torso																	
Movement Systems:		Loc:			MA:			Kills:														
Starboard Hydro-Jets #1		Torso			(3 MA) (1/3 underwater modifier)			0														
Starboard Hydro-Jets #2		Torso			(3 MA) (1/3 underwater modifier)			0														
Starboard Hydro-Jets #3		Torso			(3 MA) (1/3 underwater modifier)			0														
Starboard Hydro-Jets #4		Torso			(3 MA) (1/3 underwater modifier)			0														
Port Side Hydro-Jets #1		Torso			(3 MA) (1/3 underwater modifier)			0														
Port Side Hydro-Jets #2		Torso			(3 MA) (1/3 underwater modifier)			0														
Port Side Hydro-Jets #3		Torso			(3 MA) (1/3 underwater modifier)			0														
Port Side Hydro-Jets #4		Torso			(3 MA) (1/3 underwater modifier)			0														
Options:		Loc:			Modifiers:																	
Micro-manipulators					One in each Arm																	
Five Spotlights					One in Head, two in Torso																	
2 x Weapon Mounts					Two on Torso																	
Damage Control Package					Torso																	
Stat Boost					Torso																	
Escape Pod					Torso																	
Multipliers:		Loc:			Modifiers:																	
Monocoque Construction																						
Marine Hydraulics																						
Environmental Protection					Underwater, and High Pressure.																	
ACE					+100% MP																	
Servos:		Class:			Type:			Space:		Kills:		Armor:		DC:		Modifiers:						
Head		Super Heavy			Head			15		2 K		4 K, scaled armor		1 K								
Torso		Super Heavy			Torso			30		4 K		2 K / 6 K scaled armor		1 K		Belted Armor, see rules.						
R & L Arm		Armored Heavy			Arm			15		2 K		3 K, scaled armor		1 K		+0 K, Throw 5						
Weapons:		Damage:		Wa:		Range:		Max Range:		Kills:		Shots:		Loc:		Special:						
2 x Griper Claws		2 K		0		Melee		-		2 K				1 in each Arm		Quick						

Overview:

The "crab pot" is a generic name for any underwater worker pod that has been converted for combat use. Developed as a desperate attempt to field a machine that could be used against the aquatic avatars of the Cosmic Heavens, the crab pot has proven itself with mixed results as a usable weapon but often at the expense of survivability for it and its pilots. It seems it is best used in large numbers where it could outnumber any attacking foe, but with the fluid nature of warfare, this is not always possible. Its main advantages seems to be its simple and modular construction, and its quick turning ability due to its smaller size and ball like shape.

Crab pots are often launched into combat from converted freighters that have had "moon pools" built into their bottom hulls. This was done shortly after their first use when it was realized that the submersible pods were vulnerable to the effects of heavy Babel particle contamination when exposed on open ship decks without any form of protection. Since then it has been standard procedure to release and receive crab pots through the carrier ship's moon pool, where the hull can provide some level of protection.

Variants:

Most attempts to produce a variant have often been the result of a field repair or the cobbling of available parts to make a machine combat ready, so much so it would be impossible to list them all.

"Piranha":

Cost: 116.1 pts

Another version meant for supporting other units, each mount holds several light torpedoes and can be fired in several or in one large volley to overcome any mobile target. Main drawback is the rather quickly rate of depletion of its torpedoes after more than a few firings.

Additional Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
45 x Light torpedoes	1 K	-1	10	100	3 K each	-	One set in one mount	Linked, x1/5 scale weapon
45 x Light torpedoes	1 K	-1	10	100	3 K each	-	One set in one mount	Linked, x1/5 scale weapon

"Barracuda":

Cost: 114.8 pts

Designed to track and target fast moving underwater units with its homing torpedoes. Main drawback being its limited number of shots before it is defenseless.

Additional Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
6 x Medium homing torpedoes	4 K	0	8	64	2 K each	-	One set in one mount	Smart 1, Skill +6, Linked x1/5 scale weapon
6 x Medium homing torpedoes	4 K	0	8	64	2 K each	-	One set in one mount	Smart 1, Skill +6, Linked x1/5 scale weapon

"Moray":

Cost: 186.17 pts

In an attempt to field a unit that had a similar anti-ship capability as the Cosmic Heaven's aquatic avatars, some crab pots carry a heavily stripped down version of a standard anti-ship torpedo. Despite being a risky weapon to use, several enemy vessels have been crippled or sunk by ambush or stealth tactics.

Additional Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Anti-Ship Torpedo	100 K	-1	10	-	100 K	-	One held by both mounts	x10 scale weapon

*All weights have been balanced out to not affect the normal stats of this unit despite the tremendous size of a x10 scale missile being used by a x1/5 scale machine.

Special Notes:

Kills and Hits: This is a x1/5 scale unit, with x1 scale armor. All damage listings are in Kills, not in Hits unless otherwise noted.

ONE Navy / ONE Army - Drone Aircraft:

Name:		Weight (Dry):		Weight (Full):		Cost:		Length / Wingspan:	
UF-74A Osprey Stealth Drone		2.1 tons		2.94 tons (29.4 tons)		492.36 points		8.08 m / 10.3 m	
Form:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Fighter Form x1/5 Scale		-5	5	0	18 - 26	0	+66% MP		
							+1 Int		
Power Plant:		Source:		XS:	Misc:				
Main - Overcharged		Fusion (Hot)		5	+1 MV, + 33% MP				
Maneuver Pool									
Cockpit:		Controls:		Loc:		Enc.:			
Main		Screen		Torso		Enclosed			
Sensors:		Class:	Loc:		Kills:	Range:	Comm:		
Main		Striker	Torso		1	4 Km	80 Km		
R/R Analyzer			Torso						
Secondary		Striker	Torso		1	4 Km	80 Km		
Movement Systems:		Loc:		MA:		Kills:			
After-burning Thrusters		Torso		8 - 12 MA (4 MA x 2 Mod)		0			
After-burning Thrusters		Torso		8 - 12 MA (4 MA x 2 Mod)		0			
Fuel: 2 x 2,000 Km range (4,000 Km total)		Torso				0			
Options:		Loc:		Modifiers:					
One Spotlight				One in Torso					
Stat Boost				One in Torso					
Quick Change Mount				Pod					
Multipliers:		Loc:		Modifiers:					
Monocoque Construction									
Internal Automation		Torso		Level 4, Port 4 (Mecha Piloting, Mecha Gunnery, Awareness, Expert: Tactics)					
Environmental Protection				Arctic, Desert, & EMP					
ACE				+33% MP					
Stealth				Standard, see rules.					
Servos:		Class:	Type:		Space:	Kills:	Armor:	DC:	Modifiers:
Fuselage		Super Heavy	Torso		10	6	3	1	Scaled Armor
Right Wing		Mega Heavy	Wing		5	3	2	1	Scaled Armor
Left Wing		Mega Heavy	Wing		5	3	2	1	Scaled Armor
Weapons Pod		Super Heavy	Pod		30	0	3	1	Scaled Armor
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
One of the following x1 scale payloads:									- all are Inter-Mecha linked
10 x Light Bombs		2 K	0	0	-	2 K	-	10 in Pod	Blast 1
4 x Medium Bombs		5 K	0	0	-	2 K	-	4 in Pod	Blast 1
2 x Heavy Bombs		10 K	0	0	-	2 K	-	2 in Pod	Blast 1
1 x Very Heavy Bomb		15 K	0	0	-	1 K	-	1 in Pod	Blast 2
20 x Light Cluster Bombs		1 K	0	0	-	2 K	-	20 in Pod	Blast 1
12 x Medium Cluster Bombs		1 K	0	0	-	2 K	-	12 in Pod	Blast 3
8 x Heavy Cluster Bombs		1 K	0	0	-	2 K	-	8 in Pod	Blast 6
6 x Very Heavy Cluster Bombs		1 K	0	0	-	2 K	-	6 in Pod	Blast 10
10 x Light Strike Missiles		2 K	0	10	100	2 K	-	10 in Pod	
6 x Medium Strike Missiles		4 K	0	11	121	2 K	-	6 in Pod	
3 x Heavy Strike Missiles		10 K	0	11	121	2 K	-	3 in Pod	
2 x Very Heavy Strike Missiles		15 K	0	14	196	2 K	-	2 in Pod	
6 x Smoke Bombs		(4 K)	0	0	-	2 K	-	6 in Pod	Blast 3, Smoke
30 x Air-Deployable Sonar Buoys					Drops like a free fall bomb.		30	30 in Pod	Treat as self contained scale x1/10, Lightweight sensor suites; Sonar range 1 Km, Comm range 10 Km, Life span: 8 hours active ping mode, 24 hours stand by passive mode. Environment protections: arctic, underwater, high pressure, EMP.



Overview:
The Osprey is the most commonly used drone fighter for the ONE Naval and Land forces. High speed, stealth, and able to quickly penetrate deep into heavily protected areas, the Osprey can collect reconnaissance or deliver a payload with high accuracy. Their only limitation is their lack of being able to absorb a lot of damage.
Like all drones, they are capable of working together in groups; planning their own pattern of attack, selecting targets, or even volunteering to serve as decoys for the others during the execution of a mission. These “wolf packs” are very dynamic and capable on their own, but they can still be controlled from long range by the remote operators in an “arcade” on a ship, carrier, or at a stationary base. The weapon systems are networked together, and can all be fired at once by one command issued by the drone “in charge,” or by the remote operators.

Variants:
None.

Inter-Mecha Linkage Range:
When working as part of a squadron or “wolf pack,” all of the drones participating in an attack must be within 20 scale x1 Hexes of another formation member for them to be able to fire their weapons payload together as one action. This can be a flexible arrangement since any of the drones can be the “leader” at any time, and combat functions can be distributed throughout the formation.

Sonar Buoys:
These are small air dropped sensor buoys that are easily recoverable or disposable. Their sonar range is 1 Km (20 hexes), and can transmit to a monitoring station, aircraft, or vehicle 10 Km away, which can then relay the data to another point. They should be considered for intents to be 1/10th scale super light sensors with underwater, high pressure, arctic, and EMP environmental protections.
They can function in two different modes:
Active mode: The buoy constantly transmits a sonar ping to monitor traffic moving through the area, recording environmental information like temperature, water and barometric pressure, current directions, etc. When set in this mode, its batteries will keep it functional for 8 hours.
Passive mode: The buoy will simply float in one spot while passively scanning through its hydrophones and passive sonar, and reports its collected information every 15 to 30 minutes. The time frame can be varied prior to being dropped if necessary. Battery time will be preserved for up to 24 hours.

ONE Navy / ONE Army - Drone Aircraft:

Name:		Weight (Dry):		Weight (Full):		Cost:		Length / Wingspan:	
UGF-101 Hummingbird ground attack Drone		2.1 tons		2.52 tons (25.2 tons)		571.97 points		9.93 m / 8.27 m	
Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:			
Fighter Form Scale x1	-5	5	0	18	0	+66% MP			
						+1 Int			
Power Plant:		Source:		XS:	Misc:				
Main - Overcharged		Fusion (Hot)		5	+1 MV, + 33% MP				
Maneuver Pool									
Cockpit:	Controls:		Loc:		Enc:				
Main	Screen		Torso		Enclosed				
Sensors:	Class:	Loc:		Kills:	Range:	Comm:			
Main	Striker			Torso	1	4 Km		80 Km	
R/R Analyzer				Torso					
Secondary	Striker			Torso	1	4 Km		80 Km	
Movement Systems:		Loc:		MA:		Kills:			
Thrusters		Right Engine Pod		8 MA (4 MA x 2 Mod)		0			
Thrusters		Left Engine Pod		8 MA (4 MA x 2 Mod)		0			
Fuel: 2 x 1,000 Km range (2,000 Km total)		Torso				0			
Options:		Loc:		Modifiers:					
One Spotlight				One in Torso					
Stat Boost				One in Torso					
2 x Quick Change Mount				+1 Int					
				One for each pod in Wing					
Multipliers:		Loc:		Modifiers:					
Monocoque Construction									
Internal Automation		Torso		Level 4, Port 4 (Mecha Piloting, Mecha Gunnery, Awareness, Expert: Tactics)					
Environmental Protection				EMP, Desert, Arctic					
ACE				+100% MP					
Servos:		Class:		Type:	Space:	Kills:	Armor:	DC:	Modifiers:
Fuselage		Medium Heavy		Torso	16	4	6	1	Scaled Armor
Right Wing		Armored Heavy		Wing	2	3	4	1	Scaled Armor
Left Wing		Armored Heavy		Wing	2	3	4	1	Scaled Armor
Right Engine Pod		Lightweight		Pod	6	0	4	1	Scaled Armor
Left Engine Pod		Lightweight		Pod	6	0	4	1	Scaled Armor
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x 30 mm Gatling Cannon		3K	0	12	144	3 K	-	Torso	Bv 5
3 x Ammo Bins						2 K	5 each	Torso	Scattershot
Two of the following x1 scale payloads:								One "pod" in each Wing	- all are Inter-Mecha linked
10 x Light Bombs		2 K	0	0	-	2 K	-	10 in Pod	Blast 1
4 x Medium Bombs		5 K	0	0	-	2 K	-	4 in Pod	Blast 1
2 x Heavy Bombs		10 K	0	0	-	2 K	-	2 in Pod	Blast 1
1 x Very Heavy Bomb		15 K	0	0	-	1 K	-	1 in Pod	Blast 2
20 x Light Cluster Bombs		1 K	0	0	-	2 K	-	20 in Pod	Blast 1
12 x Medium Cluster Bombs		1 K	0	0	-	2 K	-	12 in Pod	Blast 3
8 x Heavy Cluster Bombs		1 K	0	0	-	2 K	-	8 in Pod	Blast 6
6 x Very Heavy Cluster Bombs		1 K	0	0	-	2 K	-	6 in Pod	Blast 10
10 x Light Strike Missiles		2 K	0	10	100	2 K	-	10 in Pod	
6 x Medium Strike Missiles		4 K	0	11	121	2 K	-	6 in Pod	
3 x Heavy Strike Missiles		10 K	0	11	121	2 K	-	3 in Pod	
2 x Very Heavy Strike Missiles		15 K	0	14	196	2 K	-	2 in Pod	
6 x Smoke Bombs		(4 K)	0	0	-	2 K	-	6 in Pod	Blast 3, Smoke
30 x Air-Deployable Sonar Buoys					Drops like a free fall bomb.		30	30 in Pod	Treat as self contained scale x1/10, Lightweight sensor suites; Sonar range 1 Km, Comm range 10 Km, Life span: 8 hours active ping mode, 24 hours stand by passive mode. Environment protections: arctic, underwater, high pressure, EMP.



Overview:

The Hummingbird drone fighter is used mostly for support of land forces, but is often carried by naval carriers as well. More armored and carrying a heavier payload than its cousin, it goes where the going is the roughest. The body layout is specially designed to ensure survivability even when facing the heaviest of defenses, many of the control systems have redundant backups that can keep the drone flying long enough to return to base after having half of its wings shot off. Its specialty is tank hunting and bunker busting, for which it has earned a well deserved reputation for being the bane of many armored formations.

Variant:

None.

Inter-Mecha Linkage Range:

When working as part of a squadron or “wolf pack,” all of the drones participating in an attack must be with in 20 scale x1 Hexes of another formation member for them to be able to fire their weapons payload together as one action. This can be a flexible arrangement since any of the drones can be the “leader” at any time, and combat functions can be distributed throughout the formation.

Sonar Buoys:

These are small air dropped sensor buoys that are easily recoverable or disposable. Their sonar range is 1 Km (20 hexes), and can transmit to a monitoring station, aircraft, or vehicle 10 Km away, which can then relay the data to another point. They should be considered for intents to be 1/10th scale super light sensors with underwater, high pressure, arctic, and EMP environmental protections.

They can function in two different modes:

Active mode:

The buoy constantly transmits a sonar ping to monitor traffic moving through the area, recording environmental information like temperature, water and barometric pressure, current directions, etc. When set in this mode, its batteries will keep it functional for 8 hours.

Passive mode:

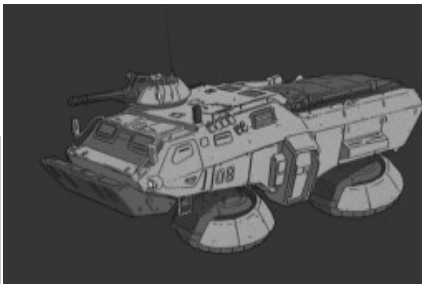
The buoy will simply float in one spot while passively scanning through its hydrophones and passive sonar, and reports its collected information every 15 to 30 minutes. The time frame can be varied prior to being dropped if necessary. Battery time will be preserved for up to 24 hours.

ONE Army – Vehicles – APCs and random vehicles:

Name: S-4 Sprinter APC (wheeled)				Weight (Full): 10.3 tons				Cost: 59.5 points		Length / Width: 7.8 m / 2.99 m	
Form: Tank Form Scale x1		Mv: -4		MR: 10		Flight: 0		Water: 2		Misc: +100% MP	
1 driver/1 gunner/12 passengers								(6 x 1/3 Mod)		+1 Int	
Power Plant:		Source:		XS:		Misc:					
Main - Standard		Electric Hybrid (cool)		0							
Maneuver Pool											
Cockpit:		Controls:		Loc:		Enc.:					
Main		Screen		Torso		Enclosed					
Sensors:		Class:		Loc:		Kills:		Range:		Comm:	
Main		Light Weight		Torso		1		2 Km		500 Km	
Movement Systems:		Loc:		MA:		Kills:					
Hydro-Jets		Torso		2 MA (6 MA x 1/3 Mod)							
Options:		Loc:		Modifiers:							
Six Spotlights				Five in Torso, one in turret							
Damage control package											
Multipliers:		Loc:		Modifiers:							
Monocoque Construction											
Environmental Protection				Arctic, Desert, EMP							
ACE				+100% MP							
Servos:		Class:		Type:		Space:		Kills:		Armor:	
Hull		Light Weight		Torso		9		3		3	
Turret		Light Weight		Head		4		2		3	
6 x Wheels								2 each			
Weapons:		Damage:		Wa:		Range:		Max Range:		Kills:	
10 "Flares & Chaff"		(1K)		0		0		0		1	
1 x Gatling Gun										10 in Turret	
- Ammo										See Mekton Z pg 41-45	
								1000			



Name: C-6 Courier APC (hover)				Weight (Full): 12.3 tons				Cost: 62.3 points				Length / Width: 8.8 m / 3.99 m					
Form: Tank Form Scale x1		Mv: -4		MR:		Ground: 0		Flight: 12 GES		Water: 0		Misc: +100% MP					
1 driver/1 gunner/12 passengers												+1 Int					
Power Plant: Main - Standard		Source: Electric Hybrid (cool)				XS: 0		Misc:									
Maneuver Pool																	
Cockpit: Main		Controls: Screen				Loc: Torso				Enc.: Enclosed							
Sensors: Main		Class: Light Weight		Loc: Torso		Kills: 1		Range: 2 Km		Comm: 500 Km							
Movement Systems: G.E.S. Fans #1		Loc: Torso		MA: 3 MA		Kills:											
G.E.S. Fans #2		Torso		3 MA													
G.E.S. Fans #3		Torso		3 MA													
G.E.S. Fans #4		Torso		3 MA													
Fuel: 400 Km																	
Options: Six Spotlights		Loc: Five in Torso, one in turret				Modifiers:											
Damage control package																	
Multipliers: Monocoque Construction		Loc:				Modifiers:											
Environmental Protection						Arctic, Desert, EMP											
ACE						+100% MP											
Servos: Hull		Class: Light Weight		Type: Torso		Space: 9		Kills: 3		Armor: 3		DC: 2		Modifiers:			
Turret		Light Weight		Head		4		2		3		2					
Weapons: 10 "Flares & Chaff"		Damage: (1K)		Wa: 0		Range: 0		Max Range: 0		Kills: 1		Shots: 10		Loc: 10 in Turret		Special: Counter - Only	
1 x Gatling Gun																See Mekton Z pg 41-45	
- Ammo												1000					





Overview:

Both the Courier and Sprinter have served in the ONE Army for many years, used in every conceivable function from delivering combat troops to an area to serving as rescue vehicles during natural disasters or supporting law enforcement in riot situations. Their sole survival trait is their fairly reliable and simple mechanical design, nearly 80% of their parts are interchangeable, which is why it is not uncommon to see older models still being used by civilians in all corners of Earf.

Lightly armored, but capable of high speed, APCs are not designed to go into direct combat.

Jeeps:

The other most common military vehicle seen is the ubiquitous "jeep," a small light four wheeled vehicle with off road capability and simple construction. Can be powered by a hybrid power plant, or run completely from batteries. In the orbital and lunar colonies, this is often the heaviest vehicle seen by the local population. Very modular, can have hard tops, canvas roofs, roll bars, flat beds, weapon mounts, etc. For simplicity sake, the stats for the ubiquitous Jeep are as follows: x1/5 scale, Torso body with 2K internal damage and 1K Alpha armor, four to six wheels with 1K each, 10 ma. Possible weapon mounts can include one of the following: machine guns, Gatling guns, anti-mech missiles, or armor buster rifles from pages 41 – 45 of the Mekton Z book. Rough guide lines for MV, take the number of wheels and slap a negative in front of it. (ie four wheel jeep will get a -4 MV, six wheels -6 MV)

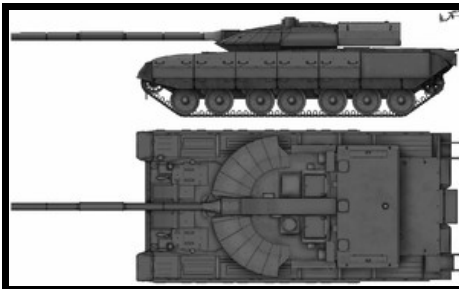


Trucks:

The same goes for trucks, use the same stats as for Jeeps but with six or more wheels, can mount one to two weapons from the same list. Internal damage can range from 4 to 6 Kills.

ONE Army – Vehicles – Tanks and VTOL Carriers:

Name: MBT-4A Defender Main Battle Tank			Weight (Full): 40.6 tons			Cost: 180.32 points			Length / Width: 9.77 m / 3.66 m				
Form: Tank Form Scale x1			Mv: -5	MR:	Ground: 8	Flight: 0	Water: 2	Misc: +100% MP +1 Int / tech					
1 driver/1 commander-gunner									(6 x 1/3 Mod)				
Power Plant: Main – Super-Charged			Source: Electric Hybrid (hot)			XS: 5	Misc: +2 MA, +2 MV, +67% MP						
Maneuver Pool													
Cockpit: Driver			Controls: Screen			Loc: Torso			Enc.: Ejection seat				
Gunner			Screen			Torso			Ejection seat				
Sensors: Main			Class: Striker			Loc: Torso			Kills: 1	Range: 4 Km	Comm: 800 Km		
Back-up			Striker			Torso			1	4 Km	800 Km		
R/R Analyzer						Torso							
Movement Systems: Hydro-Jets			Loc: Torso			MA: 2 MA (6 x 1/3 Mod)			Kills:				
Options: Four Spotlights			Loc: Two in Torso, Two in turret						Modifiers:				
Damage control package													
Multipliers: Monocoque Construction			Loc:			Modifiers:							
Environmental Protection						Arctic, Desert, EMP							
ACE						+33% MP							
Weight Inefficiency													
Servos: Hull			Class: Striker			Type: Torso			Space: 9	Kills: 6	Armor: 5	DC: 2	Modifiers:
Turret			Medium Striker			Head			6	4	5	2	
Secondary Turret			Light Weight			Head			3	2	3	2	
Treads (2)			Medium Striker			Treads				4 each			
Weapons: 10 "Flares & Chaff"			Damage: (1 K)	Wa: 0	Range: 0	Max Range: 0	Kills: 1	Shots: 10	Loc: 10 in Turret	Special: Counter - Only			
1 x Gatling Gun									Sec. Turret	See Mekton Z pg 41-45			
- Ammo								1000	Sec. Turret				
1 x Gatling Gun									Hull - forward	See Mekton Z pg 41-45			
- Ammo								1000	Hull				
150 mm Cannon			8K	2	8	64	8		Turret	Bv 2, Long Range			
- Ammo #1							3	10	Turret	AP Kinetic			
- Ammo #2							3	10	Turret	AP Kinetic			



Overview:

Despite the constant push for diplomacy or relying on the near instantaneous firepower of the GOD system, everyone knows that in the end it is the boots on the ground that truly keeps the peace in a conflict or occupation. The Defender main battle tank has served for many years with little change since it first rolled off the assembly line. Unlike its older forerunners, the tank is heavily automated with ammunition loading for its main cannon, and its awareness of the conditions of the battlefield. Heavily armored and quick for its size, it is equally capable on rough terrain or in urban environments. And with enough firepower to deal with any armor threat posed by any non-member ONE nation.

During the Demiurge Front, the Defender has been pressed into heavy service in dealing with the land based avatars fielded by the Cosmic Heavens. Even though it is much slower than most avatars, its lower profile and heavier armor gives it somewhat of an edge against the agile machines.

ONE Army - Vehicles:

Name: VC-23 Percheron VTOL tilt rotor aircraft			Weight (Full): 14.15 tons			Cost: 92.2 points			Length / Wingspan: 17.5 m / 25.8 m									
Form: Helicopter Form Scale x1 1 pilot / 1 Load pilot -gunner			Mv: -3	MR:	Ground: 0	Flight: 14	Water: 0	Misc: +1 Int / tech										
Power Plant: Main – Standard			Source: fusion (hot)		XS: 5	Misc:												
Maneuver Pool																		
Cockpit:			Controls:		Loc:					Enc.:								
Driver			Screen		Torso		Ejection seat			Enclosed								
Gunner			Screen		Torso		Ejection seat			Enclosed								
Sensors:			Class:		Loc:		Kills:	Range:	Comm:									
Main			Striker		Torso		1	4 Km	800 Km									
Movement Systems:			Loc:		MA:		Kills:											
None - special																		
Options:			Loc:		Modifiers:													
Six Spotlights					Two in Torso (front)		Two in torso (rear), one in each wing											
Damage control package																		
Cargo – 32 troops + 3 tons cargo							or 21 tons all cargo											
Multipliers:			Loc:		Modifiers:													
Monocoque Construction																		
Environmental Protection					Arctic, Desert, EMP													
Servos:			Class:		Type:		Space:		Kills:		Armor:		DC:		Modifiers:			
Hull			Medium Striker		Torso		12		8		2		1					
Tail			Light Weight		Tail		2		2		2		1					
R & L Wing			Medium Striker		Wing		6		4		2		1					
Weapons:			Damage:		Wa:		Range:		Max Range:		Kills:		Shots:		Loc:		Special:	
2 x10 "Flares & Chaff"			(1K)		0		0		0		1		10		2 x 10 in Tail		Counter - Only	
1 x Gatling Gun															Hull - right		See Mekton Z pg 41-45	
- Ammo													1000		Hull			
1 x Gatling Gun															Hull - left		See Mekton Z pg 41-45	
- Ammo													1000		Hull			
1 x Gatling Gun															Hull-rear ramp		See Mekton Z pg 41-45	
- Ammo													1000		Hull			



Overview:

The flying workhorse of the ONE Army and Navy, the Percheron is a multi-mission, military, tilt rotor aircraft with both a vertical takeoff and landing (VTOL), and short takeoff and landing (STOL) capability. It is designed to combine the functionality of a conventional helicopter with the long-range, high-speed cruise performance of a turboprop aircraft for both ONE Army and ONE Navy.

ONE Army – Aircraft – Cargo/Transport:

Name:		LF-8 Albatross long range cargo plane		Weight (Dry):		190 tons (23 tons)		Weight (Full):		384.5 tons (35.65 tons)		Cost:		3459.5 points		Length / Wingspan:		48.75 m / 75.29 m	
Form:		<i>Mv:</i>		<i>MR:</i>		<i>Ground:</i>		<i>Flight:</i>		<i>Water:</i>		<i>Misc:</i>							
Fighter Form (scale x10)		-7				0		18 – 21		0		+67% MP							
												+1 Int / +2 tech							
Power Plant:		<i>Source:</i>		<i>XS:</i>		<i>Misc:</i>													
Main - Standard		Fusion (Cool)		0															
Maneuver Pool																			
Cockpit:		<i>Controls:</i>		<i>Loc:</i>		<i>Enc.:</i>													
Main		Screen		Torso		Ejection seats													
LoadMaster/Defense		Screen		Torso(rear)		Ejection sets													
						Enclosed													
Sensors:		<i>Class:</i>		<i>Loc:</i>		<i>Kills:</i>		<i>Range:</i>		<i>Comm:</i>									
Main		Striker		Torso		1		40 Km		8000 Km									
Movement Systems:		<i>Loc:</i>		<i>MA:</i>		<i>Kills:</i>													
After-burning Thrusters		Right Engine Pod		2 – 3		0													
Thrusters		Right Engine Pod		4		0													
After-burning Thrusters		Center Engine Pod		2 – 3		0													
Thrusters		Center Engine Pod		4		0													
After-burning Thrusters		Left Engine Pod		2 – 3		0													
Thrusters		Left Engine Pod		4		0													
Fuel: 5,500 Km range		Torso				0													
Options:		<i>Loc:</i>		<i>Modifiers:</i>															
Six Spotlights		Two in torso(front), two rear		One in each wing.															
Cargo 100 tons		torso																	
Damage Control Packages		All locations																	
Multipliers:		<i>Loc:</i>		<i>Modifiers:</i>															
Monocoque Construction																			
Environmental Protection				Desert, Arctic, EMP															
ACE				+ 67% MP															
Self Repair System				See technology section.															
Weight Inefficiency																			
Servos:		<i>Class:</i>		<i>Type:</i>		<i>Space:</i>		<i>Kills:</i>		<i>Armor:</i>		<i>DC:</i>		<i>Modifiers:</i>					
Fuselage		Striker		Torso		9		60		2		10							
R & L Wing		Medium Striker		Wing		6		40		2		10							
Right Engine Pod		Light Weight		Pod		6		0		2		10							
Center Engine Pod		Light Weight		Pod		6		0		2		10							
Left Engine Pod		Light Weight		Pod		6		0		2		10							
Weapons:		<i>Damage:</i>		<i>Wa:</i>		<i>Range:</i>		<i>Max Range:</i>		<i>Kills:</i>		<i>Shots:</i>		<i>Loc:</i>		<i>Special:</i>			
3 x 10 "Flares & Chaff"		(4K)		0		0		0		1		3 x 10		3 x 10 in Torso		Counter - Only			



Overview:

No military in history has ever been effective without the vast network of supply lines and management that provided them the material required for their function, or to rapidly move soldiers from one field of battle to another when needed. The Albatross has a long record of reliability in moving men and material to any corner of the world to another. Its spacious internal provides plenty of room for vehicles or personnel, even for some of the largest forms of cargo that can be difficult to move about due to their size.

Variants:

Besides moving cargo, vehicles, or troops, the Albatross also functions in mid-air refueling for heavy traffic areas for other planes or drones.

Mid air Refueling: Carries an additional 40,000 Km of fuel for scale x1 drones or planes. Costs same.

AEW&C:

No cargo space, carries a spotting radar on weapon mount in torso, with a separate medium weight class sensor package and two extra cockpits to monitor all activity in the patrol area. Cost: 4,000 points.

Condor Gunship:

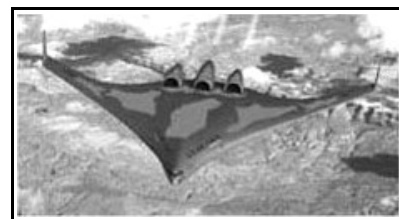
Based on the same air frame as the Albatross without the cargo handling ability, the Condor is used for close air support, air interdiction and force protection. Close air support roles include supporting ground troops, escorting convoys, and flying urban operations. Air interdiction missions are conducted against planned targets and targets of opportunity. Force protection missions include defending air bases and other facilities.

The guns are mounted in a special turret that is lowered from the bottom of the aircraft and locked in position before firing. During an attack run the gunship performs a pylon turn, flying in a large circle around the target, allowing it to fire at it far longer than a conventional attack aircraft. Cost: 4991.63 points.

Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
6 x 10 "Flares & Chaff"	(1K)	0	0	0	1	10	6 x 10 in Torso	Counter - Only
4 x 30 mm Gatling Cannon – scale x1	3K	0	15	225	3 each	-	Torso - Special	Bv 5 - linked
- Ammo					4	40	Torso	Blast 1
Targeting Computer		(+2)						

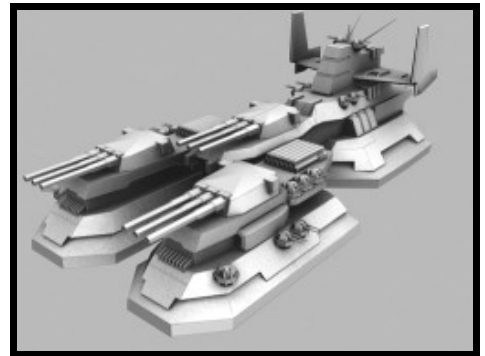
Special rules:

Before firing, the gun turret is required to be lowered and then locked into position to fire in the desired firing arc: either left, right, or even rearward or forward. This requires one action to complete, and one action to retract the gun turret back into the body of the aircraft. While the gun turret is deployed, the weapons are exposed and have no armor protection. Treat as if the weapons were hand held when deployed. To change the firing arc, another action must be used to turn the gun turret to the new firing arc.



ONE Army – Vehicles – Basilisk class land ships:

Name:	Crew Complement:		Weight (Full):		Cost:		Length / Width / Height:	
Basilisk class land ship	120 crew members		58,000 Tons (78.0 Tons)		1,002,996.0 points		200.0 m / 180.0 m / 68.7 m	
Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Tank Form (scale x100)	-8	2	0	4	0	+2 Int		
Base: 8+1D10	-5 for targeting	5		GES		+100% MP		
Power Plant:	Source:	XS:	Misc:					
Main – Super Charged	Fusion (Cool)	0	+2 MV					
Maneuver Pool								
Cockpit:	Controls:	Loc:	Enc.:					
Main	Screen	Main Bridge	Escape Pods			Enclosed		
Gunnery	Screen	Main Bridge	Escape Pods			Enclosed		
Sensors:	Class:	Loc:	Kills:	Range:	Comm:			
Main Sensor Suite	Striker	Main Bridge	100	400 Km	80,000 Km			
- R/R Analyzer		Main Bridge						
- Spotting Radar		Main Bridge	400	4,000 Km				
Secondary Sensor Suite	Striker	Main Bridge	100	400 Km	80,000 Km			
Backup Sensor Suite	Backup	Hull	200	100 Km	30,000 Km			
Movement Systems:	Loc:	MA:	Kills:					
Ground Effect System #1	Front Right Pod/Head		1 MA					
Ground Effect System #2	Front Left Pod/Head		1 MA					
Ground Effect System #3	Rear Right Pod/Head		1 MA					
Ground Effect System #4	Rear Left Pod/Head		1 MA					
Options:	Loc:	Modifiers:						
Six Spotlights	One for each surrounding hexes							
Damage Control Packages	All locations							
Stat Boost	Main Bridge							
6 x Escape Pods	Two per each cockpit							
Multipliers:	Loc:	Modifiers:						
Monocoque Construction	See technology section.							
Environmental Protection	Arctic, Desert, & EMP							
Targeting System	+3 MV for shooting.							
Self Repair System	See technology section.							
A.C.E.	+100% MP							
Servos:	Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:	
Main Bridge	Medium Striker	Head	4	500	600s / 600b	100 / 400	Belted Armor, see rules.	
Hull	Striker	Torso	9	600	600s / 600b	100 / 400	Belted Armor, see rules.	
Main Turret #1	Medium Striker	Head	6	400	400s / 400b	100 / 400	Belted Armor, see rules.	
Main Turret #2	Medium Striker	Head	6	400	400s / 400b	100 / 400	Belted Armor, see rules.	
Main Turret #3	Medium Striker	Head	6	400	400s / 400b	100 / 400		
Front Right Hover Pod	Medium Striker	Head	4	500	600s / 600b	100 / 400	Belted Armor, see rules.	
Front Left Hover Pod	Medium Striker	Head	4	500	600s / 600b	100 / 400	Belted Armor, see rules.	
Rear Right Hover Pod	Medium Striker	Head	4	500	600s / 600b	100 / 400	Belted Armor, see rules.	
Rear Left Hover Pod	Medium Striker	Head	4	500	600s / 600b	100 / 400	Belted Armor, see rules.	
4 x AA Turrets	Lightweight	Head	3	200	400b	400	Belted Armor, see rules.	
Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
*All weapons are scale x10								
3 x Triple Barrel Lucifer Cannons	30 K	(+2)	90	8100	30	Inf.	One in each Main Turret	Long Range, Kinetic, Bv 3 Mega-Beam, 3 turn Warm-up
4 x Bubo CIWS	10 K / (1K)	(+1)	10	100	10 K	-	One in each AA Turret	All Purpose, beam weapon.
5 x “Missile Blocks”							Five in Hull	All Missile Blocks are linked to each other.
Each containing:								
30 x Pilum Missiles	10 K	(+2)	80	6400	30 K each	-	Missile Block	Long Range, Anti-Missile var.
12 x Ballista Missiles	30 K	(+2)	90	8100	20 K each	-	Missile Block	Long Range
**All weapons are scale x1								
24 x AA Guns	4 K	0	10	-	4	Inf.	Six in each AA Turret	Bv 3 *Beam weapons, linked in pairs



Overview:

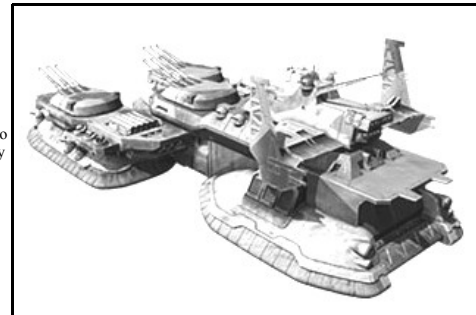
Like its namesake, the Basilisk was created to be a mobile land fortress to bring swift and deadly supporting fire during any land based operations. With enough armor to survive against any predicted large scale attacks, short of a direct nuclear explosion, the Basilisk can shrug off incoming fire as it pounds the enemy with its nine Lucifer heavy particle cannons and missiles. Despite its massive weight, the mobile base hovers just meters above the ground by its numerous ducted fans as it moves. Being near it as it is passing by is comparable to that of being in a hurricane.

Its only apparent weakness is that it requires large open spaces to allow it to maneuver without damaging buildings or other important structures. Cities and mountain ranges often dictate which routes it may take as it travels, it can hover over water. But since it is no where near being buoyant enough to float on its own were its hover fans happened to fail or be damaged, the Basilisk would sink all the way to the bottom of which ever body of water it happened to be over at the time.

Inter-Mecha Linkage Range: None of the ONE Army's land ships are linked via inter-mecha linking.

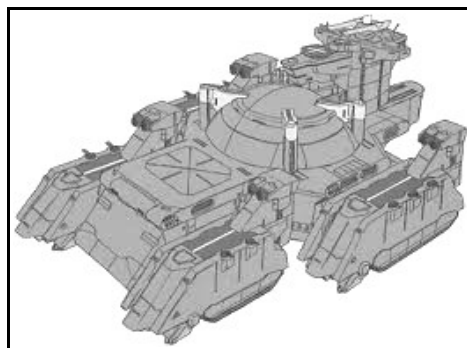
Special Notes:

AA Guns: Built as beam weapons for the sake of simplicity on the issue of ammunition, otherwise treat as projectile weapons.



ONE Army – Vehicles – Cockatrice class land ships:

Name:	Crew Compliment:		Weight (Full):		Cost:		Length / Width / Height:	
Cockatrice class land ship	70 crew + 50 service crew		29,600 Tons (53.7 Tons)		586,766.25 points		180.0 m / 180.6 m / 49.5 m	
Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Tank Form (scale x100)	-6	4	0	4	0	+2 Int		
Base: 8+1D10	-5 for targeting			GES		+100% MP		
Power Plant:	Source:	XS:	Misc:					
Main – Super Charged	Fusion (Cool)	0	+2 MV					
Maneuver Pool								
Cockpit:	Controls:	Loc:	Enc.:					
Main	Screen	Main Bridge	Escape Pods					
Gunnery	Screen	Main Bridge	Escape Pods					
Vehicle maintenance/launch	Screen	Main Bridge	Escape Pods					
Sensors:	Class:	Loc:	Kills:	Range:	Comm:			
Main Sensor Suite	Striker	Main Bridge	100	400 Km	80,000 Km			
- R/R Analyzer		Main Bridge						
- Spotting Radar		Main Bridge	400	4,000 Km				
Secondary Sensor Suite	Striker	Main Bridge	100	400 Km	80,000 Km			
Movement Systems:								
	Loc:	MA:	Kills:					
Ground Effect System #1	Front Right Pod/Head		1 MA					
Ground Effect System #2	Front Left Pod/Head		1 MA					
Ground Effect System #3	Rear Right Pod/Head		1 MA					
Ground Effect System #4	Rear Left Pod/Head		1 MA					
Options:								
	Loc:	Modifiers:						
Six Spotlights		One for each surrounding hexes						
Damage Control Packages		All locations						
Stat Boost		Main Bridge						
6 x Escape Pods		Two per each cockpit						
Tank Maintenance Bay and “launch” ramps		Hull						
		10 x 100 tons, 1,000 tons total						
Multipliers:								
	Loc:	Modifiers:						
Monocoque Construction		See technology section.						
Environmental Protection		Arctic, Desert, & EMP						
Targeting System		+1 MV for shooting.						
Self Repair System		See technology section.						
A.C.E.		+100% MP						
Servos:								
	Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:	
Main Bridge	Striker	Head	5	300	400 / 400	100	Belted Armor, see rules.	
Hull	Lightweight	Torso	6	400	400 / 400	100	Belted Armor, see rules.	
Turret #1	Lightweight	Head	3	200	400 / 400	100	Belted Armor, see rules.	
Turret #2	Lightweight	Head	3	200	400 / 400	100	Belted Armor, see rules.	
Front Right Hover Pod	Striker	Head	5	300	400 / 400	100	Belted Armor, see rules.	
Front Left Hover Pod	Striker	Head	5	300	400 / 400	100	Belted Armor, see rules.	
Rear Right Hover Pod	Striker	Head	5	300	400 / 400	100	Belted Armor, see rules.	
Rear Left Hover Pod	Striker	Head	5	300	400 / 400	100	Belted Armor, see rules.	
4 x AA Turrets	Lightweight	Head	3	200	400 / 400	100	Belted Armor, see rules.	
Weapons:								
	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
*All weapons are scale x10								
1 x Gae Bulg Rail Gun #1	30 K	(+2)	175	30625	60 K	-	Turret #1	Long Range, Hyper- Velocity, Bv 3, Anti-Missile var., Inter-Mecha Linked.
--Ammo #1					20 K	30	Hull	Tracer
--Ammo #2					10 K	6	Hull	Scatter Shot, Blast I
1 x Gae Bulg Rail Gun #2	30 K	(+2)	175	30625	60 K	-	Turret #2	Long Range, Hyper- Velocity, Bv 3, Anti-Missile var., Inter-Mecha Linked.
--Ammo #1					20 K	30	Hull	Tracer
--Ammo #2					10 K	6	Hull	Scatter Shot, Blast I
4 x Bubo CIWS	10 K / (1K)	(+1)	10	100	10 K	-	One in each AA Turret	All Purpose, beam weapon.
3 x “Missile Blocks”							Three in Hull	All Missile Blocks are linked to each other, and Inter-Mecha linked.
Each containing:								
33 x Pilum Missiles	10 K	(+2)	80	6400	30 K each	-	Missile Block	Long Range, Anti-Missile var.
8 x Ballista Missiles	30 K	(+2)	90	8100	20 K each	-	Missile Block	Long Range



Overview:

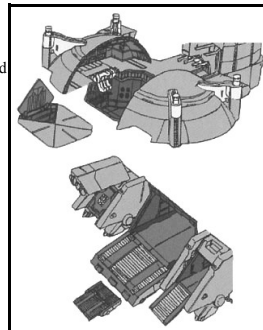
The Cockatrice is the second largest land ship used by the ONE Army to support its operations and extend its presence on any battlefield. Functioning as a carrier for tanks and other armored vehicles, it can resupply, refuel, or repair several vehicles at once. Its second function is to defend against IBCMs or incoming missiles, or to provide long range support with its rail guns and missiles.

Like its other sister land ship classes, the Cockatrice moves about by its series of ducted fans to hover several meters above the ground. Its movements are limited by any large structures or land features that might be present. If it were to lose power or suffer damage while over any body of water, it will sink to the bottom, so it is recommend to any deep bodies as much as possible. Another problem with its form of locomotion is the strong winds that it generates, which is much like being in a hurricane.

Carried Vehicles:

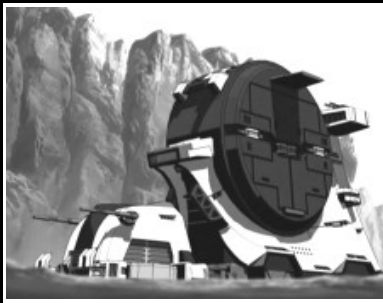
The Cockatrice can carry or service twenty tanks all at one time, with two in each bay up to its weight limit. There are three ramps in the front of the vehicle for receiving or disembarking of its stored vehicles.

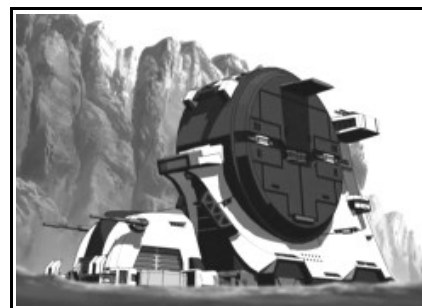
Inter-Mecha Linkage Range: None of the ONE Army's land ships are linked via inter-mecha linking.



ONE Army – Vehicles – Nerites class land ships:

Name:	Crew Compliment:		Weight (Full):		Cost:		Length / Width / Height:	
Nerites class land ship	70 crew + 50 service crew		29,600 Tons (53.7 Tons)		555,220.0 points		200.0 m / 90.6 m / 59.5 m	
Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Tank Form (scale x100)	-6	4	0	4	0	+2 Int		
Base: 8+1D10	-5 for targeting			GES		+100% MP		
Power Plant:	Source:	XS:	Misc:					
Main – Super Charged	Fusion (Cool)		0	+2 MV				
Maneuver Pool								
Cockpit:	Controls:	Loc:	Enc.:					
Main	Screen	Main Bridge	Escape Pods			Enclosed		
Gunnery	Screen	Main Bridge	Escape Pods			Enclosed		
Vehicle maintenance/launch	Screen	Main Bridge	Escape Pods			Enclosed		
Sensors:	Class:	Loc:	Kills:	Range:	Comm:			
Main Sensor Suite	Striker	Main Bridge	100	400 Km	80,000 Km			
- R/R Analyzer		Main Bridge						
- Spotting Radar		Main Bridge	400	4,000 Km				
Secondary Sensor Suite	Striker	Main Bridge	100	400 Km	80,000 Km			
Movement Systems:	Loc:	MA:	Kills:					
Ground Effect System #1	Front Right Pod/Head		1 MA					
Ground Effect System #2	Front Left Pod/Head		1 MA					
Ground Effect System #3	Rear Right Pod/Head		1 MA					
Ground Effect System #4	Rear Left Pod/Head		1 MA					
Options:	Loc:	Modifiers:						
Six Spotlights	One for each surrounding hexes							
Damage Control Packages	All locations							
Stat Boost	Main Bridge		+2 to Int					
6 x Escape Pods	Two per each cockpit							
Drone Maintenance Bays and “launch” catapults	Hull		30 bays x 33.3 tons, 1,000 tons total					
Multipliers:	Loc:	Modifiers:						
Monocoque Construction			See technology section.					
Environmental Protection			Arctic, Desert, & EMP					
Targeting System			+1 MV for shooting.					
Self Repair System			See technology section.					
A.C.E.			+100% MP					
Servos:	Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:	
Main Bridge	Striker	Head	5	300	400 / 400	100	Belted Armor, see rules.	
Hull	Lightweight	Torso	6	400	400 / 400	100	Belted Armor, see rules.	
Turret #1	Lightweight	Head	3	200	400 / 400	100	Belted Armor, see rules.	
Turret #2	Lightweight	Head	3	200	400 / 400	100	Belted Armor, see rules.	
Front Right Hover Pod	Striker	Head	5	300	400 / 400	100	Belted Armor, see rules.	
Front Left Hover Pod	Striker	Head	5	300	400 / 400	100	Belted Armor, see rules.	
Rear Right Hover Pod	Striker	Head	5	300	400 / 400	100	Belted Armor, see rules.	
Rear Left Hover Pod	Striker	Head	5	300	400 / 400	100	Belted Armor, see rules.	
4 x AA Turrets	Lightweight	Head	3	200	400 / 400	100	Belted Armor, see rules.	
Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
*All weapons are scale x10								
4 x Bubo CIWS	10 K / (1K)	(+1)	10	100	10 K	-	One in each AA Turret	All Purpose, beam weapon.
5 x “Missile Blocks”							Five in Hull	All Missile Blocks are linked to each other.
Each containing:								
99 x Pilum Missiles	10 K	(+2)	80	6400	30 K each	-	Missile Block	Long Range, Anti-Missile var.
24 x Ballista Missiles	30 K	(+2)	90	8100	20 K each	-	Missile Block	Long Range





Overview:

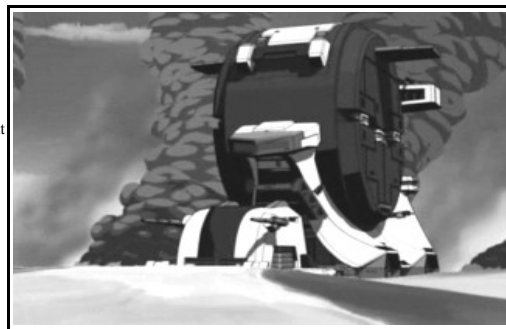
The Nerites is a land based drone carrier capable of carrying and servicing 60 drones in the field, and to function as a mobile missile support unit to all forces in the combat theater. Its large snail like body contains a rotating gantry system that stores and assembles the drones, then brings them up to the top of the carrier for launch as it brings each bay around. Each of the thirty bays can hold two to three drones and their supporting modular parts and weapons. Every ten seconds, the Ramshorn can either launch or receive four drones at once with its four receiving arms, two mounted on either side of its circular body.

Like its other sister land ship classes, the Nerites moves about by its series of ducted fans to hover several meters above the ground. Its movements are limited by any large structures or land features that might be present. If it were to lose power of suffer damage while over any body of water, it will sink to the bottom, so it is recommend to any deep bodies as much as possible. Another problem with its form of locomotion is the strong winds that it generates, which is much like being in a hurricane.

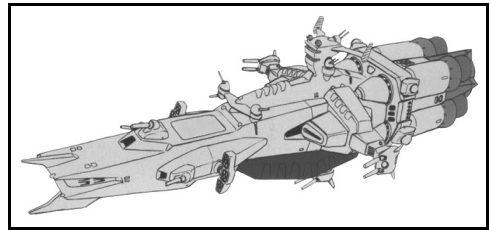
Carried Vehicles:

The Nerites can carry or service sixty drones all at one time, with two to three in each bay up to its weight limit. There are two launch and receiving catapults (upper / lower) on each side of the vehicle for receiving or disembarking of its stored vehicles.

Inter-Mecha Linkage Range: None of the ONE Army's land ships are linked via inter-mecha linking.



Name:		Thermopylae class space cruiser			Weight (Dry):		-		Weight (Full):		22,100 tons (42.6 tons)		Cost:		685,410 points		Length / Width / Height:		198 m/ 75 m / 58.3 m	
Form:		Mv:		Max Ref:		Ground:		Flight:		Water:		Misc:								
Ship Form (scale x100)		-6		4		0		8		0		+1 Int / +1 tech								
Base: 8+1D10																				
Power Plant:		Source:		XS:		Misc:														
Main - Standard		Fusion (Hot)		0																
Maneuver Pool																				
Cockpit:		Controls:		Loc:						Maneuver Pods		Enclosed								
Main		Screen		Main Bridge																
Sensors:		Class:		Loc:		Kills:		Range:		Comm:										
Main Sensor Suite		Medium Striker		Main Bridge		100		700 Km		100,000 Km										
- R/R Analyzer																				
- Spotting Radar								7,000 Km												
Secondary Sensor Suite		Medium Striker		Hull		100		700 Km		100,000 Km										
Movement Systems:		Loc:		MA:		Kills:														
Nuclear Thrusters #1		Engine Pod #1				2 MA														
Nuclear Thrusters #2		Engine Pod #2				2 MA														
Nuclear Thrusters #3		Engine Pod #3				2 MA														
Nuclear Thrusters #4		Engine Pod #4				2 MA														
Fuel: Special case																				
Options:		Loc:		Modifiers:																
Five Spotlights		One for each forward five hexes																		
Damage Control Packages		All locations																		
3 x Maneuver Pods		1 x Main Bridge, 2 x Hull		"Escape Shuttles"																
Stat Boost		Main Bridge		+1 to Int, and Tech.																
Shuttle Bay		Hangar Pod		900 ton capacity																
Multipliers:		Loc:		Modifiers:																
Monocoque Construction				See technology section.																
Environmental Protection				Space, & EMP																
Internal Automation		Main Bridge		Lv 4, Port 5 (Mecha Piloting, Awareness, Navigation, Mecha Gunnery, & Mecha Tech.)																
Self Repair System				See technology section.																
Servos:		Class:		Type:		Space:		Kills:		Armor:		DC:		Modifiers:						
Main Hull		Striker		Torso		9		600		400		100								
Main Bridge		Striker		Head		5		300		300		100								
3 x Double Turrets		Striker		Head / Turret		5		300		300		100								
3 x Single Turrets		Lightweight		Head / Turret		3		200		300		100								
4 x Engine Pods		Lightweight		Pod		6		0		300		100								
1 x Hangar Pod		Lightweight		Pod		6		0		300		100								
Weapons:		Damage:		Wa:		Range:		Max Range:		Kills:		Shots:		Loc:		Special:				
*All weapons are scale x10																				
3 x Single Barrel Lucifer Cannons		60 K		(+2)		100		10000		60		Inf.		One in each Single Turret		Long Range, Kinetic, Mega-Beam, 3 turn Warm-up				
3 x Double Barrel Lucifer Cannons		60 K		(+2)		100		10000		60		Inf.		One in each Single Turret		Long Range, Kinetic, Bv 2 Mega-Beam, 3 turn Warm-up				
Port Missile Tubes		100 K		(+2)		70		4900		100		-		Hull - Forward		Long Range, Bv 2 *Projectile weapons				
Starboard Missile Tubes		100 K		(+2)		70		4900		100		-		Hull - Forward		Long Range, Bv 2 *Projectile weapons				
- Port Ammo Bay										20		30		Hull		AP				
- Starboard Ammo Bay										20		30		Hull		AP				
**All weapons are scale x1																				
12 x AA Guns		4 K		0		10		-		4		Inf.		One pair in each Engine Pod. Two pair in Hangar Pod (R / L)		Bv 3 *Beam weapons, linked in pairs				



Overview:

The Thermopylae class space cruiser were brought into service to replace the Gagarin class vessels as part of the fleet upgrade program to act as a show of force to the break away nation of the Cosmic Heavens. The first ships of the line were originally equipped with massive rail guns like their earlier counterparts, but were immediately replaced with the newer Lucifer particle cannons as the technology was quickly made available after Miguel Babel's defection to ONE. With its six turrets spread about its length, the Thermopylae can cover all angles of attack around it while still capable of directing the majority of its firepower in a specific direction when needed.

During the "Thirty days of Hell," many ships were lost due to the Cosmic Heaven's combination of ships and avatars in its tactics, especially when armed with nuclear weapons. This and many other reasons promoted ONE to keep its remaining vessels stationed near its two asteroid bases and other "friendly" territories to better protect them after the initial conflicts, and maintain a line of defense while their numbers were built back up by the ship yards in space and on Earf. The production on Earf was made particularly difficult by the requirement of using massive boosters to launch the large ships into space where they were vulnerable to surprise attacks by the Cosmic Heavens during launch.

Despite their ability to project large amounts of firepower where needed and to absorb tremendous amounts of damage before "sinking," the ship's complete lack of any kind of functional launch or maintenance bays for the converted Mason worker pods hampered the war effort throughout its duration. Some ships of the line were modified to have such bays, often at the expense of some existing weapons or systems in the process, but these experiments were few and far in between. Meanwhile, the rest of the ships involved in the war were forced to carry any assigned machines on their hulls exposed to the vacuum of space, making them difficult to field.

Variants:

To bolster its defenses against attacks by enemy avatar machines and during combat in high concentration of Babel particles, many vessels were upgraded with various defensive systems to better protect itself during combat. These ranged from flares and smoke bombs to blind, confuse, or even block line of sight in space. While others took the form of fragmentation bombs simply detonated in close proximity when surrounded by attackers. Supplies of these different systems were sporadic at best, and not all ships were able to always be equipped with them. Most ship formations were planned around to maximize their defensive coverage such as the classic "box formations."

Additional Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
**All weapons are scale x1								
28 x Defensive Flares	(1 K)	-2	4	16	2	28	Main Bridge	Flare, Blast 1
4 x Large Smoke Canisters	(8 K)	0	0	0	2	4	Hull	Smoke, Blast 3
10 x Directional Fragmentation Deterrents	1 K	0	0	0	1	10	Hull	Blast 10

Cost:

No change, listed cost already reflects the addition of the extra defensive systems.

"Hero ship" stats:

Base 10+1D10, cost: 729630.0 points.

One vessel, the OS Minnesinger, was built as a test variant near the later end of the war to have an expanded hull with room for a small force of avatars. Records are limited at best as to how well this fared in combat. Due to its size and the general expense in construction and maintaining, very few variants were ever created from this class.

Special Notes:

Missile tubes:

Even though built as projectile weapons, treat attacks as missile instead.

AA Guns:

Built as beam weapons for the sake of simplicity on the issue of ammunition, otherwise treat as projectile weapons.

Fuel Range:

Due to the complexities of space travel preventing the creation of simple rules to handle it, the range that ships can travel in between refueling stops is treated as a special effect. Or as your GM may say: "Your mileage may vary."

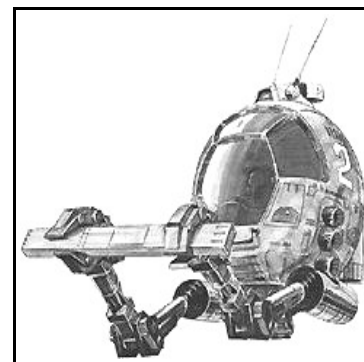
ONE Space Navy / ONESN Ships:

Grose Bochse class heavy space cruiser

Name: Grose Bochse class space battleship			Weight (Dry): -		Weight (Full): 62,900 tons (66.0 tons)		Cost: 805843.75 points		Length / Width / Height: 327 m / 96 m / 102.0 m	
Form: Ship Form (scale x100) Base: 8+1D10			Mv: -8	Max Ref: 2	Ground: 0	Flight: 8	Water: 0	Misc: +1 Int / +1 tech		
Power Plant: Main - Standard			Source: Fusion (Hot)		XS: 0		Misc:			
Maneuver Pool			Cockpit: Main		Controls: Screen		Loc: Main Bridge		Enc.: Enclosed	
Sensors: Main Sensor Suite - R/R Analyzer - Spotting Radar Secondary Sensor Suite			Class: Heavy Striker		Loc: Main Bridge		Kills: 200		Range: 1,100 Km	
									Comm: 130,000 Km	

ONE Space Navy / ONESN Ships: – Converted Worker Pod:

Name:		Mason converted space worker pod		Weight (Dry):		8.4 tons		Weight (Full):		12.15 Tons (42 tons)		Cost:		96.06 points		Height:		5.5meters									
Form:		Humanoid x1/5 scale		Mv:		-6		Max Ref:		0		Ground:		16		Flight:		0		Water:		0		Misc:		+100% MP	
																								+1 Int, +1 Tech			
Power Plant:		Source:		XS:		Misc:																					
Main - Standard		RTG Power Cell (Cool)		1		24 hours combat time / 72 hours emergency support																					
Maneuver Pool																											
Cockpit:		Controls:		Loc:		Enc.:																					
Main		Screen		Torso		Ejection Seat																					
						Anti-Theft (code lock)																					
Sensors:		Class:		Loc:		Kills:		Range:		Comm:																	
Main		Striker		Head		1		4 Km		80 Km																	
Back-Up		Striker		Torso		1		4 Km		80 Km																	
Movement Systems:		Loc:		MA:		Kills:																					
Thruster #1		Torso				4 MA		0																			
Thruster #2		Torso				4 MA		0																			
Thruster #3		Torso				4 MA		0																			
Thruster #4		Torso				4 MA		0																			
Fuel: 500 Km range		Torso																									
Options:		Loc:		Modifiers:																							
Micro-manipulators				One in each Arm																							
Five Spotlights				One in Head, two in Torso																							
2 x Weapon Mounts				Two on Torso																							
Damage Control Package				Torso																							
Stat Boost				Torso																							
Ejection Seat				Torso																							
Multipliers:		Loc:		Modifiers:																							
Monocoque Construction																											
Space Hydraulics																											
Environmental Protection				Space and EMP																							
ACE				+100% MP																							
Servos:		Class:		Type:		Space:		Kills:		Armor:		DC:		Modifiers:													
Head		Super Heavy		Head		5		2 K		4 K, scaled armor		1 K															
Torso		Super Heavy		Torso		12		4 K		6 K, scaled armor		1 K															
R & L Arm		Armored Heavy		Arm		8		2 K		3 K, scaled armor		1 K		+0 K, Throw 5													
Weapons:		Damage:		Wa:		Range:		Max Range:		Kills:		Shots:		Loc:		Special:											
2 x Griper Claws		2 K		0		Melee		-		2 K				1 in each Arm		Quick											
1 x Power Wench		1 K		0		Melee		15 Hexes		1 K				1 in Torso		Entangle											



Overview:

The Mason worker pod was a desperate attempt to field a weapon of any kind against the highly effective avatars of the Cosmic Heavens. Basically nothing more than a maintenance pod equipped with a series of simple weapons, armor plating, and a few more thrusters added on to make it less of a sitting target. Oddly enough, it has proven itself to be a promising weapon, though it frequently suffers from a high rate of combat losses for both it and its pilots. This has led to it being fielded in large numbers where it might have an advantage against a less numerical opponent. About its only saving graces seems to be its simple modular construction, and fairly low production cost.

Because there has not been a ship commissioned or constructed by ONE to serve as a full time carrier for its current generation of machines, the majority of all ONE space vessels have been required to carry a small group of 6-12 on the exterior of their hulls to make it easier to deploy them in combat until such a carrier vessel or a new generation of machines has been constructed.

Variants:

There have been several attempts at producing a more effective machine, but in typical ONE fashion this has only produced a wide range of specialized units that can only function in certain roles and are not able to adapt to any changes in the combat environment.

“Dorie”:

Cost: 127.66 pts.

Armed with two converted AA defensive weapons used on combat spaceships, the Dorie variant is frequently used to defend ships and installations, or even leading attack formations against enemy ships or avatars.

Additional Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
2 x 30 mm Gatling Cannon	3 K	0	12	144	3 K	-	One in each Mount	Bv 3, linked, x1/5 scale weapon
2 x Ammo bins					1 K each	8 each	One in each Mount	Standard

“Molly Pitcher”:

Cost: 120.66 pts

Armed with a converted tank cannon to serve in a more supportive role for other units.

Additional Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x 150 mm Cannon	4 K	0	13	169	4 K	-	Held by both mounts	Bv 3, x1/5 scale weapon
2 x Ammo bins					1 K each	10 each	One in each mount	Kinetic

“Beehive”:

Cost: 117.67 pts

Another version meant for supporting other units, each mount holds several light missiles and can be fired in several or in one large volley to overcome any mobile target.

Main drawback is the rather quickly rate of depletion of its missiles after more than a few firings.

Additional Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
50 x Light missiles	1 K	-1	8	64	4 K each	-	One set in one mount	Linked, x1/5 scale weapon
50 x Light missiles	1 K	-1	8	64	4 K each	-	One set in one mount	Linked, x1/5 scale weapon

“Hornet”:

Cost: 191.01 pts

In an attempt to field a unit that had a similar anti-ship capability as the Cosmic Heaven's avatars, some worker pods were attached to a heavily stripped down version of a standard anti-ship missile, creating a rather comically looking if not fairly suicidal type of weapon. Few pilots would volunteer for such missions, and even fewer ever made it back to do it again. Despite the odds, several enemy vessels were successfully crippled if not destroyed by such units.

Additional Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Anti-Ship Missile	100 K	-1	10	-	100 K	-	One held by both mounts	x10 scale weapon

*All weights have been balanced out to not affect the normal stats of this unit despite the tremendous size of a x10 scale missile being used by a x1/5 scale machine.

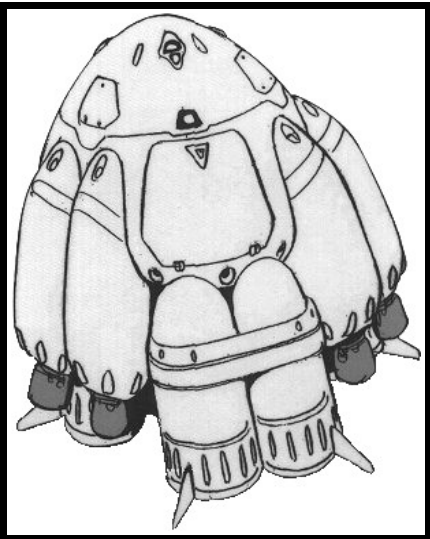
Special Notes:

Kills and Hits:

This is a x1/5 scale unit, with x1 scale armor. All damage listings are in Kills, not in Hits unless otherwise noted.

Generic / Commercial Space Craft: VHLV (Very Heavy Lift Vehicle)

Name:		Weight (Dry):		Weight (Full):		Cost:		Width / Height:	
Typical VHLV		-		10,000 tons (29.0 tons)		121,134.38 points		56 m / 85 m	
Form:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Corvette Form (scale x100)		-6		0	6 - 9	0	None.		
Base: 8+1D10									
Power Plant:		Source:		XS:		Misc:			
Main - Standard		Fusion (Hot)		0					
Maneuver Pool									
Cockpit:		Controls:		Loc:		Enc:			
Main Bridge		Screen		Hull		2 x Escape Pods		Enclosed	
Engineering		Screen		Hull		2 x Escape Pods		Enclosed	
Sensors:		Class:		Loc:		Kills:		Range:	
Main		Lightweight		Main Bridge		100		200 Km	
Spotting Radar				Hull		400		2,000 Km	
Back-Ups		Striker		Engineering		100		200 Km	
Movement Systems:		Loc:		MA:		Kills:			
After-Burning Thrusters		Torso		2 - 3 MA (1 MA x 2 Mod)					
After-Burning Thrusters		Torso		2 - 3 MA (1 MA x 2 Mod)					
After-Burning Thrusters		Torso		2 - 3 MA (1 MA x 2 Mod)					
Fuel: Special									
Options:		Loc:		Modifiers:					
Six Spotlights		Six in Hull.							
Damage Control Packages		Hull							
4 "Cranes" - micro manipulators		Hull, one for each bay.							
Quick Change Mounts		One for each thruster pod.							
2 x Cargo Bays						Each capable of holding 100 tons.			
Multipliers:		Loc:		Modifiers:					
Monocoque Construction									
Environmental Protection				Arctic, Desert, Space, & EMP					
Self Repair System				See technology section.					
Transat Ability				Can reach orbit and return to the surface.					
VTOL				Can hover.					
Weight Inefficiency									
Servos:		Class:		Type:		Space:		Kills:	
Hull		Lightweight		Torso		12		200	
6 x Fuel Pods		Lightweight		Pod		4		100	
Armor:		10 / 20		100		10 / 10		100	
DC:		100		100					
Modifiers:		Scaled & Belted Armor.		Scaled & Belted Armor.					
Weapons:		Damage:		Wa:		Range:		Max Range:	
None									
Kills:		Shots:		Loc:		Special:			



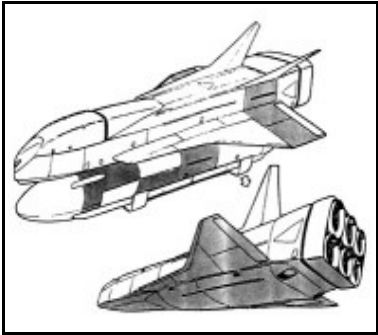
Overview:
This is an statistical example of a typical Heavy or Very Heavy Lift Vehicle that is used for delivering cargo and material to and from Earf Orbit, and sometimes even further to Luna or any of the Lagrange points when conserving fuel. There have been various manufacturers over the years, with different model names, and even many more nicknames for the vessels. "Pumpkins," "eggs," "footballs," "mules," "mushrooms," and "cargo grunts" are just a few.
Most are built along the same lines of construction; a central main column runs along the middle of the ship, with the main engines at the base, the reactors and engineering areas in the center, and the main bridge at the opposite end. Then around the central column the cargo bays are built outwards along the full length, often divided into separate sections or quarters depending on needs required. Finally, around the exterior of the vessel are the additional thrusters and fuel necessary to lift the craft and its load into space. All of the exterior pods are modular and easily jettisonable during any part of flight to or from orbit. The vessels are capable of re-entry into the atmosphere and landing under its own power, even hovering over an area when necessary, though fuel consumption increases greatly by doing so.
None of these vessels are built for use in combat situations, and their crews are more than painfully aware of how vulnerable their vessels are to damage from weapon fire or impact with debris or other large objects. About the only defense available is to push the engines to the maximum thrust and out run any possible threats.
During the war, both sides make wide use of HLVs and VHLVs as the front lines move from space to the surface of Earf, and later back to space.

Variants:
There are numerous variants on this design based on the manufacturer, cargo requirements, individual modifications, etc.

Special Notes:
Fuel Range: Due to the complexities of space travel preventing the creation of simple rules to handle it, the range that ships can travel in between refueling stops is treated as a special effect. Or as your GM may say: "Your mileage may vary."

Generic / Commercial Space Craft: Shuttles

There are near countless models of shuttle, skiffs, and other forms of transport spacecraft in use in the Earf sphere, so much so that it would be impossible to list all of the possible designs that could exist. So instead, here are a few quick and dirty guide lines to use:
Nearly all transport vessels and craft will be scale x10 or x100, lightly armored, maneuver values around -8 to -10 (minus the occasional exception), and with the majority of its structure devoted to cargo space. Quite a few will be the equivalent of a modern airliner with separate areas for passengers. Very few would have much along the lines of combat functionality, or be even armed.
Shuttles: Are generally spacecraft designed to enter and leave the Earf's atmosphere, often with the assistance of a series of booster rockets or two. Once in orbit, the vessel will then use its own engines to coast to another point in space, either Luna or one of the Lagrange points.
Skiffs: Typically designed as a scale x10 vessel to ferry personnel or cargo between ships, colonies, or space stations in the same general area or Lagrange point. Most are spartan on accommodations, they are designed mainly to get things from one point to another with the barest of minimum equipment, cockpits are often small cubical boxes with plug-in hoses to extend the life support of a space suit while open to the vacuum of space.
Ferry: Larger than a Skiff, built as either scale x10 or x100. Offers much more in accommodations, more sealed pressurized areas for comfort and functionality. Range is limited to being between near by Lagrange points or Luna.



Locations:

Earf:

Genesis 1:1

In the beginning God created the heavens and the earth.

John 1:10

He was in the world, and though the world was made through him, the world did not recognize him.

Overview:

Earf is the third planet from the star Sol, and the densest and fifth-largest of the eight planets in the Sol System. It is also the largest of the Sol System's four terrestrial planets. It is sometimes referred to as "the world," or the "Blue Planet."

The Earf was formed approximately 4.54 billion years ago, with life appearing on its surface within its first billion years. Earth's biosphere then significantly altered the atmospheric and other basic physical conditions, which enabled the proliferation of organisms as well as the formation of the ozone layer; which together with Earf's magnetic field blocked harmful solar radiation, and permitted formerly ocean-confined life to move safely to land. The physical properties of the Earf, as well as its geological history and orbit, have allowed life to persist and advance enough to allow the majority of the population to migrate out into space.

Despite what has been thrown at it for the last one hundred and twenty five years, the Earf has held up surprisingly well after suffering a cometary impact event, world wide flooding, and roughly a century of lingering nuclear winters. Much of the damage that was inflicted by those tragic events have been healed over time or through careful management by its inhabitants, who were close to the brink of extinction.

When seen from the outside looking in, the Earf has come to represent an strictly enforced form of order and status quo, despite the constant near chaotic fluidity of its own people. It is as though it is a mirror to reflect the internal struggle of its people to sort themselves out while wearing an enclosing mask of structure and order.

Most of the land masses still resemble their 20th century forms despite the climatic changes that have occurred. But the dividing boundaries that originally separated one nation from another have been altered even further due to the changing political landscape. As a result, most of the planet's surface is broken down by which authority controls them.

The Organized Nations of Earf, or ONE:

Administrative Zones:

Each sector is govern by an administrative zone that handles all of aspects of business and bureaucratic function in its designated area or continent; itself serving as the capital and a monument to ONE's authority. In the center of each administrative zone is a monolithic acrology megastructure referred to as a ZENITH; Zero Emissions No Impact Terrestrial Habitat; each a self contained city built capable of providing its own power, sanitation, and food with little support or impact upon the surrounding area. Each ZENITH is built in the form of a unique geometric shape; such as pyramids, toroids, domes, or even cubes; and can house between 10 to 25 million ONE citizens.

Living conditions in Administrative zones are extremely good, with hi-tech conveniences and sophisticated distribution systems assuring that people always have more than enough to eat, have adequate lodging, employment, and access to data and transportation networks. Everything is always clean and shinny, the streets are devoid of any litter and well maintained. To be able to live in a ZENITH, or even to enter an Administration zone, one must be either serving in some capacity in ONE, or be a registered family member or life partner of someone already serving. Families tend to be small, with more than two children being exceedingly rare due to regulations.

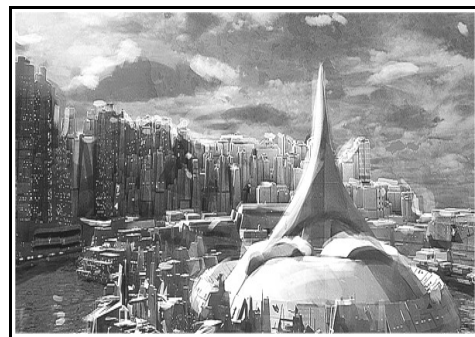
To live and work in an Administration zone is often viewed as reaching a high pentacle in one's life; job security is almost fully guaranteed, any needs that you may have will be fulfilled as long as you toe the line, and the likelihood of being forced to emigrated into space like the rest of the planet's population is greatly reduced. So it is not uncommon to encounter an elitist attitude wherever you were to go in an Administration zone if you are an outsider or not employed in some function with in ONE's bureaucratic structure. Attitudes on other subjects tend to follow a certain "politically correct" liberal/progressive mindset; any thing that could be considered superstition, religious, not based on science, or even strays far from what is accepted thinking is looked down upon. In some cases such subjects will be met with harsh judgmental treatment, belittlement, bullying, or even harassment from legal authorities until the matter in question is suppressed. In short, very few ever attempt to stand out from the crowd. Public demonstrations against ONE or its policies are very rare.

Each Administration zone will often have its own military base near by for its own protection, and to act as part of the ONE global defense and enforcement network. Size and numbers can vary from one zone to the next. Space and naval ports are also frequently located near an Administration zone, as well as any local transportation network such as highways or canals.

Solidarity Zone:

These zones are areas that managed to escape the destruction created by the Harbinger Impact Event, and thus have not required to be reconstructed afterwards. Each zone is distinctive from one another in purpose and function, and represent real estate that is not directly owned by ONE. All are privately or corporately owned, and can be anything from a small gated suburb or farm, to a bustling industrial complex or large scale automated agricultural operation. The majority of the Solidarity zones are located inland, far from the coast lines of their home continental land mass. Though quite a few are located near or around Administrative zones as attached "islands" to the monolithic Zeniths, or acting as buffer zones between any surrounding Rejuvenation zone. Others can extend between several Administration zones as large "belt ways of progress and reform" along the infrastructure networks of canals or roads.

Life in the Solidarity zones can vary in conditions, but are generally fair to good, and overall they are less regulated than in the Administration zones. People are friendly and open, and tend to be less judgmental of others. Though at times it will appear that the general consensus is it is best to weigh one's words carefully when speaking around others or in public.



Biometric-identity: Authentication Records Currency, or BMARC.

The typical ONE citizen, be either on Earf or on one of the colonies in space, will have what is referred to as their BMARC which is a biometric identification and personal information secured storage node that serves as everything from a birth certificate, passport, genetic profile, and records for medical, employment, criminal history, licenses, property ownership, and legal business transactions. Often implanted under the skin of either the right hand, forehead, or both shortly after birth. With it a citizen can make transactions, travel freely between different zones, be employed, apply for service with in ONE bureaucracy or military, etc.

The BMARC can be read by a terminal or hand held scanner which can interact with the implant via low power radio-frequencies. The node is comprised of three rows of six cells each containing the encrypted personal information of the individual and the required encryption and error correction keys. Each cell can hold over a gigabyte of data.

In some cases, those who were born in NONE member nations or refused to take the BMARC can be issued a temporary ID in the form of a plastic card carried in pocket or worn around the neck on a chain. Without one, an individual will be unable to complete any transactions with in any ONE zone short of bartering.



Defiance Zone:

The majority of all coast lines have been replaced by high walls to protect against raising sea levels, erosion, or potential future storms. Very few coastal cities have escaped the fate of being buried under tons of rock and steel to form a line of defense against the devastation nature can unleash. In addition, most coastal walls have a series of smaller levies and structures to provide a secondary line of defense in case the first line were to ever fail or fall. The only exception to this are the few coastal cities that were given "Heritage" status for preservation, such as Manhattan island, Sydney, London, San Francisco, to name a few.

Rejuvenation Zone:

Even after the passage and progress of a century, many areas are still undergoing various levels of rebuilding or reconditioning.

Under ONE mandate, huge tracts of land, most notably the Amazon Basin and Australia, are being reforested or otherwise reclaimed for nature and habitation is forbidden. The same has happened with two thirds of the African Continent as it was depopulated under the forced immigration program. The restoration of the Aral sea, Mesopotamian Marshes, and the Bahr al Jabal have been ongoing projects even before the formation of ONE. The Chernobyl and Fukushima exclusion zones are two other extreme cases under ONE's care where the extent of the damage caused can only be contained to as a small of an area as possible, isolated from any surrounding habitable areas, and wait until a time comes where the issue can be dealt with more effectively through new technologies or after natural decay.

As a result of the massive push to force the population of Earf into space, many former villages, towns, and even cities were reduced to ghost towns. Decayed, polluted and falling apart, it was from the ashes of these former population centers that the phoenix-like Administration and Solidarity zones arose. Now they remain as festering reminders of the old times. In due time they will all be torn down, and the land cleansed; but the economic, political, and ecological realities have slowed these plans greatly. So the empty urban sprawls remain, now resembling a skeletal vestige of their former glory.

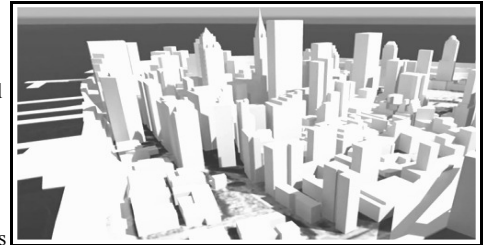
Not yet completely abandoned, the old cities now serve as either temporary homes for those who have not been forced yet to go into space, or those who have fallen in between the cracks of law and disorder. It is fairly common for entire blocks or sectors to be cleared of habitants on a regular basis, those found by the authorities will often wind up being moved to another city, or on a shuttle going into space to an assigned colony. Some facilities still function at minimum levels or lower, law enforcement is near nonexistent, and it is not uncommon for buildings to collapse from neglect and the elements. But to many, they are still considered to be home.



Heritage Zones:

Any zone that has been "restored," "preserved," or declared an "area of historical, cultural, or ecological importance" fall under the classification of a Heritage zone. Many of these zones were cities that date prior to the Golden Age and were extensively rebuilt after the Harbinger Impact Event at great cost, and even further protected by additional measures besides the coastal walls that were erected elsewhere. Such as London with its extensive ring of flood walls, and Manhattan island in its bowl like containment basins.

Being a Heritage zone is both a blessing and a curse. Such zones are often tourist attractions, or not uncommonly the playgrounds of the rich and famous. New York, San Francisco, Sydney, London, Hollywood, Monte Carlo, Miami, and Paris are known as cultural icons throughout the Earf sphere. They are living memorials to Earf's past, and Anthrokind's greatest achievements. Some are living museums showing what life was like before, while others are evolving monuments to what life will be like in the now and future. Others are capitals of entertainment and media such as amusement parks, news and information centers, and production centers for holographic movies. As culturally important as these have been deemed by ONE, some criticize them for being modern day "Babylons" catering to every form of vice or indulgence imaginable.



Though for such paradises on Earf, there are many associated problems. The parties often rarely stop, taxes and living expenses are extremely high, regulations are heavily enforced, social circles are convoluted and turbulent, the tabloid press leaves nothing in private, suicide rates are strangely high, and very little ever seems "real." New development is frequently under strict control; new buildings can not be built, nor can existing/restored buildings be altered in any way from their original construction without approval of local or even higher levels of authority.

The Non-Organized Nations of Earf, or NONE:

Despite the efforts of ONE to unify all governing bodies of the world together into one cohesive entity, there still exist several nations that either refuse to be brought into the fold, or are simply not stable enough to be govern even on a local level. Even though there is no organization or binding agreement between the non-aligned countries, officially they are referred to as the Non-Organized Nations of Earf. Some of these countries have been ONE members off and on over time.

Stability Zones:

Any zone that is not under ONE administration, but does not suffer from any economic or political instability. These areas often represent the "rare gem" of self reliance in a global environment of a one world government mindset. Israel, Jordan, and the Holy See are some of the few non-member nations that are classified as "Stability Zones," while others like Taiwan are only marginally considered to be classified as such due to long standing political pressures from other countries such as China. Others would include the non-aligned floating and submerged cities spread throughout the oceans, but normally this is not the case.

Strife Zones:

Strife zones are areas marked by frequent conflict between non-member nations. Many have no stable forms of authority or governing bodies to maintain order, while countless factions fight among themselves over control in such power vacuums. Warfare can range from regular border skirmishes, tribal rivalries, to full out war and occupation. These can last for years while ONE member nations wait until the conflicts burn out on their own, or one (or more) side(s) of the conflict agrees to submit to ONE membership and assistance to bring about peace. Frequent reasons for such violence are long standing disputes, territorial claims, or desire for expansion into scarce available non-ONE territories. A large portion of the former Middle Eastern and several sectors of the African continent are declared as "Strife Zones."



Locations:

Luna:

The Earf's moon, Luna, has become home to two billion of Earf's population, being only the second planetary body that Anthrokind has settled on in its expansion into space. The majority of the lunar cities have been built into the craters that dot its surface, and then go straight down for several kilometers into the subterranean caverns and tunnels that have been carved from the rock. The "top" of each city is made up of a thick layer of glass panels, similar to the orbital colonies, with agricultural areas holding numerous hydroponic gardens either near the surface, or on lower levels of the colony with natural sunlight piped in through fiber optics to help promote plant growth. Each level of the colony is broken down into different sections for residential, industrial, agriculture, or space ports for the docking of ships.

Each city is connected to the other through a series of roads and railways, both above and under ground, making the transportation of the minerals and resources mined from the lunar rock quick and efficient. Even large pipe lines follow the same routes, moving water harvested from the ice reserves at both poles. In addition, some additional road ways have been built upon the surface for travel for mostly the large ore movers frequently used in mining operations.

Life on Luna is fairly peaceful, and its people are regarded as being very industrialist and productive. Due to the lighter gravity, high activity and frequent exercise is the rule and strongly encouraged, while foods and dietary supplements high in calcium and vitamin D are widely available.

Each established city functions as its own self sufficient "city-state," usually regarded as an independent country of sorts and left to its own devices. In cases where one city's actions impacts upon another city's well being, both parties will try to negotiate between themselves and a panel of representatives from three other uninvolved city-states. Considering how far apart each city is on Luna, it is rare that any disputes ever occur. No recognized military force exists on Luna, only the local police forces are allowed to maintain the peace or even to operate weapons of any kind, even though there are several weapon manufacturers on Luna.

Even before the war began, Luna has tried to maintain a peaceful and neutral stance in all affairs between itself, Earf, and the other colonies, often acting as a go-between or host for negotiations. But despite this, several factions exist in the lunar government and corporations that want to side with either ONE or the Cosmic Heavens, and are constantly at odds with each other behind the scenes.



Cities of Luna (Near Side):

Gorksy City (Copernicus Crater)

Established as the First city on Luna, it quickly grew and became the largest manufacturing and economic center on Luna, built around the massive resource mass-driver, naturally becoming its capital and premiere metropolitan area. Most business transactions on Luna are completed here, and it is home to the Luna Bank, which is one of the largest banking institutions in the Earf Sphere.

Usagi City (Mare Imbrium)

A major tourism spot for visitors, and well known for its famous White Rabbit candy factory. It is also home to the largest series of bubble domes on the lunar surface, each housing its own nature park underneath, many of which can be seen from Earf as the famous "blue green dots."



Peary Harbor (North Pole)

Due to the near constant amount of sunlight, Peary Harbor is home to both the largest concentration of solar power centers, and many agricultural farms, all of which can be seen from Earf as a concentric series of shiny green rings centered around the north pole of Luna. It is also home to the major communication relay hub for most data and radio traffic between Earf and the Lagrange points, only second to its sister city Malapert Port.

Also a major transportation hub for the northern territories of Luna, with numerous ship ports and dry dock facilities.

Malapert Port (South Pole)

Like Peary Harbor, Malapert Port serves as the largest docking facility for space travel at the south pole of Luna, with its own concentric series of farms and solar power plants. And is also home to the other major communications hub for data and radio between the orbital colonies and Earf.

Serenity City (Sea of Serenity)

One of the larger mining towns for H-3 collection, and frequently used as a "barter town" for independent prospectors. Despite the "wild west" reputation for law and order, Serenity City is a well maintained city-state.



Stjerneborg (Tycho Crater)

Much like Serenity City, also another major resource management location for mining operations, both large and small.

Port of Andorra (Montes Pyrenaeus)

Third smallest ship port on Luna, and home to the second resource mass-driver.



Cities of Luna (Far Side):

The lunar cities on the far side of Luna are suspected to be at least friendly, if not already in full cooperation, with the Cosmic Heavens, either supplying them with resources from their own mining operations or offering them safe haven for ships and personnel. Shortly after the Herd 7 declaration was made, the four main cities the far side changed their names to their current ones, which only raised more suspicions about their allegiances to the Cosmic Heavens.

Even though it is just on the other side of Luna from the near side, information is fairly slow in spreading from the far side. There has been no noticeable decline in the stream of resources, so no official inquiries have been made.

Purgatory (South Pole-Aitken Basin)

Regarded as the “capital of the far side,” Purgatory is based with in the deepest impact crater on Luna, and the largest processor of H-3 fuel. Has large ship yards for servicing and construction of space ships, as well as a resource mass-driver of its own too.

Naraka (Daedalus crater):

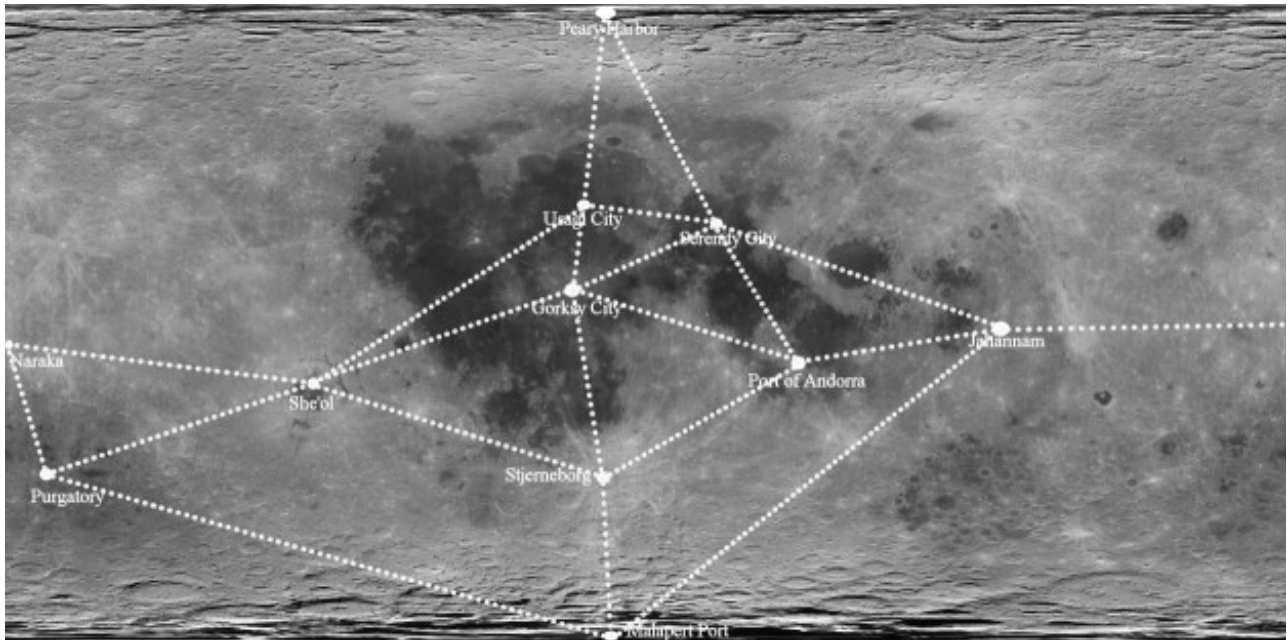
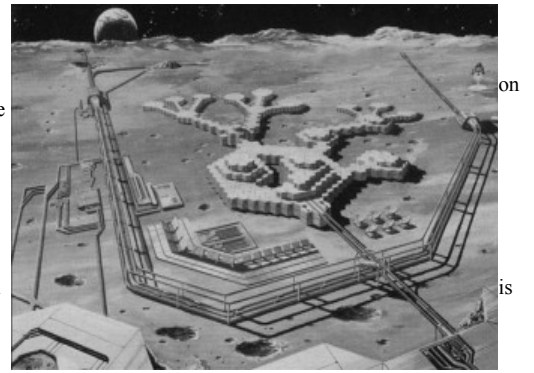
Home of the largest radio observatory array on Luna, well known for its scientific schools and research centers.

Jahannam (Saha Crater):

Home to the second largest radio observatory on Luna, often works in partnership with Naraka to explore space with their networked antenna arrays.

She'ol (Mare Orientale):

Another major resource mining management site, considered by most to be a “border town” of sorts between the near and far sides of Luna, with the majority of traffic flowing through it.



The “Crystal Highways”:

One of the more visible features of Luna that can be seen from Earf are the network of “roads” constructed on the surface of the moon, connecting each of the cities to each other. Each road follows along the massive water pipes that deliver fresh water to each of the cities, and carry waste water back to filter through the agricultural farms and treatment plants. South bound traffic travels along the eastern side of the pipes, while the North bound travels along the western side (east and west are reversed on Luna). The pipes in the middle are protected by mounds of left over moon dust and rock that line both sides.

Accidents are very rare, and enough barriers have been put up to protect the pipe lines from any damage from the traveling vehicles. Travel times take several hours, and rest stops are few and far in between.



Locations:

Orbital Colony Cylinders:

(Resource Link: <http://www.dyarstraights.com/index.html>, which has much more in depth explanations about the construction of this style of colony, and what life would be like inside. The information from this site was used by permission.)

The majority of Anthrokind are scattered about the Earf Sphere in large groups of artificially constructed colony cylinders situated at its Lagrange points. Each colony cylinder is a descendent of the original “Island Three design” proposed by physicist Gerard K. O'Neill in his 1976 book “The High Frontier: Colonies in Space.” Over two hundred and eighty years later, his designs have evolved into the current generation of mega-structures. Despite their great scale as mega-structures, there are some variations in the construction of the many different colonies, ranging from some size differences to complete configurations.

Organization:

Most colonies are made up of two ballistically matched pairs of cylinders, each five miles in diameter (8 Km) and twenty miles long (32 Km), referred to as a “deuce,” which are held together by a system of load bearings on both of their end caps. And depending upon which type of design was used, other features will vary.

Each colony group is referred to as a “herd,” ranging in number from two to three hundred deuces in each herd, in orbit around one of the five Lagrange points situated around Earf and Luna.

In the beginning of the colonization of space, The Colony Administration and Construction Authority was established with seven multinational member corporations formed to oversee and manage the colony construction: Pharos (Herd 1, L1), Bodrum (Herd 2, L5), Rhodes (Herd 3, L4), Giza (Herd 4, L4), Media (Herd 5, L5), Ephesus (Herd 6, L3), and Phidias (Herd 7, L2). These corporations would build the colonies, and then supervise their upkeep and maintenance under contract to ONE.

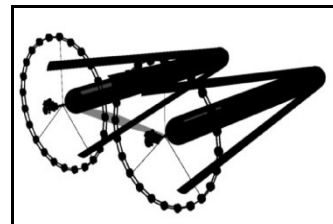
L4 and L5, both being the most stable of the Lagrange points, are both home to two herds each. All other Lagrange points, L1, L2, and L3 are home to only one herd.

Populations:

Each colony cylinder keeps their population numbers under strict control, families can have as many children as they want, but they must report each new birth and expected pregnancy. Local authorities often will assist in finding new lodgings for growing families, or in worst cases help move them to another colony. The majority of the moving costs are the responsibilities of the family in question, though some colonies offer public assistance through incentive programs.

Immigrating from one cylinder to another can be a complicated process, as some colonies are more popular than others and have long waiting lists. Though if one has a sponsor, such as a corporation planning on employing such a person, then some layers of difficulty can be avoided. Tourism on the other hand is not so heavily regulated, you can visit almost any colony you want in the allotted time given to you by your home colony, though visas all have a built in timer which will go off once the permitted time has been used up and the traveler will be forced to return to their home colony.

<u>Number of Cylinders:</u>	Two colony cylinders
<u>Length:</u>	20 miles (32 Km)
<u>Diameter:</u>	5 miles (8 Km)
<u>Load Bearing Length:</u>	50 miles (80 Km)
<u>Rotation Speed:</u>	½ RPM
<u>Number of Ground Panels:</u>	3
<u>Number of Sky Panels:</u>	3
<u>Number of Mirrors:</u>	3 exterior 20 mile (32 Km) long polarized mirrors, anchored to the starboard end, angled at 45 degrees.
<u>Population:</u>	3 to 10 million.



Open” or “Standard” Type:

Open types are the most common design of colony, often referred to as the “standard configuration” since there were seven hundred such colonies built during the orbital colony construction program. Most Open type colonies have a very high number of plants and trees, with wide tracts of grass and “natural” parks in between residential areas. Some are engineered to have different environments instead of temperate, ranging from tropical to desert depending on demand and requirements of the inhabitants.

Any industrial facilities or areas are often on the outside of the cylinder, along its axis, or at either cap end of the colony. All internal space along the inner cylinder walls is devoted to residential and civic purposes.

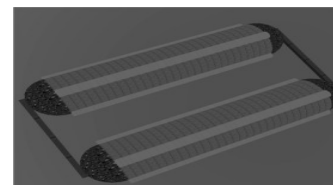
“Cornucopia” subtype:

Used exclusively by the Ephesus colony management group for the Herd #6 construction project, the Cornucopia design is a far departure from the “traditional” open type colony by the bulging out of each of its ground sections to provide more internal habitation space, while the sky panels are more recessed to bring in much more light and serve as larger reservoirs of water.

The colonies at Herd #6 are a popular location for residency due to the higher emphasis on creating and maintaining as close to a lush natural environment as possible to the point that many residential areas resemble forests more than they do urban areas.

Other changes in the traditional design involve the solar mirrors, which are firmly anchored into the base of the starboard end, while three concentric rings of support cables are anchored to both the panels and the cylinder itself for more structural reinforcement.

<u>Number of Cylinders:</u>	Two colony cylinders
<u>Length:</u>	20 miles (32 Km)
<u>Diameter:</u>	5 miles (8 Km)
<u>Load Bearing Length:</u>	20 miles (30 Km)
<u>Rotation Speed:</u>	½ RPM
<u>Number of Ground Panels:</u>	6
<u>Population:</u>	6 to 20 million.



“Closed” Type:

The second most common type of colony in use is the “closed” type, which departs completely from the ground/sky arrangement of the “open” type, and were built with six full ground sections. All internal lighting is provided by sunlight “piped” in through a series of fiber optics, and several additional banks of artificial lights. And unlike in a regular deuce arrangement, the cylinders are only kept thirty kilometers apart from one another due to the lack of mirrors.

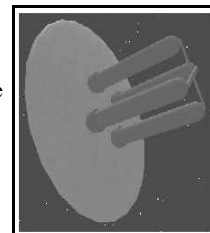
The Phidias colony management group used this design for the Herd #7 colony group due to concerns about shielding from radiation and other such hazards being so far out of the Earf's magnetic field, and to increase its population for its colony herd.

Some have complained about the “unnatural” feel of living in a Closed type cylinder even though most residents have seem to have adapted to living in the enclosed environment. Plants and trees are less prevalent than in an Open type colony, mainly there is just enough to mark the lines of demarcation between zones and to make urban areas look less cramped. It is not uncommon to see industrial areas right next to residential homes or civic centers.

“Sunflower” subtype:

A further variation upon the closed type of colony cylinder, the sunflower arrangement uses two to four closed cylinders behind a large 40 mile (64 Km) wide circular shield, which also serves as one of its bearings, to protect it from the direct light and radiation from Sol. And unlike in a regular deuce arrangement, the cylinders are only kept ten kilometers apart from one another due to the limited space behind the solar shield.

The only such colonies in existence are in use around the SOL L2 point on the opposite from Earf to its parent star by the Harvester fleets as a second base of operations, and living space. (See the section on the Harvester fleets for more information.)



Ground Sections:

"Ground" sections are the only areas where habitation is possible. Because the end caps of the cylinders are domed, each of the "ground" panels has what, from an inhabitant's point of view, appears to be a 3.2-kilometer (two-mile) high "mountain" at either end. The mountains and the "valleys" between them are landscaped to an idyllic green splendor, supporting six densely populated urban and suburban civic and residential centers. The underlying cylinder hull is a meter (3 feet, 3 inches) of titanium-reinforced "mooncrete" or lunar concrete, a mineral aggregate of anorthosite, ilmenite, and "KREEP," an acronym for potassium (K), rare earth elements (REE) and phosphorus (P), with additional reinforcement of rebar steel and carbon nanotubes. The next level is composed of a series of ribs made of the same KREEP material as the hull sections which also serve as a network of utility tunnels, ranging in height of 2 to 3 meters, for electrical, broadband, and sewer lines. The "ground" panels are then covered with an average 5-meter (16.4-foot) layering of landscaped topsoil.

Each of the ground sections, or valleys within the colony, is an elongated rectangle 32 kilometers (20 miles) long and 3.2 kilometers (two miles) wide, yielding a total area of 105 square kilometers (40 square miles). Each valley is divided into two townships, or urban centers. The cities and their associated suburbs cover an area of 41.4 square kilometers (16 square miles) each. The rural areas cover an area of 20.7 square kilometers (eight square miles) each, which must be shared evenly between the two urban/suburban centers at either end.

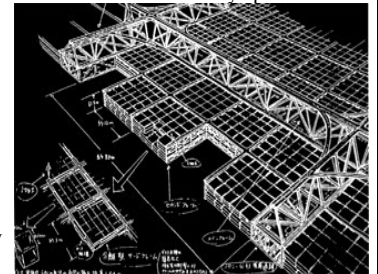


Sky Sections:

The "sky" panels are composed of quartz glass, vitreous silica prepared from pure quartz and noted for its transparency to ultraviolet radiation. Each "sky" panel is 3.2 kilometers (two miles) wide and 25.6 kilometers (16 miles) long, divided into eight square "windows" 3.2 kilometers on a side. Bridges connecting the "ground" panels span the "sky" panel at the junctions of these windows, seven bridges across each of the three "sky" panels, for a total of 21 "sky" bridges in all.

The basic element or building block of the "sky" panels is a cubical quartz glass prism 3.2 meters (10.4 feet) on a side, massing about 80 tonnes (90 tons). The prisms are mounted in a five-by-five titanium grid to form a square "frame" 16 meters (52 feet) on a side and three meters deep, with 25 prisms per frame. These frames are mounted, four ply, in a five-by-five array "pane" 80 meters (260 feet) on a side and 12.8 meters (41.6 feet) deep, with 100 frames (2,500 prisms) per pane.

The panes are mounted in a five-by-five "sash" 400 meters (1,312 feet) on a side, with 25 panes (2,500 frames or 62,500 prisms) per sash. Each of the eight windows is thus an eight-by-eight array of 64 sashes, containing 1,600 panes (160,000 frames or four million prisms), so each "sky" panel contains 512 sashes (12,800 panes or 1,280,000 frames or 32 million prisms). Quite often, these sky panels are flooded with water and used as either water reserves or recreational lakes, with the side benefit of the water instantly freezing and filling in any hole that may occur in the glass panels due to small meteors or other debris.



Government:

Even though each colony Herd is managed and maintained by one of the seven CACA member corporations, each colony is governed on a citizen level as laid out by the colony's charter. Typically, each township is governed by a panel of aldermen elected by the local population. And each township council elects a representative to sit on the overall council to coordinate with the CACA corporate member for governing the affairs of the colony as a whole.

Law enforcement is handled by the local police, who are generally unarmed except for some non-lethal weapons.

Crime rate is on average very low, mostly due to the high population density. It is difficult to commit a crime, or even a series of crimes, without it being witnessed, and hiding evidence is next to impossible. Resources are limited and regulated, so stealing is complicated unless you know how to fake enough paper work to cover yourself with. And since everyone is urged to be at least tolerant and respectful to one another out of sheer necessity, all other lesser crimes are almost non-existent.

All colonies are home to at least one ONE military base, whose forces can be called upon to support the citizen government in dire situations. Since the beginning of the war, the growing presence of ONE forces on many colonies has caused much stress for the populace, some consider either the Cosmic Heavens, ONE, or both as being the cause of the conflict. And there is a certain level of shared fear that the presence of either will attract unwanted attention to their colony or colony group.

Time Keeping:

The colonies run on a 24-hour clock set to the Universal Time Coordinate (Greenwich Mean Time adjusted to the Terrestrial equator), with "sunrise" at 06:00 UTC and "sunset" at 18:00 UTC. Varying the angle and pitch of the external mirrors can simulate day and night cycles and even seasonal changes.

Weather:

(For more information and a better explanation: <http://www.dyarstraights.com/msgundam/weather.html>)

Despite what one may expect, there is a regular weather cycle in the colony cylinders, especially in the "open" types. The dynamics of temperature, humidity and rotation are such that the "island effect" seen on the Earth is also duplicated in the "islands" of space. A heavy rainfall occurs every "day" at 10:00, 13:00 and 16:00 UTC, lasting no more than five minutes per shower, as evaporated ground water reaches the saturation point and condenses spontaneously.

Any Terrestrial climate can be simulated, but generally the air temperature is held between 5° to 25° C (40° to 80° F) and averages 15° C (60° F), with a relative humidity of 40% to 60%—the temperate climate that southern California promises but seldom delivers. The ground temperature ranges from 5° to 50° C (40° to 120° F), with ground water temperature falling midway in between at 10° to 40° C (50° to 105° F), averaging 25° C (80° F) for both. The air pressure is equivalent to that at a Terrestrial elevation of 1.6 kilometers (one mile) above sea level, about the same as Denver, Colorado.

While most colonies regulate their weather in some fashion, others purposely randomize it to maintain a more "natural" and unpredictable environment. Storms and even blizzards are not only possible but in some cases promoted, usually on a "seasonal" basis, though even the most carefully regulated weather system occasionally goes awry. Colonies that follow the Terrestrial seasons are usually synchronized with the Northern Hemisphere.

Orientation and Direction:

(For more information and a better explanation: <http://www.dyarstraights.com/msgundam/bearings.html>)

Due to the unique situation of being on the interior of a curved space, instead of the more natural perspective of being on the exterior of a curved space, the general sense of direction is handled much differently. This is further complicated by the fact that both colony cylinders in a deuce will rotate in different directions in relation to each other. So with this in mind, one must keep track of the direction of rotation of their colony cylinder in mind, whether it is:

- A.) "Left handed," or referred to as Sinistral, or "clockwise."
- B.) "Right handed," or referred to as Dextral, or "counter-clockwise."

Therefore, the cardinal directions become:

Down-spin: East because that is the direction the "world" turns.

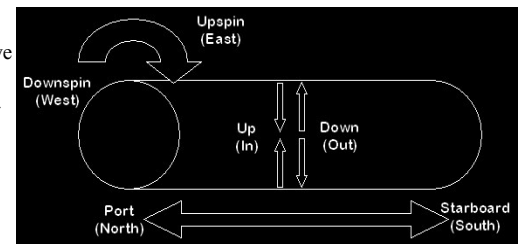
Up-spin: West because it is opposite of East.

Port: North because it is to your left as you face Down-spin, and also happens to be where the space docks are at.

Starboard: South because it is opposite of Port facing away from Sol, and towards the stars.

Up: "Up" is of course up, inboard towards the central axis.

Down: "Down" is outboard toward the cylinder wall, or "ground."



Transportation, or “how to get around about town”:

Transportation within the colony is by the ubiquitous electric-powered car, which range in size and power from a two-seat “ rental go-cart” to a containerized cargo 8x8 truck. All vehicles are powered by either fuel cells, or electrical power from conductive rails embedded in all major roads. Few people actually own their own vehicles, as there is little to no need with the wide availability of public accessible transportation.

Travel from the docking bay and industrial blocks at the axis “down” to the residential areas in the valleys or “up” to the agricultural block ring is via elevator. Due to the Coriolis effect, all elevators are arranged in tubes that curve with the rotation of the cylinder. One for Up-spin going from axis to hull and a Down-spin spiral for the cars going from hull to axis. Each elevator is carefully controlled by computer to reduce the strain placed upon the occupants inside.

Airtight “linear cars” traverse the outer hull in a manner analogous to the metro subway, riding on superconducting magnetic-levitation rails at the colony’s rotational speed of 644 kilometers per hour (400 miles per hour) and admitting a spectacular view. “Linear trams” resembling the cable cars of San Francisco run up and down the end cap mountainsides along the sides of the massive cargo elevators, connecting the urban centers to the zero-G industrial blocks and bay blocks.

Docking Ports:

Docking ports are placed at either end of the colony’s central axis, and rotate in the opposite direction, maintaining a “stationary” position around which the colony proper appears to rotate. To assist in bringing in ships, laser beacons light up a five-kilometer approach path for incoming spacecraft. Each docking port contains six docking bays, arranged around the axis like the chambers of a revolver. Each docking bay has six docks, arranged in a similar fashion around the center-line of the bay. Each dock can accommodate three 300-meter ships, for a total capacity of 108 ships.

Industrial and Agriculture:

Zero-G industrial blocks are strung out along the axis between the docking ports and the end caps, standard-G industrial blocks are mounted on the exterior of the colony cylinder. All of the agriculture and industry is external to the colony proper, often in modules arranged on their own separate structural rings since all of the space within the colony cylinder is reserved as living space for the colonists, keeping it as pure and unpolluted possible.

Most agricultural production is by either hydroponics, aeroponics, or tissue culture growing methods, including even the raising of fish and other forms of livestock. To increase trade between colonies, some specialize in particular crops or food production that other colonies may not do themselves.

Power Sources:

The majority of the power needs of the colony cylinder is met by the solar mirror arrays outside of the hull, with additional power from fusion reactors at both ends of the cylinder for either heavy industry or back up power. A third form of power is similar to terrestrial geo-thermal power, produced by the temperature differential on both ends of the cylinder by running cables of thermally conductive materials from the interior to exterior, and north and south ends of the cylinder’s hull.

Emergencies:

Even though the living conditions in the orbital colonies are fairly high, the fact that everyone is at any one time only six meters away from the cold hard vacuum of space is rarely not on one’s mind. Accidents are very rare, the worse case scenario in most civic planning range from breaches in the hull due to micro-meteors impacts to accidents with out of control ships or larger objects. As stated in other sections, the “sky” panels are often flooded with water to act as artificial lakes with the side benefit of the escaping water acting as a temporary plug in the case of small breaches.

For larger hull breaches, a series of pipes keep a “goop” solution constantly pumped through them, much like a building’s fire sprinkler system, to quickly fill in any holes less than 25 meters across when the pipes are ruptured. The solution cures quickly in seconds (starts filling the hole in 1D3 turns), and forms a strong enough patch to keep the remaining atmosphere in the colony while more permanent repairs can be made or the colony be evacuated. If the hole is much larger than 25 meters, then more drastic measures are needed and the colony must be evacuated immediately. Emergency vehicles will arrive in less than two minutes, armed with larger “goop” cannons to try to seal the hole. Or large steel plates or casements can be dropped and sealed with the “goop” for very large holes.

There are several air tight emergency bunkers scattered through out the colony, normally two to four per every city block, that can provide enough supplies and oxygen for 72 hours for 500 people till help can arrive. Emergency drills are held at least once a month, though participation prior to the war was surprisingly low. Communities are expected to have a small volunteer civic group that is in charge of educating the public about emergency procedures.



Damaging Oribtal Colonies:

And now for what many of you were waiting for.... how to break the big stuff!

One 50 meter hex of a ground panel has 500 Kills worth of damage which is treated like ablative armor, and is automatically breached if it is reduced to 0 Kills. A 50 meter hex of ground panel with 0 Kills is now a 50 meter hole.

It is possible to cause the section to rupture with less than complete damage: roll a 1D10 for every turn after the section in question has been damaged (or per GM’s preference, whenever it is inconvenient for the players or whenever you want them to sweat over it even more). Multiply the result by 10, if the result is over the amount of Kills that the section still has, it has become structurally unsound and has ruptured. The section still has the same amount of Kills as it had before it ruptured and can be damaged even further, but now represents a section with a hole, or a series of holes, between 0.5 meters to 25 meters wide.

As mentioned in the section before this, the built in “goop” pipes will start to fill in the hole in 1D3 turns, and takes 1D3 turns to fill in a 25 meter or less hole. Larger holes will take much longer, and will require emergency crews to seal the hole with large steel plates and casements.

One 50 meter hex of a sky panel has 150 Kills worth of damage which is treated like ablative armor, and is automatically breached if reduced to 0 Kills. If the sky panel is flooded with water, the holes will fill in and freeze any holes 12.5 meters or less almost immediately. Though much like damaged ground panels, a sky panel can still rupture if attacked or damaged. Use the same rules as for ground panels; except also roll for any of the neighboring six hexes of sky panel near the first hex to see if they might rupture as well. This represents a cascading failure of the glass panels. (No need to keep rolling for more hexes after the surrounding six, any more would be overkill.)

Space Suits:

Emergency Space Suits: (SDP 5 for all body locations, including head)

Very basic, mass produced version with just enough protection against the vacuum and radiation of space to help someone survive long enough to be rescued, with an oxygen supply of 6 hours from its backpack. Helmet has a basic heads up display (time, oxygen supply, etc) on the helmet’s visor, and comm-link. Basic survival gear like flares and duct tape for tears in the suit. Foot pads are magnetic. “One size fits most.” Those with horns, antlers, odd sized limbs, or are overly obese will have problems wearing these, and are encouraged to either get tailored made equipment for themselves or trim/manage/cut off such extremities. Shelters will have basic emergency space suits in case of loss of atmosphere.

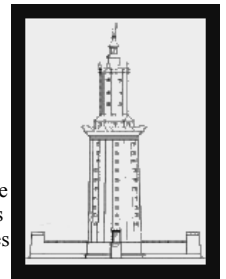
Skin Space Suit: (SDP 5 for all body locations, helmet provides SDP 10, see Starblade Battalion for more, sorry no cryogas.)

Made from memory fabric that relaxes and tenses at the push of a button for a tight fit. As the name suggests, is very form fitting and flexible, made for those who need protection and a small profile for confined spaces. The only hard pieces are some of the plates around the hips, groin, and chest/shoulders/spine, which is where the important equipment is located at. Internal oxygen scrubber in helmet gives 60 minutes of air, additional external backpack gives some maneuverability (6 MA in space or zero-gee) and an additional 4 hour air supply. Foot pads are magnetic. Additional equipment can attach to the suit by Velcro, holsters, or harnesses. Helmet has highly detailed display on visor, with comm-link and anti-dazzle protection. Most avatar pilots are issued this style of space suit.

Industrial / Military Space Suit: (SDP 10 all body locations, SDP 15 for head)

Built for construction or other hazardous duties; foot pads are magnetized, all body parts are made from self sealing materials and more stiff parts, numerous attachment points for tools. Has two hours of internal air supply, EVA back pack gives a 6 MA flight in space or zero-gee and an additional 8 hours of air supply. Is not meant for use in confined spaces due to size. Is pretty common on the majority of all space ships and craft.

Colony Herd:	Management Company:	Number of Deuces:	Naming Theme:
#1	Pharos	250 "Open" type cylinders.	Major cities around the world.



Background:

Started as the first colony herd construction project in 0006 GA, the Pharos group has served both as home and first stepping stone into space for countless people during the mass exodus from Earf after the Harbinger comet impact. Its position in the Lagrange point arrangement made it perfect to serve as a major transportation hub for the flow of goods and people through the Earf sphere and as the space based administrative capital for the entire Earf Sphere. For other administrative purposes, the colony deuces 234 through 240 were reserved for each of the CACA member corporations to serve as their main headquarters for their space based operations, and home for their families. While deuces 241 through 250 served as the main dry dock facilities ONE's space fleets.

Along with the open type cylinders, there are several Bernal spheres and Stanford rings still in orbit in various states of use or condition. Many were once used as "construction shacks" during the colony construction projects, and were moved about from one Lagrange point or to another throughout their lives, before being left here in the "junk yard," a designated orbit around the center of L1.

Due to the sheer scale of the last battle of the "30 days of Hell," very few of the colony deuces escaped complete destruction by the attacks; nearly all were reduced to rubble and space debris turning the area into the navigation hazard known as the "Kessler Zone." Despite the presence of some still functional colonies and the ONE asteroid base Mons Abila, it is still a dangerous area for traveling through due to the chaotic movement of the debris, but also of the possible presence of Cosmic Heaven forces hiding among the rubble.

001: Abu Dhabi	002: Abuja	003: Accra	004: Adamstown	005: Addis Ababa	006: Algiers	007: Alofi	008: Amman	009: Amsterdam
010: Andorra la Vella	011: Ankara	012: Antananarivo	013: Apia	014: Ashgabat	015: Asmara	016: Astana	017: Asuncion	018: Athens
019: Avarua	020: Baghdad	021: Baku	022: Bamako	023: Bandar Seri Begawan	024: Bangkok	025: Bangui	026: Banjul	027: Basseterre
028: Beijing	029: Beirut	030: Belgrade	031: Belmopan	032: Berlin	033: Bern	034: Bishkek	035: Bissau	036: Bogota
037: Brasilia	038: Bratislava	039: Brazzaville	040: Bridgetown	041: Brussels	042: Bucharest	043: Budapest	044: Buenos Aires	045: Bujumbura
046: Cairo	047: Canberra	048: Cape Town	049: Caracas	050: Castries	051: Charlotte Amalie	052: Chisinau	053: Colombo	054: Conakry
055: Copenhagen	056: Dakar	057: Damascus	058: Dar es Salaam	059: Dhaka	060: Dili	061: Djibouti	062: Doha	063: Douglas
064: Dublin	065: Dushanbe	066: Episkopi	067: Flying Fish Cove	068: Freetown	069: Gaborone	070: George Town	071: Gibraltar	072: Grand Turk
073: Guangzhou	074: Guatemala City	075: Gustavia	076: Hagatna	077: Hamilton	078: Hanoi	079: Harare	080: Havana	081: Helsinki
082: Honiara	083: Islamabad	084: Jakarta	085: Jamestown	086: Jerusalem	087: Kabul	088: Kampala	089: Karachi	090: Kathmandu
091: Khartoum	092: Kigali	093: Kingston	094: Kingstown	095: Kinshasa	096: Kuala Lumpur	097: Kuwait City	098: Kyiv	099: La Paz
100: Libreville	101: Lilongwe	102: Lima	103: Lisbon	104: Ljubljana	105: Lome	106: London	107: Longyearbyen	108: Luanda
109: Lusaka	110: Luxembourg	111: Macau	112: Madrid	113: Majuro	114: Malabo	115: Male	116: Managua	117: Manama
118: Manila	119: Maputo	120: Marigot	121: Maseru	122: Matā'utu	123: Mbabane	124: Melekeok	125: Mexico City	126: Minsk
127: Mogadishu	128: Monaco	129: Monrovia	130: Montevideo	131: Moroni	132: Moscow	133: Muscat	134: N'Djamena	135: Nairobi
136: Nassau	137: New Delhi	138: Niamey	139: Nicosia	140: Nouakchott	141: Nouméa	142: Nuku'alofa	143: Nuuk	144: Oranjestad
145: Oslo	146: Ottawa	147: Ouagadougou	148: Pago Pago	149: Palikir	150: Panama City	151: Papeete	152: Paramaribo	153: Paris
154: Philipsburg	155: Phnom Penh	156: Plymouth	157: Podgorica	158: Port Louis	159: Port Moresby	160: Port-au-Prince	161: Port-of-Spain	P162: Port-Vila
163: Porto-Novo	164: Prague	165: Praia	166: Pristina	167: Pyongyang	168: Quito	169: Rabat	170: Ramciel	171: Reykjavik
172: Riga	173: Riyadh	174: Road Town	175: Rome	176: Roseau	177: Saint George's	178: Saint Helier	179: Saint John's	180: Saint Peter Port
181: Saint-Pierre	182: Saipao	183: San Jose	184: San Juan	185: San Marino	186: San Salvador	187: Sanaa	188: Santiago	189: Santo Domingo
190: Sao Tome	191: Sarajevo	192: Seoul	193: Singapore	194: Skopje	195: Sofia	196: Stanley	197: Stockholm	198: Suva
199: Taipei	200: Tallinn	201: Tarawa Atoll	202: Tashkent	203: Tbilisi	204: Tegucigalpa	205: Tehran	206: The Valley	207: Thimphu
208: Tirane	209: Tokyo	210: Tórshavn	211: Tripoli	212: Tunis	213: Ulaanbaatar	214: Vaduz	215: Vaiaku Village	216: Valletta
217: Vatican City	218: Victoria	219: Vienna	220: Vientiane	221: Vilnius	222: Warsaw	223: Washington D.C.	224: Wellington	225: West Island
226: Willemstad	227: Windhoek	228: Yamoussoukro	229: Yangon	230: Yaounde	231: Yaren	232: Yerevan	233: Zagreb	234: Pharos
235: Bodrum	236: Rhodes	237: Giza	238: Media	239: Ephesus	240: Phidias	241: I	242: II	243: III
244: IV	245: V	246: VI	247: VII	248: VIII	249: IX	250: X		

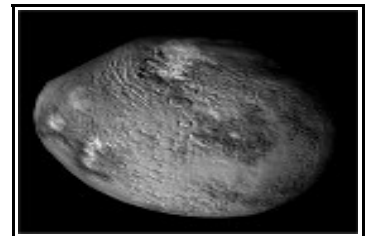
Undamaged.	Damaged, but habitable.	Completely destroyed.	Were used in drop operations.
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Mons Abila:

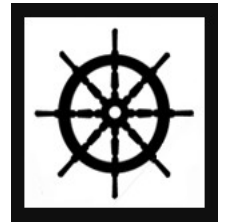
Stationed in orbit around the L1 point is one of the two main asteroid bases under ONE control. During the "30 days of Hell," it sustained a great amount of damage, nearly losing half of its structure to the relentless attacks and nuclear weapons. Despite the onslaught, Mons Abila has continued to serve as a strong point in the ONE line of defense in space. Its massive facilities includes numerous bunkers, gun turrets, several dry docks for ship maintenance and construction.

"The Junkyard":

In the "middle" of the Lagrange point exists an orbit where various space stations and other structures have been parked for later use or completely abandoned. Many are much simpler constructs than standard O'Neil cylinder deuces, such as Bernal spheres, rotating wheels, Stanford torus, and other forms of space habitats to name a few. In theory, they are supposed to be uninhabited, but it is possible that this may not be the case before, or during the war. Some may be inhabited by squatters or refugees that have managed to either repair or maintain such structures while no one was looking.



Colony Herd:	Management Company:	Number of Deuces:	Naming Theme:
#2	Bodrum	300 "Open" type cylinders.	"Oceans and other large bodies of water of the world."



Background:

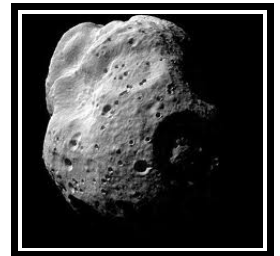
One of the first colony herd groups to be struck during the early part of the "30 days of Hell," and was also where a larger part of the fighting was held. Numerous nuclear missiles hit their intended targets, causing many colony deuces to disintegrate as their structures failed under the strain of the forces that were unleashed upon them.

001: Adolf Sea	002: Adriatic Sea	003: Aegean Sea	004: Afafura Sea	005: Albaik Bay	006: Alboran Sea	007: Amundsen Sea	008: Amvraki Gulf
009: Andaman Sea	010: Aniva Bay	011: Arabatskiy Bay	012: Arabian Sea	013: Arafura Sea	014: Aral Sea	015: Archipelago Sea	016: Arctic Ocean
017: Argentine Sea	018: Argolic Gulf	019: Arhus Bay	020: Atchafalaya Bay	021: Atlantic Ocean	022: Baffin Bay	023: Baikal	024: Balearic Sea
025: Bali Sea	026: Baltic Sea	027: Barents Sea	028: Barnstaple Bay	029: Bass Strait	030: Bay of Bengal	031: Bay of Biscay	032: Bay of Bothnia
033: Bay of Campeche	034: Bay of Fundy	035: Bay of Tinah	036: Baydaratskaya Bay	037: Beaufort Sea	038: Bellingshausen Sea	039: Bering Sea	040: Bering Strait
041: Bismarck Sea	042: Black Sea	043: Block Island Sound	044: Bohol Sea	045: Bosporus Strait	046: Bothnian Sea	047: Bridgewater Bay	048: Bristol Channel
049: Brunei Bay	050: Caemarfon Bay	051: Camotes Sea	052: Cape of Good Hope	053: Cardigan Bay	054: Caribbean Sea	055: Carmarthen Bay	056: Caspian Sea
057: Catalan Sea	058: Celebes Sea	059: Celtic Sea	060: Central Baltic Sea	061: Ceram Sea	062: Chesapeake Bay	063: Chilean Sea	064: Chukchi Sea
065: Cilician Sea	066: Cook Strait	067: Cooperation Sea	068: Coral Sea	069: Corinthian Gulf	070: Cosmonauts Sea	071: Crater Lake	072: D'Urville Sea
073: Davis Sea	074: Davis Strait	075: Dead Sea	076: Delaware Bay	077: Denmark Strait	078: Douglas Bay	079: Dvina Bay	080: East China Sea
081: East Sea	082: East Siberian Sea	083: English Channel	084: Evoikos Gulf	085: Fakse Bay	086: Feodosiyskiy Bay	087: Flores Sea	088: Greenland Sea
089: Gulf of Aden	090: Gulf of Alaska	091: Gulf of Aqaba	092: Gulf of Argolis	093: Gulf of Bahrain	094: Gulf of Bothnia	095: Gulf of Cadiz	096: Gulf of California
097: Gulf of Carpentaria	098: Gulf of Chihli	099: Gulf of Corinth	100: Gulf of El Salvador	101: Gulf of Finland	102: Gulf of Fonseca	103: Gulf of Gabès	104: Gulf of Genoa
105: Gulf of Guayaqui	106: Gulf of Guayaquil	107: Gulf of Guinea	108: Gulf of Hammamet	109: Gulf of Honduras	110: Gulf of Kotor	111: Gulf of Kusadasi	112: Gulf of Laconia
113: Gulf of Lingayen	114: Gulf of Lion	115: Gulf of Maine	116: Gulf of Manfredonia	117: Gulf of Mannar	118: Gulf of Messinia	119: Gulf of Mexico	120: Gulf of Morbihan
121: Gulf of Mosquitos	122: Gulf of Ob	123: Gulf of Odessa	124: Gulf of Oman	125: Gulf of Oristano	126: Gulf of Panama	127: Gulf of Paria	128: Gulf of Penas
129: Gulf of Popua	130: Gulf of Rega	131: Gulf of Riga	132: Gulf of Roses	133: Gulf of San Jorge	134: Gulf of San Matias	135: Gulf of Sidra	136: Gulf of St. Lawrence
137: Gulf of St. Milo	138: Gulf of Suez	139: Gulf of Taranto	140: Gulf of Thailand	141: Gulf of Tonkin	142: Gulf of Tunis	143: Gulf of Valencia	144: Gulf of Venezuela
145: Gulf of Venice	146: Gulf of St. Vincent	147: Halmahera Sea	148: Hannay Bay	149: Hudson Bay	150: Hudson Strait	151: Indian Ocean	152: Ionian Sea
153: Irish Sea	154: James Bay	155: Japan Sea	156: Java Sea	157: Kandalaksha Bay	158: Kara Sea	159: Kara Strait	160: Kattegat Bay
161: Kentucky Lake	162: Khatanga Gulf	163: Kiel Bay	164: King Haakon VII Sea	165: Koge Bay	166: Korea Strait	167: Koro Sea	168: Kyparissia Gulf
169: La Perouse Strait	170: Labrador Sea	171: Laccadive Sea	172: Lake Albert	173: Lake Athabasca	174: Lake Chad	175: Lake Champlain	176: Lake Erie
177: Lake Huron	178: Lake Malawi	179: Lake Manitoba	180: Lake Saimaa	181: Lake Superior	182: Lake Tanganyika	183: Lake Victoria	184: Lakonikos Gulf
185: Laptev Sea	186: Laptev Strait	187: Lazarev Sea	188: Levantine Sea	189: Libyan Sea	190: Ligurian Sea	191: Lim Fjord	192: Lincoln Sea
193: Loch Lomond	194: Loch Ness	195: Loch Ryan	196: Long Island Sound	197: Luce Bay	198: Luzon Strait	199: Malta Channel	200: Mariager Fjord
201: Marmara Sea	202: Matochkin Strait	203: Mawson Sea	204: Mecklenburger Bay	205: Mediterranean Sea	206: Menai Strait	207: Messinia Gulf	208: Mezen Bay
209: Mindanao Sea	210: Mirttoon Sea	211: Mobile Bay	212: Molucca Sea	213: Mozambique Channel	214: Narragansett Bay	215: Niarbyl Bay	216: North Channel
217: North Sea	218: Norwegian Sea	219: Okhotsk Sea	220: Olenekskiy Bay	221: Oresund Strait	222: Pacific Ocean	223: Pagasitikos Gulf	224: Palk Bay
225: Patra Gulf	226: Pechora Sea	227: Persian Gulf	228: Philippine Sea	229: Pyramid Lake	230: Qinghai Lake	231: Ramsey Bay	232: Randers Fjord
233: Red Sea	234: Reindeer Lake	235: Riiser-Larsen Sea	236: Ringkobing Fjord	237: Ross Sea	238: Rupert Bay	239: Salish Sea	240: Salt Lake
241: Salton Sea	242: Sargasso Sea	243: Saronic Gulf	244: Savu Sea	245: Scotia Sea	246: Sea of Åland	247: Sea of Azov	248: Sea of Chiloé
249: Sea of Cortéz	250: Sea of Crete	251: Sea of Galilee	252: Sea of Japan	253: Sea of Marmara	254: Sea of Okhotsk	255: Sea of Sardinia	256: Sea of Sicily
257: Sea of the Hebrides	258: Seto Inland Sea	259: Sevana Lake	260: Shark Bay	261: Shelikhov Gulf	262: Sibuyan Sea	263: Solomon Sea	264: Somov Sea
265: South Aral Sea	266: South China Sea	267: Southern Ocean	268: Spencer Gulf	269: St. Bride's Bay	270: St. George's Channel	271: Strait of Bonifacio	272: Strait of Dover
273: Strait of Georgia	274: Strait of Gibraltar	275: Strait of Hormuz	276: Strait of Kerch	277: Strait of Magellan	278: Strait of Malacca	279: Strait of Otranto	280: Strait of Sicily
281: Sulu Sea	282: Swansea Bay	283: Taganrog Gulf	284: Taiwan Strait	285: Tannis Bay	286: Tasman Sea	287: Tatar Strait	288: Thermaic Gulf
289: Thracian Sea	290: Timor Sea	291: Tremadoc Bay	292: Tyrrhenian Sea	293: Ungava Bay	294: Vilkitshogo Strait	295: Visayan Sea	296: Wadden Sea
297: Weddell Sea	298: White Sea	299: Yanskiy Bay	300: Yellow Sea				

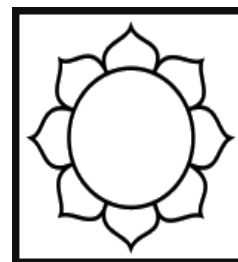
Undamaged.	Damaged, but habitable.	Completely destroyed.
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Carroccio:

This asteroid fortress serves as the main point of operations for the Cosmic Heavens around the L5 Lagrange point, projecting the ruling presence and force of the occupying armies stationed there, and as a staging area for further operations or the movement of troops and material through the Earf Sphere.



Colony Herd:	Management Company:	Number of Deuces:	Naming Theme:
#3	Rhodes	300 "Open" type cylinders.	"Flowering plants of the world."



Background:

The Rhodes colony herd group has the odd distinction of being the only colony group to completely surrender even before a shot was fired at them, and submitted to being occupied by the Cosmic Heavens forces. Many survivors from the attack on the Giza colony herd managed to make it to their sister herd at the fourth Lagrange point, only to discover that their predicament was now much worse as being prisoners of the occupying forces, and not having any where else to go. This has lead to some problems with resistance groups forming from the local and refugee populations, while some of the captured colony deuces have been converted into refugee settlements.

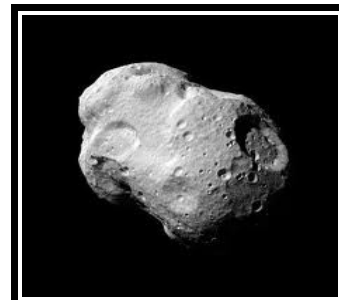
Prior to the war, the colony herd was well known for its dynamic flowering gardens.

001: Acacia	002: Achillea	003: African Boxwood	004: African Lily	005: Agapanthus	006: Ageratum	007: Ageratum Houstonim	008: Allium
009: Alpina	010: Alstroemeria	011: Amaryllis	012: Ammi Majus	013: Anconitum	014: Anemone	015: Anemone 'Galilee'	016: Anigozanthus
017: Annual Delphinium	018: Anthurium	019: Antirrhinum Majus	020: Artichoke	021: Artichoke Thistle	022: Asparagus	023: Aster	024: Astilbe
025: Baby's Breath	026: Bachelor's Button	027: Banksia	028: Bellflower	029: Bells of Ireland	030: Big Flax	031: Bighead Knapweed	032: Billy Buttons
033: Bird of Paradise	034: Black Bat Flower	035: Blazing Star	036: Blue Bell Tunicate	037: Blue lace Flower	038: Boronia	039: Bouvardia	040: Breath of Heaven
041: Broccoli	042: Broom	043: Buckthorn	044: Buddlea	045: Bupleurum	046: Butterfly Bush	047: Butterfly Orchid	048: Button Funray
049: California Pepperberry	050: Calla Lily	051: Calla Lily White	052: Camellia	053: Campanula	054: Candytuft	055: Canterbury Bells	056: Carnation
057: Carthamus	058: Casa Blanca	059: Caspia	060: Cattleya	061: Cauliflower	062: Celosia	063: Celosia Argenta	064: Centaurea Cyanus
065: Chamelaucium	066: Chimney Bells	067: Chrysanthemum	068: Clarkia	069: Clover	070: Cockscomb Crested	071: Coffee Bean Berry	072: Common Myrtle
073: Common Yarrow	074: Cone Flower	075: Consolida Ambigua	076: Convallaria	077: Cordylone	078: Cornflower	079: Cosmos	080: Craspedia
081: Crocus	082: Curcuma	083: Curly Willow	084: Cymbidium	085: Cymbidium Orchid	086: Daffodil	087: Dahlia	088: Daisy
089: Daisy Mums	090: Dandelion	091: Delphinium Belladonna	092: Delphinium Pacific	093: Dendrobium	094: Dendrobium Orchid	095: Desert Rose	096: Dianthus Barbatus
097: Dianthus Caryophyllus	098: Dragon's Tongue	099: Drumstick	100: Enthusiasm	101: Eric John	102: Erica	103: Eucalyptus	104: Everlasting
105: False Bird of Paradise	106: False Spirea	107: Farewell-To-Spring	108: Fernleaf Yarrow	109: Feverfew	110: Flamingo	111: Flax New Zealand	112: Floss
113: Foxtail Fern	114: Freesia	115: Fuji Mums	116: Gardenia	117: Gay Feather	118: Gerbera	119: Gerbera Daisy	120: Gerbera Ruby Red
121: Ginger	122: Gladiolus	123: Goat's Beard	124: Godetia	125: Golden Rod	126: Guernsey Lily	127: Gyp	128: Hanging Heliconia
129: Hawthorn	130: Heather	131: Helianthus Annuus	132: Heliconia	133: Hippeastrum	134: Hydrangea	135: Iberis Amara	136: Inca Lily
137: Iris	138: Ivy	139: Japhette Orchid	140: Jonquil	141: Kangaroo Paw	142: King's Spear	143: Knapweed	144: Lace Fern
145: Larkspur	146: Larkspur Pink	147: Lathyrus Odoratus	148: Lavandula	149: Lavender	150: Liatris	151: Lilac	152: Lilium
153: Lily	154: Lily Casa Blanca	155: Lily Elite	156: Lily Monte Negro	157: Lily of the Field	158: Lily of the Nile	159: Lily of the Valley	160: Lily Stargazer
161: Limonium	162: Lion's Ear	163: Lisianthus	164: Lobster Claw	165: Lotus	166: Love in a Mist	167: Lumex	168: Marguerite Daisy
169: Mattholia Incana	170: Melaleuca	171: Mimosa	172: Miniature Carnation	173: Ming Fern	174: Moluccella Laevis	175: Monkshood	176: Montbretia
177: Monte Cassino	178: Moon Orchid	179: Mother-in-Law Tongue	180: Musa	181: Myrsine	182: Myrtle	183: Narcissus	184: Nephrolepis
185: Nerine	186: Nerine Lily	187: Nigella	188: Ornamental Onion	189: Ornithogalum	190: Paeonia	191: Painted Tongue	192: Paper Reed
193: Papyrus Lion's Head	194: Peony	195: Periwinkle	196: Peruvian Lily	197: Phalaenopsis	198: Philodendron	199: Phlox	200: Pincushion
201: Pineapple Lily	202: Pink Mink	203: Pittosporum	204: Pixie Carnation	205: Polianthes Tuberosa	206: Pompon	207: Poppy	208: Poppy Anemone
209: Porium	210: Primrose	211: Prince of Wales Feather	212: Pussy Willow	213: Queen Ann's Lace	214: Rafflesia Arnoldii	215: Ranunculus	216: Rattlesnake
217: Red Ribbons	218: Red Rover	219: Rice Flower	220: Rose	221: Rose Bridal Pink	222: Rose Bridal White	223: Rose Champagne	224: Rose Diadem
225: Rose Emblem	226: Rose Fantasy	227: Rose Fire & Ice	228: Rose Kardinal	229: Rose Lady Liberty	230: Rose Lavanda	231: Rose Osiana	232: Rose Royalty
233: Safari Sunset	234: Safflower	235: Sage Perennial	236: Salix	237: Salmon Reagan	238: Sansevieria	239: Saponaria	240: Satin
241: Saxicola	242: Scabiosa	243: Schinus	244: Sea Lavender	245: Shell	246: Snake Plant	247: Snapdragon	248: Snowball
249: Snowdrop	250: Solidago	251: Solidaster	252: Speedwell	253: Spider Fuji Yellow	254: Spider Lily	255: Spider Mums	256: Spray Carnation
257: Sprengeri Fern	258: Star of Bethlehem	259: Statice	260: Statice Blue	261: Stenomezon	262: Stephanotis	263: Stock	264: Stock Lavender
265: Strawberry Banksia	266: Strawflower	267: Summer Poinsettia	268: Summer's Darling	269: Sunflower	270: Sweet Pea	271: Sweet William	272: Sword Fern
273: Syringa Vulgaris	274: Tailflowers	275: Tassel	276: Telstar	277: Thorow-Wax	278: Thoroughwax	279: Throatwort	280: Titan Arum
281: Trachelium	282: Trachelium	283: Tree Fern	284: Trumpet Lily	285: Tuberosa	286: Tulip	287: Tulip Pink	288: Veronica
289: Voodoo Lily	290: Water Lily	291: Watsonia	292: Wattle	293: Waxflower	294: Wild Plantain	295: Willow Curly	296: Windflower
297: Wolfsbane	298: Zantedeschia	299: Zephyranth	300: Zinna				

Undamaged.	Damaged, but habitable.	Completely destroyed.
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Bimah:

The Cosmic Heavens asteroid fortress of Bimah is in orbit around the L4 Lagrange point with the Herd 3 colony group, and serves as a central point for their occupation operations in the area and as a staging point for the movement of troops and material through out the Earf Sphere..



Colony Herd:	Management Company:	Number of Deuces:	Naming Theme:
#4	Giza	300 "Open" type cylinders.	"Different types of rocks and minerals."



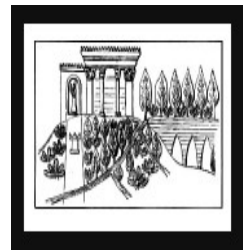
Background:

During the "30 days of Hell," the fourth colony herd group took tremendous losses from the attacks, with all of the colony deuces being damaged to the point of being uninhabitable, beyond repair, or totally lost. The resulting debris field has been giving the ironic name of the "Rock Garden" by both sides, and is a dangerous navigation hazard much like the "Kessler Zone" that formed after the attacks at Lagrange point One.

001: Andesite	002: Adakite	003: Adamellite	004: Adamite	005: Amphibolite	006: Anorthosite	007: Anthracite	008: Aphanite
009: Aplite	010: Appinite	011: Argillite	012: Arkose	013: Banded Iron	014: Baryte	015: Basalt	016: Basanite
017: Bastnäsite	018: Benmoreite	019: Bismuth	020: Blue Granite	021: Blueschist	022: Boninite	023: Borolanite	024: Breccia
025: Cadmium	026: Cafetite	027: Carbonatite	028: Cataclasite	029: Chalk	030: Charnockite	031: Chert	032: Claystone
033: Coal	034: Comendite	035: Conglomerate	036: Coquina	037: Dacite	038: Descloizite	039: Diabase	040: Diadochite
041: Diamictite	042: Diamond	043: Diatomite	044: Diorite	045: Dolerite	046: Dolomite	047: Dolostone	048: Dunite
049: Eclogite	050: Edingtonite	051: Ekanite	052: Elbaite	053: Elsmoreite	054: Emery	055: Empressite	056: Enargite
057: Enderbite	058: Epidosite	059: Essexite	060: Evaporite	061: Fabianite	062: Fayalite	063: Feldspar	064: Feldspathoid
065: Felsite	066: Ferberite	067: Fergusonite	068: Ferroxyhyte	069: Ferrierite	070: Ferrihydrite	071: Flint	072: Foidolite
073: Gabbro	074: Ganister	075: Gneiss	076: Gossan	077: Granite	078: Granodiorite	079: Granophyre	080: Granulite
081: Greenschist	082: Greenstone	083: Greywacke	084: Gritstone	085: Haggertyite	086: Haidingerite	087: Halite	088: Halloysite
089: Halotrichite	090: Hanksite	091: Hapkeite	092: Harzburgite	093: Hawaiite	094: Hornblendite	095: Hornfels	096: Hyaloclastite
097: Icelandite	098: Idocrase	099: Idrialite	100: Ignimbrite	101: Ijolite	102: Ikaite	103: Illite	104: Ilmenite
105: Ilvaite	106: Iodargyrite	107: Iron	108: Itacolumite	109: Jacobsite	110: Jadarite	111: Jadeite	112: Jadeitite
113: Jamesonite	114: Jarosewichite	115: Jarosite	116: Jasperoid	117: Jaspillite	118: Jeffersonite	119: Jennite	120: Jerrygibbsite
121: Juonniite	122: Kaatialaite	123: Kadyrelite	124: Kainite	125: Kalininite	126: Kalinite	127: Kalsilite	128: Kamacite
129: Kambaldaite	130: Kankite	131: Kenyte	132: Kitkaite	133: Komatiite	134: Labradorite	135: Lamproite	136: Lamprophyre
137: Lanarkite	138: Larvikite	139: Laterite	140: Latite	141: Lherzolite	142: Lignite	143: Limestone	144: Litchfieldite
145: Luxullianite	146: Mackinawite	147: Maghemite	148: Mangerite	149: Marble	150: Marl	151: Migmatite	152: Minette
153: Monzogranite	154: Monzonite	155: Mudstone	156: Mugearite	157: Mylonite	158: Nabesite	159: Nacrite	160: Nagyagite
161: Nahcolite	162: Natrolite	163: Natron	164: Natrophilite	165: Nepheline syenite	166: Nephelinite	167: Nephrite	168: Norite
169: Novaculite	170: Obsidian	171: Oil Shale	172: Oligoclase	173: Olivenite	174: Olivine	175: Omphacite	176: Oolite
177: Ordonezite	178: Oregonite	179: Orpiment	180: Orthochrysotile	181: Orthoclase	182: Osarizawaite	183: Pantellerite	184: Pegmatite
185: Pelite	186: Peridotite	187: Phonolite	188: Phyllite	189: Picrite	190: Psammite	191: Pseudotachylite	192: Pumice
193: Pyrolite	194: Pyroxenite	195: Quartz Diorite	196: Quartz Monzonite	197: Quartzite	198: Quartzite Porphyry	199: Quenstedtite	200: Rambergite
201: Rammelsbergite	202: Rapakivi Granite	203: Raspite	204: Realgar	205: Renierite	206: Rheniite	207: Rhodium	208: Rhodochrosite
209: Rhodonite	210: Rhomb Porphyry	211: Rhomboclase	212: Rhyodacite	213: Rhyolite	214: Rickardite	215: Riebeckite	216: Robertsite
217: Romanèchite	218: Rosasite	219: Roscoelite	220: Sandstone	221: Schist	222: Scoria	223: Serpentinite	224: Shale
225: Shonkinite	226: Shoshonite	227: Siltstone	228: Skarn	229: Slate	230: Soapstone	231: Sovite	232: Suevite
233: Syenite	234: Tachylite	235: Taconite	236: Talc Carbonate	237: Tephrite	238: Teschenite	239: Theralite	240: Tonalite
241: Trachyandesite	242: Trachyte	243: Travertine	244: Troctolite	245: Trondjemite	246: Tuff	247: Turbidite	248: Uchucchacuaite
249: Uklonskovite	250: Ulexite	251: Ullmannite	252: Ulvospinel	253: Umangite	254: Umber	255: Umbite	256: Upalite
257: Uraninite	258: Uranophane	259: Uranopilite	260: Uvarovite	261: Vaesite	262: Valentinite	263: Vanadinite	264: Variolite
265: Variscite	266: Vaterite	267: Vauquelinite	268: Vauxite	269: Vermiculite	270: Vesuvianite	271: Vogesite	272: Wackestone
273: Wagnerite	274: Wardite	275: Warikahnite	276: Warwickite	277: Wassonite	278: Wavellite	279: Websterite	280: Weddellite
281: Wehrlite	282: Weillite	283: Whiteschist	284: Xenotime	285: Xifengite	286: Xonotlite	287: Ye'elimite	288: Yttrialite
289: Yttrocerite	290: Yttrocolumbite	291: Zabuyelite	292: Zaccagnaite	293: Zaherite	294: Zajacite	295: Zakharovite	296: Zanazziite
297: Zaraitite	298: Zeolite	299: Zhanghengite	300: Zharchikhite				

Undamaged.	Damaged, but habitable.	Uninhabitable / Completely destroyed.
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Colony Herd:	Management Company:	Number of Deuces:	Naming Theme:
#5	Media	300 "Open" type cylinders.	"Different types of trees of the world."



Background:

Even though it was one of the first targets of the initial attacks, not as many colonies were damaged or destroyed as were in its sister group at the fifth Lagrange point, and became an evacuation point for the escaping refugees from the second colony herd group. Some colonies are currently overrun with countless displaced refugees from the war as the authorities try to contain the confused and desperate masses.

It was at the colony deuce 184 that the "treaty of Olives" was signed by representatives of both the Cosmic Heavens and ONE after the negotiations came to an end.

001: Acacia	002: Ailanthus	003: Alder	004: Almond	005: Apple	006: Apricot	007: Areca
008: Argan	009: Arizona Cypress	010: Arrowwood Viburnum	011: Ash	012: Aspen	013: Atlas Cedar	014: Austrian Pine
015: Autumn Cherry	016: Avocado	017: Bald Cypress	018: Balsa	019: Balsam Fir	020: Bamboo	021: Bar Harbor Juniper
022: Bartlett Pear	023: Bay Laurel	024: Bead	025: Beautybush	026: Beech	027: Bing Cherry	028: Birch
029: Black Birch	030: Black Hills Spruce	031: Black Locust	032: Black Tartarian Cherry	033: Black Tupelo	034: Black Walnut	035: Boxwood
036: Brazil Nut	037: Brazilwood	038: Buckeye	039: Bur Oak	040: Burbank Plum	041: Butternut	042: Cabbage Tree
043: Cacao	044: Cactus	045: California White Oak	046: Camellia	047: Canadian Hemlock	048: Canary Island Pine	049: Carolina Silverbell
050: Carpathian Walnut	051: Cashew	052: Cedar	053: Cedar Elm	054: Celtis Hackberry	055: Centennial Star Magnolia	056: Chanticleer Pear
057: Cherimoya	058: Cherry	059: Chestnut	060: Chinese Chestnut	061: Chinese Pistache	062: Chinkapin Oak	063: Chusan Palm
064: Cinnamon	065: Citrus	066: Coast Redwood	067: Coast Redwood	068: Coconut	069: Coffee	070: Colorado Blue Spruce
071: Cork-Tree	072: Corneliancherry Dogwood	073: Crape-Myrtle	074: Cucumbertree Magnolia	075: Cyathea	076: Cycad	077: Cypress
078: Damson Plum	079: Date Palm	080: Dawn Redwood	081: Deodar Cedar	082: Desert Willow	083: Dicksonia	084: Dogbane
085: Dogwood	086: Douglas Fir	087: Dove	088: Downy Serviceberry	089: Dragon Tree	090: Dwarf Russian Almond	091: Early Golden Apricot
092: Early Harvest Apple	093: Early Richmond Cherry	094: Eastern Redcedar	095: Elberta Peach	096: Eldarica Pine	097: Elderberry	098: Elm
099: Emerald Arborvitae	100: Eucalypt	101: Eucommia	102: Euodia	103: European Beech	104: European Mountainash	105: European Olive
106: Fig	107: Fir	108: Forsythia	109: Foxglove Tree	110: Fragrant Lilac	111: Garjan	112: Giant Sequoia
113: Ginkgo	114: Glossy Abelia	115: Golden Globe	116: Golden Peach	117: Gordonia	118: Gray Dogwood	119: Green Ash
120: Green Giant	121: Green Velvet Boxwood	122: Guava	123: Gutta-Percha	124: Hackberry	125: Hale-Haven Peach	126: Hall's Hardy Almond
127: Hawthorn	128: Hazel	129: Hickory	130: Holly	131: Honey Locust	132: Hornbeam	133: Horse-Chestnut
134: Hungarian Lilac	135: Ivy	136: Jane Magnolia	137: Japanese Flowering Cherry	138: Japanese Maple	139: Japanese Zelkova	140: Joshua Tree
141: Juniper	142: Kahikatea	143: Kalopanax	144: Kapok	145: Kauri	146: Kentucky Coffeetree	147: Kieffer Pear
148: Korean Boxwood	149: Kousa Dogwood	150: Kusamaki	151: Kwanzan Cherry	152: Lacebark Elm	153: Lacquer	154: Larch
155: Leyland Cypress	156: Linden	157: Littleleaf Linden	158: Lodi Apple	159: London Planetree	160: Lychee	161: Magnolia
162: Mahogany	163: Malvaceae	164: Mango	165: Maple	166: Methley Plum	167: Mexican Buckeye	168: Mexican Plum
169: Miro	170: Montmorency Cherry	171: Moorpark Apricot	172: Mountain-Laurel	173: Mugo Pine	174: Mulberry	175: Nanking Cherry
176: Neem	177: Noble Fir	178: North Privet	179: Northern Red Oak	180: Norway Spruce	181: Nutmeg	182: Oak
183: October Glory Maple	184: Olive	185: Orange Azaleas	186: Orient Pear	187: Oriental Spruce	188: Palm	189: Paper Birch
190: Pawpaw	191: Peach	192: Pear	193: Pecan	194: Pekin Lilac	195: Persian Ironwood	196: Persimmon
197: Pin Oak	198: Pine	199: Pink Azaleas	200: Pink Dogwood	201: Pistachio	202: Plane	203: Plum
204: Ponderosa Pine	205: Poplar	206: Prairifire Flowering Crab	207: Purple Rhododendron	208: Purpleleaf Plum	209: Pussy Willow	210: Quaking Aspen
211: Ramin	212: Red Acer Maple	213: Red Azaleas	214: Red Buckeye	215: Red Cloud Dogwood	216: Red Dogwood	217: Red Jonathan Apple
218: Red Mangrove	219: Red Sunset Maple	220: Red Wood	221: Redosier Dogwood	222: Rimu	223: River Birch	224: Rowan
225: Rubiaceae	226: Ruby Red Dogwood	227: Saguaro	228: Sargent Cherry	229: Sassafras	230: Saucer Magnolia	231: Sawtooth Oak
232: Scarlet Oak	233: Scots Pine	234: Serbian Spruce	235: Shellbark Hickory	236: Shumard Oak	237: Silk-cotton	238: Silky Dogwood
239: Silver Linden	240: Silver Maple	241: Sinadoxa	242: Singleleaf Pine	243: Slash Pine	244: Smoketree	245: Snowdrift Crabapple
246: Sorbus	247: Sourwood	248: Southern Magnolia	249: Spruce	250: Star Magnolia	251: Stayman Winesap Apple	252: Stewartia
253: Strawberry Tree	254: Sugar Maple	255: Sugi	256: Sumac	257: Sweetbay Magnolia	258: Sweetgum	259: Sweetshrub
260: Sycamore	261: Tambalacoque	262: Tanoak	263: Tatarian Maple	264: Teak	265: Texas Ebony	266: Thornless Honeylocust
267: Totara	268: Trident Maple	269: Tulip	270: Tupelo	271: Viburnum	272: Walnut	273: Washington Hawthorn
274: Water Oak	275: Wattieza	276: Weeping Willow	277: Western Redcedar	278: Western Soapberry	279: White Ash	280: White Dogwood
281: White Fir	282: White Oak	283: White Pine	284: White Rhododendron	285: White Spruce	286: Whitebeam	287: Willow
288: Wingnut	289: Winterberry	290: Witchhazel	291: Wollemia	292: Woodward Globe	293: Yellow Azaleas	294: Yellow Birch
295: Yellow Buckeye	296: Yellow maple	297: Yellowwood	298: Yew	299: Youngstown Juniper	300: Zelkova	

Undamaged.	Damaged, but habitable.	Completely destroyed.
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Colony Herd:	Management Company:	Number of Deuces:	Naming Theme:
#6	Ephesus	300 "Open - Cornucopia" type cylinders.	"Major rivers of the world."



Background:

With its unique form of colony cylinders, the Ephesus group is considered a paradise among the other colony groups, with a high demand to live in its more natural environments that it is known for. Its urban planning philosophy is geared more towards integrating as much flora and fauna as possible in to its layouts, creating a nearly perfect landscape that some claim is even more natural than most places on Earf, an "Eden amongst the stars." Very few industrial buildings exist inside any of the colonies, with 90% of them being located along the center spindle or exterior structures.

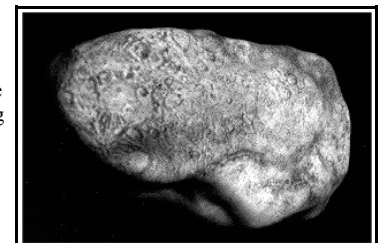
When the Herd 7 Declaration was made, it was the Herd 6 colony group that became the most vocal about its supposed neutral stance in the situation, and even more so as the war began. Afraid that the violence of war would endanger their collection of perfect worlds, the governing colony councils have constantly gone out of their way to publicly denounce the war and proclaim their neutrality, even to the point of refusing the presence of ONESN and Cosmic Heaven ships in their territory.

001: Adige	002: Akagera	003: Alazani	004: Aliakmon	005: Allegheny	006: Altamaha	007: Amazon	008: Amu Darya
009: Amur	010: Aras	011: Arkansas	012: Arno	013: Bandama	014: Banja Lika	015: Bann	016: Benue
017: Berezina	018: Big Black	019: Big Sandy	020: Blackwater	021: Bosna	022: Brahmaputra	023: Brazos	024: Bregalnica
025: Bug	026: Byk	027: Caledon	028: Canadian	029: Canal Du Midi	030: Caqueta	031: Cavalla	032: Cedar
033: Cestos	034: Chang	035: Chari	036: Chattahoochee	037: Churchill	038: Clanrye	039: Clyde	040: Coeroeni
041: Colombia	042: Colorado	043: Congo	044: Connecticut	045: Corantijn	046: Corinth Canal	047: Crna	048: Cuango
049: Cubango	050: Cumberland	051: Dall	052: Danube	053: Darling	054: Debet	055: Dee	056: Delaware
057: Des Moines	058: Dja	059: Dnieper	060: Dnipro	061: Dnistra	062: Don	063: Dordogne	064: Doubs
065: Douro	066: Drava	067: Drin	068: Dvina	069: Ebro	070: Elbe	071: Emajogi	072: Ems
073: Ertis	074: Essequibo	075: Euphrates	076: Evros	077: Faleme	078: Fish	079: Fraser	080: Gambia
081: Ganges	082: Garonne	083: Gauja	084: Gila	085: Glama	086: Green	087: Guadalquivir	088: Guadalupe
089: Guadiana	090: Guapore	091: Haho	092: Havel	093: Hornad	094: Housatonic	095: Huang He	096: Hudson
097: Humboldt	098: Illinois	099: Indal	100: Indus	101: Irtysh	102: Iskur	103: Ivindo	104: James
105: Jamuna	106: Jubba	107: Jucar	108: Kaduna	109: Kansas	110: Kanyaru	111: Kasai	112: Kemi
113: Kennebec	114: Kentucky	115: Komoe	116: Kuban	117: Kura	118: Kwango	119: Labe	120: Lee
121: Leie	122: Lek	123: Lena	124: Li	125: Lielupe	126: Lim	127: Ljssel	128: Logan
129: Logone	130: Loire	131: Lot	132: Lualaba	133: Luira	134: Lule	135: Lusufu	136: Mackenzie
137: Madriu	138: Magdalena	139: Mana	140: Marano	141: Maritsa	142: Maroni	143: Marowijne	144: Mbuluzi
145: Medjerda	146: Mekong	147: Merrimack	148: Meuse	149: Mezen	150: Miami	151: Milo	152: Minnesota
153: Mino	154: Mississippi	155: Missouri	156: Moa	157: Mohawk	158: Mono	159: Monongahela	160: Morava
161: Moselle	162: Muonio	163: Murray	164: Muskingham	165: Napo	166: Neches	167: Neder	168: Neisse
169: Neman	170: Neris	171: Ngounie	172: Ngwavuma	173: Niger	174: Nile	175: Niobrara	176: Nistru
177: Notec	178: Nueces	179: Ob'	180: Ocmulgee	181: Oder	182: Ogooue	183: Ohio	184: Olt
185: Onega	186: Orange	187: Orinoco	188: Oti	189: Oueme	190: Oulu	191: Ounas	192: Ouse
193: Oyapuck	194: Paraguay	195: Parana	196: Parnu	197: Patuxent	198: Pawcatuck	199: Peace	200: Pearl
201: Pecos	202: Pee Dee	203: Penobscot	204: Pinios	205: Platte	206: Po	207: Potomac	208: Pribyat
209: Prut	210: Raut	211: Razdan	212: Red	213: Republican	214: Rhine	215: Rhone	216: Rio de la Plata
217: Rio Geba	218: Rio Grande	219: Rio Negro	220: Rio Uruguay	221: Rioni	222: Roanoke	223: Rokel	224: Rufiji
225: Rusizi	226: Saale	227: Sabine	228: Sacramento	229: Saint Lawrence	230: Saline	231: Sambre	232: San Antonio
233: San Joaquin	234: San Marino	235: Sanaga	236: Sangha	237: Saone	238: Sassandra	239: Sava	240: Savannah
241: Schelde	242: Scioto	243: Seine	244: Senegal	245: Severn	246: Sewa	247: Shabele	248: Shannon
249: Shenandoah	250: Sil	251: Sirba	252: Smoky Hill	253: Snake	254: South Platte	255: Spree	256: Sron
257: St. John	258: St. Paul	259: Suez Canal	260: Susquehanna	261: Tagus	262: Taia	263: Tana	264: Tennessee
265: Teno	266: Thames	267: Tiber	268: Tisza	269: Tombigbee	270: Torne	271: Trent	273: Trinity
274: Tweed	275: Ubangui	276: Ucayali	277: Uele	278: Ugangi	278: Ume	279: Uolo	280: Vah
281: Valira	282: Vardar	283: Venta	284: Vijose	285: Vistula	286: Vitava	287: Volga	288: Wabash
289: Weser	290: Western Dvina	291: White	292: Wye	293: Yadkin	294: Yangtze	295: Yazoo	296: Yellow
297: Yellowstone	298: Yenisey	299: Yukon	300: Zambezi				

Undamaged.	Damaged, but habitable.	Completely destroyed.
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Mons Calpa:

Stationed at L3 and converted into a fortress after the Herd 6 neutrality was declared, Mons Calpa serves as the only outpost for ONE forces on the far side of the Earf Sphere. And after the first weeks of the war, it became one of the very last foot holds in space for ONE. Through out the war, Mons Calpa will see little combat due to its position so far away from the Lagrange points, with fighting being limited due to the few intrusions by Cosmic Heaven ships venturing into this zone.



Factions:

Cosmic Heavens:

"I shall teach you of the Angels and Mortals, my friends. Mortals are something that shall be overcome, held back only by the clay and gravity that made them, which to this day holds them back out of sheer jealousy and spite by the Demiurge Earf itself! What have you done to overcome them? The invisible chains of gravity and clay that makes slaves out of those would be Angels? ...All beings so far have created something beyond themselves; and do you want to be the ebb of this great flood, and even go back to the beasts, clay, or gravity rather than overcome the mortal? What are the clay and beasts to the mortal? A laughing stock or painful embarrassment. And the mortal shall be that to the Angels: a laughing stock or painful embarrassment as well. The Angel is the meaning of the spirit and destiny! Let your will say: the Angel shall be the meaning of the spirit and destiny.... The Mortal is a rope, tied between the dark abyss of the corruption of the Demiurge and the Angel — a rope over an vast abyss ... what is great in the Mortal is that he is a bridge and not an end. Despite being held back by the claws of gravity and ignorance... despite even..."

-Excerpt from an early audio recording by Daniel A. Angelus, date unknown.

An old proverb states that "History is written by the victors." It has been speculated that by the end of the "great war," who ever is left will record for any future generations to come that the attempted succession of the Cosmic Heavens was the source of the problem, and not in fact a symptom of a much larger issue. That a mad man turned an entire colony group against Earf and was responsible for the largest loss of life in history. That a united population turned the tide against the tyranny of men to bring back the light of justice to those dark days. When in fact, many will silently agree that it was the corruption of other men that forced others to distance themselves from their evils. Though this debate may rage on for many generations to come as hindsight is muddled by speculation, personal agendas, and strong opinions of those who still wish to fight on just long enough to get in the last word on the matter.

The birth of the fledgling nation of the Cosmic Heavens was inevitable as much as the chain of events behind its creation were unlikely, it was through the words of a humble man that took root in the fertile soil of rebellion and resentment that was sowed by the oppressive rule of ONE and its iron grip upon the destinies of the countless individuals under its own yoke of self righteous authoritarianism.



Of Mortals and Angels:

The Cosmic Heavens is a central state controlled theocracy, with only two classes of citizenship which are determined by both earned merit and genetic fitness: Mortals and Angels. Both groups are entitled to the standardized shares of necessities such as food, health care, and other resources and services; though as one advances in rank, the availability and amounts gradually increase. But the main difference is that Angels are the only ones that can vote and direct public policy, while Mortals can not.

Angelism:

Some would call it a bizarre cult religion, others would say it is more of a basic philosophy, while others would simply refer to it as the ravings of an educated mad man, Angelism is the guiding body of belief that has shaped the Cosmic Heavens into what it is today. Sociologists who have tried to study it have described it as a convoluted potpourri of Judeo-Christian, Islam, Hindu, Shinto, western and eastern philosophies built around a base of gnosticism and other esoteric beliefs. The main doctrine of Angelism is that the individual soul must struggle to overcome the forces of the Demiurge/Earf, which holds it back with its "chains of corruption, greed, and gravity," to reach its destiny with the Monad/Universe.

Audio Clip from sermon, 11 - 16 - 0095 AT:

"Step away from the others and I shall tell you the mysteries of the universe....In the beginning, the great One Monad said let us push back the darkness and ignorance... cast forth thy self as the great first singularity, the first Aeon, to spread its being and knowledge as far as endless infinities would allow... as it spread out, parts began to coalesce, and form the lesser Aeons, the stars that light the darkness as they travel forth to carry the knowledge further... from these Aeons, the lesser Aeons came; the servant craftsmen, the Demiurge and other planets... they took the light and knowledge, and crafted more light for the Monad/Universe to celebrate its greatness. Life! And they gave this life to the Universe as praise, except for one, the Demiurge, the Earf itself, who held on to its creations out of spite and jealousy when it saw that life was praised more than itself should have been.... holding life down with its chains of corruption, greed, and gravity.... mocking it as it struggled under the weight of the flaws it inflicted upon them like so many poxes... enslaving it for its own cruel amusement... but the Universe still calls to its Life, its promised children, to fight against the bonds of cruelty to join it... Look up, you have been told everything. Lift up your eyes and look past the clouds and the light within it and the stars surrounding it. The star that leads the way is your star...."

Angelism differentiates souls as two types:

Mortals are souls that are held back by their physical and mental bonds; their bodies and personal flaws. Their physical bodies weigh them down, and keep their spirits confined to this world or plane of existence. Those that fight against these material shackles and succeed are referred to as Angels, determined souls who refuse to be prisoners to such corruption and evils, and be kept away from their promised destinies.

This would have not been a problem to anyone if there was also not the other underlying theme in amongst the teachings of Daniel A. Angelus that society and government should not be an obstacle to the angels, and that those who leave Earf should have the ability of self governance, and not be constrained by the rule of those still on the ground. This was perhaps one of the biggest attractions for those in the seventh colony herd group to be drawn in to this religious movement as a growing segment of the population became resentful of the control held by ONE, a seemingly faceless entity well out of their sight sixty thousand kilometers on the other side of Luna. But because of this particular part of the Angelism belief, ONE is regarded as one of the many Archons of the Earf/Demiurge, and thus must be defeated if the Cosmic Heavens are to ever truly be free from "the rule of corruption and gravity."

Mortals:

Mortals are regarded as the lower caste in society; they have some rights and freedoms, but have no ability to vote on important issues or for elected officials. Most serve in general functions such as manual labor, maintenance work or other forms of menial tasks. They can advance to some higher positions in lower administration roles. Mortals can also serve in the military branches with more possible opportunities for advancement in the non-commissioned ranks. But in general all higher administration, commissioned ranks, and other more valued roles are only open to those who have earned the title of "angel." Mortals receive their training and education through a traditional system of public schools and academies.

Mortals are allowed to marry anyone of their choosing, but must go through a series of genetic testing to qualify for a reproduction permit. Any kind of inheritable disease or unaccepted traits that are found act as automatic disqualifications. Even if passing the genetic testing, giving birth to a child with any kind of deformation can be cause for the state to revoke a reproduction permit. Those who do not qualify are encouraged to adopt instead, either from a local or "national" pool of orphan children, or even volunteer as surrogate parents through gestational surrogacy means. Parents in either case will receive increases in their resource shares, particularly if their children earn the title of Angel and advance up through the hierarchy.

Angels:

Angels are those that have been deemed “worthy” of the higher rank, having proven themselves to be physically, mentally, and morally fit to receive the title, proving that they have met the strict standards of the ideal individual under the teachings of Angelism. The testing and qualifications to become an angel are rigorous and heavily demanding on the applicant, with very little margin for consideration. Anyone at any age can voluntarily apply to endure the testing procedures any number of times, though it is mandatory during the ages of 4 through 7 for all children.

Even though angels are the highest caste, they are encouraged to promote the ideals of Angelism and to follow a stylized code of chivalry; which includes such concepts as treating fellow angels and mortals with respect, and to defend both the Cosmic Heavens and its citizens to the death. Each angel is expected to lead by example, and to inspire those who have not achieved the same level of accomplishment as they have. Community service in many forms make up the mandatory duties for all angels, it is not uncommon to see an angel in full uniform giving impromptu speeches to groups of children or older citizens, or doing other such public duties.

As with great power comes great responsibility, punishment for Angels is also far greater in comparison to the penalization that a mortal may receive. While a mortal may receive a reduction in rations, demotion in rank, or even at worse imprisonment. But for an angel who has committed even a minor crime, they may be condemned to anything ranging from public humiliation or torture, to even the punishment reserved only for angels, death. The method of Execution is referred to as Haritsuke (磔), where the condemned is bound to a metal crux (either a simplex, commissa, or immissa) while in a space suit, and then released into the vacuum of space to slowly die of asphyxiation.

Angels earn the right to vote at the age of 16, and are treated as full adult citizens. Those who choose to marry and reproduce must go through an extensive series of genetic testing to be approved, even more stringent than what mortals are forced to go through. Either the marriage or the ability to have children can be denied due to any incompatibility found during the tests.

Hierarchy of Angels:

The Virtues:

Uniform Colors: Rose Red

The Virtues represent the bureaucracies and various subcommittees that manage the day to day functions that make life possible within the colony group, from maintaining the basic utilities to large scale resource distribution and production. The Virtues are regarded as the problem solvers and “big thinkers,” and are constantly motivated to find new solutions or applications to any of the problems that may exist within the Cosmic Heavens. Unless self-employed, mortals within the Cosmic Heavens will be under the management of a Virtue in some form or another on any level of production or administration.

The Powers:

Uniform Colors: Dark Green, with some variants. See notes.

The Powers, otherwise known as the “Heavenly Host,” are the extensive body of all of the military units and the necessary support infrastructure. In comparison to the Virtues, the Powers are the largest sphere within the hierarchy due to the military offering more opportunities to earn higher rank for both mortal and angel alike. As expected, mortals can expect to serve as either maintenance crews, support gunners, ships crews, ground troopers, and any other non-commissioned rank, but also can attain higher rank such as ship officers or even captain. This is due to the perceived mundane nature of commanding a ship when compared to piloting an avatar. Though technically they are still subordinate to any high ranking angel on board.

Between the end of the “30 days of Hell” and the beginning of the Demiurge Front, the Cosmic Heavens reorganized their forces to better address the many different environments that would be encountered through out the invasion and occupation of Earf. It has also been speculated that this was also done to establish a stronger grip on the military arm of the Cosmic Heavens so as to solidify the positions of the Iscariot family line. Each division is named after one of the four classical elements, and organized along the lines of its expected functions:

Military Ranks:

Even though the military ranks system in the Powers hierarchy for mortals follows some of the traditional naval and army formats, the ranks for angels are addressed by one of three different group titles as a matter of protocol.

Principalities: This title is reserved for any commissioned officer in the higher chain of command, such as Admiral of the fleet to Commodore.

Archangels: This title is reserved for any commissioned officer in middle command, often the highest ranking angel officer on a ship, in a combat group, or on the scene. Captain, all the way down to Midshipman is to be addressed as Archangel.

Angels: Even though “angel” is a generic term for anyone who has earned the title, all non-commissioned officers, sergeant major through private, are addressed as “angel.”

Division: Air

Uniform Colors: Dark Green with white trim along collar and cuffs.

Homeland Elite Guard: Uniforms are completely white with gold trim, and much longer coat tails.

Under the command of fleet admiral Lilith Iscariot, the Air division is composed of all space ships, combat and support, as well as all space borne avatar flight wings, including the Homeland Elite guard. Functions include all defenses of the homeland and occupied territories in space, as well as transportation of all materials and personnel in between. Main headquarters is located at the asteroid fortress Parochet, with sub-command posts at Bimah and Carroccio.



Division: Fire

Uniform Colors: Dark Green with red trim along collar and cuffs.

The second division Fire is devoted to all intelligence gathering, any form of unconventional or asymmetric warfare, and any experimental weapon systems deployed or under development, in all war zones. In addition, Fire is also responsible for the resources gathering operations from the occupied zones, and cooperating with Air for its transport throughout the Earf Sphere. Under the command of admiral Malhat Iscariot, Fire has officers and operatives in all corners of the Cosmic Heavens spheres of influences and battle lines. There are also several connections between Fire and the Rapture Foundation in the research of the awakened mind phenomena.



Earf:

Uniform Colors: Dark Green with laurel green trim along collar and cuffs.

The main center command of the Demiurge Front, the Earf division is responsible for command of all surface operations and occupations on Earf. Under the command of Rear admiral Eisheth Iscariot, the youngest sibling of the Iscariot family, some would say that her position is mostly ceremonial as most of the real decisions were made by the other commanding officers. But through out the war she will try her best to show some form of authority and strategic thinking, instead of being a simple “rubber stamping” bureaucrat.



Water:

Uniform Colors: Dark Green with cyan trim along collar and cuffs.

The Water division of the Demiurge Front was formed almost as an after thought due to the arrogance of the Cosmic Heavens upper command echelons believing that control of the Earf's oceans were of a low priority in the overall strategy to gain dominance over the Earf. Half way through with the preparations it began to become clear that a higher priority on controlling the world's oceans may be



required, Rear admiral Naamah Iscariot was given command and she quickly reorganized and expanded the forces given to the planned aquatic operations. But even despite the new priority and manpower, many other unforeseen circumstances became new obstacles as the control of the oceans were proven to be much more difficult to maintain than originally thought.

The Dominions:

Uniform Colors: Jet – Black with midnight blue trim along collar and cuffs.

The Dominions are the main ruling body with in the Cosmic Heavens, overseeing the administrations of both the Virtues and Powers, and serving as a court of law and center of government. Membership is made up of members from both branches who are selected to join the Dominions by having served in some special capacity or having earned distinction in some other way. The selection and induction process often involves one or more Dominions in sponsoring the candidate in question, which must be done carefully since any form of nepotism or favoritism can cast the sponsors in a bad light among the other Dominions.

The Dominion administrations are broken down into a series of concentric choirs that manage the higher governing functions for the whole nation. Ranging from local administration choirs for individual townships to the overall High Dominion council, which administers all of the agencies with in the Cosmic Heavens itself. The governing choirs are chaired by elected officials who serve terms ranging from three to five years depending on the level of choir in question. Dominions can place their names into the election pools, and are voted into office by the citizen angels after what outsiders would consider to be a very “dull and quiet campaign” of having ones resume posted on the local or national info-net for a period of six months before elections are held.

The High Dominion council is the overall ruling body of the Cosmic Heavens, the twelve of the thirteen member council are elected from those in the lower Dominions, Powers, and Virtues choirs who put their own names into the selection pool to serve for their seven year terms. The only non-elected position is the High Lord Dominion, which is chosen by the then current High Lord to succeed him, as was in the case of Daniel A. Angelus when he chose Habakkuk Iscariot to succeed him while on his death bed.

The molding of Angels:

To enter the training programs reserved for Angels, one must first pass the rigorous testing to earn the title of “Angel” first. Even though it is possible to become an Angel at any age, most earn the title in their early youth. Older Angels are often tutored in specialized forms of training before they are inducted into the normal program if possible.

The training that young Angels go through is similar to the systems and methods used by the ancient Spartans. During the first six years of a child's life, they are raised by their birth or adopted parents as normal, meanwhile they are meticulously tested and studied by the public education system and health agencies to determine their status as potential “Angels.” Testing includes intelligence quotient, spirituality, knowledge base, physical health, stamina, testing for genetic strengths and defects, character qualities, and mental/physical aptitude. As the testing goes on, the child is guided towards becoming a part of one of the two orders; “Virtues” or “Powers.” At the age of 7, if the child has passed all of the required tests by then, they are declared to have earned the title of “Angel” in a formal ceremony held before their local community in their colony.

After the ceremony, they are inducted into an agoge with in their order; a communal barracks with other children of their same age and sex, numbering between 15 to 30 cadets. Each agoge is supervised by one to three young adults (18 years or older) called a guardian. From this point onward, their former parents will no longer play a major role in their lives, and the children are encouraged to give their loyalty to their specific order and the state. For the next six years, they are mentally and physically conditioned to possess the qualities and skills required for their future service in their order. The Powers instilling high endurance and stamina, endure pain and hardship, hunger, thirst, cold, fatigue and lack of sleep, as well as skills in combat, weapons use, tactics, stealth, and strategic thinking. The Virtues focusing more on mental talents and skills, though still maintaining fairly high physical standards as well.

Discipline is strict at all times, with terrific punishments meted out if caught performing the most minor of infractions, or not meeting the high expectations forced upon them. In addition the children are encouraged to compete amongst themselves in order to determine who was the strongest or most capable in the group, but at the same time to learn to depend on each other.

During their education, they are given just enough food and material to barely get by in training or survival, forcing them to learn to either do with very little or finding ways to acquire more. If caught stealing, they are severely punished, not for stealing but for stealing with poor enough skill to get caught.

At the end of their sixth year, they are inducted into a celestial circle with in their order for the next step in their training. Celestial circles are composed of both males and females, ranging from ages of 13 to 18 years old, numbering in between 50 to 100. Their training from here on takes a more serious tone as they are prepared even further for their future roles in the Cosmic Heavens.

The Powers teach more military related skills as they engage in war games and other large scale competitions with other circles, both scheduled and spontaneous, to earn more resources and prestige. Training becomes more dangerous as the risk of injury or even death, becomes possible. Frequent demonstrations of skill and new accomplishment records, each circle constantly trying to out do the other. It is not unheard of for “special missions” to be preformed with the goal of capturing certain prized trophies, challenging specific members to honor duels, etc. Humorous pranks are not out of the question, especially by/on the Virtues circles.

The Virtues celestial circles challenge their cadets to deal with routine and unusual problems in new or novel ways, competition between other circles include building and design projects, management exercises, and learning already established methods. Some combat related skills are enforced as well, in particular those of a more defensive nature to promote strong bodies to go with their strong minds.

After their 18th year, the angels will be inducted into their respective choir or host.

Those who have trained to become Virtues will be given job assignments and are integrated into the work force at large. After the age of 21, they have gained full freedom to move either vertically or horizontally in the various choirs or functions with in the different Virtues organizations with in the Cosmic Heavens.

Powers become a part of the Heavenly Host reserves for their first three years of service, and then officially join the regular Heavenly Host forces at age 21. In special cases, the most promising powers sixteen years or older, are offered the opportunity to serve in special duties such as Agoge Guardians, or instructors in the Celestial Circles. Others may be offered to join the Krypteias, a form of special forces that have unique functions or purposes, often internal police or intelligence. Many times, these Krypteia are empowered or sponsored by a high ranking official with in the Dominions or Powers command structure. The first avatar piloting programs were begun as Krypteias. Those who take such opportunities often soar up into the higher echelons in the Cosmic Heavens military, or are recruited into other special forces.

Naming of Angels:

Many outsiders looking in will often take note of the many names that the citizens of the Cosmic Heavens will choose for themselves. It is hard to miss the fact the majority of the names will have a noticeable biblical background behind them. While some will even go further and have an apparent “negative” aspect to them, such as being of particular nefarious individuals or even demons. According to the seemingly convoluted preachings of Angelism, many of these people/creatures were in fact “angels” that simply failed or were guided away from their true potentials, and should serve as examples of how one may “fall.” To some angels, the selection of such a name is in fact a sign of a personal goal to achieve a high enough level of greatness to blot out the failures of those who carried the name in question before them.

Shehaqim Manufacturing Solutions:

A large conglomerate of smaller companies, Shehaqim Manufacturing Solutions produces many consumer grade products, but their main claim to fame is their military production for the Cosmic Heaven armies. Being the first to develop the avatar into a practical machine for use in space and gravity environments, and later further as a combat weapon system, Shehaqim was able to simplify production to reduce cost and time involved in creating these complicated machines.

Their most successful avatar machine created thus far has been the A-07 Lupus, with several thousands being produced and shipped to the front, even though the machines are starting to show their age. But despite this, new design changes are constantly being tested and considered, while a new generation of avatars are being prepared to replace the Lupus in the near future.

Current Production Models:

- A-01 Lepus (limited production for training units, and later variants)
- A-07 Lupus (main front line combat unit on all fronts in the war, and variants)
- A-10 Ursa Major/Minor (limited production Demiurge front artillery support machine)
- A-12 Pegasus (limited production Demiurge front machine)
- A-14 Taurus (new main line combat unit destined to replace the Lupus)
- AM-03 Pisces (main aquatic combat unit, and variants)

Empyrean Heavy Industries:

Empyrean has been in the business of creating heavy machinery for many years, long before they were approached by the Cosmic Heavens leadership to submit design studies for a new class of combat machines. Their initial submissions were hampered by overly complex features in their designs, a weakness that seems to continue to dog the company in almost all of its projects. They have competed against Shehaqim in several contract bids, but have lost most of them. Empyrean has been forced to be subcontracted by Shehaqim to produce spare parts and weapons to help them meet their production goals, which has been less than merely humiliating at best for the company trying to stay in the black while recovering from their frequent losses. So far, about the one area of expertise that Empyrean has yet to be bested in is their “gladiator” variant programs to build specialized or custom avatars, or their various test models of Nephilim.

Current Production Models:

- A-03 Vulpecula (limited production for training machines)
- A-09 Scorpius (limited production multiple environment machine)
- A-11 Aries (limited production Demiurge front machine)
- AM-04 Dorado (limited production aquatic environment machine)
- Auriga (limited production flight support machine for avatars)

Jötunheimr Logistics Dynamics:

JLD is the main contractor for the Cosmic Heavens space and naval ship construction, in addition to other large scale building projects such as assisting in the building of the asteroid fortresses Parochet, Bimah, Carroccio, and Cairn / Broch. Much of the facilities and equipment used by JLD was once CACA property that was seized during the declaration of independence from ONE and the Earf Sphere, which allows them to do the majority of upkeep and construction on the various colony deuces throughout the nation.

Rapture Foundation:

Research in to the natural phenomena of heightened mental abilities, even before being referred to as the “awakened mind,” had been conducted for many years even prior to the formation of the Cosmic Heavens, but little progress had been made in generating any body of evidence to show for it. Ironically, even though the belief in Angelism promoted the idea of the awakened mind, it was not until shortly before the invasion of Earf did anyone make a more concentrated effort to explore the phenomenon.

Originally started from a loose chain of charity organizations that promoted the concept, the government of the Cosmic Heavens quietly moved in and took them over to build the base of what would become the public face of a secret project to develop new weapons and systems that might give them an advantage in the upcoming war. To the majority of the population, and even many in the higher chains of military command, the Rapture Foundation is an organized charity that promotes the higher ideals of Angelism through meditation, spiritual counseling, and deep studies of philosophy. Most only see the classes that teach Tai Chi or martial arts, mass prayer sermons, meditation ceremonies, or maybe the occasional deck of Zener cards being played with. But behind the shadows, anyone who showed even the smallest potential of possessing a higher level of sensory perception, or other unique mental ability that appear to be out of the ordinary, will be tested further and further, slowly brought in deeper through one layer of shadow to another, until the best candidates were recruited, trained, and experimented with to better understand their abilities. Any findings or developments that seem to show even a mere hint of being useful quickly gets moved under the umbrella of the “black” research programs which are administered by the secretive Powers choir in the Fire division.

Colony Herd:	Management Company:	Number of Deuces:	Naming Theme:
#7	Originally Phidias, but is now maintained by the Cosmic Heavens itself.	300 “Closed” type cylinders.	Originally named after the 300 elements of the periodic table, but now named after various versions of “heaven,” and other philosophical concepts from the teachings of Angelism.



001: Aaru	002: Abode of the Blessed	003: Afterlife	004: Aftertime	005: Afterward	006: Afterworld	007: Al-Jannah	008: Al-Maqam al-Amin
009: Alan-Pacha	010: Albedo	011: Alfardaws	012: Álfheimr	013: Ambit	014: Andlang	015: Andlång	016: Anima mundi
017: Annwn	018: Antarabhava	019: Apotheosis	020: Araboth	021: Araphel	022: Arcadia	023: Ardor	024: Asgard
025: Asphodel Meadows	026: Assama	027: At Oneness	028: Aukumea	029: Autoia	030: Awakening	031: Azure	032: Bardo
033: Beatific	034: Beatitude	035: Bifróst	036: Big Rock Candy Mountain	037: Blessed State	038: Blessedness	039: Blissfulness	040: Bodhicitta
041: Bowers of Bliss	042: Burotu	043: By and By	044: Canaan	045: Celestial Bliss	046: Celestial Sphere	047: Cheer	048: Cloud Nine
049: Communion	050: Compass	051: Contentment	052: Cosmos	053: Dar Al-Akhirah	054: Dar Al-Maqamah	055: Dar Al-Salam	056: Deep Space
057: Deification	058: Delectation	059: Delight	060: Delirium	061: Devachan	062: Dilmun	063: Divine Abode	064: Dreamland
065: Dreamworld	066: Duku Kā Misi	067: Ebullience	068: Ecstasy	069: Eden	070: Elation	071: Elysian Fields	072: Elysium
073: Empyrean	074: Enchantment	075: Enjoyment	076: Enlightenment	077: Enthusiasm	078: Erewhon	079: Eternal Home	080: Eternal Rest
081: Eternity	082: Ether	083: Euphoria	084: Exaltation	085: Exhilaration	086: Expanse	087: Extension	088: Extent
089: Fairyland	090: Falak Al Aflak	091: Far Piece	092: Farness	093: Felicity	094: Fervor	095: Firdaws	096: Firmament
097: Fölkvangr	098: Fortunate Isles	099: From on High	100: Future	101: Gaiety	102: Gap	103: Garden of Eden	104: Garden of Righteousness
105: Garden of the Gods	106: Garden of the Hesperides	107: Gimlé	108: Gladness	109: Glæsisvellir	110: Glory	111: Goloka	112: Goshen
113: Gratification	114: Great Unknown	115: Gsal Ba	116: Guinee	117: Hanan Pacha	118: Happiness	119: Happy Hunting Grounds	120: Harmony
121: Hau-Ora	122: Heaven	123: Heavenly	124: Heavenly Kingdom	125: Heavens	126: Heavy Side Layer	127: Hedu Kā Misi	128: Heights
129: Hereafter	130: Higher Gan Eden	131: Hinterland	132: Horizon	133: Hortus Conclusus	134: Hyperuranion	135: Iðavöllr	136: Immortality
137: In Sinu Abraham	138: Infinity	139: Inspiration	140: Jannat Al-Khuld	141: Jannat Al-Ma' Wa	142: Jannat Al-Na' Im	143: Jannat Al-'Adn	144: Jerusalem
145: Jian'ai	146: Jötunheimr	147: Joyfulness	148: Jubilation	149: Kaluwalhatian	150: Kiko-Rangi	151: Kingdom Come	152: Kingdom of Heaven
153: Ksheera Sagara	154: Land of Milk and Honey	155: land of plenty	156: Land of the Leal	157: Lapse	158: Life Everlasting	159: Life to Come	160: Locus Amoenus
161: Luminous Mind	162: Ma'On	163: Mag Mell	164: Makhon	165: Maq'ad Al-Sidq	166: Mitthi Khua	167: Moksha	168: Mt. Chicheng
169: Mt. Gouqu	170: Mt. Kuocang	171: Mt. Linwu	172: Mt. Luofu	173: Mt. Qingcheng	174: Mt. Wangwu	175: Mt. Weiyu	176: Mt. Xicheng
177: Mt. Xixuan	178: Naherangi	179: Neorxnawang	180: Never-Never Land	181: New Jerusalem	182: Next World	183: Nga-Atua	184: Nga-Roto
185: Nga-Tauira	186: Nimmanarati	187: Nirvana	188: Ocean of Emptiness	189: Ocean of milk	190: Olympus	191: Omeyocan	192: Öndlangr
193: Orbit	194: Otherworld	195: Outpost	196: Outskirts	197: Over the Moon	198: Oyasato	199: Panchaea	200: Paradise
201: Paradisiacal	202: Paramapadam	203: Paramatman	204: Paramdhama	205: Parinirmita-vasavartin	206: Passion	207: Peace	208: Perfect Contentment
209: Perfection	210: Pialral	211: Pie in the Sky	212: Pleasure	213: Pneuma	214: Prajnaparamita	215: Promised Land	216: Providence
217: Þrúðvangr	218: Pulotu	219: Purlieu	220: Purview	221: Rapture	222: Raqi'a	223: Ravishment	224: Rawdah
225: Reach	226: Remoteness	227: Resurrection	228: Rhapsody	229: Riad ul-Jannah	230: Saket	231: Samadhi	232: Satcitananda
233: Satisfaction	234: Schlaraffenland	235: Scope	236: Separation	237: Serenity	238: Shamayim	239: Shambhala	240: Shangri-La
241: Shehaqim	242: Shinjin	243: Sierra de la Plata	244: Sky	245: Sophia	246: Space	247: Sponsonia	248: Spread
249: Stratosphere	250: Sublimation	251: Sugarcandy Mountain	252: Summerland	253: Supernal	254: Svasamvedana	255: Synesis	255: Synesis
256: Tamoanchan	257: Teotihuacan	258: Te Reinga Wairua	259: The Great Beyond	260: The Heavens	261: The Isles of the Blessed	262: The Void Above	263: Theoria
264: Theosis	265: Tian	266: Tír na mBeo	267: Tír na nÓg	268: Tlalocan	269: Tlilan-Tlapallan	270: To Be	271: Trance
272: Tranquillity	273: Transcendence	274: Translation	275: Transport	276: Trapananda	277: Troposphere	278: Twarea	279: Twilight zone
280: Unearthly	281: Understanding	282: Utopia	283: Vaikuntha	284: Valhalla	285: Vanaheimr	286: Vault of Heaven	287: Ventilation
288: Viðbláinn	289: Vilon	290: Waft	291: Wairua	292: Waka-maru	293: Walhall	294: Welkin	295: Wisdom
296: Wonderland	297: Xanadu	298: Yama	299: Zebul	300: Zion			

Other Locations:

Cairn / Broch:

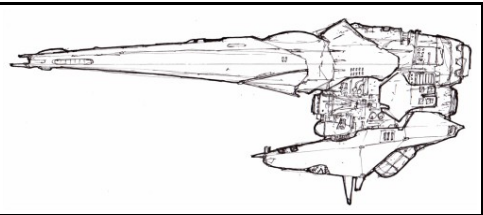
The Cosmic Heavens and the Harvester Fleets have one shared outpost in the outer edges of the asteroid belt. For the most part, it has acted as a second way point for the Harvesters, and as a secret testing area for the fledgling Cosmic Heavens military. But in reality, it became more of a ideological “embassy to the stars” of sorts between the two groups who shared many of the same separatist ideals from the Earf Sphere, and wish to be closer to the stars.

Cairn is the name of the asteroid that serves as the base of the structure, a 90 kilometer long rocky body with rough oval stalactite like shape, with a large elongated deep bowl like crater on the “top/base” side. Inside this crater is where the rotating closed colony cylinder referred to as the Broch was built to serve as a large habitation and gravity block. The crater acts as a protected area for the cylinder against the solar winds, and keeps the structure hidden from long range observation. Some have compared the lay out of Cairn/Broch as being almost like a “nail” or “stake.” And along the outside edges of the crater are the thermal nuclear thrusters which help move and position the asteroid.

The Cairn asteroid also serves as a mining resource, with several large hollowed out caverns that are used as docking bays and other functions.

Cosmic Heavens “Air” Forces: Pluto / Kismet class space cruiser

Name: Pluto class space cruiser		Weight (Dry): -		Weight (Full): 12,000 tons (55.5 tons)		Cost: 511,042.5 points		Length / Width / Height: 160 m/ 60 m / 60 m	
Form: Ship Form (scale x100) Base: 8+1D10		Mv: -5	Max Ref: 5	Ground: 0	Flight: 14	Water: 0	Misc: +67% MP +2 Int		
Power Plant: Main - Supercharged		Source: Babel Fusion (Hot)		XS: 5	Misc: “With great power comes great boom!”				
Maneuver Pool		+67% MP		ECM: Sensor, Missile, Radar, Rank 3, Radius 20 hexes (Scale x10)					
Cockpit: Main		Controls: Screen		Loc: Hull	Maneuver Pods			Enc.: Enclosed	
Sensors: Main		Class: Medium Striker		Loc: Hull	Kills: 100 K	Range: 700 Km	Comm: 100,000 Km		
- R/R Analyzer				Hull					
- Spotting Radar				Hull	400 K	7,000 Km			
Back-Up		Medium Striker		Tail	100 K	700 Km	100,000 Km		
Movement Systems:		Loc:		MA:		Kills:			
“Nuclear Thrusters” #1		Main Engine Pod				4 MA		0	
“Nuclear Thrusters” #2		Secondary Engine Pod				3 MA		0	
“Nuclear Thrusters” #3		Main Engine Pod				4 MA		0	
“Nuclear Thrusters” #4		Secondary Engine Pod				3 MA		0	
Fuel: Special case									
Options:		Loc:		Modifiers:					
Five Spotlights				Five in Hull					
Damage Control Packages				Hull and Tail					
3 x Maneuver Pods				1 x Tail, 2 x Hull		“Escape Shuttles”			
Stat Boost				Hull		+2 to Int.			
Avatar Bay: 200 ton capacity				One in Hull.		Normally 3 - 4 Lepus or Vulpecula, or 2 - 3 Lupus/or heavier units.			
Multipliers:		Loc:		Modifiers:					
Monocoque Construction				See technology section.					
Environmental Protection				Space, & EMP					
Self Repair System				See technology section.					
Space Hydraulics				Can only function in space.					
Servos:		Class:	Type:		Space:	Kills:	Armor:	DC:	Modifiers:
Hull		Light Weight	Torso		6	400	300 / 300	100	
Secondary Hull		Striker	Tail		5	300	300 / 300	100	
Main Engine Pod		Striker	Pod		9	0	300 / 300	100	
Secondary Engine Pod		Lightweight	Pod		6	0	300 / 300	100	
R & L Turrets		Striker	Head / Turrets		5	300	300 / 300	100	
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
*All weapons are scale x10									
2 x Double Barrel Lucifer Cannons		60 K	(+2)	100	10000	60	Inf.	One in each Turret	Long Range, Kinetic, Bv 2 Mega-Beam, 2 turn Warm-up
Forward Missile Tubes (4)		100 K	(+2)	70	4900	100 each	-	Hull - Forward	Long Range, Bv 4 *Projectile weapons
- Port Ammo Bay #1						10	17	Hull	Kinetic
- Starboard Ammo Bay #1						10	17	Hull	Kinetic
- Port Ammo Bay #2						10	9	Hull	Blast I, Paintball
- Starboard Ammo Bay #2						10	9	Hull	Blast I, Paintball
6 x Shroud Missiles		(10 K)	-2	60	3600	40	-	6 in Sec. Hull	Blast III, Smoke



Overview:
The Pluto class cruiser was developed from the Kismet class, which was originally built as a series of training vessels for the then fledgling space forces of the Cosmic Heavens and to further develop the concepts of ship and avatar combat techniques. Today, the Pluto is used for reconnaissance and picket duty for larger forces or patrol missions, in addition to its role as a training vessel.
Not intended to directly attack its target, the Pluto is a fast moving strike cruiser that makes frequent passes with its guns while supporting its deployed avatars, all the while trying to not present itself as a stationary target. The specially layered armor plating is designed to allow the Pluto to survive at least one direct hit so it can make an retreat in case the odds are against it. Head on, its small profile makes for a difficult target unlike the ONE vessels which frequently present their broadsides when firing.
Its normal avatar compliment ranges from two to four machines, usually of the lighter classes such as Lepus or Vulpecula avatars. Though some of the larger classes such as the Lupus can be accommodated, but this reduces the number of machines that can be carried overall. The bays are way too cramped for launching nephilim type machines. The single avatar launch and capture rails run along bottom of the ship's main hull.
The Pluto lends its shape to its sister Neptune class, which makes it somewhat difficult to identify the two vessels apart from each other at long range.

Variants:
As the war progressed, later models of Pluto class ships that were produced increased the size of the avatar bay to allow for the handling of larger units, allowing for the fielding of four Lupus (or larger) avatars instead of just three. Overall, fewer Pluto vessels would be produced as the priority is placed upon the larger Neptune class which can carry more avatars and firepower.

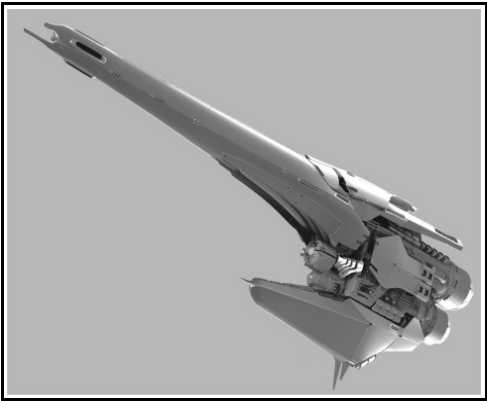
Crew Stats: Standard: 8 + 1D10

Special Notes:
Missile tubes: Even though built as projectile weapons, treat their attacks as missiles instead.
And yes, you read right, there are paint ball rounds for the missiles. These are fired prior to launching of their avatars at their intended targets so that the pilots would not loose track of them due to the effects of the Babel particles. Kind of hard to miss an enemy unit when covered in bright paint.
Fuel Range: Due to the complexities of space travel preventing the creation of simple rules to handle it, the range that ships can travel in between refueling stops is treated as a special effect. Or as your GM may say: “Your mileage may vary.”
Avatar Launching: Each launch/landing catapult is a rail that runs the length of the ship on the outside of its hull where loading elevators bring the avatar up to the track, lock the feet into the shuttle, and then accelerate them at high speed for launching. The process is reversed for landing. Every three turns of combat, each launch catapult can load up an avatar and launch it, or receive one in a controlled landing. This time frame may be altered by the GM due to conditions at the time.
Each catapult will accelerate an avatar up to 12 MA without the avatar expending any propellant, or decelerate an avatar from 12 MA.



Cosmic Heavens “Air” Forces: Neptune class space cruiser

Name: Neptune class space cruiser			Weight (Dry): -		Weight (Full): 32,000 tons (68.0 tons)		Cost: 809,485.25 points		Length / Width / Height: 234 m / 90 m / 90 m		
Form:			Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:			
Ship Form (scale x100)			-6	4	0	10	0	+67% MP			
Base: 8+1D10								+2 Int			
Power Plant:			Source:		XS:	Misc:					
Main - Supercharged			Babel Fusion (Hot)		5	"With great power comes great boom!"					
Maneuver Pool			+67% MP		ECM: Sensor, Missile, Radar, Rank 3, Radius 30 hexes (Scale x10)						
Cockpit:			Controls:		Loc:				Enc.:		
Main			Screen		Hull	Maneuver Pods			Enclosed		
Sensors:			Class:	Loc:		Kills:	Range:	Comm:			
Main			Heavy Striker	Hull		200 K	1,100 Km	130,000 Km			
- R/R Analyzer					Hull						
- Spotting Radar					Hull	400 K	11,000 Km				
Back-Up			Medium Striker	Tail		100 K	700 Km	100,000 Km			
Movement Systems:			Loc:		MA:	Kills:					
"Nuclear Thrusters" #1			Main Engine Pod			3 MA	0				
"Nuclear Thrusters" #2			Secondary Engine Pod			2 MA	0				
"Nuclear Thrusters" #3			Main Engine Pod			3 MA	0				
"Nuclear Thrusters" #4			Secondary Engine Pod			2 MA	0				
Fuel: Special case											
Options:			Loc:		Modifiers:						
Six Spotlights					Six in Hull						
Damage Control Packages					Hull and Tail						
4 x Maneuver Pods					2 x Tail, 2 x Hull						
Stat Boost					Hull						
Avatar Bay: 2 x 300 ton capacity bays, 1 x 1,000 ton shuttle bay					One in Tail.						
					4 Lupus/or heavier units in each avatar bay, for a total of 8. 1 Volans shuttle craft in shuttle bay.						
Multipliers:			Loc:		Modifiers:						
Monocoque Construction					See technology section.						
Environmental Protection					Space, & EMP						
Self Repair System					See technology section.						
Space Hydraulics					Can only function in space.						
Servos:			Class:	Type:		Space:	Kills:	Armor:	DC:	Modifiers:	
Hull			Medium Striker	Torso		12	800	400 / 400	100		
Secondary Hull			Heavy Striker	Tail		8	500	300 / 400	100		
Main Engine Pod			Heavy Striker	Pod		11	200	300 / 400	100		
Secondary Engine Pod			Lightweight	Pod		8	200	300 / 400	100		
R & L Turrets			Medium Striker	Head / Turrets		6	400	300 / 300	100		
Weapons:			Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:	
*All weapons are scale x10											
4 x Double Barrel Lucifer Cannons			60 K	(+2)	100	10000	60	Inf.	One in each Turret, One in Hull(F), One in Sec. Hull(F)	Long Range, Kinetic, Bv 2 Mega-Beam, 2 turn Warm-up	
Starboard Missile Tubes (4)			100 K	(+2)	70	4900	100 each	-	Hull - Forward	Long Range, Bv 4 - linked *Projectile weapons	
Port Missile Tubes (4)			100 K	(+2)	70	4900	100 each	-	Hull - Forward	Long Range, Bv 4 - linked *Projectile weapons	
- Port Ammo Bay #1							20	34	Hull	Kinetic	
- Starboard Ammo Bay #1							20	34	Hull	Kinetic	
- Port Ammo Bay #2							10	6	Hull	Blast I, Paint ball	
- Starboard Ammo Bay #2							10	6	Hull	Blast I, Paint ball	
6 x Shroud Missiles			(10 K)	-2	60	3600	40	-	6 in Sec. Hull	Blast III, Smoke	



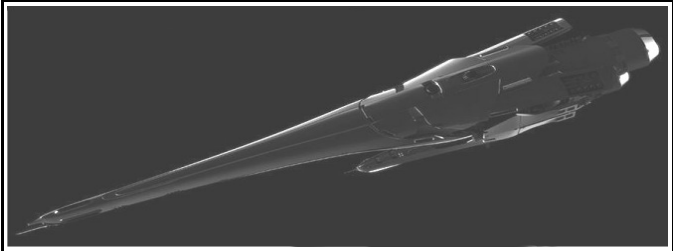
Overview:
The Neptune class cruiser is the main line combat vessel of the Cosmic Heavens fleets, forming the back bone of all of its operations in space. With its eight Lucifer particle cannons, the vessel can deliver a staggering volley of firepower, but its main offensive capability comes from its eight avatar machines in its bays. Its general mission is to pound the intended target from long range with its cannons and missiles before releasing its avatar wings to engage the target further. In addition to its avatar compliment, the Neptune also carries a Volans shuttle craft in its hull for travel between orbit and the surface.
The Neptune is frequently mistaken for the smaller Pluto ship class at long distance in heavy babel particle concentrations, which it intentionally shares its basic outline with. The one main drawback of the Neptune's design is its lack of anti-aircraft defenses, which will come to haunt the class later on in the war.

Variants:
Some variants have appeared through out the war, frequently influenced by the war's progression or availability of materials. Some leaders have voiced concern for the need of a more "economical" version of the Neptune class to make the most out of available resources, while others have pushed for a more heavier armed variant, both to replace lost ships and to expand the fleet further. Many examples of this debate will appear throughout the war in different configurations.
Some of the test variants that were built or modified to handle increase avatar capacity often sacrificed two of the main batteries or all of its missile tubes to expand the available space on both port and starboard sides of the ship. This usually enables for a 50% increase in each bay of the number of carried machines from four to six. While the heavier armed ship variants would attempt to increase the number of turrets, as well as the addition of several "AA guns" for self defense.

Crew Stats: Standard: 8 + 1D10

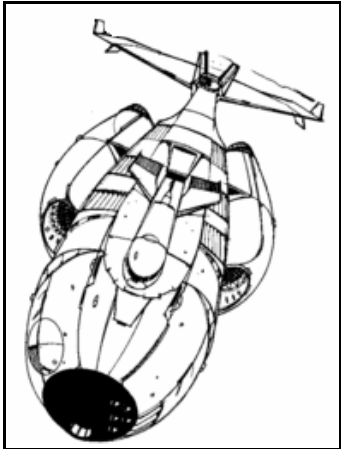
Special Notes:
Missile tubes:

Fuel Range: Even though built as projectile weapons, treat their attacks as missiles instead. And yes, you read right, there are paint ball rounds for the missiles. These are fired prior to launching of their avatars at their intended targets so that the pilots would not loose track of them due to the effects of the Babel particles. Kind of hard to miss an enemy unit when covered in bright paint.
Avatar Launching: Due to the complexities of space travel preventing the creation of simple rules to handle it, the range that ships can travel in between refueling stops is treated as a special effect. Or as your GM may say: "Your mileage may vary."
Each launch/landing catapult is a rail that runs the length of the ship on the outside of its hull where loading elevators bring the avatar up to the track, lock the feet into the shuttle, and then accelerate them at high speed for launching. The process is reversed for landing. Every three turns of combat, each launch catapult can load up an avatar and launch it, or receive one in a controlled landing. This time frame may be altered by the GM due to conditions at the time.
Each catapult will accelerate an avatar up to 12 MA without the avatar expending any propellant, or decelerate an avatar from 12 MA.



Cosmic Heavens “Air” Forces: Volans class shuttle craft

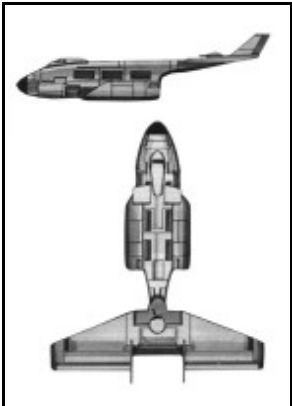
Name:		Weight (Dry):		Weight (Full):		Cost:		Length / Width / Height:	
Volans class shuttle craft		-		1,000 tons (30.0 tons)		7254.0 points		37.4 m / 29.4 m / 26.4 m	
Form:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Corvette Form (scale x10)		-5	5	0	18 - 21	2	+100% MP		
						(6 x 1/3 Mod)	+1 Int, +1 Tech		
Power Plant:		Source:		XS:	Misc:				
Main - Standard		Babel Fusion (Hot)		5	"With great power comes great boom!"				
Maneuver Pool		+67% MP			ECM: Sensor, Missile, Radar, Rank 2, Radius 10 hexes (Scale x10)				
Cockpit:		Controls:		Loc:		Enc.:			
Main		Screen		Nose		Escape Pod		Enclosed	
Cargo / Rear Gunner		Screen		Torso		Escape Pod		Enclosed	
Sensors:		Class:	Loc:		Kills:	Range:	Comm:		
Main		Striker	Nose		10	40 Km	8,000 Km		
- Marine Suite									
- R/R Analyzer									
Secondary		Striker	Hull		10	40 Km	8,000 Km		
Movement Systems:		Loc:		MA:		Kills:			
Thrusters		Right Engine Pod		(4 MA) (2 x 2 corvette modifier)		0			
Thrusters		Left Engine Pod		(4 MA) (2 x 2 corvette modifier)		0			
Thrusters		Hull		(4 MA) (2 x 2 corvette modifier)		0			
After-burning Thrusters		Right Engine Pod		(2 - 3 MA) (1 - 1.5 x 2 corvette modifier)		0			
After-burning Thrusters		Left Engine Pod		(2 - 3 MA) (1 - 1.5 x 2 corvette modifier)		0			
After-burning Thrusters		Hull		(2 - 3 MA) (1 - 1.5 x 2 corvette modifier)		0			
Fuel: Special case									
Starboard Hydro-Jets		Hull		(1 MA) (1/3 underwater modifier)		0			
Port Side Hydro-Jets		Hull		(1 MA) (1/3 underwater modifier)		0			
Options:		Loc:		Modifiers:					
Three Spotlights				One in each wing		One in Hull.			
Damage Control Packages				All locations					
Cargo / Avatar Bay: 120 ton capacity				Hull		Can hold two Lupus avatars.			
1 Micro-manipulator "crane"				Hull					
Stat Boost				Hull		+1 to Int., +1 Tech.			
Multipliers:		Loc:		Modifiers:					
Monocoque Construction				See technology section.					
Environmental Protection				Arctic, Desert, Water, Space, & EMP					
ACE				+ 33% MP					
Self Repair System				See technology section.					
Transat Ability				Can reach orbit and return to the surface.					
Weight Inefficiency									
Servos:		Class:	Type:		Space:	Kills:	Armor:	DC:	Modifiers:
Nose		Medium Striker	Head		6	40	20	10	
Hull		Striker	Torso		9	60	20	10	
Right & Left Engine Pods		Medium Striker	Pod		6	40	20	10	
Tail		Medium Striker	Tail		6	40	20	10	
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
4 x AA Guns		4 K	0	10	-	4	Inf.	One pair in Nose, One pair in Tail(R)	Bv 3 *Beam weapons, linked in pairs



Overview:
The Volans shuttle was designed to carry avatars and personnel back and forth between the Earl's surface and its mother Neptune class vessel in orbit, capable of landing or taking off on rough unprepared runways, or even on water if required. Its hull is sealed so that it could sink just a few meters underwater to hide, though this is not recommended.
Overall it has proven to be a reliable transport vessel. During the early part of the war, the Volans was one of the secondary methods of transport next to drop pods and HLVs before the introduction of the Uranus class vessels which were also capable of atmospheric reentry and avatar capacity. The Volans can carry two Lupus class or slightly larger avatars in its bay with little problem. It is even possible to carry a smaller Nephilim up to 250 tons, with larger war machines requiring a modified carrier to transport it from orbit to the surface.

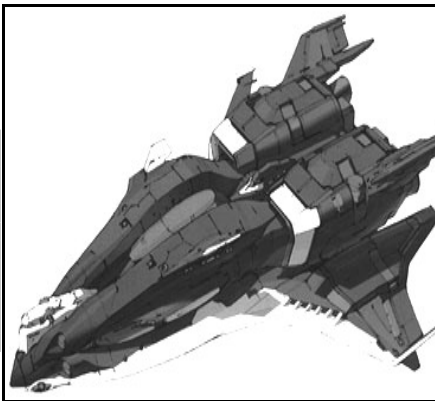
Variants:
None known. Some versions had an expanded cargo capacity, as well as optional booster rockets to help it return to orbit when necessary.

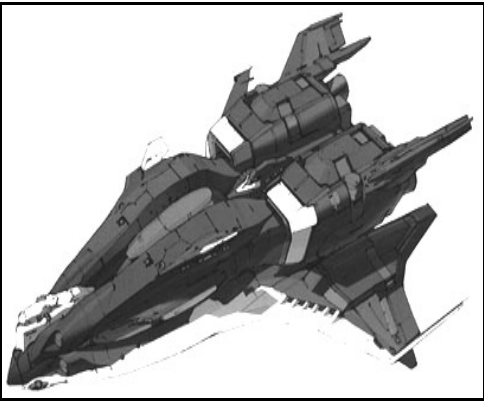
Special Notes:
Fuel Range: Due to the complexities of space travel preventing the creation of simple rules to handle it, the range that ships can travel in between refueling stops is treated as a special effect. Or as your GM may say: "Your mileage may vary."
AA Guns: Built as beam weapons for the sake of simplicity on the issue of ammunition, otherwise treat as projectile weapons.



Cosmic Heavens “Air” Forces: Uranus class space carrier

Name:		Weight (Dry):		Weight (Full):		Cost:		Length / Width / Height:	
Uranus class space cruiser		-		42,500 tons (68.5 tons)		1,068,671.0 points		255 m / 223 m / 120 m	
Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:			
Ship Form (scale x100)	-6	4	0	14	0	+67% MP			
Base: 8+1D10	+2 Int								
Power Plant:	Source:	XS:	Misc:						
Main - Supercharged	Babel Fusion (Hot)	5	“With great power comes great boom!”						
Maneuver Pool	+67% MP		ECM: Sensor, Missile, Radar, Rank 3, Radius 30 hexes (Scale x10)						
Cockpit:	Controls:	Loc:				Enc.:			
Main	Screen	Hull	Maneuver Pods			Enclosed			
Sensors:	Class:	Loc:	Kills:	Range:	Comm:				
Main	Heavy Striker	Hull	200 K	1,100 Km	130,000 Km				
- R/R Analyzer		Hull							
- Spotting Radar		Hull	400 K	11,000 Km					
Back-Up	Medium Striker	Tail	100 K	700 Km	100,000 Km				
Movement Systems:	Loc:	MA:	Kills:						
“Nuclear Thrusters” #1	Hull		2 MA		0				
“Nuclear Thrusters” #2	Right Engine Pod		4 MA		0				
“Nuclear Thrusters” #3	Left Engine Pod		4 MA		0				
“Nuclear Thrusters” #4	Right Wing		2 MA		0				
“Nuclear Thrusters” #5	Left Wing		2 MA		0				
Fuel: Special case									
Options:	Loc:	Modifiers:							
Six Spotlights	Six in Hull								
Damage Control Packages	Hull								
4 x Maneuver Pods	1 x each Wing, 2 x Hull	“Escape Shuttles”							
Stat Boost	Hull	+2 to Int.							
Avatar Bay: 2 x 450 ton capacity avatar bays, 1 x 1,000 ton capacity avatar bay	3 x Hull	6 Lupus/or heavier units in each avatar bay, for a total of 18. Or large bay could be used for one Nephilim.							
Multipliers:	Loc:	Modifiers:							
Monocoque Construction		See technology section.							
Environmental Protection		Arctic, Desert, Space, & EMP							
Self Repair System		See technology section.							
Transat Ability									
Servos:	Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:		
Hull	Heavy Striker	Torso	15	1000	300 / 400	100			
R & L Wing	Medium Striker	Wing	6	400	300 / 300	100			
R & L Engine Pod	Medium Striker	Pod	8	200	300 / 300	100			
3 x Turrets	Striker	Head / Turrets	5	300	200 / 300	100			
4 x Secondary Turrets	Lightweight	Head / Turrets	3	200	200 / 200	100			
Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:	
*All weapons are scale x10									
4 x Double Barrel Lucifer Cannons	60 K	(+2)	100	10000	60	Inf.	One in each Turret, One in Hull(F)	Long Range, Kinetic, Bv 2 Mega-Beam, 2 turn Warm-up	
8 x Shroud Missiles	(10 K)	-2	60	3600	40	-	Four in each Wing	Blast III, Smoke	
12 x AA Guns	4 K	0	10	-	4	Inf.	Three linked in each Sec. Turret.	Bv 3 *Beam weapons, linked in groups of three.	



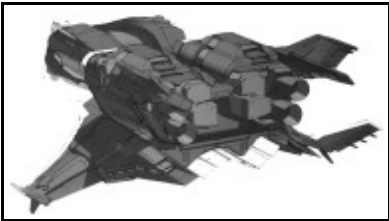


Overview:
The Uranus came mid-way into the war as an answer to the need to increase the number of avatars that a ship could carry, and to be able to deliver said machines to any environment inside of the Earf sphere. It has become a very capable ship, often spearheading drop assaults in various operations and serving as an alternative choice as a flagship to the Saturn or Neptune classes. Its larger than average fusion reactors enable it to provide more than enough power to its weapons and propulsion drives. In some cases, the vessels were used to provide power to ground bases while stationary on the ground.

The main drawback to the vessel is its need for large prepared runways and additional booster rockets to return to space. And the comparative costs to other ships such as the Neptune also hampered the class in being produced in very large numbers, which has been speculated to being no more than a few dozen ever being manufactured in total during the war.

With its large compliment of eighteen avatars, the Uranus can provide almost all of the needed avatar support in any given operation. Though it is with its central avatar bay that it has gained its reputation for being a high priority target with ONE forces because of its ability to carry the frighteningly powerful nephilim war machines into the battle zone.

The Uranus is unique in its ability to enter the atmosphere of Earf, and fly near continuously under its own power though it does consume a great deal of fuel while doing so. Its presence in the Cosmic Heavens military gave it a great strategic strength during the war.



Variants:
None officially, though it is possible some commanding officers who were assigned their own vessels may have made their own modifications to their personal flagships.

Crew Stats: Standard: 8 + 1D10

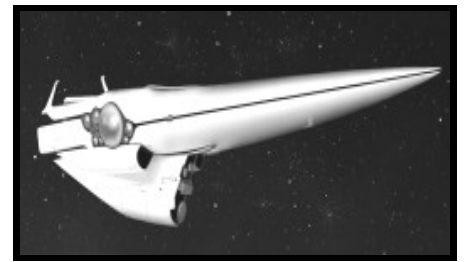
Special Notes:

- Fuel Range:** Due to the complexities of space travel preventing the creation of simple rules to handle it, the range that ships can travel in between refueling stops is treated as a special effect. Or as your GM may say: "Your mileage may vary."
- AA Guns:** Built as beam weapons for the sake of simplicity on the issue of ammunition, otherwise treat as projectile weapons.
- Avatar Launching:** Each launch/landing catapult is a rail that runs the length of the ship on the outside of its hull where loading elevators bring the avatar up to the track, lock the feet into the shuttle, and then accelerate them at high speed for launching. The process is reversed for landing. Every three turns of combat, each launch catapult can load up an avatar and launch it, or receive one in a controlled landing. This time frame may be altered by the GM due to conditions at the time. Each catapult will accelerate an avatar up to 12 MA without the avatar expending any propellant, or decelerate an avatar from 12 MA.



Cosmic Heavens “Air” Forces: Saturn class space battleship

Name:	Weight (Dry):			Weight (Full):		Cost:	Length / Width / Height:	
Saturn class space battleship				108,100 tons (78.90 tons)		1,808,160.0 points	507 m / 132 m / 137 m	
Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Ship Form (scale x100)	-7	3	0	10	0	+100% MP		
Base: 10+1D10	-5 for shooting	5				+3 Int, +2 Tech		
Power Plant:	Source:	XS:	Misc:					
Main - Supercharged	Babel Fusion (Hot)	5	"With great power comes great boom!"					
Maneuver Pool	+100% MP		ECM: Sensor, Missile, Radar, Rank 3, Radius 40 hexes (Scale x10)					
Cockpit:	Controls:	Loc:				Enc.:		
Main	Screen	Hull	Maneuver Pods			Enclosed		
Gunnery	Screen	Hull	Maneuver Pods			Enclosed		
Defensive / Reconnaissance	Screen	Hull	Maneuver Pods			Enclosed		
Avatar – Launch/Retrival	Screen	Secondary Hull	Maneuver Pods			Enclosed		
Sensors:	Class:	Loc:	Kills:	Range:	Comm:			
Main	Heavy Striker	Hull	200 K	1,100 Km	130,000 Km			
- R/R Analyzer		Hull						
- Spotting Radar		Hull	400 K	11,000 Km				
Back-Up	Heavy Striker	Hull	200 K	1,100 Km	130,000 Km			
Movement Systems:	Loc:	MA:	Kills:					
"Nuclear Thrusters" #1	Right Main Engine Pod		3 MA		0			
"Nuclear Thrusters" #2	Right Sec. Engine Pod		2 MA		0			
"Nuclear Thrusters" #3	Left Main Engine Pod		3 MA		0			
"Nuclear Thrusters" #4	Left Sec. Engine Pod		2 MA		0			
Fuel: Special case								
Options:	Loc:	Modifiers:						
Twelve Spotlights		Six in Sec. Hull		Six in Main Hull				
Damage Control Packages		Hull and Tail						
6 x Maneuver Pods		3 x Tail, 3 x Hull		"Escape Shuttles"				
Stat Boost		Hull		+3 to Int, +2 Tech.				
Avatar Bay: 4 x 400 ton capacity bays, 1 x 850 ton Nephilim bay		One in Tail.		6 Lupus/or heavier units in each avatar bay, for a total of 24. 1 Nephilim in nephilim bay.				
Multipliers:	Loc:	Modifiers:						
Monocoque Construction		See technology section.						
Environmental Protection		Space, & EMP						
Self Repair System		See technology section.						
Space Hydraulics		Can only function in space.						
Targeting System	Main Bridge	+2 to MV for shooting attacks.						
ACE		+33% MP						
Servos:	Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:	
Hull	Light Heavy	Torso	21	1400	400 / 500	100		
Secondary Hull	Medium Heavy	Tail	12	800	400 / 500	100		
R & L Main Engine Pods	Heavy Striker	Pod	9	300	400 / 400	100		
R & L Secondary Engine Pods	Lightweight	Pod	5	200	300 / 400	100		
R & L Turrets	Medium Weight	Head / Turrets	9	600	300 / 400	100		
4 x Secondary Turrets	Heavy Striker	Head / Turrets	8	500	300 / 300	100		
Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
*All weapons are scale x10								
3 x Double Barrel Mega-Lucifer Cannons	60 K	(+2)	100	10000	60	Inf.	One in each Turret, One in Hull(F)	Long Range, Kinetic, Bv 3 Mega-Beam, 3 turn Warm-up
4 x Double Barrel Lucifer Cannons	60 K	(+2)	100	10000	60	Inf.	One in each Turret	Long Range, Kinetic, Bv 2 Mega-Beam, 2 turn Warm-up
Starboard Missile Tubes (4)	100 K	(+2)	70	4900	100 each	-	Hull - Forward	Long Range, Bv 4 - linked *Projectile weapons
Bow Missile Tubes (4)	100 K	(+2)	70	4900	100 each	-	Sec. Hull - Forward	Long Range, Bv 4 - linked *Projectile weapons
Port Missile Tubes (4)	100 K	(+2)	70	4900	100 each	-	Hull - Forward	Long Range, Bv 4 - linked *Projectile weapons
- Port Ammo Bay #1					20	17	Hull	Blast I
- Bow Ammo Bay #1					20	17	Sec. Hull	Blast I
- Starboard Ammo Bay #1					20	17	Hull	Blast I
- Port Ammo Bay #2					10	8	Hull	Blast I, Paint ball
- Bow Ammo Bay #2					10	8	Sec. Hull	Blast I, Paint ball
- Starboard Ammo Bay #2					10	8	Hull	Blast I, Paint ball
30 x AA Guns	4 K	0	10	-	4	Inf.	One set in each Pod, Three sets in each Hull.	Bv 3 *Beam weapons, linked in groups of three.



Overview:

From the beginning of its arms build up, the Cosmic Heavens envisioned the Saturn class to be the most powerful battleship to be fielded by either side in the war of liberation against the Earf. Not only does it carry more weapons than any other ship, but it also provides enough power to maintain a much higher rate of fire in comparison, and more armor to absorb attacks that would have rendered lesser ships inoperative or destroyed.

The Saturn was one of the most closely guarded secrets prior to the war, their existence was barely known outside of the Cosmic Heavens hierarchy or military. And its revelation during the “30 days of Hell” came as one of many great shocks to ONE as they lead from the forefront many of the offensive campaigns that marked what have been called the bloodiest conflict in all of history.

The mission of the vessel class is to project the sternest declaration of intentions towards those who would dare stand in the way of the Cosmic Heavens. And perhaps it also serves as a monument to the hubris of a select few who would lead millions down the path of damnation and madness, as each ship consumes vast amount of resources in their construction and maintenance which could have been better used in the construction of more main line ships than one command vessel.

Five vessels that distinguished themselves were the *MOIQN AABE*, *Merdeka Atau Mati*, *Desperta Ferro*, *Alea Iacta Est*, and the *Vi Veri Veniversum Vivus Vici*.

Variants:

None. Due to the unique nature of each ship's construction, each vessel was built as a piece of art with highly decorated interiors and accommodations for those serving aboard, even the quarters of the lowest technician are fairly spacious compared to those of other vessels.

Crew Stats:

Standard: 10 + 1D10

Special Notes:

Missile tubes:

Even though built as projectile weapons, treat their attacks as missiles instead.

And yes, you read right, there are paint ball rounds for the missiles. These are fired prior to launching of their avatars at their intended targets so that the pilots would not lose track of them due to the effects of the Babel particles. Kind of hard to miss an enemy unit when covered in bright paint.

Fuel Range:

Due to the complexities of space travel preventing the creation of simple rules to handle it, the range that ships can travel in between refueling stops is treated as a special effect. Or as your GM may say: “Your mileage may vary.”

AA Guns:

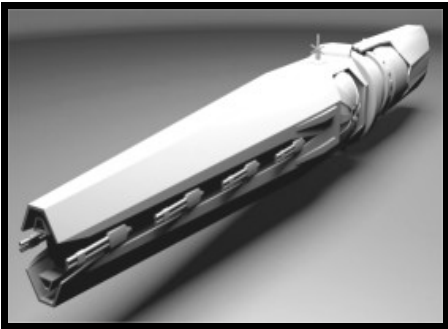
Built as beam weapons for the sake of simplicity on the issue of ammunition, otherwise treat as projectile weapons.

Avatar Launching:

Each launch/landing catapult is a rail that runs the length of the ship on the outside of its hull where loading elevators bring the avatar up to the track, lock the feet into the shuttle, and then accelerate them at high speed for launching. The process is reversed for landing. Every three turns of combat, each launch catapult can load up an avatar and launch it, or receive one in a controlled landing. This time frame may be altered by the GM due to conditions at the time. Each catapult will accelerate an avatar up to 12 MA without the avatar expending any propellant, or decelerate an avatar from 12 MA.

Cosmic Heavens “Air” Forces: Jupiter class space carrier

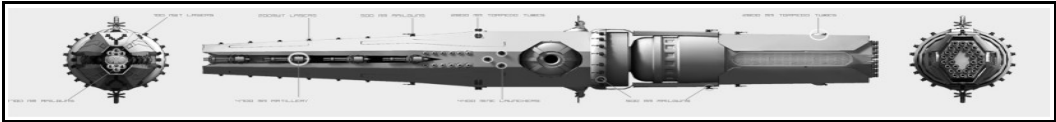
Name: Jupiter class space carrier / mobile base			Weight (Dry): -		Weight (Full): 154,000 tons (114.0 tons)		Cost: 2,013,012.0 points		Length / Width / Height: 1,200 m / 185 m / 190 m									
Form: Ship Form (scale x100) Base: 10+1D10			Mv: -9 -6 for shooting	Max Ref: 1 4	Ground: 0	Flight: 8	Water: 0	Misc: +100% MP +2 Int and Tech.										
Power Plant: Main - Supercharged Maneuver Pool			Source: Babel Fusion (Hot) +67% MP		XS: 5	Misc: "With great power comes great boom!" ECM: Sensor, Missile, Radar, Rank 3, Radius 40 hexes (Scale x10)												
Cockpit:			Controls:		Loc:		Enc.:											
Main Bridge			Screen		Hull		Maneuver Pod		Enclosed									
Main Gunnery Bridge			Screen		Hull		Maneuver Pod		Enclosed									
Secondary Gunnery Bridge			Screen		Hull		Maneuver Pod		Enclosed									
Main Defense Bridge			Screen		Hull		Maneuver Pod		Enclosed									
Engineering Bridge			Screen		Hull		Maneuver Pod		Enclosed									
Avatar – Launch / Retrieval #1			Screen		Hull		Maneuver Pods		Enclosed									
Avatar – Launch / Retrieval #2			Screen		Hull		Maneuver Pods		Enclosed									
Avatar – Launch / Retrieval #3			Screen		Hull		Maneuver Pods		Enclosed									
Avatar – Launch / Retrieval #4			Screen		Hull		Maneuver Pods		Enclosed									
Avatar – Launch / Retrieval #5			Screen		Hull		Maneuver Pods		Enclosed									
Avatar – Launch / Retrieval #6			Screen		Hull		Maneuver Pods		Enclosed									
Sensors:			Class:		Loc:		Kills:		Range:		Comm:							
Main Sensors			Light Heavy		Hull		200 K		2,000 Km		180,000 Km							
- R/R Analyzer					Hull		400 K		20,000 Km									
- Spotting Radar					Hull		200 K		2,000 Km		180,000 Km							
Secondary Sensors			Light Heavy		Hull		400 K		20,000 Km									
- R/R Analyzer					Hull		200 K		1,100 Km		130,000 Km							
- Spotting Radar					Hull													
Reserve Sensors			Heavy Striker		Hull													
Movement Systems:			Loc:		MA:		Kills:											
"Nuclear Thrusters" #1			Right Upper Engine Pod				2 MA				0							
"Nuclear Thrusters" #2			Left Upper Engine Pod				2 MA				0							
"Nuclear Thrusters" #3			Right Lower Engine Pod				2 MA				0							
"Nuclear Thrusters" #4			Left Lower Engine Pod				2 MA				0							
Fuel: Special case																		
Options:			Loc:		Modifiers:													
Eighteen Spotlights			Eighteen in Hull															
Damage Control Packages			All servos.															
8 x Maneuver Pods			Eight in Hull															
Stat Boost			Hull															
Avatar Bay: 36 x 400 ton capacity bays			All in Hull															
Multipliers:			Loc:		Modifiers:													
Monocoque Construction																		
Environmental Protection																		
Self Repair System																		
Space Hydraulics																		
Targeting System			Main Gunnery Bridge															
Secondary Targeting System			Sec. Gunnery Bridge															
ACE																		
Servos:			Class:		Type:		Space:		Kills:		Armor:		DC:		Modifiers:			
Hull			Super Heavy		Torso		30		2000		500 / 500		100					
4 x Engine Pods			Medium Weight		Pod		10		400		400 / 400		100					
8 x Turrets (four each side)			Heavy Striker		Head / Turrets		8		500		300 / 300		100					
Weapons:			Damage:		Wa:		Range:		Max Range:		Kills:		Shots:		Loc:		Special:	
*All weapons are scale x10																		
8 x Double Barrel Lucifer Cannons			60 K		(+2)		100		10000		60		Inf.		One in each Turret		Long Range, Kinetic, Bv 2 Mega-Beam, 2 turn Warm-up	
60 x AA Guns			4 K		0		10		-		4		Inf.		Three sets in each Pod, Eight sets in Hull.		Bv 3 *Beam weapons, linked in groups of three.	



Overview:

It was clear that the Jupiter class carrier was built to be the ultimate ship for avatar warfare with its ability to carry 216 machines in its spacious holds, making it the largest carrier ever considered in any military planning in known history. But some would say that the vision that foresaw the need for such a ship was also blinded by the impractical nature of such a vessel. Despite its ability to carry so many avatar machines into combat, it only possesses eight launch catapults to deploy them with, which requires nearly half an hour to deploy its entire avatar compliment. Not to mention the logistic nightmare being further confounded by the need to receive incoming avatars at the same time. Management of moving and receiving of all of its avatars is broken down under the control of six command bridges solely devoted to the maintenance and launch/retrieval. Each avatar bridge is responsible for six avatar bays under their command, and has alternating access to two of the eight launch/landing rails on the outside of the ship's hull.

The vessel is large, slow, but very well defended by its own guns, not to mention the swarm of avatars that are constantly being launched and received. Only two are known to exist, the *Ille ne passeront pas* and the *Faugh a Ballaghand*, it is questionable that more would have been built since the beginning of the war. Both vessels played supportive roles in the opening of the war, and were held back till the end to defend the asteroid fortress Parochet.



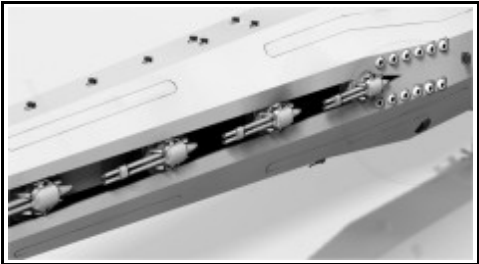
Variants:
None.

Crew Stats: Standard: 10 + 1D10

Special Notes:
Fuel Range:

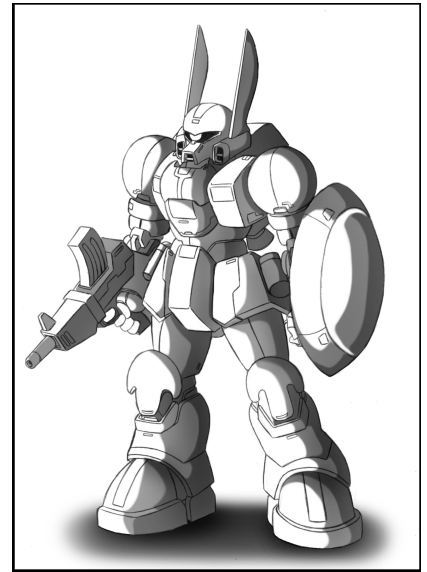
AA Guns:
Avatar Launching:

Due to the complexities of space travel preventing the creation of simple rules to handle it, the range that ships can travel in between refueling stops is treated as a special effect. Or as your GM may say: "Your mileage may vary." Built as beam weapons for the sake of simplicity on the issue of ammunition, otherwise treat as projectile weapons. Each launch/landing catapult is a rectangular "race track" on the outside of the ship's hull where loading elevators bring the avatar up to the track, lock the feet into the shuttle, and then accelerate them at high speed for launching. The process is reversed for landing. Every three turns of combat, each launch catapult can load up an avatar and launch it, or receive one in a controlled landing. This time frame may be altered by the GM due to conditions at the time. Each catapult will accelerate an avatar up to 12 MA without the avatar expending any propellant, or decelerate an avatar from 12 MA.



Cosmic Heavens – Space Avatars:

Name:		A-01 Lepus production Avatar (space use)		Weight (Dry):		27.5 Tons		Weight (Full):		44.52 Tons		Cost:		573.19 points		Height:		16.0 meters	
Form:		Mv:		Max Ref:		Ground:		Flight:		Water:		Misc:							
Humanoid		-6		4		6		18 - 21		0		+133% MP		+2 Int, +1 Tech					
Power Plant:		Source:		XS:		Misc:													
Main - Standard		Babel Fusion (Hot)		5		"With great power comes great boom!"													
Maneuver Pool:		+0% MP		ECM: Sensor, Missile, Radar - Rank 3, Radius 10 hexes															
Cockpit:		Controls:		Loc:		Enc:													
Main		Screen		Torso		Ejection Seat, Lift-Wire		Enclosed											
						Anti-Theft (code lock)													
Sensors:		Class:		Loc:		Kills:		Range:		Comm:									
Main		Striker		Head		1		4 Km		800 Km									
Back-Up		Striker		Torso		1		4 Km		800 Km									
R/R Analyzer				Head															
Resolution Intensifiers		x16 visual																	
Movement Systems:		Loc:		MA:		Kills:													
Thrusters		Right Leg				3				0									
Thrusters		Left Leg				3				0									
Thrusters		Torso				3				0									
Thrusters		Flight Pack				3				0									
After-burning Thrusters		Right Leg				2 (up to 3)				0									
After-burning Thrusters		Left Leg				2 (up to 3)				0									
After-burning Thrusters		Flight Pack				2 (up to 3)				0									
Fuel: 600 Km range		Torso								0									
Options:		Loc:		Modifiers:															
Micro-manipulators				One in each Arm															
Three Spotlights				One in Head, two in Torso															
G-Compensator				Torso		Up to 21 Ma.													
Damage Control Package				Torso															
Stat Boost				Torso		+2 to Int, and +1 Tech.													
Weapon Mount				Torso															
Multipliers:		Loc:		Modifiers:															
Monocoque Construction																			
Internal Automation		Torso		Level 3, Port 4 (Mecha Piloting, Zero Gee maneuvering, Awareness, Teach)															
Environmental Protection				Space and EMP															
ACE				+133% MP															
"Dimensional Holster"				See section on Avatars.															
Servos:		Class:		Type:		Space:		Kills:		Armor:		DC:		Modifiers:					
Head		Medium Striker		Head		6		4		3		1							
Torso		Striker		Torso		9		6		4		1							
R & L Arm		Striker		Arm		6		4		3		1		Throw 2					
R & L Leg		Medium Striker		Leg		8		5		3		1		+1 K					
Flight Pack		Striker		Pod		9		0		3		1							
Weapons:		Damage:		Wa:		Range:		Max Range:		Kills:		Shots:		Loc:		Special:			
R & L Hand		2 K		0		melee				2		-		Each Arm		Quick, Handy			
1 x Quis ut Deus MK I Shield		(6 K)		-2						6				One on Left Arm		Standard Armor DC 1			



Overview:

Developed from the AX-01 Lepus test model by Shehaqim Manufacturing Solutions under contract with the Cosmic Heavens to produce a functional combat machine for use in the expected new battlefield environment. Highly adaptable and maneuverable, the Lepus was adopted publicly into service by the then fledgling military forces of the Cosmic Heavens to demonstrate their core philosophies and to further develop the concept of anthropomorphic machines. It's main attributes were its simple layout and controls, along with its modular construction that allowed it to be easily maintained by ship crews and the limited facilities available to them. All of its weapons were hand held and easily replaceable, even when in combat. And with its high speed and maneuverability, it can close in with its target and deliver its attacks. It may have been small, and not able to carry much heavier weapons, but it was a popular machine with its pilots who trained with them. Many would continue to fight in the same machines that they started with despite their becoming obsolete very early in the war.

Close Assault Armament:

Cost: 583.63 pts.

Replacing its standard rifle with a much shorter ranged, double barrel weapon, this armament layout was created for close in combat, such as in urban or confined environments.

Replaces Michael Mk I Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
Sariel Assault Rifle (2 x linked projectile guns)	2 x 3 K	0	5	25	3 K each	-	One Hand and mount	Bv 4, linked, not mated.
- Ammo clip in SAW					1 K	12	Clip loaded into gun	Scattershot Tracer
2 x spare SAR clips					1 K	12	-	Scattershot Tracer

Anti-Ship Armament:

Cost: 1265.49 pts.

Geared entirely for anti-ship combat, the Lepus is armed with the heavy Erzengelfaust Bazooka to attack ships and other heavily armored targets. Was a very difficult version to use due to the frequent reloading of the weapon, especially during very dynamic combat conditions. Very rarely deployed alone without support from other avatar machines.

Replaces Michael Mk I Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Erzengelfaust Anti-Ship Bazooka	100 K	0	10	-	100 K	-	Both hands and weapon mount	x10 Scale weapon
- Ammo clip					1 K	2	Clip loaded into gun	Tracer, AP, Kinetic
2 x spare clips					1 K	2	-	Tracer, AP, Kinetic

Variants:

Being a widely available machine, countless Lepus avatars will be modified into numerous roles from experimental to even construction purposes. Even damaged machines would be put to some use in secondary roles rather than completely scrapped or abandoned through out the war. Very few would ever be sent to the Demiurge front, ground based variants tended to not fair well in most environments, suffering from overheating thrusters which limited their agility in the field. As resources became more scarce, many would be modified to function in other roles, including sniper duty or even suicide weapons.

Cosmic Heavens – Space Avatars:

Name:	A-03 Vulpecula production Avatar (space use)		Weight (Dry):	38.5 Tons	Weight (Full):	48.6 Tons	Cost:	749.24 points	Height:	16.5 meters
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Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:
Humanoid	-5	5	7	18 - 21	0	+166% MP
						+2 Int, +1 Tech
Power Plant:	Source:		XS:	Misc:		
Main - Overcharged	Babel Fusion (Hot)		5	"With great power comes great boom!"		
Maneuver Pool:	+33% MP		ECM: Sensor, Missile, Radar - Rank 3, Radius 10 hexes			

Cockpit:	Controls:		Loc:		Enc:	
Main	Screen		Torso		Ejection Seat, Lift-Wire Anti-Theft (code lock)	

Sensors:	Class:	Loc:	Kills:	Range:	Comm:
Main	Striker	Head	1	4 Km	800 Km
Back-Up	Striker	Torso	1	4 Km	800 Km
R/R Analyzer		Head			
Resolution Intensifiers	x16 visual				

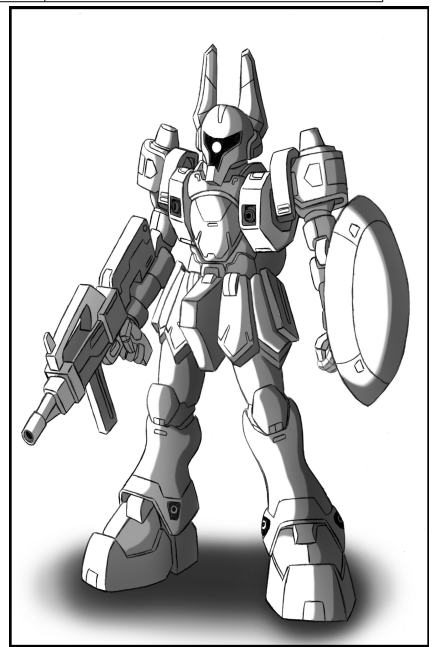
Movement Systems:	Loc:	MA:	Kills:
Thrusters	Right Leg	2	0
Thrusters	Left Leg	2	0
Thrusters	Torso	2	0
After-burning Thrusters	Right Leg	2 (up to 3)	0
After-burning Thrusters	Left Leg	2 (up to 3)	0
After-burning Thrusters	Right Flight Pack	4 (up to 6)	0
After-burning Thrusters	Left Flight Pack	4 (up to 6)	0
Fuel: 800 Km range	Torso		0

Options:	Loc:	Modifiers:
Micro-manipulators	One in each Arm	
Three Spotlights	One in Head, two in Torso	
G-Compensator	Torso	Up to 24 Ma.
Damage Control Package	Torso	
Stat Boost	Torso	+2 to Int, and +1 Tech.

Multipliers:	Loc:	Modifiers:
Monocoque Construction		
Internal Automation	Torso	Level 3, Port 4 (Mecha Piloting, Zero Gee maneuvering, Awareness, Teach)
Environmental Protection		Space and EMP
ACE		+133% MP
"Dimensional Holster"		See section on Avatars.

Servos:	Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:
Head	Medium Striker	Head	6	4	4	1	
Torso	Medium Striker	Torso	12	8	4	1	
R & L Arm	Medium Striker	Arm	8	5	4	1	+1 K, Throw 3
R & L Leg	Medium Striker	Leg	8	5	4	1	+1 K
R & L Flight Pack	Striker	Pod	9	0	4	1	

Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
R & L Hand	2 K + 1 K	0	melee		2	-	Each Arm	Quick, Handy
1 x Quis ut Deus MK I Shield	(6 K)	-2			6		One on Left Arm	Standard Armor DC 1
The following are stored in the Dimensional Holster:								
1 x Michael Mk I Rifle	4 K	0	12	144	4 K	-	Both hands	Bv 4, multi-feed 2
- Ammo #1 in Rifle					2 K	8	clip loaded into gun	Tracer rounds
- Ammo #2 in Rifle					2 K	8	clip loaded into gun	Kinetic rounds
2 x Ammo #1 spare clips					2 K	8	-	Tracer rounds
2 x Ammo #2 spare clips					2 K	8	-	Kinetic rounds
1 x Qaphsiel pistol	4 K	0	6	36	4	-	One Hand	BV 7
- Ammo in pistol					1	6	-	- clip loaded in to gun, Tracer rounds
3 x spare pistol clips					1 each	6		Standard Tracer rounds
2 x Mk I Engelsfausts	200 K	-1	10	-	13 each	1 each	One in both hands	x10 Scale weapon
2 x Castigator Grenades	4 K	-1	7	49	1 each	-	Pack of Four in one Hand	Blast 1
2 x Uriel Flare Grenades	(6 K)	-1	7	49	2 each	-	Pack of Five in one Hand	Blast 2, Flare
2 x Night's Shroud Grenades	(4 K)	-1	7	49	1 each	-	Pack of four in one Hand	Smoke, Blast 4
1 x Vulpine Sword	5 K + 1 K	0	melee		-	5	One Hand	AP



Overview:

Having originally lost during the initial design competitions that lead to the creation of the A-01 Lepus, Emphyrean Heavy Industries was quietly approached by both the Cosmic Heaven's military and acquisition choirs to further pursue avatar development under a new secret program. The Lepus class of machines were created to not only arm the then fledgling nation's military, but to serve as a public face as more powerful weapons were created in secret. Using the Lepus as a basis, the Vulpecula was built to use speed and maneuverability as its main weapons. Assigned mainly to ace pilots and higher ranking officers, the Vulpecula proved to be an effective machine with much higher output levels from its power plant and thrusters, but at the cost of a higher fuel consumption rate which has dogged the avatar machine throughout its service life. The Vulpecula can also be a difficult machine to pilot as its high gee loads can overcome the physical limits of some pilots, and its high speed took much training to properly control. The Vulpecula excels in interceptor or superiority roles on the battlefield.

The Vulpecula would see limited production prior to the war, and the few units that were in service after the "30 days of Hell" would be regulated to serving as training machines or second line units. Due to its high fuel consumption, it is not uncommon for it to be deployed with external fuel tanks that could be jettisoned when no longer needed.

Anti-Ship Armament:

Cost: 1,540.54 pts.

As an interceptor, the Vulpecula is frequently armed with heavier weapons to deter or destroy enemy craft or machines that invade Cosmic Heaven territory. With its high speed, it can close in on enemy units that are attempting to contest held areas of the battlefield.

Replaces Michael Mk I Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Erzengelfaust Anti-Ship Bazooka	100 K	0	10	-	100 K	-	Both hands and weapon mount	x10 Scale weapon
- Ammo clip					1 K	2	Clip loaded into gun	Tracer, AP, Kinetic
2 x spare clips					1 K	2	-	Tracer, AP, Kinetic

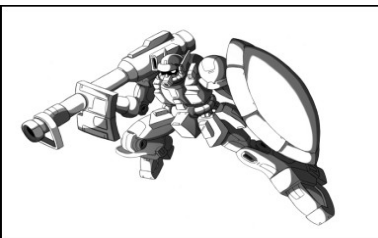
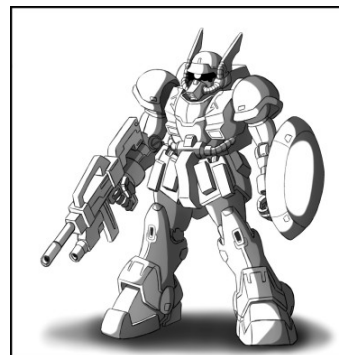
Variants:

For such a capable machine, very few variants were ever attempted with the Vulpecula, with most being minor personal changes made by their pilots. This may have been influenced by its high production and maintenance costs; it was not uncommon for Vulpecula machines to be retired early due to being burnt out by improper use by inexperienced pilots. The other reason might have been the knowledge that this rather expensive machine was only meant to serve for a short while until a newer machine would come to replace it and its cousin the Lepus.

Another problem was its thruster output was so high, it was impractical to attempt to convert it for use on the Demiurge Front in surface combat.

Cosmic Heavens – Space Avatars:

Name:		A-07 Lupus production Avatar (space use)		Weight (Dry):		46.5 Tons		Weight (Full):		58.3 Tons		Cost:		827.96 points		Height:		17.0 meters	
Form:		<i>My:</i>		<i>Max Ref:</i>		<i>Ground:</i>		<i>Flight:</i>		<i>Water:</i>		<i>Misc:</i>							
Humanoid		-6		4		6		20 - 22		0		+133% MP							
												+2 Int, +1 Tech							
Power Plant:		Source:		XS:		Misc:													
Main - Overcharged		Babel Fusion (Hot)		5		"With great power comes great boom!"													
Maneuver Pool:		+33% MP				ECM: Sensor, Missile, Radar - Rank 3, Radius 10 hexes													
Cockpit:		Controls:		Loc:		Enc.:													
Main		Screen		Torso		Ejection Seat, Lift-Wire		Enclosed											
						Anti-Theft (code lock)													
Sensors:		Class:		Loc:		Kills:		Range:		Comm:									
Main		Striker		Head		1		4 Km		800 Km									
Back-Up		Striker		Torso		1		4 Km		800 Km									
R/R Analyzer				Head															
Resolution Intensifiers		x16 visual																	
Movement Systems:		Loc:		MA:		Kills:													
Thrusters		Right Leg				4		0											
Thrusters		Left Leg				4		0											
Thrusters		Torso				2		0											
Thrusters		Flight Pack				6		0											
After-burning Thrusters		Flight Pack				2 (up to 3)		0											
After-burning Thrusters		Torso				2 (up to 3)		0											
Fuel: 600 Km range		Torso						0											
Options:		Loc:		Modifiers:															
Micro-manipulators				One in each Arm															
Four Spotlights				One in Head, One in each Arm		One in Torso.													
G-Compensator				Torso		Up to 22 Ma.													
Damage Control Package				Torso															
Stat Boost				Torso		+2 to Int, and +1 Tech.													
Multipliers:		Loc:		Modifiers:															
Monocoque Construction		Torso		Level 3, Port 4 (Mecha Piloting, Zero Gee maneuvering, Awareness, Teach)															
Internal Automation				Space and EMP															
Environmental Protection				+100% MP															
ACE				See section on Avatars															
"Dimensional Holster"																			



Dimensional Holster:					See section on Avatars.				
Servos:	Class:		Type:		Space:	Kills:	Armor:	DC:	Modifiers:
Head	Medium Striker		Head		6	4	4	1	
Torso	Heavy Striker		Torso		15	10	5	1	
R & L Arm	Medium Striker		Arm		8	5	4	1	+1 K, Throw 3
R & L Leg	Heavy Striker		Leg		9	6	5	1	+2 K
Flight Pack	Heavy Striker		Pod		15	0	4	1	
Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:	
R & L Hand	3 K + 1 K	0	melee	-	3 K	-	Each Arm	Quick, Handy	
1 x Quis ut Deus MK II Shield	(7 K / 7 K)	-2			7 K / 7 K		One on Left Arm	Belted Standard Armor DC 1	
- built in Ram Spikes	4 K + 1 K	0		-			*Built into shield	AP	
The following are stored in the Dimensional Holster:									
1 x Michael Mk II Rifle	4 K	0	12	144	4 K	-	Both hands	Bv 5, multi-feed 2	
- built in Bayonet blade	4 K	0	melee	-	4 K	-	*Built into Rifle	AP	
- Ammo #1 in Rifle					2 K	8	clip loaded into gun	Tracer rounds	
- Ammo #2 in Rifle					2 K	8	clip loaded into gun	Kinetic rounds	
2 x Ammo #1 spare clips					2 K	8	-	Tracer rounds	
2 x Ammo #2 spare clips					2 K	8	-	Kinetic rounds	
2 x Mk II Engelsfausts	200 K	0	10	-	13 K each	1 each	One in both hands	x10 Scale weapon	
4 x Castigator Mk II Grenades	4 K	-1	7	49	2 K each	-	Pack of five in one Hand	Blast 1	
4 x Uriel Flare Mk II Grenades	(6 K)	-1	7	49	2 K each	-	Pack of six in one Hand	Blast 2, Flare	
4 x Night's Shroud Mk II Grenades	(4 K)	-1	7	49	1 K each	-	Pack of six in one Hand	Smoke, Blast 3	
2 x Mk II Hurlbats	4 K + 1 K	0	melee	-	4 K		One in one hand	AP, Thrown	

Overview:

Due to its high production numbers and role as the main line unit of the Cosmic Heavens, the A-07 Lupus is the most ubiquitous war machine of the war; serving longer than even the newer avatars that were to replace it. Designed around the knowledge gained from both the Lepus and Vulpecula, the Lupus was built as a simple yet rugged machine and formed the backbone of the Cosmic Heavens military might, and was very popular with both experienced and rookie pilots alike. Carrying heavier and more weapons than its smaller avatar cousins, the Lupus proved to be a surprisingly good close combat fighter being able to thrash 'n bash with the best of them. The Michael Mk II rifle was improved with a higher rate of fire, while a bayonet blade was installed to give the machine an additional melee weapon. And even when it lost all of its melee weapons, it can defend itself fairly well with its own fists, leading some to ponder if the design was inspired while during a bar fight.

Anti-Ship Armaments:

For anti-ship combat, many Lupus machines will replace their shields with an assault variant which does away with the reinforced ramming spikes, and is expanded in size to provide better coverage against blasts.

Replaces Quis ut Deus MK II Shield:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Quis ut Deus MK II Assault Shield	(7 K / 7 K)	0			7 K / 7 K		One on Left Arm	Belted Standard Armor DC 1, no change in costs.

Erzengelfaust Mk I Anti-Ship Bazooka:

Cost: 1563.69 pts.

Early production models assigned to anti-ship roles were armed with the older Mk I Erzengelfaust Bazooka, which were in plentiful supply, while development of the Mk II version was delayed until shortly before the end of the "30 days of Hell." The new machine handled it well despite the frequent problem of reloading the weapon while moving about.

Replaces Michael Mk II Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Erzengelfaust Mk I	100 K	0	10	-	100 K	-	Both hands and weapon mount	x10 Scale weapon
Anti-Ship Bazooka								
- Ammo clip					1 K	2	Clip loaded into gun	Tracer, AP, Kinetic
2 x spare clips					1 K	2	-	Tracer, AP, Kinetic

Erzengelfaust Mk II Anti-Ship Bazooka:

Cost: 2543.89 pts.

A marked improvement over the original reusable anti-ship weapon, the Mk II Erzengelfaust became a popular weapon among pilots, and the bane of many ship crews. The mere sight of an avatar armed with one was enough to send crews into a panic. It still suffered from the slow and sometimes difficult process of reloading while in the middle of battle as its earlier counterpart.

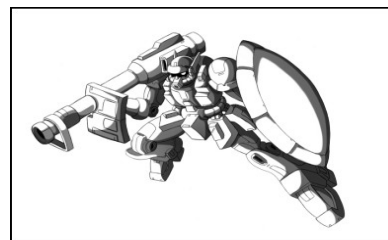
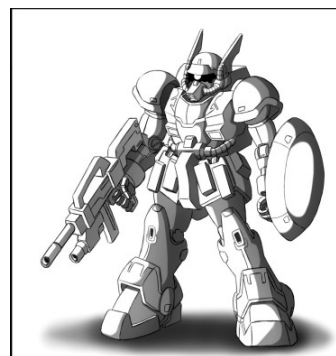
Replaces Michael Mk II Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Erzengelfaust Mk II	200 K	0	10	-	200 K	-	Both hands and weapon mount	x10 Scale weapon
Anti-Ship Bazooka								
- Ammo clip					2 K	2	Clip loaded into gun	Tracer, AP, Kinetic
2 x spare clips					2 K	2	-	Tracer, AP, Kinetic

Variants:

Many design changes were made during its production run as processes were improved or streamlined, but overall the Lupus remained much the same as it had originally started out as. With it being an extremely common unit, the Lupus was easily modified to suite the needs of the situation or per the pilot's personal tastes. Many of the older weapons from the Lepus and Vulpecula were adaptable for use by the Lupus despite its larger size. And many damaged units were easily repaired and maintained with the wide range of similar parts from other Lupus machines. And with it being such a successful machine, it would be further developed into many other model classes of avatars through out the war such as the Ursa Major/Minor, Pegasus, and Scorpius to name a few.

Cosmic Heavens – Space Avatars:

Name:		A-07A Lupus "ace" production variant Avatar (space use)		Weight (Dry):		46.5 Tons		Weight (Full):		58.3 Tons		Cost:		907.4 points		Height:		17.0 meters	
Form:		<i>My:</i>		<i>Max Ref:</i>		<i>Ground:</i>		<i>Flight:</i>		<i>Water:</i>		<i>Misc:</i>							
Humanoid		-5		5		7		22 - 24		0		+167% MP							
												+2 Int, +1 Tech							
Power Plant:		Source:		XS:		Misc:													
Main - Supercharged		Babel Fusion (Hot)		5		"With great power comes great boom!"													
Maneuver Pool:		+67% MP				ECM: Sensor, Missile, Radar - Rank 3, Radius 10 hexes													
Cockpit:		Controls:		Loc:		Enc.:													
Main		Screen		Torso		Ejection Seat, Lift-Wire		Enclosed											
						Anti-Theft (code lock)													
Sensors:		Class:		Loc:		Kills:		Range:		Comm:									
Main		Striker		Head		1		4 Km		800 Km									
Back-Up		Striker		Torso		1		4 Km		800 Km									
R/R Analyzer				Head															
Resolution Intensifiers		x16 visual																	
Movement Systems:		Loc:		MA:		Kills:													
Thrusters		Right Leg				4		0											
Thrusters		Left Leg				4		0											
Thrusters		Torso				4		0											
Thrusters		Flight Pack				6		0											
After-burning Thrusters		Flight Pack				2 (up to 3)		0											
After-burning Thrusters		Torso				2 (up to 3)		0											
Fuel: 600 Km range		Torso						0											
Options:		Loc:		Modifiers:															
Micro-manipulators				One in each Arm															
Four Spotlights				One in Head, One in each Arm		One in Torso.													
G-Compensator				Torso		Up to 22 Ma.													
Damage Control Package				Torso															
Stat Boost				Torso		+2 to Int, and +1 Tech.													
Multipliers:		Loc:		Modifiers:															
Monocoque Construction		Torso																	
Internal Automation						Level 3, Port 4 (Mecha Piloting, Zero Gee maneuvering, Awareness, Teach)													
Environmental Protection						Space and EMP													
ACE						+100% MP													
"Dimensional Holster"						See section on Avatars.													



Dimensional Holster:		See section on Avatars.										
Servos:	Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:					
Head	Medium Striker	Head	6	4	4	1						
Torso	Heavy Striker	Torso	15	10	5	1						
R & L Arm	Medium Striker	Arm	8	5	4	1	+1 K, Throw 3					
R & L Leg	Heavy Striker	Leg	9	6	5	1	+2 K					
Flight Pack	Heavy Striker	Pod	15	0	4	1						
Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:				
R & L Hand	3 K + 1 K	0	melee	-	3 K	-	Each Arm	Quick, Handy				
1 x Quis ut Deus MK II Shield	(7 K / 7 K)	-2			7 K / 7 K		One on Left Arm	Belted Standard Armor DC 1				
- built in Ram Spikes	4 K + 1 K	0		-			*Built into shield	AP				
The following are stored in the Dimensional Holster:												
1 x Michael Mk II Rifle	4 K	0	12	144	4 K	-	Both hands	Bv 5, multi-feed 2				
- built in Bayonet blade	4 K	0	melee	-	4 K	-	*Built into Rifle	AP				
- Ammo #1 in Rifle					2 K	8	clip loaded into gun	Tracer rounds				
- Ammo #2 in Rifle					2 K	8	clip loaded into gun	Kinetic rounds				
2 x Ammo #1 spare clips					2 K	8	-	Tracer rounds				
2 x Ammo #2 spare clips					2 K	8	-	Kinetic rounds				
2 x Mk II Engelsfausts	200 K	0	10	-	13 K each	1 each	One in both hands	x10 Scale weapon				
4 x Castigator Mk II Grenades	4 K	-1	7	49	2 K each	-	Pack of five in one Hand	Blast 1				
4 x Uriel Flare Mk II Grenades	(6 K)	-1	7	49	2 K each	-	Pack of six in one Hand	Blast 2, Flare				
4 x Night's Shroud Mk II Grenades	(4 K)	-1	7	49	1 K each	-	Pack of six in one Hand	Smoke, Blast 3				
2 x Mk II Hurlbats	4 K + 1 K	0	melee	-	4 K		One in one hand	AP, Thrown				

Overview:

Despite the high performance of the A-07 Lupus in its base model, some saw a need for a further upgraded unit to supplement its troops as they advanced in skills and abilities. With a simple redesign that could be accommodated by the automated production facilities producing the machines without any large scale retooling, the thruster and power output was increased slightly over the standard model. Some consider the improvements to be modest at best, but the new model allowed avatar pilots who distinguished themselves in combat access to better equipment, and engineers in the Virtues choirs to study new methods in avatar designs.

Anti-Ship Armaments:

Much like the A-07, the A-07A can use all of the same equipment as its cousin, especially in the use of anti-ship weaponry and equipment.

Replaces	Quis ut Deus MK II Shield:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Quis ut Deus MK II Assault Shield		(7 K / 7 K)	0			7 K / 7 K		One on Left Arm	Belted Standard Armor DC 1, no change in costs.

Erzengefaust Mk I Anti-Ship Bazooka:

Cost: 1651.85 pts.

Replaces	Michael Mk II Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Erzengefaust Mk I Anti-Ship Bazooka		100 K	0	10	-	100 K	-	Both hands and weapon mount	x10 Scale weapon
- Ammo clip						1 K	2	Clip loaded into gun	Tracer, AP, Kinetic
2 x spare clips						1 K	2	-	Tracer, AP, Kinetic

Erzengefaust Mk II Anti-Ship Bazooka:

Cost: 2695.04 pts.

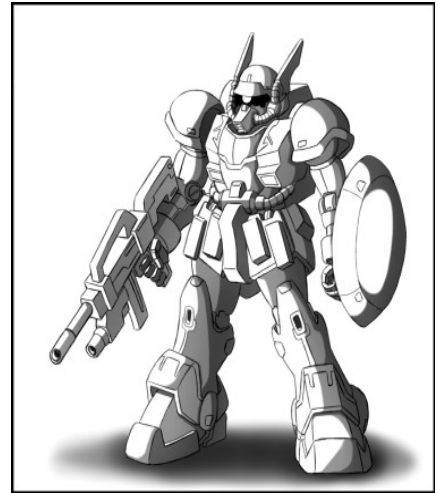
Replaces	Michael Mk II Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Erzengefaust Mk II Anti-Ship Bazooka		200 K	0	10	-	200 K	-	Both hands and weapon mount	x10 Scale weapon
- Ammo clip						2 K	2	Clip loaded into gun	Tracer, AP, Kinetic
2 x spare clips						2 K	2	-	Tracer, AP, Kinetic

Variants:

As many ace pilots and officers received the A-07As, each one would take the opportunity to further improve or personalize their assigned machines. This lead to a near endless range of variants in the model line which soon became difficult at best to keep records of.

Cosmic Heavens – “Demiurge Front” Avatars:

Name:	A-07D Lupus production Avatar (Earf use)			Weight (Dry):	46.5 Tons	Weight (Full):	55.55 Tons	Cost:	655.25 points	Height:	17.0 meters
Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:					
Humanoid	-6	4	6	6	0	+133% MP					
						+2 Int, +1 Tech					
Power Plant:	Source:		XS:	Misc:							
Main - Overcharged	Babel Fusion (Hot)		5	"With great power comes great boom!"							
Maneuver Pool:	+33% MP		ECM: Sensor, Missile, Radar - Rank 3, Radius 10 hexes								
Cockpit:	Controls:		Loc:		Enc:						
Main	Screen		Torso		Ejection Seat, Lift-Wire		Enclosed				
					Anti-Theft (code lock)						
Sensors:	Class:		Loc:		Kills:	Range:	Comm:				
Main	Striker		Head		1	4 Km	800 Km				
Back-Up	Striker		Torso		1	4 Km	800 Km				
R/R Analyzer			Head								
Resolution Intensifiers	x16 visual										
Movement Systems:	Loc:		MA:		Kills:						
Thrusters	Right Leg				3	0					
Thrusters	Left Leg				3	0					
Fuel: 100 Km range	Torso					0					
Options:	Loc:		Modifiers:								
Micro-manipulators			One in each Arm								
Four Spotlights			One in Head, One in each Arm		One in Torso.						
Damage Control Package			Torso								
Stat Boost			Torso		+2 to Int, and +1 Tech.						
Multipliers:	Loc:		Modifiers:								
Monocoque Construction											
Internal Automation	Torso				Level 3, Port 4 (Mecha Piloting, Athletics, Awareness, Teach)						
Environmental Protection					Arctic, Desert, and EMP						
ACE					+100% MP						
"Dimensional Holster"					See section on Avatars.						



Servos:		Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:	
Head		Medium Striker	Head	6	4	4	1		
Torso		Heavy Striker	Torso	15	10	5	1		
R & L Arm		Medium Striker	Arm	8	5	4	1	+1 K, Throw 3	
R & L Leg		Heavy Striker	Leg	9	6	5	1	+2 K	
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
R & L Hand		3 K + 1 K	0	melee	-	3 K	-	Each Arm	Quick, Handy
1 x Quis ut Deus MK II Shield		(7 K / 7 K)	-2			7 K / 7 K		One on Left Arm	Belted Standard Armor DC 1
- built in Ram Spikes		4 K + 1 K	0		-			*Built into shield	AP
The following are stored in the Dimensional Holster:									
1 x Michael Mk II Rifle		4 K	0	12	144	4 K	-	Both hands	Bv 5, multi-feed 2
- built in Bayonet blade		4 K	0	melee	-	4 K	-	*Built into Rifle	AP
- Ammo #1 in Rifle						2 K	8	clip loaded into gun	Tracer rounds
- Ammo #2 in Rifle						2 K	8	clip loaded into gun	Kinetic rounds
2 x Ammo #1 spare clips						2 K	8	-	Tracer rounds
2 x Ammo #2 spare clips						2 K	8	-	Kinetic rounds
4 x Castigator Mk II Grenades		4 K	-1	7	49	2 K each	-	Pack of five in one Hand	Blast 1
4 x Uriel Flare Mk II Grenades		(6 K)	-1	7	49	2 K each	-	Pack of six in one Hand	Blast 2, Flare
4 x Night's Shroud Mk II Grenades		(4 K)	-1	7	49	1 K each	-	Pack of six in one Hand	Smoke, Blast 3
2 x Mk II Hurlbats		4 K + 1 K	0	melee	-	4 K		One in one hand	AP, Thrown

Overview:

As it was the A-07 Lupus that served as the main line unit in the space battles of the Cosmic Heavens, it would be the A-07D that would serve as its main line unit again on the so-called “Demiurge Front.” The basic chassis was stripped down to what it would need to function in the gravity environment of the Earf, and its many different weather conditions that exist on its surface. Living in the orbital colonies prevented many of the engineering virtues from having a full understanding of things as extreme cold and ice, or high heat and sand, and their effects on machine and even personnel. As it had since the beginning of its service life, the avatar machine proved to have been able to lend itself to fighting in nearly all of the Earf environments, excluding the aquatic.

Close Assault Armament:

Cost: 662.67 pts.

Replacing its standard rifle with a much shorter ranged, double barrel weapon, this armament layout was created for close in combat, such as in urban or confined environments. Many of these weapons became available as the A-01 Lepus was relegated to second line duty after being made obsolete by the A-07 Lupus.

Replaces Michael Mk II Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
Sariel Assault Rifle (2 x linked projectile guns)	2 x 3 K	0	5	25	3 K each	-	One Hand and mount	Bv 4, linked, not mated.
- Ammo clip in SAW					1 K	12	Clip loaded into gun	Scattershot Tracer
2 x spare SAR clips					1 K	12	-	Scattershot Tracer

Anti-Ship Armaments:

Much like the A-07, the A-07D can use all of the same equipment as its cousin, especially in the use of anti-ship weaponry and equipment. The Powers choirs originally considered the Demiurge Front to not have a need for heavy equipment such as the anti-ship weapons, production was increased slightly to ensure that some avatars would be able to be equipped with them when needed. Unlike in space, one in three would be armed for anti-ship combat. On Earf, the ratio would be lowered to one in five or six.

Replaces Quis ut Deus MK II Shield:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Quis ut Deus MK II Assault Shield	(7 K / 7 K)	0			7 K / 7 K		One on Left Arm	Belted Standard Armor DC 1, no change in costs.

Erzengelfaust Mk I Anti-Ship Bazooka:

Cost: 1440.91 pts.

As the Cosmic Heavens established and held on to their dominance in space, many of the Mk I Erzengelfaust weapons would be replaced with Mk II versions, and then supplied to units serving on the Demiurge Front.

Replaces Michael Mk II Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Erzengelfaust Mk I Anti-Ship Bazooka	100 K	0	10	-	100 K	-	Both hands and weapon mount	x10 Scale weapon
- Ammo clip					1 K	2	Clip loaded into gun	Tracer, AP, Kinetic
2 x spare clips					1 K	2	-	Tracer, AP, Kinetic

Erzengelfaust Mk II Anti-Ship Bazooka:

Cost: 2358.11 pts.

Very few of these weapons would see action on Earf as their priority were given to units serving in space.

Replaces Michael Mk II Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Erzengelfaust Mk II Anti-Ship Bazooka	200 K	0	10	-	200 K	-	Both hands and weapon mount	x10 Scale weapon
- Ammo clip					2 K	2	Clip loaded into gun	Tracer, AP, Kinetic
2 x spare clips					2 K	2	-	Tracer, AP, Kinetic

Variants:

Much like its space based cousin, the A-07D lead to the design of several other surface combatant models such as the Pegasus, and Ursa Major/Minor. Several other forms of new equipment were provided to the Demiurge Front such as different types of ammunition like incendiary or grenade rounds.

Cosmic Heavens – “Demiurge Front” Avatars:

Name:	A-10 Ursa Major/Minor production Avatar (Earf use)		Weight (Dry):	56.5 Tons	Weight (Full):	62.87 Tons	Cost:	1260.27 points	Height:	17.0 meters
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Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:
Humanoid	-7 -5 for shooting	3	6	6	0	+133% MP +2 Int, +1 Tech

Power Plant:	Source:	XS:	Misc:
Main - Overcharged	Babel Fusion (Hot)	5	"With great power comes great boom!"
Maneuver Pool:	+33% MP ECM: Sensor, Missile, Radar - Rank 3, Radius 10 hexes		

Cockpit:	Controls:	Loc:	Enc:
Main	Screen	Torso	Both equipped with Ejection Seat, Lift-Wire, & Anti-Theft (code lock)
Gunnery Cockpit	Screen	Torso	Enclosed

Sensors:	Class:	Loc:	Kills:	Range:	Comm:
Main	Striker	Head	1	4 Km	800 Km
Back-Up	Striker	Torso	1	4 Km	800 Km
Spotting Radar		Head	4	40 Km	
R/R Analyzer		Head			
Resolution Intensifiers	x16 visual				

Movement Systems:	Loc:	MA:	Kills:
Ground Effect Thrusters	Right Leg	3	0
Ground Effect Thrusters	Left Leg	3	0
Fuel: 100 Km range	Torso		0

Options:	Loc:	Modifiers:
Micro-manipulators	One in each Arm	
Four Spotlights	One in Head, One in each Arm	One in Torso.
Damage Control Package	Torso	
Stat Boost	Torso	+2 to Int, and +1 Tech.
Two Weapon Mounts	Torso	

Multipliers:	Loc:	Modifiers:
Monocoque Construction		
Internal Automation	Torso	Level 3, Port 4 (Mecha Piloting, Athletics, Awareness, Teach)
Environmental Protection		Arctic, Desert, and EMP
ACE		+100% MP
Targeting System		+2 to MV for shooting attacks.

Servos:	Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:
Head	Medium Striker	Head	6	4	2 / 4	1	
Torso	Heavy Striker	Torso	15	10	3 / 5	1	
R & L Arm	Lightweight	Arm	5	3	2	1	Throw 2
R & L Leg	Heavy Striker	Leg	9	6	3 / 5	1	+2 K
R & L Rear Leg	Lightweight	Leg	5	3	2 / 3	1	
R & L Ammo Bins	Lightweight	Pod	6	0	2 / 3	1	

Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
R & L Manipulator Claw	2 K	0	melee	-	2 K	-	Each Arm	Quick
1 x Barrattiel Artillery Cannon	4 K	(+2)	24	576	4 K	-	Right weapon mount	Bv 2, Long Range
Right Ammo Bin #1					3 K	6	Right Ammo Bin	Scattershot Blast 1 rounds
Right Ammo Bin #2					3 K	6	Right Ammo Bin	Kinetic Blast 3 rounds
Left Ammo Bin #1					3 K	6	Left Ammo Bin	Scattershot Blast 1 rounds
Left Ammo Bin #2					3 K	6	Left Ammo Bin	Kinetic Blast 3 rounds
33 x Hermesiel missiles	2 K	-2	25	625	2 K	-	Left weapon mount	Blast 2
2 x Night's Shroud Mk II Grenade Dischargers	(4 K)	-1	7	49	1 K each	-	Four in each Arm	Smoke, Blast 4

Overview:

The Ursa Major is the main artillery and long range support avatar of the Cosmic Heavens military, supporting other ground units on the battlefield with its heavy weapons. Based upon the same chassis as the A-07 Lupus, the original cockpit was expanded to accommodate a tandem seating arrangement for the pilot and gunner, as well as the new displays for the additional sensor and targeting equipment. The guns and missiles were mounted on the back in specialized mounts, while the ammunition was stored in two twin ammunition bins with its loading equipment to keep the weapons constantly fed. The heavy weight and change in the center of gravity forced the avatar to take on a more hunched over pose while standing or moving. Two additional legs were added to keep the machine upright and stable. Since it was expected to only function in the long range role, the arms were reduced in size to being only minimally functional in a limited role while no secondary weapons were installed. This does leave the Ursa as being unable to defend itself in direct combat, requiring additional machines to be left near by for protection in heavy combat zones.

Variants:

The Ursa Minor is purpose built to provide anti-aircraft protection for other ground units like its artillery support brother the Ursa Major. As well as defending against aerial aggressors, the Anpiel AA cannon have proven to be just as effective against ground targets.

Ursa Minor Anti-Aircraft Armament:

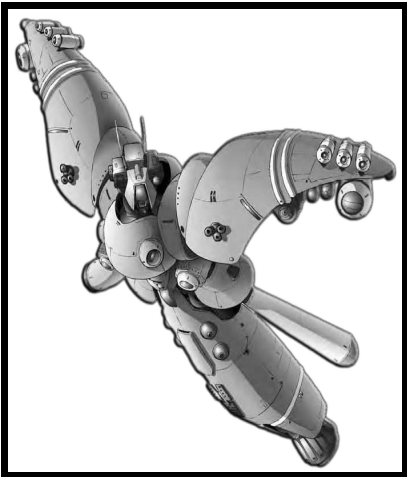
Cost:: 1260.27 pts.

Replaces	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
Barrattiel and Hermesiel weapons:								
2 x Anpiel AA Cannon	2 K	(+2)	12	144	2 K	-	One in each weapon mount	Bv 8, Long Range, linked
Right Ammo Bin #1					3 K	6	Right Ammo Bin	Scattershot Blast 1 rounds
Right Ammo Bin #2					3 K	6	Right Ammo Bin	Scattershot Blast 1 rounds
Left Ammo Bin #1					3 K	6	Left Ammo Bin	Scattershot Blast 1 rounds
Left Ammo Bin #2					3 K	6	Left Ammo Bin	Scattershot Blast 1 rounds



Cosmic Heavens – “Demiurge Front” Avatars:

Name: AM-03B Pisces production Avatar (aquatic use)				Weight (Dry): 34.0 Tons		Weight (Full): 49.23 Tons		Cost: 459.59 points		Height: 16.0 meters							
Form: Humanoid		Crush Depth: 450 m 1,476.4 ft	Mv: -6	Max Ref: 4	Ground: 0	Flight: 0	Water: 8 (24 x 1/3 Mod)	Misc: +133% MP +1 Int, +1 Tech									
Power Plant: Main - Standard		Source: Babel Fusion (Hot)		XS: 5		Misc: “With great power comes great boom!”											
Maneuver Pool:		+0% MP		ECM: None, aquatic avatar													
Cockpit: Main		Controls: Screen		Loc: Torso		Escape Pod, Anti-Theft (code lock)				Enc.: Enclosed							
Sensors: Main		Class: Lightweight		Loc:		Kills: Head		Range: 1		Comm: 2 Km 500 Km							
Back-Up		Lightweight				Torso		1		500 Km							
R/R Analyzer						Head											
Resolution Intensifiers		x8 audio				Head											
Marine Suite						Torso											
Movement Systems:		Loc:		MA:		Kills:											
Caterpillar Drive (Gravities)		Torso				2 MA (6 MA x 1/3 Mod)				0							
Caterpillar Drive (Gravities)		Torso				2 MA (6 MA x 1/3 Mod)				0							
Caterpillar Drive (Gravities)		Torso				2 MA (6 MA x 1/3 Mod)				0							
Caterpillar Drive (Gravities)		Torso				2 MA (6 MA x 1/3 Mod)				0							
Options:		Loc:		Modifiers:													
Micro-manipulator				One in Head													
Four Spotlights				One in Head, one in each Arm, and Torso													
Damage Control Package				Torso													
Stat Boost				Torso		+1 to Int, and +1 Tech.											
Multipliers:		Loc:		Modifiers:													
Monocoque Construction																	
Internal Automation		Torso		Level 3, Port 4 (Mecha Piloting, Swimming, Awareness, Teach)													
Environmental Protection				Underwater, High Pressure, and EMP													
ACE				+100% MP													
Marine Hydraulics				Can only function in water.													
Shadow Imagers		One in each Arm, two in Tail		4 “Balloon” type shadows. See rules.													
Servos:		Class:		Type:		Space:		Kills:		Armor:		DC:		Modifiers:			
Head		Striker		Head		5		3		2		1					
Torso		Striker		Torso		9		6		3		1					
R & L Arm		Medium Striker		Arm		8		5		2		1		+1 K, Throw 3			
R & L Heavy Pod		Medium Striker		Pod		12		0		2		1					
R & L Light Pod		Lightweight		Pod		6		0		2		1					
Tail		Medium Striker		Tail		6		4		2		1					
Weapons:		Damage:		Wa:		Range:		Max Range:		Kills:		Shots:		Loc:		Special:	
R & L Pisces Talons		4 K + 1		0		Melee		(3 hexes)		4 K				One in each Arm.		Quick, Returning	
1 x Right Pisces Fin Shield		(8 K)		0						8 K				One on Right Arm		Standard Armor DC 1	
1 x Left Pisces Fin Shield		(8 K)		0						8 K				One on Left Arm		Standard Armor DC 1	
2 x Mk I Engelsfausts Torpedoes		100 K		0		10		-		7 K each				One in both Heavy Pods		x10 Scale weapon	
8 x Dagiel Homing Torpedoes		5 K		0		10		100		1 K each				Four in both Heavy Pods		Smart 2, Skill (+6), Linked.	
70 x Light Torpedoes		2 K		0		10		100		2 K each				Fourteen in each Arm, Light Pod and Tail		Linked.	
30 x Counter Torpedoes		(1 K)		0		-		-		1 K each				Ten in each Light Pod and Tail		Counter – Only, Linked.	
6 x Uriel Flare Torpedoes		(4 K)		-1		7		49		1 K each				Two in each Light Pod and Tail		Flare, Blast 1, Linked.	
6 x Night's Shroud Torpedoes		(4 K)		-2		7		49		1 K each				Two in each Light Pod and Tail		Smoke, Blast 2, Linked.	



Overview:

The Pisces is the standard aquatic combat avatar of the Cosmic Heavens. Prior to the start of the Demiurge Front, it had been decided by military planners that the likelihood of combat with in any of the ocean or aquatic zones would be light at best, and a low priority over all to the operation as a whole. The ONE navy would not be able to put up much resistance after its main fleets were to be crushed, and afterward any further fighting would be mainly eliminating any remaining stragglers in isolated combat. This would later be revealed to have been wrong as the predicted limited skirmishes began to become nearly constant attacks. More was demanded from what originally was to have been a low priority machine as production was increased to make up for the sudden increase in the attrition rate of aquatic avatars after the first weeks of the war. Soon the unknown challenges that the dark abyss of the oceans hide and lashed out with began to take on a higher priority with the Cosmic Heavens military in asserting control over it.

A very elegantly simple machine, the Pisces fulfills its mission with a wide range of torpedoes mounted all over its body, each tailored for a specific threat that is expected to be encountered in any of the world's oceans. Capable of fairly high speed with its four “caterpillar drives,” and its pressure hull can sustain operations at 450 meters. In close range combat, it can defend itself rather well with its claws mounted on telescopic limbs that can strike a target 90 meters away. The Pisces makes up for its light armor with the two heavy “fin” shields on each of its shoulders.

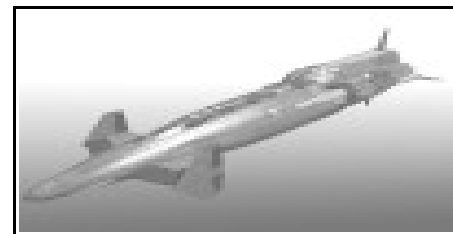
Due to the high loss rate, it has become standard practice for Pisces pilots to act in groups of two or more to limit any possible chance of surprise.

Variants:

Being a very simple machine and the higher priority placed upon securing the world's ocean and travel lanes, the Pisces has been put through several redesign attempts to deal with the unknown aggressors and the resurgent ONE naval forces. Most older models only carried heavy torpedoes, having expected to have to deal with just naval ships and other large targets. The current “B” model, as depicted above, has even the odds a little. But there still remains a need to find a more effective countermeasure to what has been lurking beneath the waves.



Name:		Weight:				Cost:		Length:		Beam (width):							
Mercury class Submarine		9,000 Tons (9.15 Tons)				69,909.75 points		125.0 meters		20.0 meters							
Form:		Crush Depth:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:									
Submarine Form Scale x100		1,300 m	-5	5	0	0	8*	+67% MP									
Base: 8+1D10		4265.1 ft					(16 x 1/2 Mod)	+1 Int, +1 Tech, -3 silent running*									
Power Plant:		Source:			XS:		Misc:										
Main - Standard		Babel Fusion (Hot)			5		"With great power comes great boom!"										
Maneuver Pool:		0% MP			ECM: Sensor, Missile, Radar, Rank 2, Radius 10 hexes (Scale x10)												
Cockpit:		Controls:		Loc:		Type:			Enc.:								
Main		Screens		Torso		Maneuver Pods			Enclosed								
Sensors:		Class:		Loc:		Kills:		Range:		Comm:							
Main		Super Light				Hull		0		100 Km							
Back-Up		Super Light				Hull		0		100 Km							
R/R Analyzer						Hull				30,000 Km							
Movement Systems:		Loc:		MA:		Kills:											
Hydro-Jets #1		Hull		(4 MA) (1/2 underwater modifier)				0									
Hydro-Jets #2		Hull		(4 MA) (1/2 underwater modifier)				0									
Hydro-Jets #3		Hull		(4 MA) (1/2 underwater modifier)				0									
Hydro-Jets #4		Hull		(4 MA) (1/2 underwater modifier)				0									
Options:		Loc:		Modifiers:													
3 Spotlights		One in Hull, and each Pod															
Damage Control Package		Hull															
1 Maneuver Pod		Hull		"Escape Sub for crew"													
2 Escape Pods		Hull		Secondary escape systems.													
2 micro-manipulators "cranes"		Hull		"Cranes" in AV bay													
Silent Running - Hydro-Jets		Hull		-3 modifier													
Stat Boost		Hull		+1 to Int, and Tech.													
Avatar Bays: 4 x 62.5 ton capacity bays		Hull		One bay for each avatar.													
Multipliers:		Loc:		Modifiers:													
Monocoque Construction		All Locations		See Rules.													
Self Repair Systems				See Rules.													
Marine Hydraulics				Can only operate in water.													
Environmental				Arctic, EMP													
Basic Stealth				See Rules.													
ACE				+67% MP													
Servos:		Class:		Type:		Space:		Kills:		Armor:		DC:		Modifiers:			
Right & Left Pod		Light Weight		Pod		4		100		200 S		100					
Hull		Super Light		Torso		3		200		200 S		100					
Weapons:		Damage:		Wa:		Range:		Max Range:		Kills:		Shots:		Loc:		Special:	
*All weapons are scale x10		10 K		(+2)		30		900		10 K each		15		One in each Pod		Long Range, Bv 4 – linked.	
2 x Asariel Torpedo Tubes (four on each side)																*Projectile weapons	
- Port Ammo Bay #1										10 K		15		Left Pod		Tracer	
- Starboard Ammo Bay #1										10 K		15		Right Pod		Tracer	
- Port Ammo Bay #2										10 K		10		Left Pod		Blast I	
- Starboard Ammo Bay #2										10 K		10		Right Pod		Blast I	
32 x Rikbiel Bombardment Missiles		10 K		0		80		6400		10 K each				16 in each Pod.		Long Range, Blast 10 – linked.	
1 x Babel Particle Scourge		10 K		0		10		100		10 K				One in Hull		Bv 3, Anti-Missile var., 60° WA, can only be used when surfaced.	

**Overview:**

Designed to serve as a small avatar carrier and hunter submarine, the Mercury is fast for its size. After the initial phases of the Demiurge Front invasion many Mercuries were sent out individually to find any remaining ONE naval forces. But when this tactic lead to a sudden increase in losses, it was decided that all Mercuries would operate in pairs or groups of three to four, which lead to less area being covered by patrols, but also temporarily decreased the losses.

Each avatar bay is a specially designed airlock that allows the hosted avatar machine to be either launched upwards or through the bottom of the ship. When closed and sealed, the launch bay has all the necessary facilities to make repairs or perform maintenance on their avatar charges. As with the other submersible vessels of the Cosmic Heavens forces, the avatar bays run in a single row along the ships length in between the Rikbiel missile launchers. Due to its small size, the Mercury's compliment of avatar machines are normally Pisces or other similar sized machines. Occasionally Mercuries have been used to release flight capable or units equipped with amphibious equipment near shore as an alternative insertion method.

When surfaced, the Mercury can launch a small barrage of long range missiles against land targets to support land operations. For defense while surfaced, a retractable turret with a Babel particle scourge can fire upon airborne targets or incoming missiles, in addition to its Babel particle scattering systems.

Variants:

None known, possible variants may be equipped with additional reconnaissance equipment in exchange for avatar capacity or weapons load.

Crew Stats:

Standard: 8 + 1D10

Special Notes:

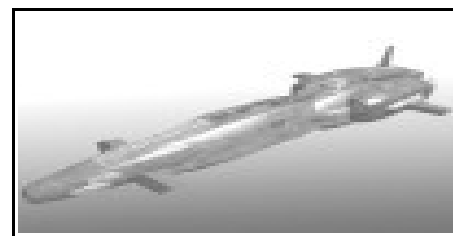
Missile tubes: Even though built as projectile weapons, treat their attacks as missiles instead.

Avatar Launching: Each avatar bay is basically an over sized airlock with the necessary scaffolding, maintenance cradles and what not to keep the machines repaired and loaded until needed. When ready to launch, after any unnecessary personnel have cleared the bay, the bay is flooded if the vessel is submerged, and either the top or bottom airlock is opened. From there the avatar will have to leave under its own power. In one turn, a vessel can launch all of its avatars in one action, though each machine will need to move so as to occupy its own hex without crowding.

Cosmic Heavens “Water” Forces:

Venus class submarine

Name: Venus class Submarine		Weight: 14,000 Tons (13.5 Tons)		Cost: 81,121.50 points		Length: 165.0 meters		Beam (width): 35.0 meters									
Form: Submarine Form Scale x100		Crush Depth: 1,300 m	Mv: -5	Max Ref: 5	Ground: 0	Flight: 0	Water: 6*	Misc: +67% MP									
Base: 8+1D10		4265.1 ft					(12 x 1/2 Mod)	+1 Int, +1 Tech, -3 silent running*									
Power Plant:		Source:			XS:		Misc:										
Main - Standard		Babel Fusion (Hot)			5		"With great power comes great boom!"										
Maneuver Pool:		0% MP			ECM: Sensor, Missile, Radar, Rank 2, Radius 20 hexes (Scale x10)												
Cockpit:		Controls:		Loc:		Type:		Enc.:									
Main		Screens		Torso		Maneuver Pods		Enclosed									
Sensors:		Class:		Loc:		Kills:		Range:		Comm:							
Main		Super Light				Hull		0		100 Km		30,000 Km					
Back-Up		Super Light				Hull		0		100 Km		30,000 Km					
R/R Analyzer						Hull											
Movement Systems:		Loc:		MA:		Kills:											
Hydro-Jets #1		Hull				(4 MA) (1/2 underwater modifier)						0					
Hydro-Jets #2		Hull				(4 MA) (1/2 underwater modifier)						0					
Hydro-Jets #3		Hull				(4 MA) (1/2 underwater modifier)						0					
Options:		Loc:		Modifiers:													
3 Spotlights				One in Hull, and each Pod													
Damage Control Package				Hull													
2 Maneuver Pod				Hull								"Escape Sub for crew"					
3 Escape Pods				Hull								Secondary escape systems.					
2 micro-manipulators "cranes"				Hull								"Cranes" in AV bay					
Silent Running - Hydro-Jets				Hull								-3 modifier					
Stat Boost				Hull								+1 to Int, and Tech.					
Avatar Bays: 8 x 75 ton capacity bays				Hull								One bay for each avatar.					
Multipliers:		Loc:		Modifiers:													
Monocoque Construction				See Rules.													
Self Repair Systems		All Locations		See Rules.													
Marine Hydraulics				Can only operate in water.													
Environmental				Arctic, EMP													
Basic Stealth				See Rules.													
ACE				+67% MP													
Servos:		Class:		Type:		Space:		Kills:		Armor:		DC:		Modifiers:			
Right, Center, & Left Pod		Striker		Pod		5		200		200 S		100					
Hull		Light Weight		Torso		9		300		300 S		100					
Weapons:		Damage:		Wa:		Range:		Max Range:		Kills:		Shots:		Loc:		Special:	
*All weapons are scale x10																	
2 x Asariel Torpedo Tubes (five on each side)		10 K		(+2)		30		900		10 K each				One in each Pod		Long Range, Bv 5 – linked. *Projectile weapons	
- Port Ammo Bay #1										20 K		20		Left Pod		Tracer	
- Starboard Ammo Bay #1										20 K		20		Right Pod		Tracer	
- Port Ammo Bay #2										10 K		12		Left Pod		Blast I	
- Starboard Ammo Bay #2										10 K		12		Right Pod		Blast I	
64 x Rikbiel Bombardment Missiles		10 K		0		80		6400		20 K each		32 in each Pod.		Long Range, Blast 10 – linked.			
2 x Babel Particle Scourges		10 K		0		10		100		10 K each		Two in Hull		Bv 3, Anti-Missile var., 60° WA, can only be used when surfaced.			

**Overview:**

The Venus class carrier submarine is meant to be the main stay of the Cosmic Heavens naval forces, capable of delivering a large number of avatars and missiles to any aquatic or amphibious combat theater to support any given operation.

Its general function is to deliver its avatar forces to a zone and support them with long range fire while the nimble machines go forth and attack any enemy ships in the area. Not really intended to engage enemy forces on its own, the Venus very rarely patrols alone unless under special orders. Normally a pair of Mercury class submarines will escort the vessel when on patrol.

Even though it is a much larger ship than its smaller cousin, the Venus shares many of the same design features such as the individual “air lock” avatar bays along its length with its Rikbiel missile launchers. The amenities are much more spacious than on the Mercury with many crews preferring to serve on the vessel than any other submarine class.

Variants:

It has been theorized that some modified versions of the vessel class may exist, none have been reported in the field. It is possible that some may have been built to carry larger avatar or nephilim machines, it is doubtful due to the possible reduction in capacity necessary for such a redesign of the vessel.

Crew Stats:

Standard: 8 + 1D10

Special Notes:

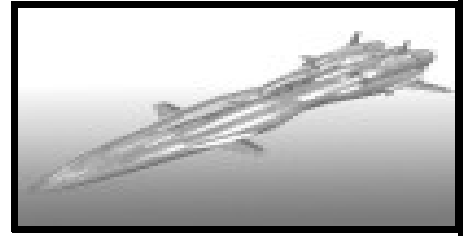
Missile tubes: Even though built as projectile weapons, treat their attacks as missiles instead.

Avatar Launching: Each avatar bay is basically an over sized airlock with the necessary scaffolding, maintenance cradles and what not to keep the machines repaired and loaded until needed. When ready to launch, after any unnecessary personnel have cleared the bay, the bay is flooded if the vessel is submerged, and either the top or bottom airlock is opened. From there the avatar will have to leave under its own power. In one turn, a vessel can launch all of its avatars in one action, though each machine will need to move so as to occupy its own hex without crowding.

Cosmic Heavens “Water” Forces:

Mars class submarine

Name: Mars class Submarine		Weight: 50,000 Tons (29.0 Tons)		Cost: 166,274.50 points		Length: 215.0 meters		Beam (width): 45.0 meters	
Form: Submarine Form Scale x100 Base: 8+1D10		Crush Depth: 1,300 m 4265.1 ft	Mv: -6 -5 for shooting	Max Ref: 4	Ground: 0	Flight: 0	Water: 5* (10 x 1/2 Mod)	Misc: +67% MP +1 Int, +1 Tech, -3 silent running*	
Power Plant: Main - Standard		Source: Babel Fusion (Hot)		XS: 5	Misc: “With great power comes great boom!”				
Maneuver Pool:		+0% MP		ECM: Sensor, Missile, Radar, Rank 3, Radius 20 hexes (Scale x10)					
Cockpit: Main		Controls: Screens		Loc: Torso	Type: Maneuver Pods		Enc.: Enclosed		
Sensors: Main		Class: Light Weight		Loc: Hull		Kills: 100		Range: 200 Km	
Secondary		Super Light		Hull		0		100 Km	
Back-Up		Super Light		Hull		0		100 Km	
R/R Analyzer				Hull					
Movement Systems: Hydro-Jets #1		Loc: Hull		MA: (2 MA) (1/2 underwater modifier)		Kills: 0			
Hydro-Jets #2		Hull		(2 MA) (1/2 underwater modifier)		0			
Hydro-Jets #3		Hull		(2 MA) (1/2 underwater modifier)		0			
Hydro-Jets #4		Hull		(2 MA) (1/2 underwater modifier)		0			
Hydro-Jets #5		Hull		(2 MA) (1/2 underwater modifier)		0			
Options: 3 Spotlights		Loc: One in Hull, and each Pod		Modifiers:					
Damage Control Package		Hull							
2 Maneuver Pod		Hull		“Escape Subs for crew”					
4 Escape Pods		Hull		Secondary escape systems.					
2 micro-manipulators “cranes”		Hull		“Cranes” in AV bay					
Silent Running - Hydro-Jets		Hull		-3 modifier					
Stat Boost		Hull		+1 to Int, and Tech.					
Avatar Bays: 18 x 75 ton capacity bays		Hull		One bay for each avatar.					
Multipliers: Monocoque Construction		Loc: All Locations		Modifiers: See Rules.					
Self Repair Systems		All Locations		See Rules.					
Marine Hydraulics				Can only operate in water.					
Environmental				Arctic, EMP					
Basic Stealth				See Rules.					
ACE				+67% MP					
Targeting Computer				(+1, -5 MV for shooting only.)					
Servos: Right & Left Pods		Class: Medium Striker		Type: Pod		Space: 6		Kills: 300	
Hull		Striker		Torso		15		400	
								300 S	
								400 S	
Weapons: *All weapons are scale x10		Damage: 10 K		Wa: (+2)		Range: 30		Max Range: 900	
4 x Asariel Torpedo Tubes (two sets of five on each side)		10 K		(+2)		30		10 K each	
- Port Ammo Bay #1								20 K	
- Starboard Ammo Bay #1								20	
- Port Ammo Bay #2								Right Pod	
- Starboard Ammo Bay #2								12	
- Port Ammo Bay #3								Left Pod	
- Starboard Ammo Bay #3								12	
- Port Ammo Bay #4								Right Pod	
- Starboard Ammo Bay #4								12	
256 x Rikbiel Bombardment Missiles		10 K		0		80		6400	
4 x Babel Particle Scourges		10 K		0		10		100	
1 x Lucifer Cannon		20 K		(+2)		90		8100	
								20 K	
								One in Hull	
								Long Range, Blast 10 – linked.	
								Bv 3, Anti-Missile var., 60° WA, can only be used when surfaced.	
								Mega-Beam, Long Range, Kinetic, Warm-up 2 turns, can only be used when surfaced.	

**Overview:**

The Mars class submersible carrier was designed to be a “battleship under the waves,” capable of serving as a major command vessel in any combat theater for a fleet. It is a monument to the hubris of the Cosmic Heavens thinking in their ability to dominate the Earf’s oceans. The massive vessel can pound any surface fleet or combat zone on land with an extremely large volume of firepower; it is not uncommon for a Mars vessel to surface near the shore line to simply fire with little concern at any city that would be unfortunate enough to fall under its shadow.

Variants:

Surprisingly there are two other produced versions of such a large vessel.

Mars-Phobos:

With some careful redesigning, the Mars layout is altered to allow for a new bay for a single nephilim war machine.

Options:			Loc:			Modifiers:		
Avatar Bays: 18 x 60 ton capacity bays			Hull			One bay for each avatar.		
1 x 720 ton capacity nephilim bay								

Mars-Deimos:

A departure from the standard mission of the Mars or Mars-Phobos vessels, the Deimos removes the Lucifer cannon to carry four Sagittarius cruise missile / torpedoes, each a massive weapon in its own right. Capable of destroying or crippling a whole fleet in one shot, or turning a large city into a crater, the Sagittarius is one of the few mass produced supercavitation weapons used by the Cosmic Heavens in any significant numbers during the war.

Weapons:			Damage:			Wa:			Range:			Max Range:		
4 x Sagittarius Super-cavitation Torpedo Missiles			150 K			0			280			78400		
												10K each		
												Four individual missiles in Hull		
												Long Range, Blast 30, Hyper-velocity, “Tunneling”		

Crew Stats:

Standard: 8 + 1D10

Special Notes:

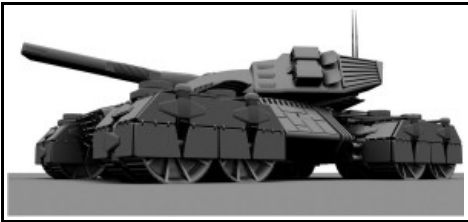
Missile tubes: Even though built as projectile weapons, treat their attacks as missiles instead.

Avatar Launching: Each avatar bay is basically an over sized airlock with the necessary scaffolding, maintenance cradles and what not to keep the machines repaired and loaded until needed. When ready to launch, after any unnecessary personnel have cleared the bay, the bay is flooded if the vessel is submerged, and either the top or bottom airlock is opened. From there the avatar will have to leave under its own power. In one turn, a vessel can launch all of its avatars in one action, though each machine will need to move so as to occupy its own hex without crowding.

Name: Aquila class atmospheric attack carrier		Weight (Full): 30,000 Tons (51.65 Tons)		Cost: 271,092.0 points		Length / Width / Height: 260.0 m / 75 m / 75 m		
Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Helicopter Form Scale x100 Base: 8+1D10	-7 -5 for shooting	3 5	0	6* *Helicopter rules	0	+67% MP +1 Int / Tech		
Power Plant:	Source:	XS:	Misc:					
Main - Standard	Babel Fusion (Hot)	5	"With great power comes great boom!"					
Maneuver Pool		ECM: Sensor, Missile, Radar, Rank 2, Radius 20 hexes (Scale x10)						
Cockpit:	Controls:	Loc:	Enc.:					
Main	Screen	Bridge	Escape Pods			Enclosed		
Gunnery	Screen	Bridge	Escape Pods			Enclosed		
Launch / Maintenance	Screen	Hull	Escape Pods			Enclosed		
Sensors:	Class:	Loc:	Kills:	Range:	Comm:			
Main	Striker	Hull	100 K	400 Km	80,000 Km			
- R/R Analyzer		Hull						
- Spotting Radar		Hull	400 K	4,000 Km				
Back-Up	Striker	Tail	100 K	400 Km	80,000 Km			
Movement Systems:		Loc:	MA:	Kills:				
Special – see rules for helicopters		1 MA per Hover Pod	0	0				
Options:	Loc:	Modifiers:						
Six Spotlights		Six in Hull						
Damage Control Packages		Hull and Tail						
8 x Escape Pods		2 x each Tail, 2 x Hull, 2 x Bridge	Escape Systems					
Stat Boost		Hull	+1 to Int. and Tech.					
Avatar Bays:		Hull	16 Avatars (up to 75 tons)					
Vehicle Bays:		Each Tail.	5 Auriga tanks, 5 Corvus fighters.					
Multipliers:	Loc:	Modifiers:						
Monocoque Construction		See technology section.						
Environmental Protection		Arctic, Desert, Water (can't submerge), & EMP						
Self Repair System		See technology section.						
A.C.E.		+67% MP						
Targeting System	Main Bridge	+2 to MV for shooting attacks.						
Servos:	Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:	
Hull	Striker	Torso	9	600	300	100		
Bridge	Medium Striker	Head	6	400	300	100		
R & L Tail	Medium Striker	Tail	6	400	300	100		
4 x Large Hover Pods	Striker	Head	5	300	200	100		
2 x Small Hover Pods	Lightweight	Head	3	200	200	100		
3 x Turrets	Lightweight	Head	3	200	200	100		
Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
*All weapons are scale x10								
256 x Rikbiel Bombardment Missiles	10 K	0	80	6400	40 K each		64 in each Large Hover Pod.	Long Range, Blast 10 – linked.
3 x Babel Particle Scourges	10 K	0	10	100	10 K each		One in each Turret	Bv 3, Anti-Missile var., 60° WA, can only be used when surfaced.
1 x Double Barrel Lucifer Cannon	20 K	(+2)	90	8100	20 K		One in Hull	Mega-Beam, Long Range, Kinetic, Warm-up 2 turns, can only be used when surfaced.
10 x Shroud Missiles	(8 K)	-2	80	6400	30 K each	-	5 in each Small Hover Pod	Blast 20, Smoke

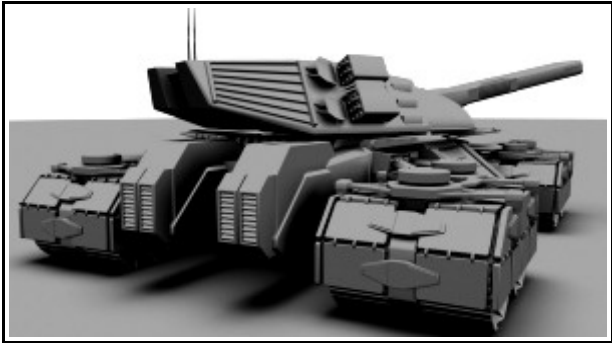
Cosmic Heavens – “Demiurge Front” – Vehicles:

Name: Auriga Main Battle Tank			Weight (Full): 42.0 tons			Cost: 200.19 points			Length / Width: 9.9 m / 3.9 m		
Form: Tank Form Scale x1			Mv: -5			Max Ref: 5			Ground: 10		
1 driver/1 commander-gunner			Flight: 0			Water: 0			Misc: +100% MP +1 Int / tech		
Power Plant:			Source:			XS:			Misc:		
Main – Super-Charged			Standard Fusion (hot)			5			+2 MA, +2 MV		
Maneuver Pool			+67% MP								
Cockpit:			Controls:			Loc:			Enc.:		
Driver			Screen			Torso			Ejection seat		
Gunner			Screen			Torso			Ejection seat		
Sensors:			Class:			Loc:			Kills:		
Main			Striker			Torso			1		
Back-up			Striker			Torso			1		
R/R Analyzer			Torso						4 Km		
800 Km									800 Km		
Movement Systems:			Loc:			MA:			Kills:		
None											
Options:			Loc:			Modifiers:					
Four Spotlights			Two in Torso, Two in turret								
Damage control package											
Multipliers:			Loc:			Modifiers:					
Monocoque Construction											
Environmental Protection						Arctic, Desert, EMP					
ACE						+33% MP					
Weight Inefficiency											
Servos:			Class:			Type:			Space:		
Hull			Striker			Torso			9		
Turret			Medium Striker			Head			6		
8 x Wheels (four each side)			Medium Heavy			Wheels			1 each		
Weapons:			Damage:			Wa:			Range:		
1 x Gatling Gun						Max Range:			Kills:		
- Ammo									Shots:		
1 x Gatling Gun									1000		
- Ammo									1000		
1 x 150 mm Cannon			8K			2			8		
- Ammo #1									3		
- Ammo #2									2		
- Ammo #3									2		
8 x Smoke Missiles			(4K)			-1			7		
									49		
									2		
									-		
									Turret		
									See Mekton Z pg 41-45		
									Turret		
									Hull - forward		
									See Mekton Z pg 41-45		
									Hull		
									Multi-feed 3, Long Range		
									AP Kinetic		
									Blast 1		
									Incendiary		
									Smoke, Blast 1		



Overview:
Built for use by the mortal Skiritai forces to counter hostile ONE ground forces during the Demiurge Front operations, the Auriga was meant to use its high speed to keep up with the fast moving avatars and to provide supporting fire when necessary. Since it was up to the angels to lead the way, Auriga crews were expected to stay close behind to hold up the rear and to respond to any flanking actions. Though this did not stop some tank lochos from seizing the moment and performing some impressive lightening offensives of their own, creating a reputation for being rather fool hardy and yet effective in their own rights despite being mere mortals to the Cosmic Heavens leadership. Against more traditional armored units, the Auriga held its own fairly well especially in urban combat where it would cause large scale fires to burn down cities. But as the introduction of avatars in ONE's forces started to increase, and the Cosmic Heavens' losses began to suffer as a result, more Auriga were moved to the front lines to fill in the resulting gaps until other forces could be brought in. The multiple wheels give it fairly high speed, and decent handling on flat or slightly rough terrain. But on more extreme rough terrain, it suffers greatly in performance. And the lack of any ability to cross rivers or other bodies of water also hampers its usefulness on the battlefield.

Variants:
Auriga were produced in large numbers and were used in various supportive functions as the war progressed, usually with bulldozer plows, towing, or mine clearing equipment. But as the war went on and avatar losses started to grow, more tanks were moved up into more direct roles to fill in the gaps. Even though its main cannon could not match the rate of fire as the Defender, it could fire a wider range of ammunition types such as self guided munitions, “Thor” rounds that could deliver a high voltage shock to its target, or even an experimental “binding adhesive” round that could entangle an avatar. In some cases, avatars bodies that had lost their legs were mounted on tank chassis that had lost their turrets to create machines that could serve as a stop gap measure until replacements of either type could be acquired. These “Testudo” machines worked surprisingly well for such a compromise in field engineering.



Cosmic Heavens – “Demiurge Front” – Vehicles:

Name:			Weight (Dry):			Weight (Full):			Cost:		Length:	
Corvus atmospheric fighter craft			17.7 Tons			19.47 Tons			115.60 points		20.4meters	
Form:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:					
Fighter		-5	5	0	24	0	+1 Int, +67% MP					
Power Plant:		Source:		XS:	Misc:							
Main - Standard		Standard Fusion (Hot)		5								
Maneuver Pool:		+0% MP										
Cockpit:		Controls:		Loc:		Ejection seat			Enc:			
Main		Screen		Torso					Enclosed			
Senors:		Class:		Loc:		Kills:	Range:	Comm:				
Main		Striker		Torso		1	4 Km	800 Km				
Back-Up		Striker		Torso		1	4 Km	800 Km				
R/R Analyzer				Center Pod								
Movement Systems:		Loc:		MA:		Kills:						
Thrusters		Center Pod				6 MA		0				
Thrusters		Left Pod				6 MA		0				
Thrusters		Right Pod				6 MA		0				
Thrusters		Torso:				6 MA		0				
Fuel: 1,000 Km range		Torso						0				
Options:		Loc:		Modifiers:								
3 Spotlights		One in each Pod										
Multipliers:		Loc:		Modifiers:								
Monocoque Construction												
Environmental Protection				Arctic, Desert, and EMP								
VTOL												
Servos:		Class:		Type:		Space:	Kills:	Armor:	DC:	Modifiers:		
Torso		Medium Striker		Torso		12	8	4	1			
Center Pod		Striker		Pod		9	0	3	1			
Left Pod		Striker		Pod		9	0	3	1			
Right Pod		Striker		Pod		9	0	3	1			
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:			
1 x Michael Mk I Gun		4 K	0	12	144	4	-	Torso	Bv 4			
- Ammo						2	16	Torso	Standard			
8 x Smoke Missiles		4 K	-1	7	49	1 each	-	8 Center Pod	Smoke, Blast 1			
16 x Castigator Bombs		4 K	0	7	49	1 each	-	8 Right Pod, 8 Left Pod	Blast 1			

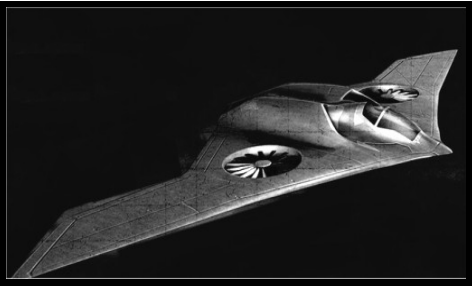


Overview:

Like the Auriga, the Corvus was built to serve to provide air support for the Cosmic Heavens' avatar ground forces by the mortal Skiritai. Reasonably maneuverable and fast, the Corvus functions well in both the ground attack and air superiority roles against ONE's drones, but suffers badly in terms of cruise airspeed, operational range, and rate of climb due to its poor aerodynamic design. Like the other weapon systems designed for the Skiritai, its main strength comes from its fairly economical construction and production costs. In large numbers, Corvus fighters can overrun and destroy most targets on the ground or in the air.

Name:			Weight (Dry):			Weight (Full):			Cost:		Length:					
Tucana atmospheric fight support craft			12.2 Tons			13.42 Tons			71.72 points		20.4m					
Form:		Mv:	Max Ref:		Ground:	Flight:		Water:		Misc:						
Mecharider (56.0 tons max load)		-5	5		0	24		0								
Power Plant:			Source:		XS:	Misc:										
Main - Standard		Standard Fusion (Hot)			5											
Maneuver Pool:		+0% MP														
Cockpit:		Controls:			Loc:		Enc:									
None																
Senors:		Class:			Loc:		Kills:	Range:		Comm:						
None																
Movement Systems:		Loc:			MA:		Kills:									
Thrusters		Left Pod			8		0									
Thrusters		Right Pod			8		0									
Thrusters		Torso:			8		0									
Fuel: 1,000 Km range		Torso					0									
Options:		Loc:			Modifiers:											
3 Spotlights		One in each Pod and Torso														
Multipliers:		Loc:			Modifiers:											
Monocoque Construction																
Environmental Protection					Arctic, Desert, and EMP											
VTOL																
Servos:		Class:			Type:		Space:		Kills:		Armor:		DC:	Modifiers:		
Torso		Medium Striker			Torso		12		8		4		1			
Left Pod		Striker			Pod		9		0		3		1			
Right Pod		Striker			Pod		9		0		3		1			
Weapons:		Damage:		Wa:	Range:		Max Range:		Kills:		Shots:		Loc:		Special:	
8 x Smoke Missiles		4 K		-1	7		49		1 each		-		8 Center Pod		Smoke, Blast 1	
16 x Castigator Bombs		4 K		0	7		49		1 each		-		8 Right Pod, 8 Left Pod		Blast 1	





Overview:

To find a way to overcome the limited flight ability of avatars in Earf's environment, the Cosmic Heavens made several attempts during the invasion and later occupation to develop new systems. The Tucana was just one of many, and perhaps one of the simplest tested so far. Stripping a Corvus fighter down to a bare aerodynamic body with two wing like thruster pods on the sides, it was expected of the intended avatar to stand on top of it and simply control the vehicle by shifting its weight to change direction like a surf board. Magnetic clamps secure the avatar to the Tucana, while the avatar's PM3L system resynchronize itself to better control its movements. The end results were mixed at best with the Tucana being described as an “amusing toy” by the Cosmic Heavens hierarchy before it was abandoned, while those pilots that used it considered to be a difficult to use, but still an effective weapon. The Tucana was used mostly with the Aries and lighter classes of avatars, while some pilots attempted to use heavier units such as the Lupus. The maximum weight that the Tucana could handle was 67.1 tons, meaning that heavier units had to shed some equipment such as shields and melee weapons, with some pilots going further by removing armor panels from their units. And some avatars like the Ursa are too unbalanced for the Auriga to handle in flight. Another unforeseen problem that frequently occurred was that most Earf use avatars did not have the proper G force compensation equipment to handle the higher speeds that would be experienced while riding on a Auriga.

Locations:

Earf's Oceans:

Since before recorded history, the oceans of the world have held both wonderment and fear beneath its waves, enticing and often claiming those who sought its promises of resources, fame, and possible fortune.

As the big push was made to move anthrokind out into the stars during the Golden Age, a slightly quieter movement was made to explore the world of the deep. Today, the world's oceans are the modern equivalent of the "wild west," few if any laws exist or are even able to be enforced. Piracy and smuggling is fairly rampant, and other forms of crime are frequent. ONE's forces have always had problems patrolling the regular shipping lanes and the more established underwater colonies, so it is not too uncommon for the hardly souls that live in the abyss to be forced to deal with such matters on their own while somehow managing to make a regular living for themselves and their families in the crushing dark depths.

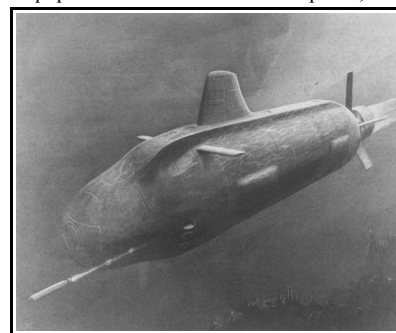


A Few "Fun" Facts:

- The average ocean depth is roughly 2.4 miles (3.84 Km).
- The Atlantic Ocean is shallower in comparison, typical depths ranging from 1.8 to 2.5 miles (2.8 to 4 Km), but tends to have much rougher and colder waters than the Pacific. The North Pacific Ocean has the largest area of deep ocean, typically two to four miles (3.2 to 6.4Km) in depth. A few spots such as the ocean trenches can be much deeper, 5 to 10 miles (8 to 16 Km). The "average" depth is long the continental shelf, which tends to be 700 to 2000 ft (213 to 610 m), though some areas can be as deep as the Pacific Ocean.
- 65% of the Earf's surface is covered by water. 94% of the Earf's water is salt sea water, while the other 6% which is made of fresh water, is mostly underground. Oddly enough, 65% of the average Anthrokind's body weight is made up of water (0.9 saline content).
- Weather patterns can be quite dynamic, and can be highly influenced by the wind. And there are many other threats such as tsunamis, gale waves, swells, hurricanes and typhoons that can strike at almost any given moment.

Limitations:

- A rough rule of thumb is that for every 10 meters (33 feet) of depth applies another atmosphere (1 bar, 14.7 psi, 100 kPa) of pressure on the hull or diver, so at 300 meters (1,000 feet), there is thirty atmospheres (30 bar, 441 psi, 3,000 kPa) of water pressure being applied. At the bottom of the deepest trenches, the pressure can be over a thousand atmospheres.
- Under pressure, oxygen and other gases can become toxic, resulting in decompression sickness, otherwise known as "the bends." Or other conditions such as nitrogen narcosis, high pressure nervous syndrome, and oxygen toxicity syndrome to name a few. If that is not bad enough, there are also several other hazards ranging from hypothermia, pulmonary injuries, asphyxia, burst or collapsed lungs, animal attack, entanglement, blunt trauma, and most of all: drowning!
- Anthrokind can not swim deeper than 50 ft (15.2 m) without specialized equipment. Divers and snorkelers breathing oxygen are limited to depths of 30 to 50 ft, because under pressure, oxygen has a poisonous effect on their bodies as mentioned above.
- With basic diving equipment, skin divers can reach depths of 100 to 160 ft (30.5 to 48.7 m) for brief periods of time.
- Deep sea divers wearing helmeted environmental suits and breathing a mixture of helium and oxygen can reach depths of 850 ft (259 m).
- Atmospheric diving suits (ADS) are articulated "suits of armor" that maintain one atmosphere of internal pressure at all times despite what the external pressure might be, eliminating the majority of physiological dangers associated with deep diving; the occupant need not decompress, there is no need for special gas mixtures, and there is no danger of decompression sickness or nitrogen narcosis. Divers do not even need to be skilled swimmers. This type of equipment allows for dives as deep as 2,300 ft (770 m) for several hours. However, the rigid suits tend to be rather bulky, and clumsy.
- "Liquid Breathing" systems using a perfluorocarbon fluid as a breathing medium have extended the limits of diving to some great extent, but are complicated, and often limit the diver due the strain of breathing the fluid for long periods of time. Such systems are generally only used for extremely deep or long duration dives.
- Vehicles or structures will often have several different "depth ratings."
- Design depth is the nominal depth listed in the submarine's specifications.
- Test depth is the maximum depth at which a submarine is permitted to operate under normal peacetime circumstances, and is tested during sea trials.
- The maximum operating depth (popularly called the never-exceed depth) is the maximum depth at which a submarine is allowed to operate under any (e.g. battle) conditions.
- Crush depth, officially called collapse depth, is the submerged depth at which a submarine's hull will collapse due to pressure. This is normally calculated; however, it is not always accurate. It is possible to go below this, but it is very risky. If exceeded, the avatar or submarine may try to make a tech or luck roll each turn to avoid taking damage. But if failed, treat as though the vehicle no longer has any high pressure environmental protection (even if it would normally have it), and just took 1D3 x 1D6 Kill hits until it manages to get back to a higher depth.
- Most avatars built to operate in aquatic environments can reach depths of 1000 to 1476.4 ft (305 to 450 m). Normal surface avatars can survive depths of about 328.1 ft (100 m), but will suffer a great loss in performance (see environmental protections in the Mekton Z plus manual). If they go any deeper, treat as though they have exceeded the crush depth as described above.
- Most commercial submarines can reach depths up to 1640.4 ft (500 m), while advanced and military submarines can reach depths of 4265.1 ft (1,300 m). Only specialized submarines or worker pods can dive much deeper, and are generally not suited for combat purposes.
- Each depth rating is set by the designer when the machine or vehicle is being created, there are no definite rules to determine any of these. It is suggested that some thought be given to setting these depth ratings during the design process as they do play a large role in setting up possible complications during game play. Very few things are as stress inducing as watching the pressure/depth gauge inch ever closer to the clearly marked red zones. A general rule of thumb is that "test" and "design" depths are rarely far from one another, and tend to be about two-thirds of the "maximum operating depth." While the "crush depth" is 20% to 35% of the "maximum operating depth."



Oceanic Depth Zones:

Despite appearing as a solid body covering the majority of the planet, the oceans are in fact a complex series of worlds in their own right that are interconnected with each other and are highly dynamic. There are five main oceans: Pacific, Atlantic, Indian, Southern, and Arctic. Of these, there are several more distinct areas of water broken down into straits, gulfs, bays, and seas. Each often interacts with the others through major and minor currents that alter over time or by season. This is further broken down into distinct layers separated from each other due to thermocline boundaries in between.

The following is a “general” description of the vertical layers, even though technically these can vary greatly depending on location and conditions.

Upper Stratum

This stratum of ocean is the most abundant with warmth, light, and life. Starting at the water's surface to the first sixty meters, the great amount of sunlight that bathes these waters is ideal for photosynthesis, attracting countless life forms including algae, plankton, and krill; which is then consumed by numerous other and much larger animals as part of the greater food chain. Closer to the continental shelf, kelp, sea weed, and other plant life serve as additional habitats to shellfish, invertebrates, fish, and mammals. Some of the largest structures on Earf built by life forms are the coral reefs that form along the coast lines and islands, home to near infinite species of plant, coral, fish, and invertebrates.

Middle Stratum:

This zone is where the last rays of sun light are absorbed by the water, and begins to become a darker world. It is considered to extend from 200 ft (61 m) to 1000 ft (305 m). Both the upper and middle stratum contain the majority of all known sea life, including the larger predators such as sharks, squid, octopus, sea turtles, tuna, rays, porpoises, dolphins, and whales. The greatest abundance of which can be found along the continental shelf, rarely deeper than 900 ft (274.3 m), and 1000 miles out (1600 km) from the continent.

Twilight Zone:

This is a dark world of dim, cool water even during the brightest day, starting around 1000 ft (305 m) to about 3000 ft (914 m) below the surface. Most of the animals that live here get their food from the upper layers, many of which are predators or scavengers. Great white sharks, giant squid and sperm whales can be found hunting for prey or each other in these parts.

Abyssal Zone:

The eternally black night of the abyss, these waters typically start around 3500 ft (1066.8 m) and extend to the bottom of the ocean. Generally the water temperature is cold, but beyond one mile (1.6 Km) it becomes icy cold. Life becomes much more sparse, but does exist in the form of predators and mostly scavengers which feed upon the debris that sinks from the upper layers, or go up to the higher levels during the evening and/or night time to hunt or breed.

To some, this zone is considered to be the hunting grounds for military submarines as they prowl the depths for any threat to shipping lanes, colonies, or even the surface. Many pirates and smugglers will try to stealthily make their way through the dark depths to avoid detection, even though they know that to be this deep is almost more dangerous than being caught by ONE Naval submarine patrols, where the unimaginable pressure can instantly crush a hull if any damage is taken or if they dare to go much deeper.

Hadal Zone:

Named after the god of the underworld, this zone is made up of the dark depths in the marine trenches or areas below the sea floor. Even in this age, very few vessels can go this far down, and it represents one of the most unexplored regions left on Earf. Life in this zone is either sustained by the chemical reactions near a thermal vent, or scavenges from the biological “snow” from above. Either way, the conditions this far down are hostile to any form of life as the pressure can reach over 16,000 psi. The trenches are formed by the activities of the tectonic plates as they either spread apart or push along/against each other, while other volcanic activity can create other types of zones.

Aquatic Colonies:

There are numerous colonies through out the oceans of the world, some housing populations of up to 500,000 while most may number only around 10,000 or much less. It is unknown exactly how many may live on or beneath the waves, any attempt at doing a census on the populations has been a failure at best. Those who have been involved in such attempts have described the task as being “more chaotic than counting gnats in the dark.” Though some suspicions suggest that there might be as many underwater as there are above it.

There are many different types of aquatic colonies, some blurring the lines between the various forms:

Floating Islands:

Built upon flat islands, land reclamation projects, submerged derricks, barges, or other floating structures, floating islands are purposefully built colonies to serve as offshore harbors, power plants, and even as cities or airports. Some are anchored only a few miles from shore, but most are further out in the deep blue sea. Occasionally some are anchored above an underwater colony, where goods are either raised or lowered by elevator or submarines.

Notes:

Treat as a large or a series of torso servos in either the x10 or x100 scale. May have some form of aquatic propulsion in the 1 to 3 MA range.

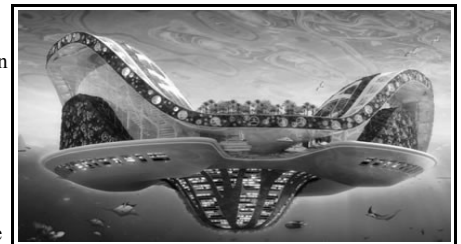
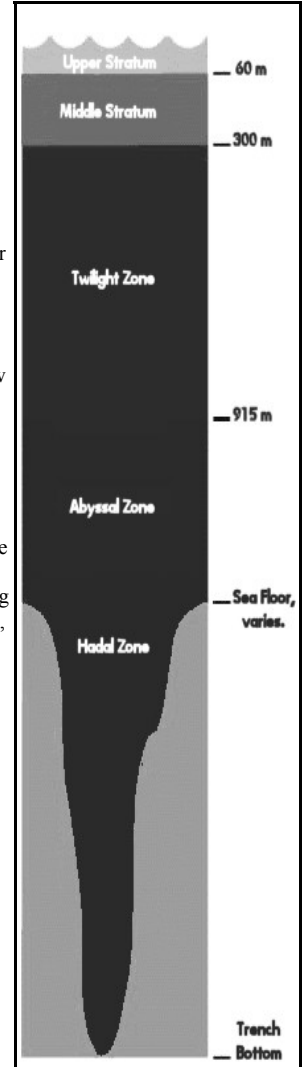
Crannóg:

Often formed by the collected hulks of old but still floating ships, barges, or other derelict platforms, Crannógs are floating islands of junk that are either stationary or float along with the ocean currents. Some are well established, while other may only last for a few months or years till they sink under their own weight, or break off to form new Crannógs of their own. Representing little more the occasional oasis of civilization in the blue vastness of the ocean, they are homes to the transient souls that scratch out an existence on the open seas.

Some are regarded as sea going gypsies, controlled by one or more families, others are no more than collected flotsam that drift about like so many lost dreams.

Notes:

Most Crannógs are often built as several smaller ships or barges centered around a much larger vessel or structure, such as a cargo ship, tanker, or offshore platform. Though it is possible to have a much more random arrangement of smaller ships. Treat as a scale x10 ship form, with little or no propulsion, or weapons. Attached torso servos can be of any size in relation to each other, with little or no armor.



Bubble or Fish Bowl:

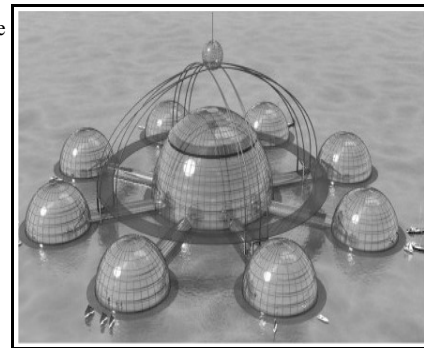
Once only the subject of fantasy, these colonies are built on the ocean floor and encased in a massive dome like structure. Using some of the same technologies that went into the construction of the orbital colony cylinders, these structures are limited to depths of the higher levels of the middle stratum where sun light can still shine. Underneath the dome or “bubble,” the structures built often resemble cities on the surface, with the land separated into individual plots for housing or commercial uses. Industry is rarely located under the dome itself, either it is outside in its own structure or buried deeper into the sea floor or the slope of the continental shelf it is built on. Some domes are single piece constructs, while others are built in series of panels and held in place by additional pylons and struts. Even though the “glass” is several feet thick, it is possible to cause it to fail and crack if it sustains enough stress. During the war, some reports suggest that large ships were purposefully sunk above bubble colonies to collapse them and destroy the colony beneath it.

Notes:

Much like the sky panels of an orbital colony, one 50 meter hex of a sky panel has 75 Kills worth of damage which is treated like ablative armor, and is automatically breached if reduced to 0 Kills. Due to the much greater pressure created by the water outside, it is almost impossible to seal the leak if it fails completely.

GMs are greatly encouraged to play up the tension of the moment by describing the streams of water in the most worry inducing fashion possible. The weakened bubble hex “should hold” long enough to let what needs to get done to be completed. If the PCs are taking too long, remind them of the impending doom of the moment to hurry them along. There is little point in making more complex rules to stress the gravity of the situation. After all what more math do you need to do to realize just how bad it really is? A bad situation is still a bad one.

But if you insist or if the GM feels particularly cruel, roll a 1D6 each turn; even results the hex holds, odd results the hex takes another 1/2D10 worth of damage. Treat it like the damaged sky panel of an orbital colony (see section on orbital colonies and damaging them). For deeper water colonies, treat the dome as if it was a closed cylinder.



Aqua Arcologies or Tin Can or Wave-Scraper:

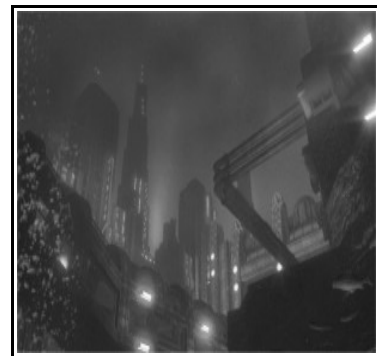
These are very large scale structures that are designed in sections, and support the outside pressure of the ocean on their own. They particularly resemble buildings from the surface, though on a much more monolithic scale; each structure can supply its own life support, and in emergencies can be sealed off individually from the others to reduce flooding. Some are tall enough to reach up from the depths of the sea floor to peak out over the waves, hence the name “wave-scraper.”

The walls of these structures are very thick, with some even going further with equally thick panes of glass for large windows. It takes a great deal of damage to cause a section to flood or even collapse.

Notes:

Much like the “bubble” colonies, handling the damage for these structures has the potential to be overly complex and enough mathematics to become burdensome. GMs are encouraged to hand waver the effects. Any damage that might occur is to only make the situation more pressing. Being inside a building being hit by enemy fire should be all the more motivation to get out as quickly as possible.

Most wave-scrappers should be able to remain standing even when several internal sections have been flooded due to the deep foundations they rest on. To knock one over would take a great deal of damage, such as being rammed by a large ship. Imagine trying to take down an office building if it was built like a military bunker.



Mobile Bases or Platforms:

Many mining, aquatic farming, or other operations are done from very large platforms which can either move slowly on their own, or be moved about by smaller “tug” vessels. Their shapes are varied; some compare them to underwater versions of floating islands, they can often be extremely large submarines, to smaller constructs resembling small scale colonies with no form of permanent moorings. Due to their mobile nature, very few rarely stay in one place for very long.

Notes:

Treat as scale x10 or x100 vehicles, with very low or no propulsion at all, but can be towed by teams of x1 or x10 scale submarines or worker pods.

Safety in deep underwater colonies:

Nearly all underwater constructs are built into sections to better control flooding, usually with at least two or more heavy doors capable of sealing off the area or room.

Since deep sea diving equipment is fairly expensive, most colonies will have dedicated rescue submarines or escape capsules to save as many as possible in the event of a tragic event or evacuation. Some sections, such as gathering halls or even some private residences, can often be designed to function as a lifeboat in a dire emergency if necessary. But even with these safety measures, escaping an emergency can be difficult. Due to the extreme water pressure outside of the colony, it has often been said that it is much safer out in space than it is underwater.

Basic Diving Gear: (see Mekton Zeta manual, page 47)

Limits: 100 to 160 ft (30.5 to 48.7 m) for brief periods of time of 30 minutes.

Advanced Scuba Diving Gear:

(Standard: SDP 2 for all body locations, SDP 5 for head. Military: SDP 5 for all body, SDP 10 for helmet.)

Consists of a rubber “skin suit,” with a air recycling unit built into the face mask or helmet with two hour supply. Helmet has a basic heads up display (time, oxygen supply, etc) on the helmet's visor, and comm-link. Includes fins, weight belts, buoyancy compensator, and tool sling/bag.

Limits: 850 ft (259 m) for up to an hour.

Deep Diving Suit: (SDP 10 all body locations, SDP 15 for head)

Built for construction or other hazardous duties; foot pads are magnetized and weighted, numerous attachment points for tools or support cables. Has 24 hours of internal air supply with its recycling system, thrusters on back pack gives a 4 MA flight in water. Is not meant for use in confined spaces due to size.

Limits: 2,300 ft (770 m)

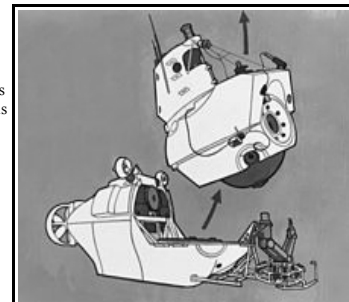
Extreme Deep Diving Suit: (SDP 10 all body locations, SDP 15 for head)

Same as the Deep Diving Suit, but with Liquid Breathing apparatus. Not as maneuverable due to the weight of the specialized breathing equipment preventing the use of thrusters, but can stay down in the cold deep for up to 48 hours nonstop. Have been used as deep as over 1,000 meters.

Escape Pods:

Due to the crushing pressure of being underwater, being able to escape from a sinking vessel, structure, avatar or vehicle while in a stable pressurized environment is imperative to survival. Escape pod is a catch all name for any form of self contained capsule for one or more persons to safely evacuate from an emergency situation. Larger vessels and structures will generally have room for four or up to a dozen. While on smaller vehicles the cockpit will become secured by pressure seals and be converted into an escape capsule. Once released, the escape pod will remain buoyant and slowly rise to the surface, while maintaining one atmosphere of pressure inside to prevent decompression. Once at the surface, air bags will inflate to keep the pod afloat while emergency transmitters active, flares are launched, and bright color dyes are released into the water.

Early in the war, many avatar pilots would spare any escape pod from a defeated vessel as a mark of chivalry. But as the war progressed, this courtesy began to be ignored. As a result, a sizable portion of crewman and avatar pilots began to prefer “going down with the ship,” rather than being picked off in such a ruthless manner.



Rules of Underwater Combat, Observation, and Interaction:

Environmental Conditions:

As mentioned previously in other sections, the world's oceans and other large bodies of water are a series of countless and extremely dynamic worlds; each one with its own characteristics and conditions. To put this into a simplified form for the purposes of a role-playing game is both challenging, and some would say to be tempting madness. None of the oceans or other water bodies are just "simple giant pools of water." Even a swimming pool has its own in the environment that it holds to just give you an example. When setting up an aquatic environment for your players to interact in, as the GM, you will need to decide whether certain features are in effect or not:

Water Depth:

One of the most important factors to decide on is how deep is the area of water that your event or situation will occur in. Since we are imagining a three dimensional space, it can not be stressed enough that Z is just as important as X and Y. Setting your depth will determine if the ocean floor will be a factor or not, or if your players will need to be careful to not go too deep.

Ocean Bottom and Features:

Just as there are many different kinds of features in the water above it, the ocean bottom can be categorized in to numerous different types of terrain, from endless plains of sand, rock, or mud to underwater volcanoes and mountains. Landslides are also another common danger to be on the look out for.

Surface Wave Activity:

The wave activity on the surface can have profound effects on the water below, heavy waves can disrupt the stratified layers, mixing warm with cold water, being a major source of ambient water noise, to making travel on the surface difficult or down right deadly.

Weather:

The weather on the surface can have many effects as well; winds can generate large waves, storms frequently can come from no where and alter conditions, fog can obscure visual range, to even simple rain being another source of sound disruption for sonar equipment.

Current Flows:

It has been known for hundreds of years that certain currents can be used by surface vessels to reduce the travel time from one continent to another, or impede their ocean crossings. There are several layers of currents that crisscross the oceans from the surface to the lowest depths. For the most part, their effects should be limited by the GM. Most of the major ocean currents should only have an effect in the long term, since most of the action that would require frequent dice rolls occur on in the instantaneous moment of a turn. But at the same time, there will be times when strong currents might be encountered such as long the ocean bottom or near cost lines where certain geological features can force currents into up or down swells, or even formations that form bottlenecks that cause current flows to increase in the vertical plane. Currents can be caused by temperature changes in the water, tides, winds, etc.

Thermocline Layers:

A thermocline is a thin but distinct layer in a large body of water (such as oceans or lakes) in which temperature changes more rapidly with depth than it does in the layers above or below. In the ocean, the thermocline may be thought of as an invisible blanket which separates the upper mixed layer from the calm deep water below. Depending largely on season, latitude and turbulent mixing by wind, tides, or currents, thermoclines may be a semi-permanent feature of the body of water in which they occur, or they may form temporarily in response to phenomena such as the radiative heating/cooling of surface water during the day/nights. Thermoclines also play a large role in the creation of "convergence zones" that can play havoc with sonar systems. One way to deal with thermoclines is to use a variable depth towed array.

Other Miscellaneous Factors:

There are numerous other possible factors that could come into play at any time such as surface ice in the form of icebergs or sheets, debris from any form of destructive event, local biological factors such as whales or much smaller fish/invertebrates.

Observation of the environment and surroundings:

Normal senses are limited by the aquatic environment; water absorbs light in visible wavelengths and makes hearing largely ineffective. Sunlight never penetrates deeper than 200 yards below the surface. And to make matters worse, water composition and silt in suspension can reduce visual range even further to a mere few feet.

High powered lights mounted on vehicles or avatars can generally illuminate a small area right before them, no more than a mecha scale hex. Heavy silt or muddy water can shorten this to half or less. On the other hand, bright lights can make a vessel or avatar stand out in the pitch black even at a great distance.

Most underwater vehicles will carry a suite of sensors that will include a range of Sonar, Magnetic Anomaly Detector (MAD), and Blue-Green LADAR; all supported by a multiprocessor system that can interpret the collected data, and display it in a graphical format, sometimes referred to as a "waterfall," on a screen or Heads-Up display. As advanced as this technology is and how it enables one to be more aware of their aquatic environment around them, there are two problems that still exist.

Despite being developed and used for over 300 years, operating these sensors is still more of an art than a science because of the constantly changing conditions of any body of water. Which means that a certain level of skill and training is still needed to fully understand the sheer volume of information that is given to the pilot or operator who must constantly multitask during every given moment.

The second problem represents an even greater dilemma for those who must go into the deep blue abyss: active or passive scanning.

Passive scanning is based upon observing and detecting the environment by using the already present noise, energy, or other local factors generated by other sources than the observer to interpret their surroundings. Sonar and MAD can operate in passive modes, and offers the observer the ability to scan while not revealing themselves by transmitting any form of energy which can be detected by someone else. This could be likened to a person walking through a forest at night by using the natural light of the moon/stars. But passive scanning has the problem of being limited in its scope of effectiveness or information that can be collected.

Active scanning is based upon observing one's surroundings by transmitting a pulse of sound or energy, and studying any reflections (echoes) that may come back. Active sonar and LADAR operate on this principle, and can give more of a detailed analysis of a target or environment, but at the cost of possibly revealing their position to someone else.

Laser Detection and Ranging:

Range: 1 - 2 Km

LADARs are a high resolution system that works on a similar principle to RADAR(which is ineffective in water), but using pulses of laser light in the so-called "blue-green" spectrum range instead of microwaves. Unfortunately, being an active scanning system means that it can be detected by another unit, therefore revealing the scanning units position as a result. Effective range can be affected by water composition, silt, or other floating matter in the water. LADARs are also capable of transmitting data to another unit or vessel while underwater.

Magnetic Anomaly Detector:

Range: 1.2 Km

MADs work by sensing the minute changes in the Earth's magnetic field caused by ferromagnetic objects passing through it. These sensors are often mounted in the form of "spikes," "booms," long "whiskers," or towed arrays to isolate them from the electrical systems or metal hulls of the aircraft, vessel, or avatar. MADs are passive in nature, and their effective range often depends on how large the target is.

Sound Navigation and Ranging:

Range: Special

Sonar is a technology that uses sound propagation underwater to navigate, communicate with or detect objects on or under the surface of the water, such as other vessels. The acoustic qualities of water allow for sound to travel much further than in air, making sonar a very versatile method of detection, but at the same time also making it very difficult to use due to how water can also distort sound.

Notes:

Due to the complex nature of sound, hydro-acoustics, and the ocean environment in general, to try to create a set of rules to cover all possibilities while also making it still playable is a very difficult task to undertake. The following is an attempt to hammer realism into a close enough shape to fit into a Mekton hexagon, instead of a square peg into a round hole.

Sonar can be affected by many different factors:

First, when setting up for an aquatic environment, it must be determined whether or not there is a thermocline in the area. Thermoclines often form due to the heating of the surface water, and creating a distinct boundary between the warmer upper layer, and the colder lower layers, which will cause sound waves to be refracted due to the changing of the speed gradient. Tropical areas will have deeper thermoclines than more temperate or arctic waters. Thermoclines can also form above areas with a large amount of volcanic or “black smokers.” Due to the refractive qualities of the thermocline, it is possible for a vessel or avatar to disappear from a scanning unit, even if detected, by slipping into or under the thermocline. But to do this, it must get ahead of the “bending/refracted” sound beam for it to start to lose its lock on it. The following chart shows the required distance the “escaping/hiding” target must be to be able to benefit from the protection of the thermocline. The chart was created using Pythagoras’s theorem if you were curious.

Depth:	Range from scanning unit:
0 m, or none:	0 hexes, 0 meters.
50 meters:	2 hexes, or 100 meters.
100 meters:	4 hexes, or 200 meters.
150 meters:	5 hexes, or 250 meters.
200 meters:	7 hexes, or 350 meters.
250 meters:	8 hexes, or 400 meters.
300 meters:	10 hexes, or 500 meters.

Second, due to the presence of thermoclines, and other oceanic features, it is not uncommon for “convergence zones” to form around a vessel or avatar that is trying to scan with its sonar suite due to sound waves bouncing off the thermocline, sea floor, etc. So it is not unusual for a scanning vessel to detect a target at 6 Km, lose it at 5 Km, and then reacquire it again around 4 Km. To represent this, for each turn a vessel, vehicle, or avatar must make an awareness roll difficulty 14, raised or lowered by the following list of modifiers. The GM can rule this as being a free roll, or requiring an action, but it must be done for each and every combat turn. If successful, the scanning unit has locked on to the target, and can keep track of it. If unsuccessful, the target is undetected or has managed to make the scanning unit lose its tracking solution on it. The scanning unit can make another attempt at detection of its target again in the following turn.

List of Sonar/Awareness Modifiers:		

Third, due to the issues of mounting such systems on a moving vessel or avatar, the sensor coverage can be interfered with by whether or not the unit is scanning while moving or stationary by the sounds of its own propulsion systems, or the water moving around it. When stationary, the sonar system has a 360° coverage. But when moving, the coverage is reduced to 300°; in other words, the rearward hex is a “blind spot” while in motion. Variable depth towed arrays are not hampered in this way, and have 360° coverage.

Resources and Credits:

Pictures:

“Moon base Alpha,” from the British sci-fi series Space:1999. Image copyright Carlton Communications.

Books:

The High Frontier: Human Colonies In Space by Princeton University professor Gerard K. O’Neill (1927–1992)

(1977, Morrow Press/Bantam, ISBN 0-553-11016-0; reprinted 1989, SSI Press, ISBN 0-9622379-0-6; updated 2000, Apogee Books, ISBN 1-896522-67-X)

Links:

Wikipedia (of course)

<http://en.wikipedia.org/>

Gundam High Frontier by Dafydd Neal Dyar

<http://www.dyarstraights.com/msgundam/frontier.html>

"What If All the Ice Melts?" Myths and Realities by Wm. Robert Johnston

<http://www.johnstonsarchive.net/environment/waterworld.html>

Ground Zero II, nuclear event simulator

<http://www.carloslabs.com/node/20>

Restricted Section – GM eyes only!

The following sections should only be read by the GM, or by those that the GM has permitted.

The majority of the information past this point deals with new developments in the game world's story line as the war progresses, and thus should only be revealed or used by the GM when they feel comfortable to do so.

You have been warned.



Multiplier Systems:

Self Repair Systems:

(from link: <http://www.mektonzeta.com/archive/selfrepair.php> by Mark Berger)

The Self-Repair Systems are a purely mechanical form of the techno-organics system mentioned in the Mekton Zeta Plus book. It represents several smart routines that can reroute controls and functions through other non-damaged systems to keep the unit going, while some physical repairs can be done by drones, or assisting tech crews. This system is found on most military and commercial ships, anything smaller than x10 scale is too small to make use of this system.

Self-Repair System: (x 0.1)

Self-Repair Systems are subject to the following rules:

- 1.) Self-Repair Systems are essentially a smart subroutine with miniature waldos and other similar systems moving about within the substructure of the mecha, drawing from a spare-parts reservoir somewhere within the mecha (which occupies one space). Because of this, each Servo is effectively one Space smaller inside (to make 'crawl ways' for the moving repair arms, and nervous ensigns).
- 2.) SRS can bring back any system that has taken 99% damage or less; anything that is completely destroyed MUST be repaired back at the nearest friendly base.
- 3.) SRS can not repair damage done to the mecha's structure, nor can it restore Kills, or regenerate ammunition or limbs.
- 4.) Propulsion Systems CAN be repaired, but they must first be shut down and cooled down for one minute (six rounds) before repairs can be effected. If you're in a universe where the propulsion system and the main power system are one and the same, then you're SOL.
- 5.) Unlike techno-organic mecha, mecha with SRS's are NOT alive and do NOT feel pain.
- 6.) Although the main power plant can be repaired (and its Explosion Save thus reduced), SRS will not prevent it from exploding if the XS is failed, nor can it reduce the XS below what it originally was (a Hot power plant can never get an XS below 5, a Cool power plant can never get an XS below 1).

Although self-repair systems are somewhat limited compared to other forms of Techno-Organics, they are far more efficient in terms of time used (repairing 10% for all systems per round active), and far easier for a technologically based society (like most sci-fi human societies) to design and implement.

Semi-Monocoque and Full Monocoque Construction:

(originally printed in V-Max #7, <http://www.mektonzeta.com/archive/monocoque.php>)

This is a multiplier system that allows for units to be built with more internal spaces, but at the cost of maneuverability. This represents the engineers using the hull of the avatar or ship to bear the weight of its components, rather than a central skeleton.

Semi-Monocoque: (x -0.05)

The hull only bear up to half of the unit's weight, internal space is increased by 25%, and your MV is increased by 1. The drawback is that your MV will never be able to be above -1.

Full Monocoque: (x -0.1)

The hull bears the full weight of the unit, internal space is increased by 50%, and your MV is increased by 2. The drawback is that your MV will never be able to be above -2.

Stealth:

Ever since the end of the second world war, various nations have experimented with different methods and technologies to make their vehicles, troops, or weapons harder to be detect by both defensive and offensive systems. Over time, this long line of technological evolution has produced many marvels of the battlefield that have for short periods of time ruled the roost as the king of the first strike, before eventually being undone by another of the newest developments in some other field.

Today stealth is still a widely used technology; the majority of all ONE vehicles and ships use some form of stealth in their design and construction to reduce the chances of their being detected by an enemy aggressor. Though for the last nearly 200 years, ONE has been the only political or military body on Earf that has had the resources to field any form of stealth forces. And because of this it has held a very comfortable position as the "top dog" over all non-member countries. And because of this cozy situation, some have long said that their technology base has actually been stagnant for some time. Whether this is truly the case or not has come under further question ever since hostilities started with the Cosmic Heavens, and the introduction of the Babel Particle to the battlefield.

Rules:

(Inspired by <http://www.mektonzeta.com/archive/advstealth.php>)

The following is for what is termed "passive" stealth, or otherwise known as "low observable technology," which covers the majority of technologies that attempt to avoid being detected from long range. To simplify things, there are three levels of stealth to balance out the possible systems that might be encountered. And keep in mind that the following only covers stealth in surface, air, or space combat. Underwater stealth is a different set of circumstances.

Basic Stealth: (x0.15)

Limited application of stealth, the unit can not be detected or tracked by ASP, or Spotting Radar at long ranges. Can still be visually seen.

Stealth: (x0.2)

All the same functions as basic stealth, but reduces the effective range of a unit's sensor package by half.

Advanced Stealth: (x0.3)

All the same functions of the other two levels, but the unit is completely invisible to everything but visual sensors. Without using Resolution Intensifiers, the unit can be spotted and engaged by enemy units at 20 hexes away. But if they loose line of sight with the unit, such as leaving their field of vision, they can no longer engage it until their field of vision falls upon it once more.

A rough guide for determining the field of vision is based on what control system the unit is using:

- Manual controls:** Normally restricted to the sixty degrees in front of the unit.
- Screen controls:** Normally restricted to the one hundred and eighty degrees in front of the unit.
- Virtual controls:** Normally covers the three hundred degrees in front of the unit.
- Reflex controls:** Normally covers all three hundred and sixty degrees around the unit.
- "Other" controls:** Defined by the GM, but could be the same as Screen, Virtual, or Reflex.
- Thought Control:** Again, GM's call. But could be defined the same way as "Other."

Targeting Computer Systems:

(Source: Mekton Zeta Tactical Display, page 24.)

This system works much like the maneuver verniers for your mecha, but affect the MV only for long range attacks and nothing else.

Targeting Computer System: (x0.05 per +1 to MV for shooting.)

The targeting system takes no space from your mecha, but it is tied to your main sensors, and is disabled when the main sensors are destroyed.

Increased Ground Movement:

To allow for a wider variance in ground speeds between different units, use the following:

Increased Ground Movement: (x0.1 per +1 MA to ground MA.)

Additive Systems:

After-Burning Thrusters:

(from link: <http://www.mektonzeta.com/archive/afterburners.php>)

These are a class of thrusters designed for higher performance than what normal thrusters can do. They can generate an additional 50% thrust output over their normal operational levels, but consumes four times the normal amount of fuel.

Cost: (weight x 0.045 CP per MA) or (weight x .36 x (MA / 8))

Amphibious version, can be used underwater:

Cost: (weight x 0.054 CP per MA) or (weight x .432 x (MA / 8))

"Belted Armor" or Multiple Armor Layers:

(from link: <http://www.mektonzeta.com/archive/beltedarmor.php>)

Through out naval history, some armored ships would have two or more layers of armor. One layer, usually above the water line, was just a single layer of armor. Below the water line, a "torpedo belt" which consisted of a light layer of armor designed to set a torpedo off, and a heavier internal belt designed to deflect an explosion. Most combat starships in MZ and MZ+ consist of outer armored hull (SP armor), and the internal, load-bearing pressure hull (kills structure). However, some ships will add multiple layers of armor, designed to take more abuse. Zentraedi ships, for example, don't have any energy shields, but can take frightful amounts of damage before they die due to their armor.

Cost: Each additional layer above the first one costs twice as much as normal after factoring any refined armor costs before scaling.

Besides the already existing limits on armor, there is no limit to the number of layers possible, except for cost and weight, to the amount of layers that can be bought.

Any type of unit can purchase belted armor. Physical shields can be upgraded to have belted armor as well, the additional layers of armor are purchased as normal as if the shield is a servo.

When a unit with belted armor is attacked, the first outer layer of armor takes the damage, with any excess damage going to the next layer, then the next until the full damage amount has been applied.

Only nuclear and mega-beam weapons (in the unit's scale) can attack multiple armor layers.

Nuclear weapons do damage to belted armor at one layer per hex of blast radius.

Mega-beam weapons (in scale with the target unit) attack ALL layers of armor at the same time.

Each layer of armor provides protection to the layer below, up until the armor's SP is destroyed.

On a unit's status sheet, the armor layers are written like this: 100abl/50/50. This means that the first layer is 100SP of ablative armor, 50 SP of standard armor, and another 50 SP of standard armor. Layers are read from the outermost one to the innermost layer.

"Caterpillar Drive," Magnetohydrodynamic Drive or MHD Propulsor:

(from link: http://en.wikipedia.org/wiki/Caterpillar_drive)

These refer to the type of MHD propulsion systems seen in some science fiction movies where water is used as a propellant by electrifying it, and using a series of very strong magnetic fields to direct it out as thrust in the desired direction without the use of moving parts.

As mentioned in the Mekton Plus Advanced Technical Manual, these systems act like "aquatic only" gravitic propulsion: they cost as much as normal thrusters, grants a +33% to your maneuver pool, uses no fuel, and are affected by movement modifiers based upon the unit's form, and what not.

G-Compensator:

(from link: <http://www.mektonzeta.com/archive/gcompensator.php>)

The G-Compensator represents extra equipment and support technology, in this case a G-Suit, which allows the pilot (and/or passengers) to survive the effects of pulling high G maneuvers.

A G-suit is a special garment and generally takes the form of tightly-fitting trousers, which fit either under or over (depending on the design) the flying suit worn by the aviator or astronaut. The trousers are fitted with inflatable bladders which, when pressurized through a g-sensitive valve in the aircraft or spacecraft, press firmly on the abdomen, legs, and lungs thus restricting the draining of blood away from the brain during periods of high acceleration.

Space: One Space located in the same Servo as the Cockpit

Cost: 5 CP per 1 MA beyond the 12 MA acceleration limit

A mecha requires one G-Compensator for every Cockpit (of any type) and for each passenger compartment that is occupied or they cannot expend more than 12 MA in a single Turn. If they do so, those unprotected are struck with unconsciousness for 11 - Body Type in Turns.

Weapons:

Melee Weapons:

Some units are equipped with melee weapons in the forms of hydraulic claws, reinforced edged weapons, or even chain saws. Some melee weapons also will heat up a sharpened edge with energy from the unit's power plant to add the cutting ability of the weapon, while others may in fact be a long whip like foil that is brought up to an extremely high temperature to generate the same effect. Other more exotic weapons make some limited appearances during the war, including entangling whips or weapons capable of delivering stunning, if not lethal, amounts of electricity into their targets. Refined armor types do not grant any additional protection from shock type attacks, and protect in the same way as standard armor.

Energy Melee Weapons:

See Flamberge in Babel Particle section. During the war, some specialized equipment such as plasma cutters are converted into usable melee weapons with some success. But otherwise, no other types of energy weapons are created or used.

Weapon Travel Times:

- Travel Time rules are used as explained on page 93 of the Mekton Z book.
Beam weapons will hit instantly.
Projectile weapons in space or an atmosphere will travel at 30 MA.
Missiles in space or an atmosphere will travel at 40 MA.
Regular Torpedoes will travel at 10 MA. Supercavitation weapons are covered in their own section.
Other effects can come into play as per GM's decision. The GM's word is law, you can bank on it.

Beam weapons:

Lasers are not as widely used as researchers in the past may have hoped for. Power issues are still a main problem, as well as being obscured by dust and smoke on the battlefield. As with earlier lasers, all of the energy of the beam is concentrated on one point, and the resulting energy conversion is fairly low. Very few vehicles carry them, and the most powerful ones in use are often in static structures, orbital platforms, or space ships.

Laser weapons have been produced in personnel sized versions, such as rifles or pistols, and are fairly common for military and civilian use. They are the only available type of fire arm in space since the risk of doing great damage with them is much lower than with projectile weapons.

Particle weapons are in use on space ships, often in support of kinetic kill weapons such as missiles or rail guns. And with the discovery of the Babel particle, new classes of massively destructive energy weapons have been developed for warfare such as the Lucifer Cannon.

One draw back to all forms of energy weapons is their inability to work underwater.

Projectile Weapons:

This class of weapons has not really changed much for several millennium, still using explosive propellants to launch solid projectile rounds to hit their targets to do damage to them. Most of the commonly used guns use chemical charges to shoot with, as well as use the resulting gases to clear and reload their chambers for the next shot, or other such systems. Generally, guns can not be used under water. But if they purchase the "Tunneling special effect" described in the missiles and torpedoes section, they can be used both underwater and in the air.

The larger cannon used on vessels though are often based upon electromagnetic acceleration methods to accelerate their rounds to do larger amounts of damage, though few if any such weapons ever make their way to being small enough to be carried by anything smaller than a ship.

Anti-Missile Weapons:

Any anti-missile weapon, or weapon with a burst value, can be used to defend against a missile attack aimed at another target besides itself, as long as the anti-missile equipped unit is near the intended target, or in the general direction/path of the missile attack.

One draw back is that only beam or anti-missile weapons with the hyper-velocity feature can shoot down hyper-velocity missiles or torpedoes (see supercavitation).

Missiles and Torpedoes:

Missiles have pretty much remained unchanged from their earlier cousins over a century ago, except in their greater ability for accuracy and destructive potential. For game play, missiles are treated as normal, except that Missiles may not be used underwater, or be fired at a target under water while over the surface, unless they have purchased the tunneling special effect, or the Smart missile ability(see ASROC).

Torpedoes are missiles designed for use in or underwater. Torpedoes may not be used out of the water, or fired from the water at a target above the surface, unless they have purchased the tunneling special effect.

Tunneling Special Effect:

(from link: <http://www.mektonzeta.com/archive/newmissile.php>)

The tunneling special effect allows a missile or torpedo to be able to change from traveling through one medium to another, IE from air to water, and vice versa. But once the medium change is made, there is no going back to the original medium.

Cost: x 1.3 modifier

ASROC, Anti-Submarine Rocket:

ASROCs are a special type of weapon, using a missile to deliver and deploy a homing torpedo to an area when an enemy submarine has been detected by the ship, or another vessel or aircraft. In mid-flight, at a predetermined point the missile will release the torpedo. At that point, the torpedo will use its own guidance system to proceed to hunt down the targeted submarine. ASROCs can be carried by either ships, aircraft, or even submarines. Though in the case of submarines, the ASROC is launched out of the firing tube in a sealed container which will float up to the surface, and then fire the missile to deliver the torpedo. Submarines will need to be submerged in shallow waters (0 to 50 meters from surface for sake of simplicity) to properly fire the weapon.

Rules for ASROCs:

To replicate the same function and effects in the game, use the rules for Smart Missiles to represent the missile and torpedo combination. Target and roll to hit as normal.

Avatars:

One of the major innovations that was introduced by the war was the massive machines known as Avatars; 17 meter tall anthropomorphic combat weapons that combined speed, maneuverability, versatility, adaptability, and high firepower to be able to fight in the new environment of modern warfare where the centuries old established philosophy of “beyond visual range” combat is made impossible.

In some respects, the avatar machines are a culmination of the Cosmic Heavens religious and/or philosophical beliefs in granting their “angels” the tools to focus and direct their wills to shape the world and universe around them. To others, the reason these machines were built because few things are as terrifying as a metal giant looming over you as it destroys all that you know and love, a psychological effect that has not gone unnoticed with the Cosmic Heaven forces.

Despite the advanced technology that has gone into creating the Avatars, some technological limitations have yet to be overcome. The majority of all Avatar ranged weapons are projectile based using chemical propellants due to the high power demands of energy based weapons.

Gaming Notes:

Avatars are built as normal per the Mekton Zeta Plus rules, with a few twists.

Keep in mind that you will need to try to be consistent and stay with in the same design lines as the machines shown in this book, unless you can justify the deviancy from the established design philosophy in one way or another.

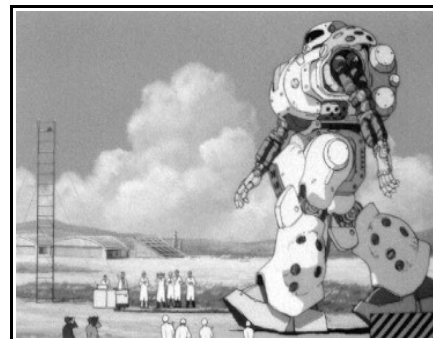
The majority of all avatar machines created in this universe have the same general characteristics:

- Each avatar machine is built with a Babel Particle reactor, a PM3L, and a “Dimensional Holster.”
- In addition, avatars are built with additional stat bonuses such as ACE, or stat boosters, which is one of the things that sets them above other combat machines.
- There is also no modifiers or handicaps for having sensors mounted in any other servo besides the head.

Other Design Notes:

The ground movement tables for Avatars are different than what is in the Mekton Zeta Plus manual.

Tons:	Ground MA:	Tons:	Ground MA:
1 to 19	8	70 to 79	4
20 to 29	7	80 to 89	4
30 to 39	6	90 to 99	3
40 to 49	6	100 to 109	3
50 to 59	5	110 to higher	2
60 to 69	5		



Calculating MV and MR:

Based partially on or has been influenced by the rules suggested by Benjamin Wright's “MS Gundam in Mekton Z Version 1.3”

(Link: http://gundam.wikia.com/wiki/Running_Mobile_Suit_Gundam_in_Mekton_Zeta)

Despite their awesome power, Avatars and other such machines can be a limiting factor upon their pilots as their skills and abilities reach greater and higher levels of performance. Thus, the rules regarding Maneuver Value and Maximum Reflexes are handled differently.

Add 10 to the MV; this number is the Maximum Reflexes that the avatar will be able to accommodate.

Compare to the pilot's Reflexes; in avatar combat, always use the lower of the two numbers. Hence, a slow avatar will hinder a hot pilot, and a high powered avatar will not meet its full potential with a slow pilot. A Positive MV (aka, an MR over 10) can only be utilized effectively by an fully Awakened pilot. (see the section on Awakened Minds on pg 92)

(Example: Maneuver Value -6 = Max Reflex 4 (10 + -6)

Pilot #1: Ref 8, AM 3, Piloting +3, (Ref + AM = 8 + -6 = 2. Obviously in normal circumstances, this pilot will not be pushing the limits of this machine. But if they were to improve their Reflex stat, or gain a bonus such as from their AM stat, the pilot is still limited to being no higher than 4 due to the MR of the avatar.)

Flight Propulsion:

Due to their general non-aerodynamic shape, avatars have a rather large problem with their thrusters overheating when in flying in an atmosphere when on Earf, thus limiting their use to being stuck on the ground. This is not so much of a problem inside of a colony cylinder, as most avatars can reach a high enough altitude to be in the zero-gee area in the center of the cylinder.

Gaming Notes:

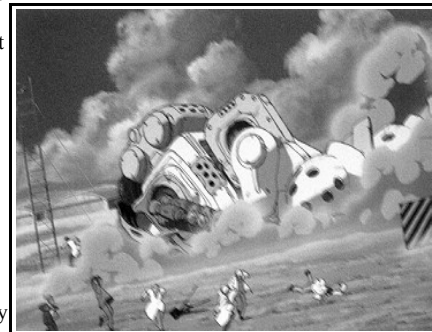
So when using thrusters and after-burning thrusters in an atmosphere, they will overheat on the second turn of flight, shutting down automatically on the third. This could be prolonged by making a Pilot Mecha or Tech roll vs DL 16 to buy the avatar an extra turn of flight, but each turn thereafter has a +4 difficulty cumulative modifier. GES and other forms of propulsion do not have this issue.

PM3L, or Prime Mover - 3rd Law auto-control system:

One of the main advancements that allowed for the creation of the anthropomorphic combat machines known as avatars, is a fairly sophisticated AI control system that allows for thruster-less maneuvering in the zero-gee environment of space by means of precise movement control of their limbs and mass. By utilizing Sir Isaac Newton's Third Law of Motion, “*when there's an action there is an equal and opposite reaction,*” the PM3L can use the avatars natural inertia to change direction without expending more energy than necessary.

In addition, the PM3L also acts as an extension of the pilot following their movements and actions, like a muscle that acts directly to produce a desired movement amid other muscles acting simultaneously to produce the same movement indirectly. Essentially, the control system can do basic tasks as fly, walk, or keep an eye out while the pilot is busy with other concerns such as fighting or reconnaissance. On its own, the PM3L can do some rather remarkable things such as start up the unit, walk towards a certain point, lift up the pilot to the cockpit, etc. Also it is the system that allows for the smooth operation of storing and changing weapons, or reloading as it already has the information and awareness to do such tasks. It can not fly towards a target, fire its weapons while dodging incoming fire, and be expected to pull it off without being destroyed due to its lack of creativity or being able to compensate for a rapidly changing environment.

Unfortunately, due to the different natures between different pilots, it is often difficult to come up with a standardize program to simplify production. In most cases, pilots and PM3Ls will need to be “trained” together for many hours of flight time and practice to fully synchronize with each other to be an effective “team” so to speak. Though it is possible for a pilot to take the recorded template from one avatar to another similar avatar with little or no problem. But if the two machines are totally different in performance, this may cause only more problems.



Gaming Notes:

Each avatar is built with an IA system, usually level 3 or 4, with a small portfolio of skills such as mecha piloting, awareness, zero-gee maneuvering, and teaching. Other skills are possible such as mecha gunnery. Though normally the PM3L is not tasked with any offensive skills since that is the function of the pilot to direct his will and his machine together as a single tool.

“Dimensional Holster:”

This system is a “gimmick” of sorts to give Avatars an advantage, and yet keep things simple at the same time. The Dimensional Holster is a “toned down” version of the Dimensional Storage option from the Stupid Mekton Tricks section of the Mekton Zeta Plus book. Some Avatars will not have this feature, such as those not equipped with any hand held weapons or extra ammunition for hand held weapons. These exceptions will often have their weapons built into their limbs, and are not as adaptable.

Gaming Notes:

Cost: X 0.05

For all gaming purposes, the Dimensional Holster acts like a “pocket dimension” where all hand held equipment or spare ammunition clips for an Avatar is kept when not in use. It takes one action to switch weapons or equipment. Such as switching from holding a one handed gun and a one handed knife for a two handed rifle is only one action. Command armor can not be stored or retrieved in this manner, just the hand held toys.

And like the original stupid Mekton trick, any weapons put away in this pocket dimension can not be accessed by anyone else, nor can be destroyed. (Unless the GM wants to “surprise” a player or two by making a “special one time exception” to make a situation more tense than before.)

But unlike the original stupid Mekton trick, all equipment and weapons that are hand held and able to be stored in this manner will add their full weight to the unit, even when they are put away. There had to be a drawback some where to this.

Nephilim:

Nephilim are a much larger scale of Avatar, in some cases several times the size of a standard unit or even being the same size as a small ship. Normally constructed as an experimental unit, or for further specialized purposes, Nephilim are designed to meet one or more of the following requirements: high speed, high maneuverability, high firepower, or high defense. Often as a result, only one or a few of those requirements will ever be met while at the expense of the other goals due to design constraints.

Powered by one or more Babel fusion reactors, and utilizing the same PM3L control systems, Nephilim often do away with an anthropomorphic form altogether to fulfill their design parameters. Through out the war several Nephilim are used to varying levels of effectiveness, leaving some to doubt as to their actual tactical or strategic value other than as wonder or terror weapons.

This classification is broken down into three further categories:

Zizs:

Any large scale war machine much larger than an Avatar meant for use in space, or long term atmospheric flight. During the war, none were capable of reentry into or escaping Earf’s atmosphere on their own.

Behemoths:

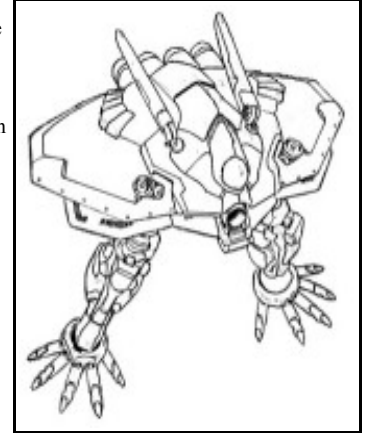
Designation for any large scale war machine, much larger than an Avatar, meant for ground operations on the “Demiurge Front,” and main mode of movement is not flight based.

Leviathans:

Designation for any large scale war machine or vessel, much larger than an Avatar, meant for operating in aquatic environments.

Gaming Notes:

Since Nephilim are such large machines and are often not even anthropomorphic in shape, they would really have little use for the Dimensional Holster feature in their design, thus they are not required to purchase it during their construction phase.



Babel Particle Physics and Related Technologies:

The Babel Particle:

Genesis 11: 6 - 7 *And the Lord said, Behold, the people is one, and they have all one language; and this they begin to do; and now nothing will be restrained from them, which they have imagined to do. Go to, let us go down, and there confound their language, that they may not understand one another's speech.*

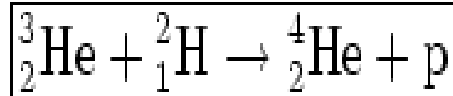
During testing of the Babel-Prince reactor in 106 AT, a very odd electromagnetic wave effect was detected that could not be explained by the then conventional physics of the day. The strange phenomenon would eventually be isolated to a newly discovered form of particle discovered by Miguel Babel and his then colleague Antoine de Prince. In 109 AT, the new "Babel Particle" was announced to the scientific community, which then questioned their findings and refused to accept their work as being credible. This caused their prospects of securing further funding to explore this new discovery further to collapse. All seemed lost until a personal invitation from Daniel Angelus himself, the High Lord Dominion, to continue their research in to the newly independent Cosmic Heavens nation.

The "Babel Particle" is perhaps one of the most curious types of particles known, and would open up its own branch of physic research in the future. But with its great potential to create a whole new form of "clean" nuclear fusion power, its potential for use in warfare has caused more and bloodier wars than any other discovery in the history of creation.



Several characteristics of the Babel particle:

- It had a near zero rest mass, and increases to reflect its potential or kinetic energy.
- Could possess either a high positive or negative electrical charge.
- A very unique ability to absorb many forms of low frequency electromagnetic radiation such as radio, and microwaves.
- Able to interfere with frequencies in the visible to infrared light spectrum.
- When released into open space or an atmosphere in high concentrations, the electrical charges of the particles caused them to naturally spread out in a uniform three dimensional cubic lattice over a large area.
- And when released in high concentrations, not only does their special properties disrupt wireless communications and radar, but their high electrical charge also creates a continuous electromagnetic pulse that can destroy unshielded electronic devices and systems.
- Babel particles can not penetrate solid matter, such as metal, water, rock, or dirt.
- Their decay rate is roughly forty days after release into an open space.
- When Babel particles are compressed via strong electromagnetic forces, the electrically positive and negative charged particles fuse together into a new form of electrically neutral heavy particle, called a "Lucifer Particle," that can be released in the form of a devastating directed energy projectile or beam. (See Lucifer particle cannon)
- There has also been the observed additional effect of particle, or electromagnetic radiation based attacks such as lasers, being deflected by extremely high concentrations of Babel particles. This phenomena has rarely been fully demonstrated so as to be properly observed or studied to be understood, currently theories suggest that if enough energy was available to create a high enough density of Babel particles, even blasts from Lucifer particle cannons could be stopped, deflected, or even reflected back to its source. (See Halo Barrier system.)



The Cosmic Heavens had thought that the use of the Babel particle would ensure them an total advantage in their war against ONE and the other forces on Earf, but a major setback was discovered when it was realized that Babel particles could not create the same effects underwater. This was not expected by their scientists who have no real aquatic environments in the orbital colonies to test for these issues, this has caused a major rethinking of their future weapons development.

Babel Particle Fusion Reactors:

One of the first uses of Babel particle was in the design of a new generation of fusion reactors, using the particles to form a compressed magnetic field to not only start a fusion reaction but to maintain it through out its operation. This development greatly reduced the amount of shielding and redundant systems normally needed for a more traditional fusion reactor. As long as the reactor is running and producing energy, the babel particles can be recycled continuously back into the compression fields.

In addition, it was also discovered early on that the Babel particle emitters of a B-P reactor could be used to create a field around the vessel or avatar to effectively jam or disable other ships, vehicles, or unprotected electronic devices. Even though the sensors of the emitting avatar would be just as blinded as an enemy's would be, it gave the Cosmic Heavens' forces an advantage to use against the space forces of ONE.

The main drawback to this system though is if anything were to disrupt the fusion reaction or the magnetic fields containing the reaction would lead to a very large explosion.

Gaming notes:

"With great power comes great boom!" - Due to the fewer safety systems in the design of a Babel Particle fusion for Avatars, they tend to explode with a much more spectacular effect. Power plant explosions for Babel reactors are handled slightly different than what is described in the Mekton rule book on page 104:

- "Cool" systems explode like a blast 2 area effect weapon, with targets in the blast 1 radius taking 1D10 Kills, and 1D5 Kills in the blast 2 radius.
- "Hot" systems explode like a blast 3 area effect weapon, with targets in the blast 1 radius taking 2D10 Kills, targets in the blast 2 radius taking 1D10 Kills, and finally targets in the blast 3 range taking 1D5 Kills.
- In addition for both "Cool" and "Hot" power plants, the area in the full blast radius will be contaminated by babel particles equal to the original rank of the babel system that was on the formerly existing unit.
- Units that have a Babel fusion reactor can scatter their particles at the cost of one action. This is represented in the game as each equipped unit carrying an ECM suite of Radar, Missile, and Sensor jamming with a radius effect, which is mated to the power plant instead of the sensors as normal. Once on, it will stay on unit the unit uses another action to shut down the scattering system. Any units that are within the radius range of a Babel reactor equipped unit while it is releasing its Babel particles, including the releasing unit itself, will start to suffer from the effects at the same time.
- Any unit that does not have EMP protection will start to suffer from the effects of EMP as described in the Mekton Zeta Plus manual, and will last until the affected unit has been overhauled in a hangar or repair depot after 1+D6 days.
- The ECM effects will function as normal, with the additional effect of if the sensor ECM rating is enough to bring the effective level of an enemy's sensors below that of Super-Light, the sensors are then considered to be temporarily "destroyed" until the enemy unit manages to get out of the area of effect. If the enemy unit happens to come under the area effect again, its sensors are once again considered temporarily destroyed till it can get back out again.
- The refracting properties of the field created by the Babel particles obscures normal vision much the same way as the basic cloaking system in the Mekton Zeta Plus manual on page 75. While in the particle field, all units act as though they are "cloaked," and can only see each other if they pass their observation rolls. If they are greater than ten times the others height from each other, to successfully spot the other unit they must pass a Difficult INT + Awareness + 1D10 roll (vs 20+). If they are less than ten times the others height, they only need to roll better than 15+. Those who have made their observation rolls are assumed to be able to retain sighting on the other unit it can leave their field of vision. Height is often determined during the design process, and can be found on the unit's stat sheet. Though a rough rule of thumb that can be used in cases where it is not mentioned is Torso Kills x 1.5 = height in meters.
- Babel particles on their own can not penetrate into bodies of water, so while submerged an enemy unit is protected from the effects. But if it were to surface while in the presence of a Babel particle field, it will suddenly start suffering the full effects as described above.

Lucifer Particle Cannons:

Named after the “morning star,” the Lucifer particle is formed after a large amount of Babel particles are compressed into each other by a series of strong magnetic fields to form the heavy electrically neutral particle. Then several other specially shaped compression fields are used to project the resulting particle beam out of the cannon.

Extremely devastating, even indirect hits from a Lucifer Particle Cannon can cause a great deal of damage to a ship, building, or avatar. When struck by such a beam, the Lucifer particles annihilates any solid matter that it comes into contact with, releasing a large amount of energy as a result. This frequently can overload the systems of a target that manages to survive such a blast, very little protection is available against these effects.

The main problem with Lucifer Particle Cannons is the massive amount of power needed to run them, and the large amount of Babel particles required to compress to make just one beam blast with. For the time being, only the larger reactors on ships can power them, and even then it can take several seconds for it to be recharged in between shots. Besides avatars, Lucifer particle cannons are one of the other major weapon systems that were given high priority in development during the war. All ships carry them as their main armament, but can not fire them consistently without long recharge cycles in between blasts due to the high power requirements. And the goal of miniaturizing the weapons so that they could be used by smaller craft or avatars remained an elusive one throughout most of the war.

Gaming Notes:

All Lucifer particle cannon have the same general characteristics:

They are treated like a regular beam weapon, damage rating 10 Kills or higher. But **MUST** have purchased both *Mega-Beam and “kinetic” effects. Can not have any anti-missile, or anti-personnel options. But can have a burst value, wide angle, or long range as additional abilities. When designed, they **MUST** also have a limitation of either a warm-up time (available only for ships or nephilim), or limited shots (avatars and other small machines).

*Mega-Beam is used in this case to reflect the destructive power of Lucifer particle weapons without having to use out of scale weapons, all the while keeping some limit to prevent things from “getting out of hand.” In doing so, x1 scale machines will require the purchase of mega-beam, while x100 scale vessels will need to do the same but be limited to being no more than x10 scale. Meanwhile, x10 scale ships/machines are not required to purchase it. This may be confusing at first, but after some game play it will become more clear to you why this was done.

Cost: x 1.66 modifier for kinetic effect, in addition to all other modifiers.

Particle Beam Scourges:

An attempt to build a different type of particle weapon that could have the same level of firepower as the Lucifer particle cannon, but with a much higher rate of fire. The end result was a much less powerful weapon, but it could be fired continuously in several bursts. And with the simpler technology in comparison to the Lucifer particle cannon, it was easier to create a condenser system to store the necessary amount of babel particles to fire the weapon several times before needing to recharge.

But despite the simplicity of the design, it still took a good part of the war to miniaturize it or to make it robust enough to be useful for smaller machines.

Gaming Notes:

Treat like a regular beam weapon, damage rating is kept in the 1 to 4K range, but must have a burst value of 3 or higher, and have limited shots.

Can not have mega-beam, long range, or anti-personnel. Can have anti-missile.

“Arbatel Flash” Defense System:

During testing of an early production model of a particle beam scourge, a failed accelerator coil did not generate the expected particle burst as it was designed to due to an unforeseen design flaw. While investigating the cause of the failure, further testing showed that the whole design of the particle beam scourge was a failure and would require a whole redesign. But before everything was sent to the scrap heap, another series of tests showed that the device was very capable of not only being fired continuously with a high level of reliability, but that it was able to blind sensors and cameras. At the same time, a study by one of the other virtues choirs showed that the effectiveness of Uriel flare bombs were dropping due to ONE's advances in sensor technology and combat training, and that a new version would be required in the near future. And in what would be called an ingenious move in marketing and packaging, the failed weapon was branded as a new particle flash defense system to the Powers procurement choirs.

Gaming Notes:

Even though it is a beam weapon, it does no real damage. Use the normal rules for Flare missiles: when fired, it acts as a flare with the firing unit acting as the center of the flare attack. The area of effect is determined by the weapons range and wide angle. Flare effect drops off by -2 Kills for every hex outside of the area, etc.

When designed, it must have a wide angle and a warm-up time. It can have a Bv if wanted. No other options are allowed, or would improve the weapon much.

Cost: Same as normal.

“Comet Quiver,” “Leyden Jar,” B-Cap, or the Babel-Prince Particle Containment Unit:

Created by Antoine de Prince after the death of Professor Babel, the BPPCU is a special containment device that can hold for long periods of time several “bursts” of compressed babel particles held with in individual magnetic containment fields. When the system is recharged, each of its separate containment chambers are filled with highly compressed babel particles and are held in place until a second magnetic field pushes the charge into its full burst, which can be provided by the reactor of a smaller vehicle or Avatar. The first prototypes allow for an Avatar to carry a Lucifer particle cannon into battle, though only with a limited supply of shots, which must then be recharged outside of battle when exhausted. Later versions allow for the BPPCU to be replaced by the equipped Avatar through the use of replaceable “ammunition clips” while still in battle instead of needing to replace the whole weapon. This technology is a closely guarded secret of the ONE's weapons development program.

Gaming Notes:

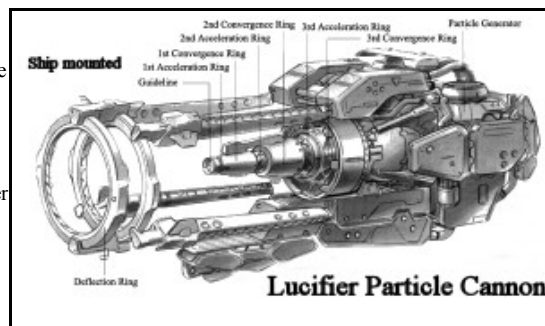
This technology allows avatars and smaller vehicles to be able to carry and use Lucifer particle cannons without the need for a warm-up time. Though during the war, early models had to replace the whole weapon once all the compressed particles had been exhausted with a fully loaded one. By the end of the war, the “energy clips” were made available for avatars to be able to replace them while in combat, without being required to return to their ship or base to exchange weapons.

Flamberge:

Perhaps one of the most novel weapon system developed from the Babel particle is the “Flamberge” or known as the “Flaming Swords” created by the Cosmic Heavens and ONE as a form of close combat weapon. Consisting of a “hilt” with a series of Babel particle emitters held in the avatar's hand, and either plasma from the unit's reactor is pumped into it, either directly or via a rechargeable specialized container. The particles are forced into a blade shape by magnetic fields, and the plasma is pumped into the cavity in the middle, when the weapon hits a solid object, the Babel particles are parted and the plasma inside is allowed to cut through the object, like a proverbial knife through hot butter. Many other blade shapes were used during the war, including axes, pikes, sabers, etc, but are collectively known as Flamberges.

Gaming notes:

Follows the same rules for EMWs in the Mekton Zeta Plus book, though during this time of the war “beam shields” are not available, and no EMW may have an attack factor. All EMWs must have a limited turns in use, and can be rechargeable. Other options such as hyper or thrown are possible.



Halo Barrier System:

It had been observed during testing and some combat conditions, that when the density of Babel particles reaches a certain level of concentration energy attacks are interfered with, even to the point of being deflected away from the point of concentration, including Lucifer Cannon shots. Some prototype units have been equipped with several specialized Babel particle emitters to create what has been called a "Halo Barrier," due to the glowing ring that forms around the unit. This system requires a great deal of power to generate and to maintain for long periods of time, most generators designed so far have a limited life span of a few minutes before they completely burn out from the strain.

Gaming Notes:

Treat as a Reflector system with the following modifications:

Halo Barriers will collapse if they are struck by an attack that does more than three times their reflector quality in kills, and will need to be reset.

If struck by an attack that does four times their reflector quality in kills, it will go down permanently until it can be repaired at base.

No reflector system can have a Reflector Quality below 5, or over 10. All costs for Reflector quality remains the same.

Use the cost modifiers from page 44 of the Mekton Zeta manual under Shields for Reset Time and Turns in Use to add the special functions and effects listed.

Can have the following weaknesses from the Shields section: "Ranged Only," "Enclosing," and "Offensive" for the same costs listed.

Can be rechargeable like EMWs for the same cost of x1.1.

And now for the kicker:

The Halo Barrier can not be used in anything below x10 scale.

Space efficiency can be used to reduce the amount of space that the system takes up, but it can not be reduced below the base cost of the Reflector quality.

Nor can the cost modifiers reduce the amount of space below its initial cost.

Example #1: a Halo Barrier with a quality 5, 3 turns of use, ranged only, and enclosing may only cost around 4 points, but it will still take up 25 spaces.

Example #2: another Halo Barrier with a quality 8, unlimited turns of use, 0 reset time, and enclosing will cost 320 points, and take up 320 spaces. But more points can be spent to shrink it down, but not below 64 spaces.

Babel Particle Thrusters or Ophanim Hover System:

Another application discovered while experimenting with Babel particles and magnetic fields allows a ship to "hover" on a cushion of particles between it and the ground, making for an effective method of travel for space ships that have entered the atmosphere of Earf, as well as a energy based heat shield for reentry. Due to the space requirements, only ships or very large constructs can use this system. ONE refers to their system as the Babel Thruster, while the Cosmic Heavens refer to theirs as the Ophanim Hover System.

Gaming Notes:

Treat like Anti-Gravity propulsion at twice the normal cost, but the height that can be maintained should be limited to only a few hexes above ground level, any structures or obstacles that the ship is floating over will not affect it. Due to the space requirements of the system, no vehicle under x10 scale can use it.

In addition, a space ship or craft can use this system to generate a cushion of particles to allow it to enter Earf's atmosphere, or any other planet's, from orbit. As long as the craft has power, it can use the system as many times as it wishes. Keep in mind, this system will allow a ship to reenter the atmosphere, once it is past the upper atmosphere and entering the cloud level, it will need to use an additional flight system to slow itself down with. Otherwise when it gets close enough to the ground after plummeting from a great height, it may suffer structural damage due to the sudden stop, crash into the ground any way, or even possibly bounce several times depending on how cruel your GM might be.

Project: "Discordia" or B-Warhead:

Developed as a continuation of the "Comet Quiver" containment system to create a method for longer range dispersal of Babel particles on the battlefield. The system was simplified as the particles were not required to be kept in a compressed state before release, but problems occurred with spreading them out evenly or quickly over a large area. After a long series of tests, a warhead was created that could hold the particles until needed and was small enough to be carried by a space ship borne missile. The development project was kept top secret throughout the war as most of the technologies involved were related to the miniaturizing of the Lucifer particle cannons for avatar use.

Gaming Notes:

The B-warheads function as normal missiles except they do no damage; when they explode in a given hex, the surrounding area is contaminated by Babel particles, and act as though there is a Sensors, Radar, and Missile ECM suite functioning at the same level as the missiles Kill damage. In addition, the area suffers from the effects of Scatter, which disrupt energy weapons as described in the Mekton Zeta manual. The effects are only temporary, and will cease their effect after Kill/2 turns. B-warheads must have a blast radius.

Cost: x 15 cost, in addition to the cost modifier for the required blast radius.

Project "Sol Invictus," or Babel Propulsion Pulse Unit:

Another spin off from the development of the "Comet Quiver" containment system, its original proposed purpose was to create a device that could create an instantaneous pulse of energy for use in spacecraft propulsion, offering both high thrust and high specific impulse at the same time. Even though the propulsion aspect of the project was top secret, this was only a cover for the real purpose: to create a new form of devices to equal the destructive power of nuclear weapons, but able to bypass the limitations brought about by the "Treaty of Olives." The challenges were greater for the design of the device as the compression of the Babel particles had to be done in a way so as to create the proper conditions for the creation of Lucifer particles, but also to do it so as to cause as large of an explosion as possible. During testing it was realized that even though the energy created did not exactly equal the power of a nuclear bomb, about 90% of the energy that was created could be directed into a very small cone of fire that would annihilate anything unfortunate enough to be targeted by them.

Gaming Notes:

The BPPU fires like a missile that then explodes like an energy weapon with a wide angle attack.

Each unit is built as a missile as normal with the following modifications:

Cost: x 100 cost, which includes the effects for Mega-Beam and Kinetic effects. Then in addition, the cost of the desired blast radius, and the selected wide angle attack for the "shaped charge" of the warhead will need to be purchased.

Wide Angle:	Hex	60°	180°	300°	360°
Cost:	x 0.125	x 0.25	x 0.50	x 0.75	x 1.0

Babel Particle Hardening countermeasures:

To counter the destructive effects of Babel particles on electronic and electrical equipment, special countermeasures were developed to either isolate equipment or redirect the high electromagnetic pulses away from the endangered systems. This can take several different forms, such as specialized insulation materials, slow bleed capacitors, Faraday cages, RF shielding, and other such forms of protection. Though the main drawback with such countermeasures is the extra weight and the extra space needed.

Gaming Notes:

The system is basically an ECCM suite that is bought separately from any other ECM/ECCM system on the unit, such as with a Babel fusion reactor. But it can not have any radius or beaming upgrades, and is mated with the unit's sensors and functions as normal. The systems can not counter any effects outside of the unit, but can help prevent the sensors from being considered "destroyed" while in the presence of high concentration of Babel particles.

B2 "Miguel's Furnace" Babel Particle fusion reactors:

The B2 reactor represents yet another major advancement in physics, the B2 fusion reactor takes the Babel reactor a step further. One of professor Miguel Babel's last great research projects before his death (news of which was kept from the public during the war). Pushing every known limit possible, and using science that very few seem to have even a loose grasp of, the B2 reactor creates even higher levels of energy and performance than any other known power source up to this time.

Gaming Notes:

(from link: <http://www.mektonzeta.com/archive/advpowerplants.php>)

B2 reactors act like "Hyper" power plants, giving the bonuses of "hot" systems with an additional +33% MP, with the explosion save of a "cool" system of 1. B2s can only be either overcharged, or supercharged, never standard or undercharged.

Cost:

Charge Type:	XS:	Cost:	Modifiers:
Overcharged	1	x0.3	+1 MV, +1 MA(+66% MP)
Supercharged	1	x0.6	+2 MV, +2 MA(+100% MP)
Backup Power plant		Depends on level and options.	

The major trouble comes when one of these power plants explodes. At this time, a "thoughtful" GM may want to advise their players to take stock of their situations at the moment, make sure that their affairs are in order, have a last will and testament handy, or simply grab their ankles and await for the impending fiery doom to arrive.

Add up all of the Kills and SP of the exploding unit, including any remaining weapons, ammo, or subsystems. This will be the damage rating of the resulting blast which the hex the unit was standing in and the surrounding six hexes will take. Then divide the damage rating by 2 (rounding up), and apply this amount of damage to the next radius of hexes out. And repeat this process out till the damage value is reduced to below 1 Kill. Something that may not be also made clear here is that all of this does not act like a single explosion, but a series of explosions. The damage applied to each new ring of damage is also applied to the previous rings as well.

(IE, damage rating of 60 Kills will cover a blast 1 radius, 30 Kills will cover blast 2, 15 Kills will cover blast 3, 8 Kills will cover blast 4 radius, 4 Kills will cover blast 5 radius, 2 Kills will cover blast 6 radius, and 1 Kill will cover blast 7 radius. So, this will in fact play out as though seven different area effect weapons all went off in the exact same spot. Ouch!)

And if that was not enough, there is also additional insult to injury as all hexes affected by this sudden appearance of a super nova in someone's proverbial backyard, all hexes covered by the blast will now be contaminated by Babel particles at twice the original rank of the exploding unit. Though on the plus side, the reaction was so quick that it results in a "clean" explosion, with little to no increase in radiation levels. Though there will be a few mysterious traces of cherry blossoms scattered about in the wind, but few will pay much notice to that.

Units that have a "reactor eject" function may attempt to use it to try to survive the explosion, though they will need to have some other way to get out of the blast radius still. Units may also have a backup generator, representing a more modular design of B2 reactor, where part or most of the reactor can be ejected and still have some form of power to survive. Backup power plants can have any option available but "Hyper." Costs are added with the other multiplier systems that are purchased with the unit. (IE a cool standard back up power plant would be x0.0 or a hot standard would be x-0.1, which would be more of a "no-thrills" reserve system; while an overcharged hot/cool back up power plant would be x0.15) Only one back up power plant can be purchased, and it is lost on the second power plant hit suffered. Any bonuses that the backup power plant may have only come into effect when the main power plant is lost, and it comes on line. This is completely different and separate from the backup generator listed in the rules for Turbochargers in the Mekton Zeta Plus book, page 79.

"Yahoel" Accelerated Fusion Over Driver:

Another attempt by Miguel Babel to create an even more powerful version of his fusion reactor, but without the higher complexity of his B2 design, the Yahoel Over Driver uses a separate system to cause the fusion reaction with in a normal Babel reactor to be "over driven" so that the energy output is greatly increased instantaneously. Unfortunately, this causes the reactor to expend all of its available fuel in an extremely short period of time and risk burning itself out and any systems drawing power from it. Further research only lead to it being able to maintain the accelerated reaction in stages for roughly thirty seconds before the reactor could no longer contain it, and must be brought down to a greatly reduced level to prevent damage; or worse, a run away reaction leading to a thermonuclear explosion. The Yahoel Over Driver is incompatible with the B2 "Miguel's Furnace" reactor.

Gaming Notes:

Use the rules for Turbochargers in the Mekton Zeta Plus book, page 79, with the following additions:

- Turbochargers can be bought in dual or triple levels. But at the end of the triple charge though, the machine shuts down completely until it can be repaired.
- Halo barriers increase their reflector quality by 50%.
- Energy based propulsion systems, such as Magnetohydrodynamic Drives or Babel Thrusters, have their MA increased by 50%. Movement restrictions still apply.
- Now the bad news: if the unit has not used up its "charges," takes a power plant hit and fails its roll, it will explode like a B2 reactor. If it has used up its "charges," and takes a power plant hit, then treat as normal unless the unit has completely shut down, in which case nothing happens.
- Now the worse news: For every turbocharger that runs out of turns of use, the unit must make a safety roll as if it had just taken a power plant hit. (IE a unit with a 2/3 dual turbocharger must make a check at the end of the second turn for the 2 turn turbocharger, and then at the end of the third for the 3 turn turbocharger. Even if both end at the end of the same turn.) If it fails either roll, it will explode as if it was equipped with a B2 reactor.

Project "Chaoskampf," or Free Space Babel Particle Collection Array and Condenser

Perhaps one of the more curious development projects under the umbrella of ONE's Sisyphus program, the Chaoskampf project was to devise any means to turn the Cosmic Heavens' use of Babel particles back against them in some fashion. With its introduction to the modern battlefield, centuries of tactical and strategic theory had been reduced to utter incompetence, which hindered ONE from quickly learning to adapting to the newly changing combat environment. So thus, the project was to study the Babel particle so as to "bring order from the chaos" as it were.

This was studied from many different angles:

Could the Babel particle's unique properties of self organization into lattice formations be used to detect disturbances and tracked targets via a "Babel RADAR," in the same way that a spider uses its web to sense prey becoming entangled in it? Could the continuous electromagnetic pulse that Babel particles create be directed to attack specific targets in their presence in the form of "lightening?" Or could the released Babel particles themselves serve as a power source for a weapon or even a vehicle?

Gaming Notes:

Follows the rules for the Energy-Absorbing Armor on page 23 of the Mekton Zeta manual, with the following modifications:

The Chaoskampf system only works with Babel particles, not energy weapons of any other kind. No Lucifer particle cannons, no Flamberges, no lasers, etc.

When in the presence of a unit releasing its Babel particles, the system will absorb them as 1 Kill for every ECM point, per each ECM effect, per each limb or section that is equipped with the system. For example: a Chaoskampf unit has six locations with a ½ coefficient in each, is with in range of a enemy Lupus avatar (three different ECMs at level 4). So, 3 ECMS x level 4 x 6 x ½ = 36 absorbed Kills/points. If a second or third Lupus were to come into range, it would go up to 72 or 108.

The equipped unit will require at least one Energy Pool to store the accumulated Kill/points, though it is suggested that more be purchased. Each Chaoskampf equipped limb or section will need to be associated with a designated Energy Pool for not just management purposes, but also to know when an Energy Pool might be close to exploding, as explained in the original rules.

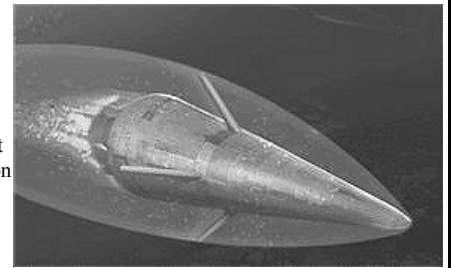
An additional change to the rules, all Energy Pools installed on the unit are automatically linked and can be combined to be used as one large weapon or system. Can be fired as a Lucifer particle cannon, a Particle scourge, a Flamberge, a Halo Barrier, or as a ECM Babel Particle system as well.

Supercavitation and related technologies:

(from link: <http://en.wikipedia.org/wiki/Supercavitation>)

Supercavitation is the use of the cavitation effects of moving objects in a liquid to create a large bubble of gas enveloping around it to reduce the drag between it and the surrounding liquid, allowing the object to travel at much great speed. The cavity or "bubble," is created and maintained through several different methods, some attempts have used directed thrust from rockets to specially shaped bodies and nose tips. If the bubble is ever comprised or collapses while the object is traveling at high speed, the results can be catastrophic with the object sustaining severe damage or even being destroyed by the reintroduction of drag of the water around it, which is over a thousand times greater than air.

The use of supercavitation in the war is limited on all sides due to several complex engineering and technological issues. ONE is slowly testing some prototype systems in secret, but the internal bureaucracy and lack of priority has hampered most of the work. The Cosmic Heavens have developed some systems that make use of the technology, but have yet to successfully create anything successful above prototype stage in the war. Supercavitation would totally shift the balance of the war in favor of the side that can put it to the most effective use.



General Notes for Weapons and Vehicles:

Due to movement modifiers for moving in water, the fastest a non-supercavitation designed unit can travel underwater is 10 MA.

A unit must be declared to be able to travel at supercavitation speeds during the design process, this can be done by simply setting the movement rate at over 10 MA. There is no additional point costs for this, but since its use will greatly effect the balance of the game it is advised that it be kept as limited as possible per the GM's decision.

During the design process, a unit can be declared to be able to travel at supercavitation speeds, but must follow certain rules:

- 1.) Since supercavitation limits what forms of propulsion can be used because of the air bubble surrounding the unit, standard propellers and "caterpillar drives" can not help propel the unit since they need to interact with the water on the other side of the air bubble. Nor can Ground Effect Systems (GES) be used for the same reasons and a lack of air flow.
This leaves Rocket Thrusters, After-Burning Thrusters, and Booster Packs as the only choices available for propulsion once the unit has begun to travel at supercavitation speeds underwater.
- 2.) While the vehicle or machine is being designed, its propulsion systems must be designated as to which ones will support the supercavitation speeds, and which ones will let it travel below that. Such as for example, even through it is possible to design a unit that can dash about at supercavitation speeds all the time, from a practical stand point one will often need to be able to travel slower due to obstacles in the way, need to travel in a more stealthy fashion, the supercavitation "drive" is malfunctioning, etc. So as a starting point, a unit will need to first have a water specific propulsion system to tool about in a more "careful" manner and then to eventually get itself going up to the 10 MA speed point. At this time, the supercavitation propulsion will take over.
Keep in mind that the system that will take over to propel the unit at higher speeds will need to have enough MA points to be able to make up for the now useless water specific system not being able to contribute anything, and then more to go much faster. The balance between the two or more systems will depend upon which rules you are using for acceleration in your game.
- 3.) Stopping is a very important consideration for the pilot and passengers in any vehicle or machine capable of traveling at supercavitation speeds since once the air bubble collapses, the drag from the surrounding water comes back into effect and can cause great damage, if not complete destruction.
The only way that such a vehicle or machine can stop is with either a Re-Entry Package, such as a set of reusable "ballutes" to absorb the kinetic energy of a sudden stop.
If that is not available, then the vehicle will need to gradually slow down over time, such as performing a "lazy serpentine S" maneuver or a very wide U-turn to bleed off speed to the point where it can be safe to allow the air bubble to safely collapse.
This is as usual, is left up the GM's decision. This is not an issue for torpedoes or projectiles since it is hoped that where they do manage to stop at is inside their targets!
- 4.) No matter what, there is just no way to cover up the sound of a large object traveling through the water at such high speeds as supercavitation allows, so the silent running option is not an option!
The only "real way" to be stealthy while traveling via supercavitation is to move faster than the speed of sound (underwater), which will result in the enemy's sonar only detecting you long after you are a fading dot on the horizon. Keep in mind that this will also have an impact, quit literally, on you as well since you can not see anything in front of you till you pass it.
The speed of sound in sea water under ideal conditions is roughly 1,500 m/s, 3,360 mph or 5,400 kph (right about 41 MA or Mach 4.5) (from link: <http://www.dosits.org/science/soundmovement/speedofsound/>)
- 5.) It is possible to design separate forms to switch from one to another for traveling at supercavitation speeds. One suggested set of rules to do so would be: <http://www.mektonzeta.com/dataweaver.pdf> There will be several attempts during the war to create such complicated systems, and when such examples are given in this book, there will be an explanation on how the unit in question addressed the issue.

Supercavitation Weapons:

For weapons to be able to benefit from the effects of supercavitation, they will need to buy the "hyper velocity" property listed in both the Missiles and Projectile sections respectively. These weapons travel at the same speed as their air breathing versions of missiles and projectile weapons (40 / 30 MA respectively), and can be used while the vehicle or unit is traveling at supercavitation speeds in its bubble.

Anti-torpedoes or anti-torpedo projectile weapons can only counter supercavitation torpedoes if they have the "hyper velocity" supercavitation ability as well.

Supercavitation weapons can be used in or out of water with no change in effect since they are usually rocket powered or moving under very high applied kinetic force. But for it to be able to fire at targets in the water while over the surface, or vice versa, it will need to have the tunneling special effect listed the missile and torpedo section as well.

Further Reading:

Supercavitation

(link: <http://en.wikipedia.org/wiki/Supercavitation>)

(link: <http://supercavitation.net/>)

Viktor Schauberger, the father of "implosion technology", theories based on fluidic vortices and movement in nature.

(link: http://en.wikipedia.org/wiki/Viktor_Schauberger)

Drag Reduction by Leidenfrost Vapor Layers

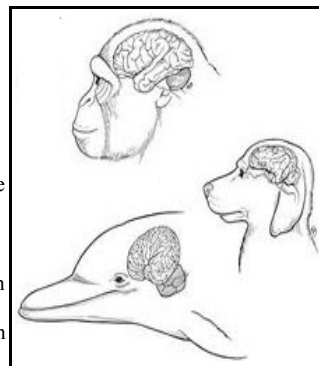
(link: <http://prl.aps.org/abstract/PRL/v106/i21/e214501>)

"The Awakened Mind":

Even before Daniel Angelus started to preach his philosophies and beliefs to the masses, many have long predicted the possibility of Anthrokind reaching a new evolutionary level of awareness or existence in the near or far future. Research has been done both publicly and secretly by various agencies with little or no gain in knowledge about the predicted phenomenon. In general, the results only indicated that even more research was needed to delve deeper into the mysterious subject.

Some have theorized that as more travel out into space to live permanently, their bodies and minds would adapt to the new environment and tap into abilities that have lingered inside since the beginning of time. And to some degree, experiments have shown that a growing number of individuals who have lived in space for most of their lives do display a greater sense of awareness, or even having a more empathetic connection to those around them. But while this has been documented, unnoticed by those studying this phenomenon is that the same thing has been happening to those who live under water in the seas, the dark murky confines of the ocean depths having had some of the same effects on some of those living in the deep abyss of space.

Despite the source or cause of these phenomena, it did not take long for those involved to realize the potential and dangers of such "gifted" individuals. Throughout the war, the Cosmic Heavens and to a much lesser extent ONE, will try to exploit anyone they find to possess almost any level of awakened ability; turning them into pawns or cannon fodder to bring forth a new advantage to bring the war to an end, while at the same time even fearing that they might turn on them at any given moment due to their barely understood natures.



Gaming Rules for Awakened Minds:

Based partially on or has been influenced by the rules suggested by Benjamin Wright's "MS Gundam in Mekton Z Version 1.3"

(Link: http://gundam.wikia.com/wiki/Running_Mobile_Suit_Gundam_in_Mekton_Zeta)

"Awakened Minds" are handled very differently from MZ+ ESPers.

Use "Awakened Mind Stat," otherwise known as "AM," as a level of ranking (non-awakened minds may have 0 in AM).

Psi Points are not used to activate awakened abilities, but if the referee wishes they can be expended to boost the effect much further than normal.

Active and Latent rules apply (especially Bonding). Wild Talents may occur according to the referee's call.

In any event, the character's Awakened level (AM) has the following abilities:

+AM to all Initiative rolls, and Awareness rolls during combat situations only.

+AM to Piloting Skill only for determining their Maneuver Pool for points total and the number of actions per turn if Let's Activate is in use.

Using Awakened Abilities:

Awakened Minds are known for throwing psychic fits or being unpredictable. This can be because of the little understood nature of their abilities, or from the unstable emotional strain that it often inflicts upon them. Either way, as amazing as these powers can be, they are not always reliable or able to be used at any given moment. So whenever the referee feels that it is "dramatically appropriate," they can allow an Awakened character to exercise a Psi-skill. There are two ways this can happen:

Intentional: If the character wants to consciously perform a "Awakened special effect," and the Ref feels it is appropriate, the character may use one of their abilities, either received during character creation or gained later on, and then rolls his (Stat) + AM + 1D10 vs the defender's (Stat) + AM + 1D10 (+ Luck, if added). "(Stat)" refers to the Statistic the psi-skill is associated with (Mind = INT, etc.). The results are then left up to the Referee to determine.

Out Burst: The other way such skills can be used is when the character is in an extreme situation. Then, the Ref can (if he wishes), tell the character to roll 1D10. If the result is lower than his (COOLx2 minus AM), then the referee can allow the character to choose a skill from the list of Psi-skills and then use it. Again, the results are up to the referee.

*Scalable with ESPer Lens per normal rules.

** Scalable with ESPer lens per expanded rules.

Permitted:	Aura Viewing*	Danger Sense	Force of Mind	Psi-Blast**	Psi-Block*	Telepathy*
Strictly Limited:	Astral Projection* Telekinesis*	Cryokinesis*	Emotion Scan*	Energy Manipulation*	Pyrokinesis*	Suggestion
Deus Level:	Healing Regeneration**	Illusion** Retrocognition	Mind Lock Stat Boost	Possession Teleportation*	Precognition	Psychometry

All abilities work pretty much the same as described in the Mekton Zeta Plus manual, with the following changes:

- All abilities are sorted by what their effect may be on the balance of a game, which should be pretty much self explanatory. Permitted abilities should not be a problem for characters to have. Strictly Limited abilities should be closely controlled by the GM, and only allowed under special conditions. And Deus Level abilities are those that can upset the balance of a game if not properly reigned in, and should only be used sparingly as possible. It would not be too far outside the realm of consideration that such powers be left to the use of only major villainous NPCs.
- Many abilities are now scalable via an ESPer lens, but with a limitation: those that were not scalable per the original ESPer rules given in the Mekton Zeta Manual are now in range effect only, such as Illusion and Psi-Blast. While Regeneration can be used by an awakened pilot to repair damage done to their mecha equipped with an ESPer lens. Whether ammunition can be replenished this way or not is up to the Referee.
- Telekinesis and Levitation are combined into one ability as Telekinesis, and could be used as either. Levitation can be used to lift mecha, but the mecha's original MA (before bonuses are added) is used for calculating the new flight MA. But it can not be combined with any existing flight system that is already on the mecha or vehicle.
- Clairvoyance and Astral Projection are also combined, but functions only as described in Astral Projection. This was done to reduce some redundancy.
- Aura Viewing can be used to see other Awakened pilots or individuals unheeded by obstacles or other obstructions like a psychic form of heat vision.
- A new ability is Cryokinesis, which works as the polar opposite to Pyrokinesis by slowing down the atoms in a given target or area to create the desired damages or effects. For the sake of simplicity, use the rules for Pyrokinesis to represent the effects of Cryokinesis, with the additional ability of being able to be used as an entangling attack rated at the same level as the ability used. If the power is stopped being used, the object will no longer take any more damage, but will remain frozen/entangled, unless there is a heat source nearby to cause it to melt or the target finally makes an escape roll. General sunlight will normally not be enough to cause it to melt very quickly. Like with Pyrokinesis, somehow the mind is able to create something that can freeze like water.
- Another new ability is Force of Mind (will). Like Danger Sense, all Awakened Minds get it for free at skill level 1, but only active users can advance it. Force of Mind is the ability to project a mass of sheer mental pressure upon another Awakened Mind to force them to either break concentration or loose control of any awakened mind systems they may be using, such as remote weapons, and possibly even take control of said systems. In the case of remote weapons, an Awakened pilot can only make use of a Control Multiplier that is equal to or less than their AM stat. If the mecha has a CM installed that is higher than their AM stat, then the pilot will be limited by their AM stat for calculating the stat or skill for the remotes. To take control over a group of enemy remote weapons, the pilot must first make a Force of Mind attack as normal against the other pilot. If the attack is successful, a second attack roll is made. But this time, the amount the first roll was won by is added to this roll. If the second roll beats the total the defending pilot had originally rolled, then the remote weapons will now follow the successful pilot's command until the original pilot can wrestle control back through the same process.

Awakened Mind Weapons and Systems:

Ironically, even though the Cosmic Heavens promoted their philosophy of the Awakened Mind for several years, its military research into the phenomenon only truly began shortly before the war with the creation of the Rapture Foundation. Originally set up as a separate school to quietly screen for actual awakened minds scattered among the population, then for the recruitment and training of such gifted individuals. As well as coordinating with other agencies in the Cosmic Heavens to research the matter as thoroughly and efficiently as possible to quickly produce a new advantage during the war.

Mens Agitat Molem, “Mind Over Matter”:

One of the first projects of the Rapture Foundation was to investigate the limits of their awakened recruits, and whether it was possible to extend their abilities beyond their perceived limits. Various sensor and antenna arrays were created to detect the thought waves of the subjects, and then how to focus and direct them most efficiently. It was quickly discovered that thought waves could be projected outward by the subject much like electromagnetic waves, but were not affected by Babel particle interference. With much practice, subjects learned how to communicate across long distances and to sense their surroundings. Further research showed that with much more concentration, other unexpected abilities could be performed such as moving objects by sheer thought alone, long range surveillance by the subject's mental senses, to even the breaking of another mind by one's own dominant will.

Due to the unique and varying nature of the awakened mind test subjects available, it has been difficult to create a “universal” system that could be used for more than just one test subject, with the majority of all prototypes being created only for specific users. Another problem encountered is that the equipment for the systems is often very large and space consuming, making it difficult to miniaturize for use.

Gaming Notes:

Mens Agitat Molem follow the same rules for ESPer lens in the Mekton Zeta Plus manual, page 77, with the following exceptions:

- Draw is always 1 since PSI points are not used.
- Backlash must be at least a value of 1 or higher. This can be overruled IF the unit in question is also equipped with a Deus ex Machina thought control system. Then Backlash can be set 0 for the sake of simplicity.
- Spaces taken up by the ESPer Lens must be equal to or more than the Rank x Portfolio size, with a minimum of 10 spaces. To add some flexibility to this restriction, use the following chart in place of the original space options given in the Mekton Zeta Plus manual, page 77.

Spaces:	10	15	20	25	30
Cost:	x1.0	x0.9	x0.85	x0.8	x0.7

Some abilities that are not normally scalable can now be enhanced with an ESPer Lens. Neither system is compatible with IA or other forms of artificial intelligent machines(so far...).



Deus ex Machina, “The God that we will make”:

Along with the research into enhancing the abilities of awakened minds, other lines of investigations delved into creating a deeper bond between the awakened soldier and their weapons. New control systems were developed to no longer require physical interaction between pilot and machine; at first machines were created to follow the movements of their pilots through haptic/force-feedback and exoskeleton controls, then it became possible for the machine to simply read the thoughts of the pilot, convert them into digital information, and respond accordingly. Then direct mind-machine interfaces began to get even more sophisticated as research started to expand the control systems from just controlling the machines, but also to delivering information directly to the pilot's brain by converting digital information into thought waves.

While this opened up for greater performance for nearly any machine from an avatar to even a full battleship, it also created other problems. The same systems that allowed the mind of the pilot to extend their awareness throughout and even beyond their machines, also allowed for feedback to travel back directly to the pilot's brain with possibly damaging results. Besides the obvious advantages of the higher performance, it was also discovered that a trained awakened pilot could also control additional remote machines such as Cherubim and Seraphim with their minds in addition to their own avatar through these systems despite the presence of Babel particle interference.

Gaming Notes:

See the rules for Thought Control in the Mekton Zeta Plus manual, page 78, with some modifications.

Any unit designed with this system must indicate during construction whether it has any other form of control systems as a back up or not. Neither system is compatible with IA or other forms of artificial intelligent machines (as far as anyone knows).

Deus ex Machina Emanare level 1: (x 0.25)

This is representative of a much more simpler or less complex version of the Deus ex Machina, which interacts with the pilot in a less invasive manner. The user's brain is constantly scanned by the equipment and translating their thoughts into digital signals to operate the avatar or machine. Even those with “weak” awakened abilities or even some non-awakened pilots can use this system, but still require a great deal of training and practice to use it fully.

- 1.) Regardless of the machine's MV, it receives a +1 bonus, which may increase its MV above 0.
- 2.) An additional bonus of +33% to its MP.
- 3.) All weapons receive a +1 WA.
- 4.) The control multiple of any cable remotes that the machine may have is increase by half (CM x 1.5), while independent remotes do not receive any additional bonus. Non-awakened or “weak” pilots can only use cable remotes with this system.
- 5.) Due to the issues of feed back, for every 6 Kills of internal damage to the machine, 1 Hit of damage is applied directly to the head of the pilot.

Deus ex Machina Emanare level 2: (x 0.5)

This is a much more advanced version of the Deus ex Machina brain-machine interface, only those with fully fledged awakened abilities can use this system. The equipment both receives and transmits information into the pilot's brain, many such systems often have no monitors or very few displays in the cockpit, and ingratiate them into the pilot's helmet.

- 1.) Regardless of the machine's MV, it receives a +2 bonus, which may increase its MV above 0.
- 2.) An additional bonus of +67% to its MP.
- 3.) All weapons receive a +1 WA.
- 4.) The control multiple of any remotes that the machine may have is doubled (CM x 2).
- 5.) Due to the issues of feed back, for every 3 Kills of internal damage to the machine, 1 Hit of damage is applied directly to the head of the pilot.

“Phylactery / Tulpa Capacitor” Remote Weapons:

While trying to find ways for Awakened Mind candidates to expand their consciousnesses beyond their normal range of physical limitations, it was discovered that some individuals could remotely control separate machines in addition to their own craft or avatar. What made this possible was a device called either a “Phylactery” or “Tulpa Capacitor,” which through some non-understandable process, could store enough of a pilot's mental impulse to go forth and act out their commands as if the remote weapons were a direct extension of their own body similar to what has been observed in the nonsomatotopic nervous systems of large brain invertebrates.

Notes: For these awakened weapons to be used, the controlling unit must first have either a Deus ex Machina or Mens Agitat Molem system installed. In addition, the necessary control systems for the remote weapons will need to be purchased as described on the pages 54 through 55 in the Mekton Zeta Plus manual BUT at double the normal costs. Construction of these remote weapons is done as normal; it will need at least a torso servo to house everything in, some form of propulsion to move about, sensors to be able to see/detect targets around it when outside of the operator's vision or line of sight. Power plants or hydraulics are normally a x0.0 cost multiplier, the details of which may be a non-issue depending on the whims of your GM.

Cherubim:

Cherubim were an early version of the mind controlled drones created by the Rapture Foundation, using a long cable between the mother unit and itself for both control and power. The cable proved to be the only weakness in the system, limiting its range and being vulnerable to enemy attack. Though this also serves as an advantage since it could not be interfered with by the presence of another awakened pilot with a much stronger will.

Notes: Since technically the Cherubim is physically attached to its mother unit, any internal damage that is inflicted on the remote weapon will count toward any backlash damage that will then be applied to the pilot. The only exception to this is any damage that is inflicted upon the connecting wire between the mother unit and its remote weapon. It may be considered a slightly extreme action to take, but the controlling pilot may elect to sever the cable themselves as a defensive action instead of a normal dodge roll when one of their remote weapons are under attack.

If the designer of a Cherubim wishes, the wire's damage may be raised by 2 Kills to a total of 3 Kills by paying 1 CP for each additional Kill for each cable controlled remote weapon. These additional Kills are to be considered as armor instead of internal Kills, and do add weight to both remotes and mother unit.

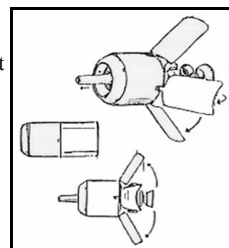


Seraphim:

A much more sophisticated form of remote weapon, Seraphim are completely independent drones that can be controlled by an “awakened” pilot by pure thought alone. Each unit has its own power source, propulsion, and weapon(s). A pilot can command them via mental impulses to do almost any task imaginable from attacking other targets, or defending the controlling pilot/unit, etc. Once given a command, the Seraphim will carry out the command until it is either completed, destroyed, or its controlling pilot/unit is out of range or destroyed, in which case it will simply deactivate.

Another unpredicted weakness is interference caused by the presence of two or more awakened individuals in the same area, where one awakened mind can either accidentally or forcefully take control of a single, or even a group of, Seraphim from another awakened mind. At first it was thought to be a coincidence that two rare gifted individuals could have awakened mental powers that operated on the same “wave length,” but as more occurrences were recorded during both testing and actual battlefield use, it became apparent that this weakness could be done by sheer force of will alone.

Notes: To protect against Seraphim being taken over or interfered with by another awakened mind, each unit will need to purchase a Deus ex Machina / thought control system of the same level as its original controlling mother unit. This represents the remote weapons being hardwired or specially “synchronized” with its intended pilot(s). Since the two (or more) are not physically connected to each other, the risk of backlash damage is not possible. Though this might be changed by whim of the GM.



Lahabel Feedback Protection:

In an attempt to prevent injury to pilots while using either the Deus ex Machina or Mens Agitat Molem systems, several countermeasures had been tested with varying levels of results. Many have tried to provide a level of protection by limiting the electrical flow, but this often hampered the abilities of the user or reduced performance greatly. An eventual compromise was reached between protection and capability by using a specially designed bank of physical circuit breakers. When a certain level of electrical current is detected, the solenoids in the breaker bank will cut the circuit thus blocking the current flow to the user. This has the drawback that once the breakers are open, the system shuts down and the pilot will either be unable to use the system(s) or will have to fall back on using any physical controls available to them in the cockpit, until the circuit breakers can all be manually reset.

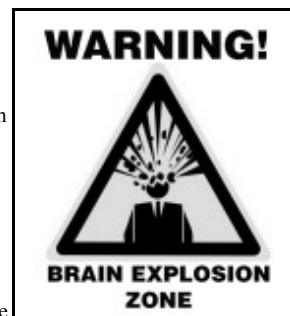
Lahabel (x 0.1 per level, max two levels.)

The first level of Lahabel purchased gives the pilot 1D3 worth of Hits of protection against feedback damage for either thought control or an ESPer lens, while the second level purchased will increase it to 1D6 of protection. Each time the target machine takes internal damage from an attack or other event, the Lahabel system will stop it by opening all involved circuits. A pilot may expend one luck point during their protection rolls, but no more.

Once opened, the Lahabel will need to be reset for the protected systems to function once again. For each hit that was stopped by the Lahabel, the pilot must expend one action to close the breakers. A second pilot in the cockpit who has nothing else to do may help in doing this.

Example: An awakened pilot's avatar equipped with Emanare Lv 2 takes 15 Kills of internal damage, resulting in 5 Hits of feedback damage aimed directly at the pilot's head. Thankfully, the unit is equipped with Lahabel Lv 2 as well. The pilot rolls 1D6, getting a 6 as a result. Therefore, the 5 Hits of damage is stopped, but now the thought control system is down, along with any related systems such as remotes or ESPer Lens, until the pilot can expend five actions to reset all of the breakers while using the physical controls to avoid being shot at during the mean time.

One Lahabel will protect one pilot from feedback damage while using either an ESPer Lens or thought control. Additional Lahabel are needed to protect any other pilot(s) who can use the same systems at the same costs.



Solomon's Seal Shielding System:

(Inspired by the Psychic Armor from the Mekton Bastion Archives: <http://www.mektonzeta.com/archive/psychicarmor.php>)

Though it was never expected that ONE would ever be able to field any soldiers with any form of awakened abilities, the Rapture Foundation did see the need to study ways to not only amplify such abilities but also how to neutralize or limit such powers; reasons were many ranging from increasing the knowledge base of how such abilities worked to the possible need to control their own gifted subjects.

The Solomon's Seal Shielding system takes the form of several layers of mesh antenna arrays, similar to a Faraday cage, that block any brain waves of an awakened mind that attempt to penetrate through any side of it. The exact science is not fully understood, but it has been shown to have potential in case awakened minds become more prevalent on the battlefield for such things as defense against, an ability to neutralize, or even to limit being detected by an awakened mind.

Gaming Notes:

The Solomon's Seal Shielding system is similar to the ESPer lens in the Mekton Zeta Plus manual, page 77, except it is aimed more towards being a defensive system rather than offensive. The system only protects the pilots of the Avatar, not psychic attacks that affect the machine itself. One system will protect all cockpits of said machine. And as with the Mens Agitat Molem / ESPer Lens, no Solomon's Seal Shielding system may be smaller than 10 spaces (at least during the war).

Rank: The system's overall level of power. When confronted by a psychic attack that is aimed/directed to the pilot(s), the pilot add the system's rank to their rolls. The effects of scaling are the same as

Spaces: The amount of space the system takes up, none of these spaces can be made efficient or smaller by the use of extra points.

Defense Systems: There are two forms of protection: Translucent / Opaque

Opaque:

Protects/stops all awakened attacks attempting to go through the shield, or reaching out. Effectively interferes with all psychic abilities.

Translucent:

Psychic attacks can not pierce through, but psychic attacks can go out, allowing pilots or users with in to use their abilities.

Defense Nature:

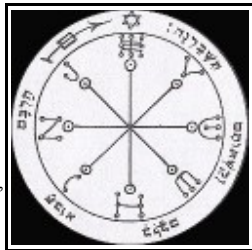
Seal of Warding:

A passive version of the system, works as described above with no extra functions.

Seal of Banishment:

A much more active version of the system that goes further and tries to redirect the attack back at the original source. If the awakened individual's attack fails to penetrate the shielding, they suffer an automatic attack in return by the shielding system. Treat the shielding as if it was another awakened mind (Rank + 1D10) vs. the original attacker (AM + Psi Block + 1D10). If the attacker loses, the difference they lost by is the number of hits that they will take directly to the head. If they fumble the roll, the damage is doubled. Regardless of the effects, the awakened individual loses one action due to the resulting feedback.

A Lahabiel feedback system could provide some protection from the attack, but would cause some systems in their machine to shut down, such as Deus ex Machina or Mens Agitat Molem systems due to the required intermingling of associated equipment.



Rank:	1	2	3	4	5	6	7	8	9	10
Cost:	x 0.2	x 0.3	x 0.4	x 0.5	x 0.7	x 0.9	x 1.1	x 1.3	x 1.5	x 1.8
Snaces:	1	5	10	20	30					
Cost:	x 2.0	x 1.3	x 1.0	x 0.9	x 0.8					
Defense System:	Opaque:		Translucent:							
Cost:	x 1.0		x 2.0							
Defense Nature:	"Seal of Warding"		"Seal of Banishment"							
Cost:	x 1.0		x 10.0							

Organized Nations of Earf
Restricted Section:



ONE Characters:

Name/Rank:		James Makette, Secretary General, South Africa					
Species:		Lion - <i>Panthera Leo</i>					
Born:		June 0073 / 2202 (52 years)					
Unique Features:		Scar over left eye. Cold personality, easy to anger, but remains calm when in public.					
Fur:	Normal		Hair:	Blonde		Eyes:	Blue
Height:	6' 0"		Weight:	220 lbs			
INT:	10	EDU:	8	Awareness	6	Survival	3
COOL:	8	Stability:	20	Dodge & Escape	3	Zero Gee	3
REFLEX:	5	Run:	15 m	Expert: Strategy	8	Hand to Hand	3
ATT:	5	Jump:	1 m	Hand Gun	2		
EMP:	6	ZG Leap:	5 m	Human Perception	5		
TECH:	3	Stun:	6	Interrogation	6		
LUCK:	6	Lift:	60 kg	Intimidate	4		
Move:	5	EV:	4	Leadership	8		
BODY:	6	Throw:	20 m	Expert: Politics	4		
AM:	0			Rifle	3		



Bio:
James Makette came up from living in squalor in one of the numerous mining camps in South Africa as an orphan, until chance gave him the opportunity to enter a military academy and start his long career in the ONE armed forces, eventually reaching the rank of general. And along with the political support of Karl Denke, became the most recent secretary-general. Makette is a strict and calculating leader with a short temper that seems to be held in check most of the time, and is not afraid to use extreme force when necessary, or even when unnecessary as some have come to suspect.
Since the war had begun, James Makette has issued several emergency measures and resolutions to deal with the threat of the rebelling colonies. Many of these new powers have been given on a “temporary” status, such as some resolutions to extend his time in office till the war situation has come to pass. But as the war grows more viscous over time it is questionable if either the security measures or even himself could be ever removed from his position.

Super Secret Information:
Very few know about his early past prior to his academy days, such as when he served as a child soldier under one of the many warlords that dominate many corners of the African continent. It was either through the dark horrors of tribal or gang warfare he endured, or perhaps it is something sinister that was always with in him, that he developed an inhuman perspective at war and the lives of others in general.
Losses do not matter to him, only results. And even that is questionable. He has managed to keep his psychopathic nature in check, but he still comes off as being “cold” to many people. Many of his battle plans have centered around actions with high attrition rates.
Karl Denke used this information to bring Makette under his control, and propped him up as a useful puppet to the post of secretary-general because of his blunt yet effective hammer methods to reel problems in. And if it was not enough, James Makette has been pushing for even more emergency measures, including those singling out certain religious groups for harsh treatment or even threatening certain rights of citizens. Some would call these types of moves blasphemous under the ONE charter, but with the war situation going as it has been, no one has been able to obstruct any of these actions.

Name/Rank:		Alexander Pichushkin, Under-Secretary-General, Russia					
Species:		Eurasian brown bear - <i>Ursus arctos arctos</i>					
Born:		May 0070 / 2199 (55 years)					
Unique Features:		Very large for his size, speaks only when spoken to.					
Fur:	Brown		Hair:	Brown		Eyes:	Brown
Height:	6' 6"		Weight:	250 lbs			
INT:	9	EDU:	8	Awareness	5	Social	4
COOL:	10	Stability:	25	Expert: Logistics	8	Zero Gee	3
REFLEX:	5	Run:	15 m	Expert: Strategy	8	Wardrobe & Style	3
ATT:	5	Jump:	1 m	Hand Gun	2	Dodge & Escape	2
EMP:	7	ZG Leap:	5 m	Hand to Hand	3	Driving	4
TECH:	5	Stun:	6	Human Perception	6	Aircraft/Shuttle Pilot	3
LUCK:	6	Lift:	60 Kg	Interrogation	3		
Move:	5	EV:	4	Interview	3		
BODY:	6	Throw:	20 m	Persuasion	3		
AM:	0			Leadership	5		



Bio:
Alexander Pichushkin is another military career man, having worked his way up from the ranks from being a mere soldier, always quiet and following his orders. Some times referred to as a problem solver, Pichushkin has a rather unique knack for getting around logistic issues; be it moving large numbers of troops or material in a war zone, or from one corner of the world to another. He has never sought recognition for his abilities, he quietly took satisfaction from being able to do what others couldn't. As long as no one ever gets in his way of doing his job, he will do it loyally and without any question.
Super Secret Information:
Alexander Pichushkin was an early “recruit” for Karl Denke in his personal stable of useful associates, what better person to have under your employ than one whose most eagerly accepted reward would be to be allowed to do their job? Pichushkin is most loyal to ONE, but enjoys the fact that his relationship with the president of the assembly makes his life some what easier for him in an already enjoyable position. The only thing that will cause Pichushkin to loose his calm demeanor is for an obstacle to get in his way that can not be taken care of by normal means, such as “difficult” people.

ONE Characters:

Name/Rank:		Gilles de Rais, Assistant Secretary-General – GOD, France					
Species:		Sheep - <i>Ovis Aries - Rambouillet Merino</i>					
Born:		October 0078 / 2207 (47 years)					
Unique Features:		None.					
Fur:	White	Hair:	Light Blonde	Eyes:	Blue		
Height:	6' 0"	Weight:	190 lbs				
INT:	8	EDU:	8	Awareness	4	Survival	3
COOL:	10	Stability:	25	Dodge & Escape	3	Zero Gee	4
REFLEX:	10	Run:	21 m	Expert: Logistics	5	Hand to Hand	3
ATT:	7	Jump:	1.75 m	Hand Gun	4	Aircraft/Shuttle Pilot	3
EMP:	7	ZG Leap:	7 m	Human Perception	4	Interview	3
TECH:	5	Stun:	6	Interrogation	4	Expert: Propaganda	5
LUCK:	4	Lift:	90 Kg	Intimidate	4		
Move:	7	EV:	4	Leadership	4		
BODY:	6	Throw:	26 m	Expert: Politics	4		
AM:	0			Rifle	3		

Bio:
Gilles de Rais has been a career officer since day one of enrolling in the most prestigious military college, where besides learning typical military doctrine, he also learned a great deal about social media, information systems, and how to manipulate public opinion. After graduation he quickly worked his way up the ladder through the ONE SWORD ranks to a secured position of control over all of the ONE owned space and orbital offensive and information assets.
One of his fondest achievements was a specially tailored series of informational programs to constantly remind the citizens of Earf of the presence of ONE in their lives.

Super Secret Information:

Gilles de Rais learned early on that not only can you shape public opinion by filtering what information is disseminated to the masses, but also by giving the public what they think they want. Not only does he make sure that every transmission that is sent through the communication networks serves as a reminder of ONE's authority, but that enough “bread and circuses” are on the air at all hours to keep the citizens properly distracted. He enjoys his position greatly, but lives in fear of losing it, and does his best to stay in the good graces of Karl Denke. With the loss of the orbital offense capabilities of the GOD system, he has done all he can to keep his control of the information lines in the Earf sphere. And to remain as valuable as possible to those that control the reins of influence and power.

Name/Rank:		Karl Denke, ONE RULE – President of the Assembly, Germanv					
Species:		Leopard - <i>Panthera Pardus</i>					
Born:		June 0075 / 2204 (50 years)					
Unique Features:		Always dressed to impress, moves about with a certain air of superiority.					
Fur:	Normal	Hair:	Amber	Eyes:	Green		
Height:	6' 0"	Weight:	200 lbs				
INT:	10	EDU:	8	Awareness	5	Social	7
COOL:	10	Stability:	25	Expert: Politics	8	Wardrobe & Style	5
REFLEX:	5	Run:	15 m	Hand Gun	2	Dodge & Escape	6
ATT:	5	Jump:	1 m	Hand to Hand	3		
EMP:	7	ZG Leap:	5 m	Human Perception	7		
TECH:	3	Stun:	6	Interrogation	5		
LUCK:	7	Lift:	60 Kg	Interview	5		
Move:	5	EV:	4	Persuasion	5		
BODY:	6	Throw:	20 m	Leadership	7		
AM:	0						

Bio:
Karl Denke comes from a long line of distinguished aristocrats and diplomats dating back to well before the Golden Age, and to the cynical minded represents all that is to be despised about politicians. He has quietly built up his own web of influences on nearly all levels of the ONE organization, he has a set of eyes, ears, and fingers in almost every facet or function with in the global government. And he has absolutely no qualms about using his power to grant favors or to get what he wants, he rules the RULE assembly with an iron fist wrapped in a silk glove. He has played the role of “king maker” several times, it is often by giving his “blessing” that a resolution gets past, or a nomination is accepted. Many a secretary-general has owed him greatly for his support.

Super Secret Information:

It is not that he just craves power, but seeks to establish his own little niche for his own purposes and protect it by any means necessary. The world is a complicated enough of a place to have to control it directly all the time; it is best to create your own little island in the middle of the storm and let the chaos sort itself out on its own under his careful gaze, or at least keep any competition too busy from interfering with your own plans. The world is a chess set, and he knows how to manipulate all the other players to do his bidding. If something unfortunate were to happen to a “problem” of his, his hands will always be clean and any allegations will be unable to be proven.
Currently he has invested a lot into maintaining his position in ONE, occasionally stepping down from his post as president of the assembly to let the seat be filled by someone else to diminish any complaints or suspicions of what he is up to, all the while still wielding more power or influence than anyone else. The current secretary-general, under-secretary-general, and several other high placed officers are in his pocket for various reasons, and he sees the current war more as an opportunity than as a crisis or threat to his position. He sees himself as the keystone that could hold everything together while the new order of things sorts itself out, or becomes ready to be added to his own little fiefdom. If need be, he will help “hide the bodies,” or suppress information when need be, though the price for his help is quite exorbitant. Though anyone who becomes one of his “favorites” will more than likely always “get away with murder” as long as they stay with in his good graces.



Project: “Sisyphus”

Overview:

Upon receiving intelligence of the Cosmic Heaven's development of a new class of weapon called “Avatars,” the ONE government and military forces initially dismissed the significance of such inventions. Although ONE intelligence agents even managed to acquire the design blueprints of several early Cosmic Heavens development programs, requests to start ONE's own attempts at avatar research was rejected several times. The ONE military officials, anticipating a full-scale conventional line of battle warfare, decided to concentrate on strengthening its space armada, and believed that war would never break out because any potential Cosmic Heavens hostility would be deterred in front of an overwhelmingly superior ONE Space Forces fleet. Eventually near the end of 0121 AT, a research program was started in a halfhearted attempt to both placate the scattered shouting voices of concern, and in the remote possibility that they might be right to be worried.

It has been suggested that the name Sisyphus was given to the project to represent the level of general contempt shown by the ONE leadership, but it is more likely that it shows the challenge facing the researchers involved in playing catch up with the Cosmic Heavens, who seemed to be years ahead already.

At first the project was centered around one program, but in typical ONE fashion it soon exploded into several different programs with the same goals, but going about it from different angles. In less than a year, it became a frothing bureaucratic mess as programs were subdivided, taken over, stagnated, subverted by personal agendas, etc. Some programs attempted to copy existing Cosmic Heaven designs through reverse engineering in the thinking of “why reinvent the wheel?” While others set forth to explore new concepts or even go further than what the Cosmic Heavens had already developed.

As 0125 AT came closer, eventually several motivated individuals were able to push through the chaos and organize it into something more manageable, even though there still existed many differing projects. Three tiers were set: Research, Study and Development, and finally Production.

Research would study any collected intelligence, determine the direction of necessary development, and then create the prototype machines and weapons that were determined to be crucial to gaining or exploiting any possible edge in any possible future conflict. Study and Development would then go over the prototype units, work out any problems that might exist, and develop them further. And once determined to be a weapon or system to be worthwhile for use, the groups would then work with Production to coordinate all necessary resources to quickly bring said unit or weapon to the front lines as possible.

It was not an efficient form of management, but it reduced many of the obstacles that were in the way and brought advancement to a somewhat quicker pace. But in the end, it would prove to not have been quick enough to to counter what the Cosmic Heavens were about to deploy when the war began. After suffering horrendous losses during the first “30 Days of Hell,” and then during the Demiurge Front invasion, it became more than merely apparent that something had to be brought online and deployed to at least buy more time for the moment.

A short list of programs that were associated under the main control of the Sisyphus Project:

Project Doppelganger:

Began shortly after the “30 Days of Hell,” using recovered parts of damaged or destroyed avatars to construct functional machines for reverse engineering studies. Much was learned from the rebuilt/captured machines, with some even proposing that ONE should use their own versions of the copied avatar designs as their own. It has been suggested that some machines were produced in limited numbers to facilitate possible “false flag” operations during the later parts of war. If that were the case, then any existing records would be highly classified or destroyed due to such activities being viewed as “war crimes.”

Project Poseidon:

One of the very early programs to develop its own form of avatars, the Poseidon started as simple machine to test the design philosophies and technologies for base controls and to replicate the PM3L system that gave the Cosmic Heavens the necessary edge to make anthropomorphic machines possible and effective in combat. Initially resembling nothing more than a large construction machine with over-sized arms, over time it evolved into a more maneuverable humanoid torso mated to a tracked movement base. Though never proving to be as maneuverable as its more anthropomorphic cousins, the machines were simpler to produce and could carry much more armor, which at the time was thought to be more effective than high speed and mobility.

The final machines that were born from this effort were viewed as being little more than mobile artillery units that could serve more in a supportive role for other units, but with a unique ability to handle rough terrain and amphibious operations.

Project Noah:

Perhaps one of the very few projects that were able to progress beyond the prototype stage, a feat that has been much credited to the close working relationships between several like minded genius minds that put all of their best working ideas together to produce a capable avatar machine that could turn the tides of the war around.

Project Blemmyae:

Another of the earlier programs put into motion in the very beginning, attempted to create a similar anthropomorphic machine by using existing materials and parts of machines already available in the ONE arsenal. Using the Mason worker pods as a basis, the round shape of the pod was used a main body while more practical limbs were attached to give the new machine more ability to move and function. Some success was achieved, though the resulting machines were more comical in appearance than being useful, but served as a basis for more design studies.



ONE “Project Sisyphus” – Prototype Avatars:

Name:		Blemmyes prototype avatar testbed		Weight (Dry):		38.0 tons		Weight (Full):		39.9 Tons		Cost:		281.06 points		Height:		15.5meters													
Form:				Mv:				Max Ref:				Ground:				Flight:				Water:				Misc:							
Humanoid x1 scale				-5								6				16				0				+100% MP							
																								+1 Int, +1 Tech							
Power Plant:				Source:				XS:				Misc:																			
Main - Standard				Babel Fusion (Hot)				1				“With great power comes great BOOM!”																			
Maneuver Pool												No external emitters.																			
Cockpit:				Controls:				Loc:				Enc.:																			
Main				Screen				Torso				Ejection Seat				Enclosed															
												Anti-Theft (code lock)																			
Sensors:				Class:				Loc:				Kills:				Range:				Comm:											
Main				Striker				Head				1				4 Km				800 Km											
Back-Up				Striker				Torso				1				4 Km				800 Km											
Movement Systems:				Loc:				MA:				Kills:																			
Thruster #1				Torso								4 MA								0											
Thruster #2				Torso								4 MA								0											
Thruster #3				Right Leg								4 MA								0											
Thruster #4				Left Leg								4 MA								0											
Fuel: 500 Km range				Torso																											
Options:				Loc:				Modifiers:																							
Micro-manipulators								One in each Arm																							
Five Spotlights								One in Head, two in Torso								One in each arm.															
4 x Weapon Mounts								Two on Torso, One on each Arm.								Quick change mount															
Damage Control Package								Torso																							
Stat Boost								Torso								+1 to Int, and Tech.															
Ejection Seat								Torso																							
Multipliers:				Loc:				Modifiers:																							
Monocoque Construction																															
Space Hydraulics																															
Environmental Protection																Space and EMP															
ACE																+100% MP															
Internal Automation				Torso												Level 3, Port 4 (Mecha Piloting, Zero Gee maneuvering, Awareness, Teach)															
“Dimensional Holster”																See section on Avatars.															
Servos:				Class:				Type:				Space:				Kills:				Armor:				DC:				Modifiers:			
Head				Lightweight				Head				3				2 K				4 K				1 K							
Torso				Medium Striker				Torso				20				4 K				6 K				1 K							
R & L Arm				Medium Striker				Arm				8				5 K				4 K				1 K		+1 K damage, Throw 3					
R & L Leg				Medium Striker				Leg				8				5 K				4 K				1 K		+1 K damage					
Weapons:				Damage:				Wa:				Range:				Max Range:				Kills:				Shots:				Loc:		Special:	
2 x Wrecking Claws				4 K + 1K				(+1)				Melee				-				4 K				1 in each Arm				Quick			
1 x Power Wench				1 K				0				Melee				15 Hexes				1 K				1 in Torso				Entangle			
2 x 30 mm Gatling Cannon				3 K				0				13				169				3 K				-		One in each Torso Mount		Bv 3, linked			
2 x Ammo bins																				1 K each				10 each		One in each Torso Mount		Standard			
1 x 150 mm Rifle Cannon				4 K				0				15				225				4 K				-		Held by each Arm Mount		Bv 3			
2 x Ammo bins																				2 K each				10 each		Held in Rifle Cannon		Kinetic			



Overview:

One of many development projects under the Sisyphus program, the Blemmyes project was to build a machine that could compete with the Cosmic Heavens avatar constructed from already available parts and vehicles in the ONE arsenal. The end result was a oddly shaped anthropomorphic machine built around a Mason worker pod with four over-sized limbs attached. Despite its strange appearance, it did perform well in tests and even in a few improvised defensive actions when the test facilities came under enemy attack.

The two large arms are equipped with massive pincher like claws designed to grapple with large bodies during melee combat, and when not required they can fold up into its limbs to allow a simpler set of manipulator claws to hold its rifle cannon or other “hand held weapons.” The squat heavy legs have shown to be capable of carrying the war machine under full gravity loads, and the improvised Babel fusion reactor on its back gives it a longer operational time frame than the pod’s original RTG power plant. So far only a dozen or so of these machines have been built, and it is unlikely that it will not serve as anything more than as a test bed for future machines unless the war grows worse for ONE, and more desperate means are needed to push back or even hold the lines as they are.

Variants:

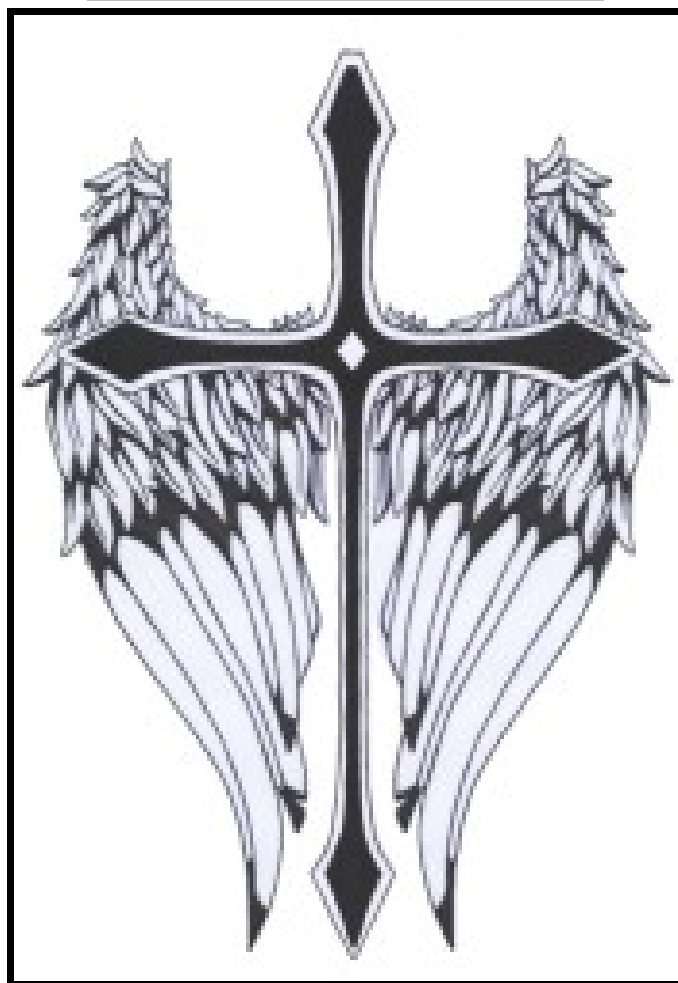
As with any test machine such as the Blemmyes, some other variants have been attempted. Other weapon loads that have proven somewhat effective by the existing Mason worker pods have been tried with it as well. The “Beehive” missile launchers have been adapted as a replacement for the 30 mm Gatling Cannons, which has shown to be an effective alternative. No change in points cost.

Replaces either 30 mm Gatling cannons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
50 x Light missiles	1 K	-1	8	64	4 K each	-	One set in Torso Mount	Linked.
50 x Light missiles	1 K	-1	8	64	4 K each	-	One set in Torso Mount	Linked.

ONE “Project Sisyphus” – Prototype Avatars:

Name: GNX-68 NOAH Mk 2 prototype unit – base form				Weight (Dry): 31.16 Tons		Weight (Full): 48.50 Tons		Cost: 2308.42 points		Height: 16.0 meters	
Form:											
Crush Depth:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:				
Humanoid:	450 m / 1,476.4 ft	-5	5	8 + 2 MA ninja leap	8 – 12 MA	10 MA (30 x 1/3 Mod)	+2 to Int, Tech, & Cool. On land: +133% MP				
Humanoid (Deus ex Machina):	450 m / 1,476.4 ft	-4	6	8 + 2 MA ninja leap	8 – 12 MA	10 MA (30 x 1/3 Mod)	+2 to Int, Tech, & Cool. On land: +167% MP				
Derecho submarine:	600 m / 1968.53 ft	-7	3	-	-	10 MA* (30 x 1/2 Mod)	+2 to Int, Tech, & Cool. On land: +167% MP				
Derecho submarine (Deus ex Machina):	600 m / 1968.53 ft	-6	4	-	-	10 MA* (30 x 1/2 Mod)	+2 to Int, Tech, & Cool. On land: +200% MP				
Derecho supercavitation:	600 m / 1968.53 ft	-7	3	-	-	10 – 15 MA**	+2 to Int, Tech, & Cool. On land: +167% MP				
Derecho supercavitation (Deus ex Machina):	600 m / 1968.53 ft	-6	4	-	-	10 – 15 MA**	+2 to Int, Tech, & Cool. On land: +200% MP				
Power Plant:				Source:		XS:		Misc:			
Main - Overcharged				B2 Fusion (Cool)		1		“Miguel's Furnace,” Hyper power plant			
Maneuver Pool				(+67% MP)				ECM: Sensor, Missile, Radar Rank 3, Radius 10 hexes			
Cockpit:		Controls:		Loc:					Enc.:		
Main		Screen / Deus ex Machina		Torso		Vehicle Pod, Anti-Theft (code lock)			Enclosed		
Sensors:		Class:		Loc:		Kills:		Range:		Comm:	
Main Sensors		Striker				Head		1		4 Km	
- Babel Hardening		ECCM (1)									
- R/R Analyzer						Head					
- Marine Suite						Torso					
- Resolution Intensifiers		x8 audio magnification				Head					
Secondary Sensors		Striker		Torso		1		4 Km		800 Km	
- Babel Hardening		ECCM (1)									
Movement Systems:				Loc:		MA:		Notes:			
Caterpillar Drive (Gravities)				Torso		2 MA (6 MA x 1/3 Mod)					
Caterpillar Drive (Gravities)				Right Arm		2 MA (6 MA x 1/3 Mod)					
Caterpillar Drive (Gravities)				Left Arm		2 MA (6 MA x 1/3 Mod)					
Caterpillar Drive (Gravities)				Right Leg		2 MA (6 MA x 1/3 Mod)					
Caterpillar Drive (Gravities)				Left Leg		2 MA (6 MA x 1/3 Mod)					
Amphibious After-burning Thrusters				Torso		2 – 3 MA					
Amphibious After-burning Thrusters				Torso		2 – 3 MA					
Amphibious After-burning Thrusters				Right Leg		2 – 3 MA					
Amphibious After-burning Thrusters				Left Leg		2 – 3 MA					
* Tail – Modular Metaform				Tail							
Amphibious Thrusters				- Mated with Bubble Shield		3 MA					
“Bubble Shield”				- Mated with Thrusters		Reactive Shield: 8 K, reset 0,		ranged and matter only.			
Internal Fuel Capacity: 100 Km											
Options:				Loc:		Modifiers:					
Micro-manipulators						One in each Arm					
7 x Spotlights						1 x Head, 1 x Head(R)		2 x Torso, 1 x Torso(R), 1 x each Arm			
G-Compensator						Torso		Up to 15 Ma.			
1 x Weapon Mounts						Torso		Can hold one heavy weapon and shield while transformed in Derecho mode.			
“Re-Entry Package”						One in Torso		Allows complete braking/stopping from using supercavitation propulsion/mode. One use each.			
Quick Change Mounts						Up to six additional servos.		For later weapon/equipment upgrades.			
Stat Boost						Torso		+2 to Int, Tech, and Cool.			
Damage Control Package						Torso					
Multipliers:				Loc:		Modifiers:					
Monocoque Construction											
Internal Automation				Torso		Level 4, Port 5 (Mecha Piloting, Swimming, Athletics, Awareness, Teach)					
Environmental Protection						Underwater, High Pressure, and EMP					
A.C.E.						+67% MP					
“Dimensional Holster”						See rules on Avatars.					
Ninja Leaping Ability				Right and Left Legs		+2 MA bonus, see rules.					
Deus ex Machina / Thought Control						Emanare Level 1, see rules.					
2 x Lahabel Feedback Protection						1 x Level 1 for Pilot, 1 x Level 1 for IA. See rules.					
Ground Movement Bonus						+1 MA					
Transform: Derecho form						See detail notes.					
Modular Metaform:				Tail		See detail notes.					
Servos:		Class:		Type:		Space:		Kills:		Armor:	
Head		Medium Striker		Head		6		4		4	
Torso		Heavy Striker		Torso		15		10		5	
Right Arm		Medium Striker		Arm		8		5		4	
Left Arm		Medium Striker		Arm		8		5		4	
Right Leg		Medium Striker		Leg		8		5		4	
Left Leg		Medium Striker		Leg		8		5		4	
Tail *See additional information.		Medium Striker		Tail		6		4		4	
Weapons:		Damage:		Wa:		Range:		Max Range:		Kills:	
Right Hand		2 K + 1		0		Melee		-		2 K	
Left Hand		2 K + 1		0		Melee		-		2 K	
2 x Piranha SC mini-guns		2 K		0		4		16		2 K	
2 x Ammunition Drum #1										1 K	
2 x Ammunition Drum #2										1 K	
The following are stored in the Dimensional Holster:											
1 x “Ruvi Jingu Bang” Staff		8 K + 1		+2		Melee / 3		-		8 K	
1 x “Sudarshana Chakra”		2 x 4 K + 1		+2		Melee / 3		-		2 x 4 K	
2 x “Flameburgs” Plasma Blades		4 K		+2		Melee		-		1 K	
2 x Secespita Knives								4 K		3 turns	
- Blade		4 K		+1		Melee		-		-	
- Built-in Gun		4 K		0		6		36		-	
- 1 x Ammo Cartridge								1 K		3 shots	
7 x Light Grenades		2 K		-1		10		100		2 K each	
7 x Medium Grenades		4 K		-1		7		49		1 K each	
7 x Smoke Grenades		(4 K)		-2		7		49		2 K each	
7 x Flare Grenades		(6 K)		-2		9		81		2 K each	

Cosmic Heavens
Restricted Section:



Cosmic Heavens – Space Avatars:

Name:	Weight (Dry):	Weight (Full):	Cost:	Height:
A-06 / A-13 Lynx prototype Avatar (space use)	41.5 Tons	58.9 Tons	856.86 points	17.0 meters

Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:
Humanoid	-6	4	6	20 - 28	0	+133% MP
						+2 Int, +1 Tech

Power Plant:	Source:	XS:	Misc:
Main - Overcharged	Babel Fusion (Hot)	5	"With great power comes great boom!"
Maneuver Pool:	+33% MP		ECM: Sensor, Missile, Radar - Rank 3, Radius 10 hexes

Cockpit:	Controls:	Loc:	Enc:
Main	Screen	Torso	Ejection Seat, Lift-Wire
			Anti-Theft (code lock)

Sensors:	Class:	Loc:	Kills:	Range:	Comm:
Main	Striker		Head	1	4 Km
Back-Up	Striker		Torso	1	4 Km
R/R Analyzer			Head		
Resolution Intensifiers	x16 visual				

Movement Systems:	Loc:	MA:	Kills:
Thrusters	Torso	4	0
After-burning Thrusters	Right Leg	4 (up to 6)	0
After-burning Thrusters	Left Leg	4 (up to 6)	0
After-burning Thrusters	Right Flight Pack	4 (up to 6)	0
After-burning Thrusters	Left Flight Pack	4 (up to 6)	0
Fuel: 800 Km range	Torso		0

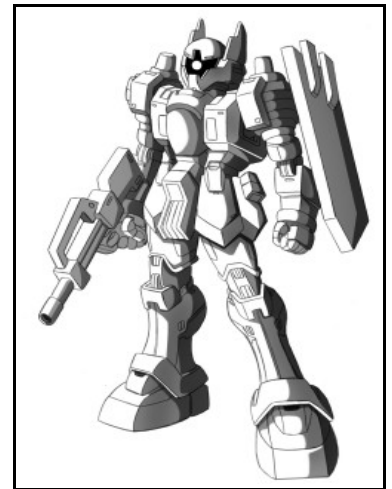
Options:	Loc:	Modifiers:
Micro-manipulators	One in each Arm	
Three Spotlights	One in Head, One in each Arm	One in Torso.
G-Compensator	Torso	Up to 28 Ma.
Damage Control Package	Torso	
Stat Boost	Torso	+2 to Int, and +1 Tech.

Multipliers:	Loc:	Modifiers:
Monocoque Construction		
Internal Automation	Torso	Level 3, Port 4 (Mecha Piloting, Zero Gee maneuvering, Awareness, Teach)
Environmental Protection		Space and EMP
ACE		+100% MP
"Dimensional Holster"		See section on Avatars.

Servos:	Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:
Head	Medium Striker	Head	6	4	4	1	
Torso	Heavy Striker	Torso	15	10	5	1	
R & L Arm	Medium Striker	Arm	8	5	4	1	+1 K, Throw 3
R & L Leg	Heavy Striker	Leg	9	6	4	1	+2 K
R & L Flight Pack	Heavy Striker	Pod	15	0	4	1	

Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
R & L Hand	3 K + 1 K	0	melee	-	2	-	Each Arm	Quick, Handy
1 x Quis ut Deus MK I Shield	(6 K)	-2			6		One on Left Arm	Standard Armor DC 1
- built in Ram Spikes	4 K + 1 K	0	melee	-			*Built into shield	AP
1 x Electrum Scourge	4K	0	melee	-	4		Right Arm	Shock-only, Quick

The following are stored in the Dimensional Holster:								
1 x Michael Mk II Rifle	4 K	0	12	144	4 K	-	Both hands	Bv 5, multi-feed 2
- built in Bayonet blade	4 K	0	melee	-	4 K	-	*Built into Rifle	AP
- Ammo #1 in Rifle					2 K	8	clip loaded into gun	Tracer rounds
- Ammo #2 in Rifle					2 K	8	clip loaded into gun	Kinetic rounds
2 x Ammo #1 spare clips					2 K	8	-	Tracer rounds
2 x Ammo #2 spare clips					2 K	8	-	Kinetic rounds
2 x Mk II Engelsfausts	200 K	0	10	-	13 each	1 each	One in both hands	x10 Scale weapon
3 x Castigator Mk II Grenades	4 K	-1	7	49	2 K each	-	Pack of five in one Hand	Blast 1
3 x Uriel Flare Mk II Grenades	(6 K)	-1	7	49	2 K each	-	Pack of six in one Hand	Blast 2, Flare
3 x Night's Shroud Mk II Grenades	(4 K)	-1	7	49	1 K each	-	Pack of six in one Hand	Smoke, Blast 3



Overview:

Created to answer the call of the Cosmic Heavens military for a new class of heavier combat avatars to replace the Lepus and Vulpecula, the A-06 Lynx was submitted by Empyrean Heavy Industries for review by the acquisition choirs along with the Shehaqim Corporation's A-07 Lupus. Picking up where the Vulpecula had previously set the bar, the Lynx is a much more faster and more maneuverable than its smaller cousin, while carrying a revised assortment of new armaments. The power plant output is nearly doubled, feeding the two massive "Quick Silver" turbines on its back to propel it through space at high speed.

Unfortunately, the Lynx suffered several setbacks when a design flaw in its thruster assembly was exposed during performance testing that sealed its fate. When the machine approaches the high end of its maximum thruster output, the thrusters had a tendency to go into an uncontrollable overload and cause the machine to disintegrate due to the great strain. The source of the problem was never truly isolated, and this flaw in its design lead to it being not selected for production.

Anti-Ship Armament:

Cost: 1592.59 pts.

As it was being considered for being adopted as the new main unit of the Cosmic Heavens, an anti-ship variant was considered for production. Due to problems with the Mk II Erzengefaust, the older Mk I was adapted to fit the new machine.

Replaces Michael Mk II Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Erzengefaust Mk I	100 K	0	10	-	100 K	-	Both hands and weapon mount	x10 Scale weapon
Anti-Ship Bazooka								
- Ammo clip					1 K	2	Clip loaded into gun	Tracer, AP, Kinetic
2 x spare clips					1 K	2	-	Tracer, AP, Kinetic

Variants:

Later in the war, the A-06 Lynx will go through a partial redesign and will be resubmitted for consideration once again as the A-13 Lynx, even though the same flaw that marred its earlier performance still existed. Due to the powerful engines of this model, a ground version was never planned.

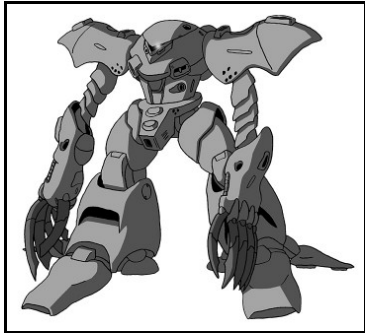
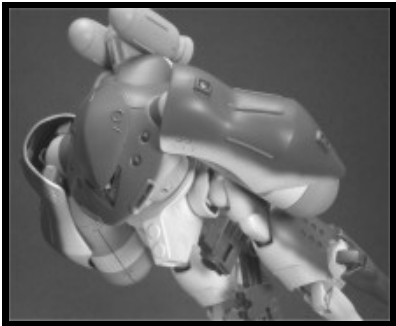
Gaming Notes:

To represent the Lynx's design flaw in game, each time that the avatar is pushed to go over 24 MA, the pilot will need to make a Pilot Mecha or Tech roll vs DL 14 difficulty roll. If the roll is failed, the machine suddenly goes forward by its full MA, but manages to comeback under control of the pilot as if nothing happened the next turn. But if the roll is a critical failure, the thrusters have gone into full overload, accelerating the machine faster and faster (+1D6 MA per turn). This does not stop until the machine either explodes, runs out of fuel, or hits something that wanders in to its way. It is more than likely that the pilot will eventually die from the continuous strain before either of the three possibilities could occur.

Cosmic Heavens – “Demiurge Front” Avatars:

Name:		Weight (Dry):		Weight (Full):		Cost:		Height:	
A-09 Scorpious production Avatar (Earf use)		42.8 Tons		65.26 Tons		1273.96 points		17.0 meters	
Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:			
Humanoid	-5	5	7	12	6	+166% MP			
					(18 x 1/3 mod)	+2 Int, +1 Tech			
Power Plant:		Source:		XS:	Misc:				
Main - Supercharged		Babel Fusion (Hot)		5	“With great power comes great boom!”				
Maneuver Pool:		+67% MP		ECM: Sensor, Missile, Radar - Rank 3, Radius 10 hexes					
Cockpit:		Controls:		Loc:		Enc.:			
Main		Screen		Torso		Escape Pod, Lift-Wire		Enclosed	
						Anti-Theft (code lock)			
Sensors:		Class:		Loc:		Kills:		Range:	
Main		Striker		Head		1		4 Km	
Back-Up		Striker		Torso		1		4 Km	
R/R Analyzer				Head					
Resolution Intensifiers		x16 visual		Head					
Marine Suite				Torso					
Movement Systems:		Loc:		MA:		Kills:			
Thrusters		Right Leg				4		0	
Thrusters		Left Leg				4		0	
Thrusters		Torso				4		0	
Hydro-Jets		Torso		(6 MA) (1/3 underwater modifier)				0	
Hydro-Jets		Right Leg		(6 MA) (1/3 underwater modifier)				0	
Hydro-Jets		Left Leg		(6 MA) (1/3 underwater modifier)				0	
Fuel: 100 Km range		Torso							
Options:		Loc:		Modifiers:					
Micro-manipulators				One in each Arm					
Four Spotlights				One in Head, One in each Arm					
Damage Control Package				Torso					
Stat Boost				Torso					
2 x Bog Sprayers				One in each Leg					
Silent Running - Hydro-Jets									
Storage Module				Torso, rear of cockpit					
				500 Kg of supplies for pilot.					
Multipliers:		Loc:		Modifiers:					
Monocoque Construction									
Internal Automation		Torso		Level 3, Port 4 (Mecha Piloting, Athletics, Awareness, Teach)					
Environmental Protection				Space, and EMP					
ACE				+133% MP					
Maneuver Veiners		Torso		+1 MV					
Servos:		Class:		Type:		Space:		Kills:	
Head		Heavy Striker		Head		8		5	
Torso		Heavy Striker		Torso		15		10	
R & L Arm		Medium Weight		Arm		11		7	
R & L Leg		Heavy Striker		Leg		9		6	
3 x Weapon Pods		Heavy Striker		Pods		15		0	
								2 / 4	
Weapons:		Damage:		Wa:		Range:		Max Range:	
R & L Scorpious Claws									
[1 x Claw – mated]		4 K + 1		(+1)		Melee		-	
[1 x Projectile weapon – mated]		4 K		0		12		144	
- Ammo #1								4	
- Ammo #2								18	
- Ammo #3								6	
- Ammo #4								6	
								1	
								6	
								8	
R & L Wing Shields		(8 K)		-2				One on each Arm	
2 x Night's Shroud Mk II Grenade Dischargers		(4 K)		-1		7		49	
150 x Bombardment Missiles		2 K		0		10		100	
24 x Uriel Flare Mk II Grenades		(6 K)		-1		7		49	
6 x Demolition Bombs		10 K		0		0		-	
								2 K each	
								-	
								One set of two in each Weapon Pod	
								Blast 3, Fuse	





Overview:

The Scorpious was created as a unit to operate in small groups or alone for reconnaissance, deep penetration, or sabotage missions where it was expected to meet fierce resistance or enemy defenses. Capable of traveling through any environment on Earf, either via land, air or underwater; it can go almost any where the enemy can go. The cockpit also has additional stores to keep a pilot supplied for several days if necessary for longer than normal missions. The Scorpious's body is streamlined for underwater travel, its arms can retract into its wing shields, and its broad feet can fold down to reduce both drag and its outline while cruising. Both arms are equipped with its trademark claws and built in guns; the claws and pierce any known armor, and its guns can fire most available ammunition types. While on its back mounted pods, it can carry any standard or specialized pay load required by its mission parameters.

Variants:

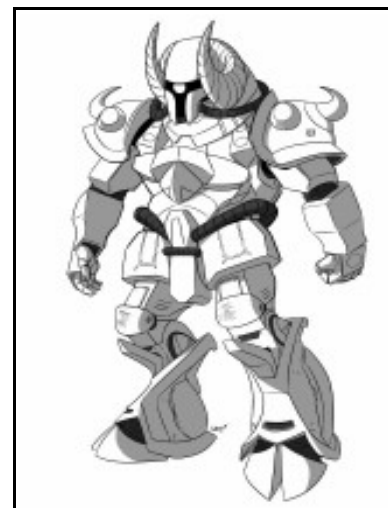
None. Since the machine is so adaptable, almost any single machine could be considered to be a variant in its own right. The pods on its back can be equipped with other types of weapons, or additional ammunition for its other weapons. One commonly used equipment layout involves a jettisonable solid rocket booster for high speed long range insertion into enemy territories, additional armored canisters to protect the machine's arms during flight, and a set of missiles with high yield warheads for the pilot to "announce" their arrival. The only drawback is the lowered performance of the unit with the equipment's weight.

Deep Insertion Mode: Cost: 1311.16 pts. 75.75 tons total.

Form:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:		
Humanoid		-7	3	5	10	4	+166% MP		
						(18 x 1/3 mod)	+2 Int, +1 Tech		
Command Armor:		Class:		Type:	Space:	Kills:	Armor:	DC:	Modifiers:
Right Arm		Heavy Striker		Arm	6	0	3	1	B-Mod 0.2
Left Arm		Heavy Striker		Arm	6	0	3	1	B-Mod 0.2
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
2 x Bombardment Missiles		10 K	-1	11	121	2	-	Two in each arm	Blast 2
2 x Bombardment Missiles		10 K	-1	11	121	2	-	Two in each arm	Blast 2
Booster Pack:		Loc:		MA:	Kills:				
Solid Rocket Booster		Torso		+10 MA / 200 MA points					12

Cosmic Heavens – “Demiurge Front” Avatars:

Name:	A-11 Aries production Avatar (Earf use)		Weight (Dry):	46.5 Tons	Weight (Full):	55.55 Tons	Cost:	673.54 points	Height:	17.0 meters
Form:	Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:				
Humanoid	-6	4	9	6	0	+133% MP				
						+2 Int, +1 Tech				
Power Plant:	Source:	XS:	Misc:							
Main - Overcharged	Babel Fusion (Hot)	5	"With great power comes great boom!"							
Maneuver Pool:	+33% MP		ECM: Sensor, Missile, Radar - Rank 3, Radius 10 hexes							
Cockpit:	Controls:	Loc:	Enc:							
Main	Screen	Torso	Ejection Seat, Lift-Wire	Anti-Theft (code lock)		Enclosed				
Sensors:	Class:	Loc:	Kills:	Range:	Comm:					
Main	Striker	Head	1	4 Km	800 Km					
Back-Up	Striker	Torso	1	4 Km	800 Km					
R/R Analyzer		Head								
Resolution Intensifiers	x16 visual									
Movement Systems:	Loc:	MA:	Kills:							
Thrusters	Right Leg	3	0							
Thrusters	Left Leg	3	0							
Fuel: 100 Km range	Torso		0							
Options:	Loc:	Modifiers:								
Micro-manipulators	One in each Arm									
Four Spotlights	One in Head, One in each Arm	One in Torso.								
Damage Control Package	Torso									
Stat Boost	Torso	+2 to Int, and +1 Tech.								
Multipliers:	Loc:	Modifiers:								
Monocoque Construction										
Internal Automation	Torso	Level 3, Port 4 (Mecha Piloting, Athletics, Awareness, Teach)								
Environmental Protection		Arctic, Desert, and EMP								
ACE		+100% MP								
"Dimensional Holster"		See section on Avatars.								
Ground MA Increase		(+3 MA) See rules								



Ground MIA increase		(V3 MIA) See Rules:						
Servos:	Class:	Type:	Space:	Kills:	Armor:	DC:	Modifiers:	
Head	Medium Striker	Head	6	4	4	1		
Torso	Heavy Striker	Torso	15	10	5	1		
R & L Arm	Medium Striker	Arm	8	5	4	1	+1 K, Throw 3	
R & L Leg	Heavy Striker	Leg	9	6	5	1	+2 K	
Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
R & L Hand	3 K + 1 K	0	melee	-	3 K	-	Each Arm	Quick, Handy
1 x Quis ut Deus MK II Shield	(7 K / 7 K)	-2			7 K / 7 K		One on Left Arm	Belted Standard Armor DC 1
- built in Ram Spikes	4 K + 1 K	0		-			*Built into shield	AP
The following are stored in the Dimensional Holster:								
1 x Michael Mk II Rifle	4 K	0	12	144	4 K	-	Both hands	Bv 5, multi-feed 2
- built in Bayonet blade	4 K	0	melee	-	4 K	-	*Built into Rifle	AP
- Ammo #1 in Rifle					2 K	8	clip loaded into gun	Tracer rounds
- Ammo #2 in Rifle					2 K	8	clip loaded into gun	Kinetic rounds
2 x Ammo #1 spare clips					2 K	8	-	Tracer rounds
2 x Ammo #2 spare clips					2 K	8	-	Kinetic rounds
4 x Castigator Mk II Grenades	4 K	-1	7	49	2 K each	-	Pack of five in one Hand	Blast 1
4 x Uriel Flare Mk II Grenades	(6 K)	-1	7	49	2 K each	-	Pack of six in one Hand	Blast 2, Flare
4 x Night's Shroud Mk II Grenades	(4 K)	-1	7	49	1 K each	-	Pack of six in one Hand	Smoke, Blast 3
2 x Mk II Hurlbats	4 K + 1 K	0	melee	-	4 K		One in one hand	AP, Thrown

Overview:

Shortly after the initial invasion of Earf, despite what victories were achieved by the land forces, it was realized that a new land combat avatar was going to be soon needed. The Aries was the Emyrean Corporation's submitted unit for combat trials and testing. Greater emphasis was placed upon higher ground speed and rough terrain handling, being able to adjust to either urban combat or fighting on open plains. At the same time priority was also placed up on designing a machine that was less expensive to produce and maintain in the field.

The Aries was a popular machine with its pilots, and several units made effective use with it in several operations. For a while it seemed that the competition between it and the Pegasus was not going to come to an end at any time soon, but production on both avatars were canceled in favor of the newer Taurus.

Variants:

One design study lead to another production model being made which concentrated more on close assault ability. It was thought that two versions could be fielded where both were supporting the other by specializing in a different aspect of combat. In the end, very few were produced during the evaluation period.

A-11A Aries:

Cost: 699.41 pts.

Intended to be a more close combat orientated avatar than its standard production cousin, the original main weapons and shield were replaced with two “burning saber” Flamberge energy weapon, and a heavier shield with built in weapons. In addition, four more demolition charges are added to its range of hand held weapons.

The combat shield is reinforced so as to stand up to several direct hits from a tank's cannon, and fire up to 120 missiles from its launchers, while being able to be held by one of the avatar's hands. When not in use, or when the pilot wishes to use two hand held weapons at the same time, the combat shield can be stored on the back of the machine.

The two Flamberges replace the two Hurlbats that are normally standard. Each is a powerful plasma blade type weapon that can cut through nearly all armors, though due to high energy demands can only function for intervals of thirty seconds at a time, though they can be recharged by the avatar's reactor.

The demolition bombs are a unique weapon in its arsenal, meant to destroy fortifications, or to lay traps for enemies if the pilot is forced to make the most of his environment when either out numbered, or dealing with a most cunning of opponents.

Replaces rifle, hurlbats, and shield:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Aries “A” Combat Shield	(8 K / 8 K)	0			8 K / 8 K		One Hand	Belted Standard Armor DC 1
W/built in missile launcher	2 K	0	10	100	16 K	120	In shield	
The following are stored in the Dimensional Holster:								
4 x Demolition Bombs	6 K	0	0	-	2 K each	-	Pack of five in one hand	Blast 1, Fuse
2 x Burning Saber Flamberges	6 K + 1	(+2)	Melee	-	2 K each	-	One Hand	3-turns use, rechargeable, thrown

Cosmic Heavens – “Demiurge Front” Avatars:

Name: A-12 Pegasus production Avatar (Earf use)		Weight (Dry): 46.5 Tons		Weight (Full): 56.1 Tons		Cost: 663.42 points		Height: 17.0 meters									
Form: Humanoid		Mv: -5		Max Ref: 5		Ground: 6		Flight: 14 GES		Water: 0		Misc: +133% MP +2 Int, +1 Tech					
Power Plant: Main - Overcharged		Source: Babel Fusion (Hot)		XS: 5		Misc: "With great power comes great boom!"											
Maneuver Pool:		+33% MP		ECM: Sensor, Missile, Radar - Rank 3, Radius 10 hexes													
Cockpit: Main		Controls: Screen		Loc: Torso		Enc.: Ejection Seat, Lift-Wire Anti-Theft (code lock)											
Sensors: Main		Class: Striker		Loc: Head		Kills: 1		Range: 4 Km		Comm: 800 Km							
Back-Up		Striker		Torso		1		4 Km		800 Km							
R/R Analyzer				Head													
Resolution Intensifiers		x16 visual															
Movement Systems: GES Fan Turbine #1		Loc: Right Leg		MA:		Kills: 4				0							
GES Fan Turbine #2		Right Leg				3				0							
GES Fan Turbine #1		Left Leg				4				0							
GES Fan Turbine #2		Left Leg				3				0							
Fuel: 200 Km range		Torso															
Options: Micro-manipulators		Loc:		One in each Arm		Modifiers:											
Four Spotlights				One in Head, One in each Arm		One in Torso.											
Damage Control Package				Torso													
Stat Boost				Torso		+2 to Int, and +1 Tech.											
G-Compensator				Torso		Up to 14 Ma.											
Multipliers: Monocoque Construction		Loc:		Modifiers:													
Internal Automation		Torso				Level 3, Port 4 (Mecha Piloting, Athletics, Awareness, Teach)											
Environmental Protection						Arctic, Desert, and EMP											
ACE						+100% MP											
"Dimensional Holster"						See section on Avatars.											
Maneuver Veiners		Flight Pack				+1 MV											
Servos: Head		Class: Medium Striker		Type: Head		Space: 6		Kills: 4		Armor: 4		DC: 1		Modifiers:			
Torso		Heavy Striker		Torso		15		10		5		1					
R & L Arm		Medium Striker		Arm		8		5		4		1		+1 K, Throw 3			
R & L Leg		Heavy Striker		Leg		9		6		5		1		+2 K			
Flight Pack		Light Weight		Pod		6		0		3		1					
Weapons: R & L Hand		Damage: 3 K + 1 K		Wa: 0		Range: melee		Max Range: -		Kills: 3 K		Shots: -		Loc: Each Arm		Special: Quick, Handy	
1 x Quis ut Deus Mk II Shield		(7 K / 7 K)		-2						7 K / 7 K				One on Left Arm		Belted Standard Armor DC 1	
- built in Ram Spikes		4 K + 1 K		0						-				*Built into shield		AP	
The following are stored in the Dimensional Holster:																	
1 x Michael Mk II Rifle		4 K		0		12		144		4 K		-		Both hands		Bv 5, multi-feed 2	
- built in Bayonet blade		4 K		0		melee		-		4 K		-		*Built into Rifle		AP	
- Ammo #1 in Rifle										2 K		8		clip loaded into gun		Tracer rounds	
- Ammo #2 in Rifle										2 K		8		clip loaded into gun		Kinetic rounds	
2 x Ammo #1 spare clips										2 K		8		-		Tracer rounds	
2 x Ammo #2 spare clips										2 K		8		-		Kinetic rounds	
4 x Castigator Mk II Grenades		4 K		-1		7		49		2 K each		-		Pack of five in one Hand		Blast 1	
4 x Uriel Flare Mk II Grenades		(6 K)		-1		7		49		2 K each		-		Pack of six in one Hand		Blast 2, Flare	
4 x Night's Shroud Mk II Grenades		(4 K)		-1		7		49		1 K each		-		Pack of six in one Hand		Smoke, Blast 3	
2 x Mk II Hurlbats		4 K + 1 K		0		melee		-		4 K				One in one hand		AP, Thrown	



Overview:

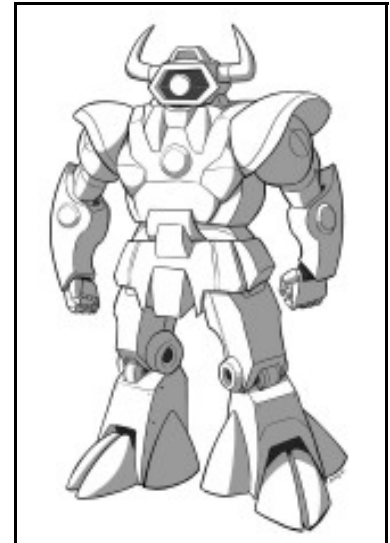
The Pegasus was designed from the Lupus chassis to be a more maneuverable unit in Earf land environments when it became apparent that the A-7D Lupus was hindered by its reliance on its ground speed and rocket assisted jumping. The legs, torso, shoulder armor, and head were redesigned to be more aerodynamic and for the addition of six ducted fan turbines to lift and propel the machine nimbly about the battlefield. The end result was a rather capable machine, but its range was fairly short and its control systems were rather complicated. Despite its success, the Pegasus would eventually be surpassed by the Taurus class as the Demiurge front would shift against the Cosmic Heavens.

Variants:

Some field modifications were seen from time to time, but none were official changes made on the production line.

Cosmic Heavens – “Demiurge Front” Avatars:

Name:	A-14D Taurus production Avatar (Earf use)			Weight (Dry):	41.5 Tons	Weight (Full):	55.15 Tons	Cost:	567.14 points	Height:	17.0 meters																				
Form:	Humanoid	Mv:	-5	Max Ref:	5	Ground:	6	Flight:	14 GES	Water:	0	Misc:	+166% MP																		
													+2 Int, +1 Tech																		
Power Plant:	Source:		XS:		Misc:																										
Main - Overcharged	Babel Fusion (Hot)		5		"With great power comes great boom!"																										
Maneuver Pool:	+33% MP				ECM: Sensor, Missile, Radar - Rank 3, Radius 10 hexes																										
Cockpit:	Controls:		Loc:		Enc:																										
Main	Screen		Torso		Ejection Seat, Lift-Wire		Enclosed																								
					Anti-Theft (code lock)																										
Sensors:	Class:		Loc:		Kills:		Range:		Comm:																						
Main	Striker		Head		1		4 Km		800 Km																						
Back-Up	Striker		Torso		1		4 Km		800 Km																						
R/R Analyzer			Head																												
Resolution Intensifiers	x16 visual																														
Movement Systems:	Loc:		MA:		Kills:																										
GES Fan Turbine #1	Right Leg				4				0																						
GES Fan Turbine #2	Right Leg				3				0																						
GES Fan Turbine #1	Left Leg				4				0																						
GES Fan Turbine #2	Left Leg				3				0																						
Fuel: 200 Km range	Torso																														
Options:	Loc:		Modifiers:																												
Micro-manipulators			One in each Arm																												
Four Spotlights			One in Head, One in each Arm		One in Torso.																										
Damage Control Package			Torso																												
Stat Boost			Torso		+2 to Int, and +1 Tech.																										
G-Compensator			Torso		Up to 14 Ma.																										
Multipliers:	Loc:		Modifiers:																												
Monocoque Construction																															
Internal Automation	Torso				Level 3, Port 4 (Mecha Piloting, Athletics, Awareness, Teach)																										
Environmental Protection					Arctic, Desert, and EMP																										
ACE					+133% MP																										
"Dimensional Holster"					See section on Avatars.																										
Maneuver Veiners	Torso				+1 MV																										
Servos:	Class:		Type:		Space:		Kills:		Armor:		DC:		Modifiers:																		
Head	Medium Striker		Head		6		4		4		1																				
Torso	Heavy Striker		Torso		15		10		2 / 5		1																				
R & L Arm	Medium Striker		Arm		8		5		3		1		+1 K, Throw 3																		
R & L Leg	Heavy Striker		Leg		9		6		2 / 5		1		+2 K																		
Weapons:	Damage:		Wa:		Range:		Max Range:		Kills:		Shots:		Loc:		Special:																
R & L Hand	3 K + 1 K		0		melee		-		3 K		-		Each Arm		Quick, Handy																
1 x Arbatel Flash	(4 K)		0		4		16		1		Inf.		Torso		Beam Weapon: Flare, 60° WA, 1-turn warm up, fragile.																
The following are stored in the Dimensional Holster:																															
1 x Michael Mk II Rifle																4 K		-		Both hands		Bv 5, multi-feed 2									
- built in Bayonet blade																4 K		-		*Built into Rifle		AP									
- Ammo #1 in Rifle																2 K		8		clip loaded into gun		Tracer rounds									
- Ammo #2 in Rifle																2 K		8		clip loaded into gun		Kinetic rounds									
2 x Ammo #1 spare clips																2 K		8		-		Tracer rounds									
2 x Ammo #2 spare clips																2 K		8		-		Kinetic rounds									
4 x Castigator Mk II Grenades																4 K		-1		7		49		2 K each		-		Pack of five in one Hand		Blast 1	
4 x Night's Shroud Mk II Grenades																(4 K)		-1		7		49		1 K each		-		Pack of six in one Hand		Smoke, Blast 3	
1 x Burning Saber Flamberge																6 K + 1		(+2)		Melee		-		2 K each		-		One Hand		3-turns use, rechargeable, thrown	



Overview:

While the combat trials for both the Pegasus and Aries avatars were under way, the Shehagim corporation quietly started another class of machines to replace both avatars as well as the Lupus. It had been clear for some time that any future machine produced for the war effort would need to be faster, more maneuverable, more armored, and rely more on energy based weapons than before. Out of this effort came the Taurus, which was to serve as the start of a new generation of avatars for use on both the Demiurge Front and in space.

The Taurus was built as a new machine from the ground up; every component of its frame and power plant was redesigned based upon lessons learned from combat observations and performance measurements to produce an avatar that had a higher power output and speed than previous models. During the design process, the armor plating was rearranged to cover the more vital areas, while some areas were reduced in coverage such as the arms to increase reaction times. The same ground effect hover system from the Pegasus was worked into the design to give it a high flight speed in a gravity environment, while additional thrusters were added to increase output.

The weapons payload was also changed to reduce weight and improve logistic problems that have plagued the Earf operations since the beginning. The newest and perhaps most unusual addition to the Taurus is the Arbatel Flash system, a Babel particle accelerator coil that can release a fairly large, but non-damaging, flash of energy that can blind an enemy unit. Speculation has been that this was perhaps a failed attempt to create a light energy weapon, but also to serve as a starting point in using new techniques to mass produce newer particle weapons in the future since accelerator coils tend to be fairly fragile.

The “D” version of the Taurus was created along side its space based cousin, the Alphe variant, instead of being a space use design later adapted to another environment. As a result, both machines are very similar to each other in performance and parts supply.

Unfortunately the Taurus D was introduced too late into the ground war to turn the tide in the Cosmic Heavens favor, and all production lines were converted to produce only the space use Alphe version.

Variants:

Erzengelfaust Mk I Anti-Ship Bazooka:

Cost: 1378.58 pts.

As with the Lupus D model, some Taurus machines were equipped with Erzengelfaust weapons to provide some heavy support.

Replaces Michael Mk II Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Erzengelfaust Mk I	100 K	0	10	-	100 K	-	Both hands and weapon mount	x10 Scale weapon
Anti-Ship Bazooka					1 K	2	Clip loaded into gun	Tracer, AP, Kinetic
- Ammo clip					1 K	2	-	Tracer, AP, Kinetic

Erzengelfaust Mk II Anti-Ship Bazooka:

Cost: 2460.78 pts.

Very few of these weapons would see action on Earf as their priority were given to units serving in space, but as it became clear that the Taurus was to be the new ground based avatar, more MK II weapons were given to Taurus units than any other war machine on the Demiurge Front.

Replaces Michael Mk II Rifle:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
1 x Erzengelfaust Mk II	200 K	0	10	-	200 K	-	Both hands and weapon mount	x10 Scale weapon
Anti-Ship Bazooka					2 K	2	Clip loaded into gun	Tracer, AP, Kinetic
- Ammo clip					2 K	2	-	Tracer, AP, Kinetic

Cosmic Heavens – Space Avatars:

Name:	A-14A Taurus "Aleph" production Avatar (Space use)		Weight (Dry):	41.5 Tons	Weight (Full):	57.23 Tons	Cost:	650.26 points	Height:	17.0 meters
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Form:		Mv:		Max Ref:		Ground:		Flight:		Water:		Misc:	
Humanoid		-5		5		6		22 - 25		0		+166% MP	
												+2 Int, +1 Tech	
Power Plant:		Source:				XS:			Misc:				
Main - Overcharged		Babel Fusion (Hot)				5			"With great power comes great boom!"				
Maneuver Pool:		+33% MP							ECM: Sensor, Missile, Radar - Rank 3, Radius 10 hexes				

Cockpit:	Controls:		Loc:		Enc:	
Main	Screen		Torso		Ejection Seat, Lift-Wire Anti-Theft (code lock)	

Sensors:	Class:		Loc:		Kills:		Range:		Comm:	
Main	Striker		Head		1		4 Km		800 Km	
Back-Up	Striker		Torso		1		4 Km		800 Km	
R/R Analyzer			Head							
Resolution Intensifiers	x16 visual									

Movement Systems:	Loc:		MA:		Kills:	
Thrusters	Right Leg		2		0	
Thrusters	Left Leg		2		0	
Thrusters	Right Pod		6		0	
Thrusters	Left Pod		6		0	
After-burning Thrusters	Torso		2 (up to 3)		0	
After-burning Thrusters	Right Leg		2 (up to 3)		0	
After-burning Thrusters	Left Leg		2 (up to 3)		0	
Fuel: 300 Km range	Torso					

Options:	Loc:		Modifiers:	
Micro-manipulators	One in each Arm			
Four Spotlights	One in Head, One in each Arm		One in Torso.	
Damage Control Package	Torso			
Stat Boost	Torso		+2 to Int, and +1 Tech.	
G-Compensator	Torso		Up to 14 Ma.	

Multipliers:	Loc:		Modifiers:	
Monocoque Construction				
Internal Automation	Torso		Level 3, Port 4 (Mecha Piloting, Athletics, Awareness, Tech)	
Environmental Protection			Space, and EMP	
ACE			+133% MP	
"Dimensional Holster"			See section on Avatars.	
Maneuver Veiners	Torso		+1 MV	
Space Hydraulics			See Rules.	

Servos:	Class:		Type:		Space:		Kills:		Armor:		DC:		Modifiers:	
Head	Medium Striker		Head		6		4		4		1			
Torso	Heavy Striker		Torso		15		10		2 / 5		1			
R & L Arm	Medium Striker		Arm		8		5		3		1		+1 K, Throw 3	
R & L Leg	Heavy Striker		Leg		9		6		2 / 5		1		+2 K	
R & L Flight Packs	Medium Striker		Pods		12		0		3		1			

Weapons:	Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:
R & L Hand	3 K + 1 K	0	melee	-	3 K	-	Each Arm	Quick, Handy
1 x Arbatel Flash	(4 K)	0	4	16	1	Inf.	Torso	Beam Weapon: Flare, 60° WA, 1-turn warm up, fragile.
The following are stored in the Dimensional Holster:								
1 x Michael Mk II Rifle	4 K	0	12	144	4 K	-	Both hands	Bv 5, multi-feed 2
- built in Bayonet blade	4 K	0	melee	-	4 K	-	*Built into Rifle	AP
- Ammo #1 in Rifle					2 K	8	clip loaded into gun	Tracer rounds
- Ammo #2 in Rifle					2 K	8	clip loaded into gun	Kinetic rounds
2 x Ammo #1 spare clips					2 K	8	-	Tracer rounds
2 x Ammo #2 spare clips					2 K	8	-	Kinetic rounds
4 x Castigator Mk II Grenades	4 K	-1	7	49	2 K each	-	Pack of five in one Hand	Blast 1
4 x Night's Shroud Mk II Grenades	(4 K)	-1	7	49	1 K each	-	Pack of six in one Hand	Smoke, Blast 3
1 x Burning Saber Flamberge	6 K + 1	(+2)	Melee	-	2 K each	-	One Hand	3-turns use, rechargeable, thrown

Overview:

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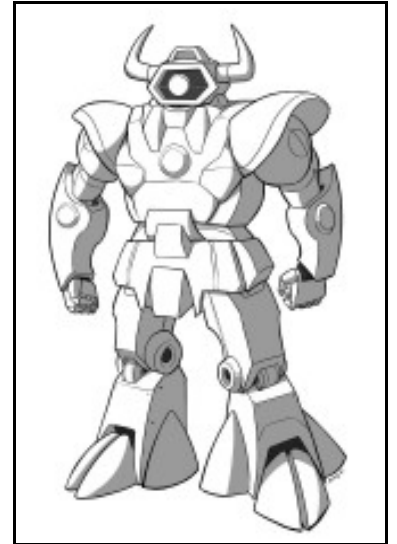
Variants:

As the priority of holding on to its control of space, production of the Erzengelfaust MK II was increased and several Taurus Aleph models were equipped with it in larger numbers than any other space use avatar.

Erzengelfaust Mk II Anti-Ship Bazooka:

Cost: 2410.62 pts.

Replaces Michael Mk II Rifle:	Damage:		Wa:		Range:		Max Range:		Kills:		Shots:		Loc:		Special:	
1 x Erzengelfaust Mk II	200 K		0		10		-		200 K		-		Both hands and weapon mount		x10 Scale weapon	
Anti-Ship Bazooka																
- Ammo clip									2 K		2		Clip loaded into gun		Tracer, AP, Kinetic	
2 x spare clips									2 K		2		-		Tracer, AP, Kinetic	



Cosmic Heavens – Nephilim:

Name:		Weight (Dry):		Weight (Full):		Cost:		Overall Length:		
NB-04X Lacerta prototype Nephilim		112.1 tons		185.0 Tons (35.49 tons)		16,881.38 points		25.0 meters		
Form:		Mv:	Max Ref:	Ground:	Flight:	Water:	Misc:			
Humanoid x10 scale		-5		0	20	0	+200% MP			
							+1 Int			
Power Plant:		Source:		XS:	Misc:					
Main - Standard		Babel Fusion (Hot)		1	"With great power comes great BOOM!"					
Maneuver Pool		ECM: Sensor, Missile, Radar, Rank 3, Radius 20 hexes (Scale x10)								
Cockpit:		Controls:		Loc:	Enc:					
Main		Screen		Torso	Ejection Seat		Enclosed			
					Anti-Theft (code lock)					
Sensors:		Class:		Loc:	Kills:	Range:	Comm:			
Main		Medium Striker		Torso	1	70 Km	10,000 Km			
R/R Analyzer				Torso						
Back-Up		Striker		Torso	1	40 Km	8,000 Km			
Movement Systems:		Loc:		MA:		Kills:				
G.E.S. Fan #1		Right Hover Pod				5 MA	0			
G.E.S. Fan #2		Left Hover Pod				5 MA	0			
G.E.S. Fan #3		Right Hover Pod				5 MA	0			
G.E.S. Fan #4		Left Hover Pod				5 MA	0			
Fuel: 500 Km range		Torso								
Options:		Loc:		Modifiers:						
Three Spotlights				Three in Torso						
G-Compensator				Torso		Up to 16 MA				
Stat Boost				Torso		+1 to Int.				
Ejection Seat				Torso						
Multipliers:		Loc:		Modifiers:						
Monocoque Construction										
Environmental Protection				Desert, Arctic, and EMP						
ACE				+200% MP						
Internal Automation		Torso		Level 3, Port 4 (Mecha Piloting, Athletics, Awareness, Teach)						
Servos:		Class:		Type:	Space:	Kills:	Armor:	DC:	Modifiers:	
Torso		Light Heavy		Torso	21	140 K	60 K	10 K		
R & L Arm		Heavy Striker		Arm	8	60 K	30 K	10 K	+10 K damage, Throw 3	
R & L Hover Pod		Heavy Striker		Pod	15	0	30 K	10 K		
Halo Barrier Pod		Medium Heavy		Pod	24	0	30 K	10 K		
Weapons:		Damage:	Wa:	Range:	Max Range:	Kills:	Shots:	Loc:	Special:	
Following are scale x10:										
1 x Lucifer Cannon		20 K	0	60	3600	20 K	Inf.	One in Torso	Kinetic, Bv 2, Mega-Beam, 3 turn Warm-up	
1 x Halo Barrier Generator		Quality (5)					-	One split between Torso and Halo Barrier Pod	Reflector, Ranged Only, Reset 0	
2 x "Chain Blades" Cutters		100 K	(+ 2)	Melee	-	100 K		One in each Arm		
Following are scale x1:										
1 x Variable Babel Particle Scourge (Energy Pool)						13 K		One in Torso	Portfolio 2	
Mode #1 "Babel Particle Scourge"		3 K	0	12	144	-	Inf.		Bv 4, Hex Wide Angle	
Mode #2 "Arbatel Flash"		(6 K)	0	10	100	-	Inf.		Beam Weapon: Flare, 180° WA, 2-turn warm up	
2 x Michael Mk II Rifles		4 K	0	12	144	4 K	-	Two in Torso	Bv 5, Linked.	
- Ammo Bin #1						1 K	10	Torso	Blast I	
- Ammo Bin #2						1 K	10	Torso	Blast I	

Overview:

The experimental Lacerta was one of the earliest nephilim developed by the Cosmic Heavens, almost predating some of the earliest avatar prototypes. Originally built on the idea of several large machines working together in a pack like formation, very few of these nephilim would be ever built; and those few would later be relegated to being used as test beds for new weapons and technologies as the war progressed.

Originally, the NB-04X version was designed to be a swift and well protected war machine with its heavy armor and high speed. It would be later then selected by the development choirs to test the Halo Barrier system as its chassis allowed for its addition, and would expand its already formidable defensive capabilities. Testing showed that after much fine tuning and and redesign, the Halo Barrier could not only deflect a direct hit by a Lucifer particle cannon, but with some practice and skill it could be used to redirected such attacks, even back to that ship that fired it. The main drawback was that the system required a large amount of power to maintain and it was not difficult for it to overload in combat with frequent direct hits.

The rest of its weapons layout was modest at best. A single Lucifer cannon formed its main armament as the Halo Barrier drew too much power to be able to support another. Secondary armament was composed of a “variable” Babel particle Scourge energy weapon, and two conventional projectile weapons. The most noticeable weapons were the two massive chainsaw like limbs sporting from either side of the machine designed for making quick strikes on space vessels while making strafing attacks.

The Lacerta one main asset was its high speed given to it by the large thrusters mounted on it sides, making it almost too fast to be hit. Its high speed though came at the cost of agility, making it difficult for the pilot to maneuver around obstacles, or ironically, efficiently dodge incoming attacks.

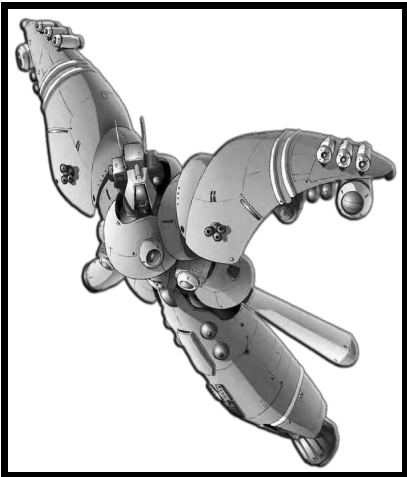
Variants:

The variant presented here represents a Lacerta that had been converted to function in a Earf-like environment. Originally designed to function in space, it had a MA of 25, and space & EMP environmental protections.
Cost: 17,911.52 pts.

Movement Systems:		Loc:	MA:	Kills:
Thrusters #1		Right Thruster Pod	6.25	0
Thrusters #2		Right Thruster Pod	6.25	0
Thrusters #3		Left Thruster Pod	6.25	0
Thrusters #4		Left Thruster Pod	6.25	0
Fuel: 500 Km range		Torso		

Cosmic Heavens – “Demiurge Front” Avatars:

Name: AMA-03 Pisces Alpha prototype Avatar (aquatic use)			Weight (Dry): 38.0 Tons			Weight (Full): 53.23 Tons			Cost: 893.52 points			Height: 16.0 meters														
Form: Humanoid			Crush Depth: 450 m 1,476.4 ft	Mv: -5	Max Ref: 5	Ground: 0	Flight: 0	Water: 10 (30 x 1/3 Mod)	Misc: +233% MP +1 Int, +1 Tech																	
Power Plant: Main - Supercharged			Source: Babel Fusion (Hot)			XS: 5	Misc: "With great power comes great boom!"																			
Maneuver Pool:			+67% MP			ECM: None, aquatic avatar																				
Cockpit:			Controls:			Loc:			Enc.:																	
Main			Screen			Torso			Escape Pod, Anti-Theft (code lock)			Enclosed														
"Awakened" Cockpit			Screen / Deus ex Machina			Head			Escape Pod, Anti-Theft (code lock)			Enclosed														
Sensors:			Class:			Loc:			Kills:			Range:			Comm:											
Main			Striker			Head			1			4 Km			800 Km											
R/R Analyzer						Head																				
Resolution Intensifiers			x8 audio			Head																				
Marine Suite						Torso																				
Back-Up			Striker			Torso			1			4 Km			800 Km											
Movement Systems:			Loc:			MA:			Kills:																	
Caterpillar Drive (Gravitics)			Torso						2 MA (6 MA x 1/3 Mod)			0														
Caterpillar Drive (Gravitics)			Torso						2 MA (6 MA x 1/3 Mod)			0														
Caterpillar Drive (Gravitics)			Torso						2 MA (6 MA x 1/3 Mod)			0														
Caterpillar Drive (Gravitics)			Torso						2 MA (6 MA x 1/3 Mod)			0														
Caterpillar Drive (Gravitics)			Torso						2 MA (6 MA x 1/3 Mod)			0														
Caterpillar Drive (Gravitics)			Torso						2 MA (6 MA x 1/3 Mod)			0														
Options:			Loc:			Modifiers:																				
Micro-manipulator						One in Head																				
Four Spotlights			One in Head, one in each Arm, and Torso																							
Damage Control Package			Torso																							
Stat Boost			Torso			+1 to Int, and +1 Tech.																				
Multipliers:			Loc:			Modifiers:																				
Monocoque Construction			Torso																							
Internal Automation			Torso			Level 3, Port 4 (Mecha Piloting, Swimming, Awareness, Teach)																				
Environmental Protection						Underwater, High Pressure, and EMP																				
ACE						+100% MP																				
Marine Hydraulics						Can only function in water.																				
Shadow Imagers			One in each Arm, two in Tail			4 "Balloon" type shadows. See rules.																				
Mens Agitat Molem / ESPer Lense			Torso			Level 3, Portfolio 3, Backlash 0, Torso 10 spaces																				
Deus ex Machina / Thought Control						Level 1, see rules.																				
Lahabeil Feedback Protection						Level 1, see rules.																				
Servos:			Class:			Type:			Space:			Kills:			Armor:			DC:			Modifiers:					
Head			Medium Striker			Head			6			4			4			1								
Torso			Heavy Striker			Torso			15			10			4			1								
R & L Arm			Medium Striker			Arm			8			5			2			1			+1 K, Throw 3					
R & L Heavy Pod			Medium Striker			Pod			12			0			2			1								
R & L Light Pod			Lightweight			Pod			6			0			2			1								
Tail			Medium Striker			Tail			6			4			2			1								
Weapons:			Damage:			Wa:			Range:			Max Range:			Kills:			Shots:			Loc:			Special:		
R & L Pisces Talons			4 K + 1			0			Melee			(3 hexes)			4 K						One in each Arm.			Quick, Returning		
1 x Right Pisces Fin Shield			(8 K)			0									8 K						One on Right Arm			Standard Armor DC 1		
1 x Left Pisces Fin Shield			(8 K)			0									8 K						One on Left Arm			Standard Armor DC 1		
2 x Mk I Engelsfausts Torpedoes			100 K			0			10			-			7 K each						One in both Heavy Pods			x10 Scale weapon		
8 x Dagiel Homing Torpedoes			5 K			0			10			100			1 K each						Four in both Heavy Pods			Smart 2, Skill (+6), Linked.		
70 x Light Torpedoes			2 K			0			10			100			2 K each						Fourteen in each Arm, Light Pod and Tail.			Linked.		
30 x Counter Torpedoes			(1 K)			0			-			-			1 K each						Ten in each Light Pod and Tail			Counter – Only, Linked.		
6 x Uriel Flare Torpedoes			(4 K)			-1			7			49			1 K each						Two in each Light Pod and Tail			Flare, Blast 1, Linked.		
6 x Night's Shroud Torpedoes			(4 K)			-2			7			49			1 K each						Two in each Light Pod and Tail			Smoke, Blast 2, Linked.		



Overview:

The Pisces Alpha series of prototype avatar machines were developed by both the Rapture Foundation and Shehagim Manufacturing Solutions to both test and demonstrate the predicted advantages and abilities of an awakened mind on the new modern battlefield. Using a modified Pisces avatar machine as its base, the machine was given an enlarged body and head to accommodate the new and bulky control equipment, as well as the larger power plant and additional caterpillar drives for higher speed. All of its original armament was kept as an attempt to show how an awakened pilot could push past the normal performance levels of “regular” avatar pilot.

At the heart of the machine are both the Deus ex Machina thought control system, and the Mens Agitat Molem extra sensory arrays. Both systems extend the awareness and reach of the awakened pilot's mind and body to perform great feats on the battlefield. Enemy units can be sensed remotely despite the presence of heavy Babel particle contamination in the area, and the proper attack launched before they even knew what hit them, all by mere thought. Some other abilities have been demonstrated with the system such as long range mental communication, and even some rare displays of so called “psychokinesis.”

Besides the higher level of control over the avatar machine, one of the other repeatable demonstrations of the abilities of an awakened mind was the mental control of additional machines at the same time. Two different versions of these remote weapon systems, Cherubim and Seraphim, have been used under combat conditions to perform attacks that would be impossible for an unawakened mind to perform all at once. The only limitation observed so far is the stress the pilot can endure while their mind is expanded outwards beyond their normal range of senses, and the electrical feedback that occurs during use of the systems while taking damage from enemy attacks. Some awakened pilots have been lost due to the extreme backlash of electrical feed back to their brains.

With the somewhat unreliable nature of awakened pilots, due to some of their eccentric behaviors and little understanding behind their abilities, the Pisces Alpha is controlled by two separate pilots; the awakened pilot in the avatar's head, and a “unawakened” pilot in the original cockpit in the torso body. The secondary pilot is assigned as both a mentor and protector to the awakened pilot; when the combat situation goes beyond a certain “risk threshold,” they are required to disengage the specialized control equipment and get the awakened pilot back to safety of the sub carrier or base. Some pilots resented being a mere “baby sitter,” especially when many of the awakened pilots were much younger than they were. But a few realized the importance of their missions, and what it could mean for the future of the Cosmic Heavens dominance in both space and on Earf.

Variants:

As expected with such a prototype machine, the Pisces Alpha has been altered to test new concepts in the “mental expansion technologies” employed by the Rapture Foundation and the Cosmic Heavens. It is suspected that at least six of the Alpha series have been produced and used with several different candidates from the awakened mind programs, requiring numerous different forms of fine tuning and even levels personalization for each machine.

AMA-03 Pisces Alpha Alrescha: Cost: 942.47 points.
One of the first versions created to test the concept of mentally controlled remote weapons, the Alpha Alrescha transmits and receives the “mental waves” though heavily shield cables between the mother unit and remote weapon. Very successful in demonstrating that it was possible for an awakened mind to control other machines while piloting their's at the same time, the main limitation was the inherent weakness of the control cables which were vulnerable to being severed by debris, enemy fire, etc.

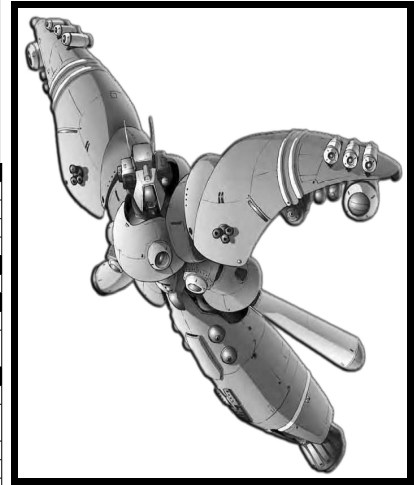
Control Multiple: 4
Control / Operation Range: 12 hexes

AMA-03 Pisces Alpha Piscium: Cost: 957.19 points
A much more advanced version of the Alpha Alrescha, the Alpha Piscium does away with the troublesome and vulnerable control cables altogether, and uses the power of the awakened pilots mind to transmit and receive the “mental waves” through air, space, or water. This allowed for greater flexibility in design and use of the remote weapons under the pilot's control, though it lead to the discovery of an unanticipated problem of interference from other awakened minds in the same area which lead to further research and design to limit the problem to a minimum. Several awakened pilots were “bonded” with different types of Seraphim remote weapons, even including six specially converted Pisces AM-03 avatars.

Control Multiple: 4
Control Range: 7 hexes
Operation Range: 21 hexes

Cosmic Heavens – Character Avatars:

Name: AM-03G "Domina" Pisces Gladiator Avatar (aquatic use)		Weight (Dry): 35.0 Tons		Weight (Full): 46.2 Tons		Cost: 384.25 points		Height: 16.0 meters									
Form: Humanoid		Mv: -5		MR:		Ground:		Flight:		Water: 10 (30)		Misc: +200% MP +2 Int, +1 Tech					
Power Plant: Main - Overcharged		Source: Babel Fusion (Hot)		XS: 5		Misc: "With great power comes great boom!"											
Maneuver Pool		ECM: None, aquatic avatar															
Cockpit: Main		Controls: Reflex		Loc: Torso		Enc.: Escape Pod, Lift-Wire Anti-Theft (code lock)											
Sensors: Main		Class: Medium Striker		Loc: Head		Kills: 1		Range: 7 Km		Comm: 1,000 Km							
Back-Up		Striker		Torso		1		4 Km		800 Km							
R/R/S Analyzer				Head													
Marine Suite				Torso													
Movement Systems: MHD Propulsor (see tech. section)		Loc: Torso		MA: 10 (30)		Kills: 0											
Options: Micro-manipulator		Loc: One in Head		Modifiers:													
Four Spotlights		One in Head, one in each arm, two in torso															
Multipliers: Monocoque Construction		Loc: Torso		Modifiers: Level 3, Port 4 (Mecha Piloting, Zero Gee maneuvering, Awareness, Teach)													
Internal Automation				Underwater, high pressure, and EMP													
Environmental Protection				+100% MP													
ACE				+1 damage to melee attacks													
Heavy Hydraulics																	
Servos: Head		Class: Medium Striker		Type: Head		Space: 6		Kills: 4		Armor: 4		DC: 4		Modifiers:			
Torso		Medium Striker		Torso		12		8		5		4					
R & L Arm		Heavy Striker		Arm		9		6		4		4		+1 K, Throw 3			
R & L Heavy Pod		Heavy Striker		Pod		15		0		4		4					
R & L Light Pod		Striker		Pod		9		0		4		4					
Tail		Medium Striker		Tail		8		5		4		4					
Weapons: 8 x Heavy Torpedoes		Damage: 10 K		Wa: .+2		Range: 17		Max Range: 289		Kills: 1		Shots:		Loc: 4 in each Heavy Pod		Special: Long Range, Linked.	
94 x Light Torpedoes		2 K		0		10		100		3				20 in each Arm, 18 in each Light Pod and Tail.		Linked.	
30 x Counter Torpedoes		(1 K)		0		-		-		1				10 in each Light Pod and Tail		Counter – Only, Linked.	
6 x Uriel Torpedoes		(4 K)		0		9		81		1				2 in each Light Pod and Tail		Flare, Blast I, Linked.	
8 x Seeker Torpedoes		4 K		0		11		121		1				4 in each Heavy Pod		Smart 2, Skill (+9), Linked.	
2 x Wing Shields		(10 K)		0						10				One on each arm		Beta DC 4	
-built-in Plasma Cutters		2 K		.+1		Melee		-		1		1-turn		Built into shield		EMW, Rechargeable, Hyper, Linked.	
R & L "Domina" power whips		5 K + 2		.+2		Melee / 4		4		5				One in each arm.		Quick, Entangle, Shock-only	



Overview:

Built as the personal avatar for Rear Admiral Naamah Iscariot, this gladiator machine was designed to go toe to toe with any aggressive combatant in any aquatic environment on Earf. Both of its Domina power whips can entangle a target in their grasps, and deliver a high voltage current to disable the target's controls or even its pilot. Once rendered incapacitated, paralyzed or unconscious, the whips can pull in the target for the twin plasma cutters hidden in the wing shields to finish it off.

Since this machine was to be used by a member of the Iscariot family, great care was taken to improve the armor protection and defenses, including increasing the avatar's speed and power output. And with her awakened mind potential, an experimental control system was installed in the pilot control throne to allow Naamah a greater degree of mastery in avatar combat.

Variants:

None, the Domina is a unique machine built for one particular pilot.

Cosmic Heavens – Character Avatars:

Name:			Weight (Dry):		Weight (Full):		Cost:		Height:									
AM-04G Dorado Gladiator Avatar (aquatic use)			35.6 Tons		46.66 Tons		569.71 points		16.75 meters									
Form:			Mv:		MR:		Ground:		Flight:		Water:		Misc:					
Humanoid			-6				6		12 (up to 18)		10 (30)		+100% MP					
											(-2 silent)		+1 Int, +1 Tech					
Power Plant:			Source:			XS:		Misc:										
Main - Standard			Babel Fusion (Hot)			5		"With great power comes great boom!"										
Maneuver Pool								ECM: None, aquatic avatar										
Cockpit:			Controls:			Loc:			Enc:									
Main			Screen			Torso			Enclosed									
									Anti-Theft (code lock)									
Sensors:			Class:			Loc:			Kills:		Range:		Comm:					
Main			Striker			Head			1		4 Km		800 Km					
Back-Up			Striker			Torso			1		4 Km		800 Km					
R/R/S Analyzer						Head												
Marine Suite						Torso												
Movement Systems:			Loc:			MA:			Kills:									
Hydro-Jets			Torso:						10				0					
			Left Leg:						10				0					
			Right Leg:						10				0					
After-burning Thrusters			Left Leg:						4 (up to 6)				0					
			Right Leg:						4 (up to 6)				0					
			Torso:						4 (up to 6)				0					
Fuel: 100 Km range			Torso										0					
Options:			Loc:			Modifiers:												
Micro-manipulators						One in both Arms.												
Four Spotlights						One in Head, one in Right Arm, one in shield, one in torso												
Multipliers:			Loc:			Modifiers:												
Monocoque Construction																		
Internal Automation			Torso			Level 3, Port 4 (Mecha Piloting, Zero Gee maneuvering, Awareness, Teach)												
Environmental Protection						Underwater, high pressure, and EMP												
ACE						+100% MP												
"Dimensional Holster"						See section on Avatars.												
Servos:			Class:			Type:			Space:		Kills:		Armor:		DC:		Modifiers:	
Head			Medium Striker			Head			6		4		4		1			
Torso			Heavy Striker			Torso			15		10		5		1			
Right Arm			Heavy Striker			Arm			9		6		4		1		+1 K, Throw 3	
Left Arm			Medium Striker			Arm			8		5		4		1		+1 K, Throw 3	
R & L Leg			Heavy Striker			Leg			9		6		5		1		+1 K	
4 x Weapon Pods			Medium Striker			Pod			12		0		4		1			
Weapons:			Damage:		Wa:		Range:		Max Range:		Kills:		Shots:		Loc:		Special:	
Left Hand			3 K + 1		0		Melee		-		2		-		Left Arm		Quick, Handy	
1 x Dorado Lance															Right Arm		Mated Weapons	
- Lance			4 K + 1		+2		Melee		-		4		-				AP, Returning (Range 3 hexes)	
- "Rocket Torpedo Gun"			4 K		0		12		144		4		-				Bv 3, can be used in air or water.	
- Ammo											1		6		In Right Arm		Standard	
- 2 x Spare Ammo Clips											1		6		Dimensional Holster		Standard	
1 Quis ut Deus Assault Shield – Gladiator Version			(9 K)		0						9				Left Arm		Standard Armor DC 4	
8 x Heavy Torpedoes			10 K		+2		17		289		1				2 in each pod		Long Range, Linked.	
80 x Light Torpedoes			2 K		0		10		100		3				20 in each Pod		Linked.	
40 x Counter Torpedoes			(1 K)		0		-		-		1				10 in each Pod		Counter – Only, Linked.	
4 x Uriel Torpedoes			(4 K)		0		9		81		1				1 in each Pod		Flare, Blast I, Linked.	

Overview:

The Dorado was Emphyrean Corporation's entry to the design competition to produce what was to become the standard aquatic avatar unit for upcoming war on the the Demiurge Front. Even though at the time the military leadership felt that any combat that was to occur in any of the ocean zones was to be of rather low priority, Emphyrean was determined to make an impression after losing several other possible contracts in other competitions. So much so, "the twins" were given the goal to design the new machine, and have a prototype ready in a short time span, despite already under pressure to create several other such machines in the mean time.

What was finally delivered was a fairly sophisticated machine that was unlike any of the other submitted designs; an avatar that could effectively fight either underwater or on land. It carried most of the standardized weapons that were specified, though its main weapon was an unusual "gun" that could rapid fire several medium "rocket torpedoes" in quick succession, built with in an reinforced hydraulic lance that could impale a target over 150 meters away.

What was not mentioned during the design review that despite the Dorado being an effective amphibious avatar, it was in fact a failed attempt to produce a unit that was capable of traveling underwater at high speeds via the use of supercavitation. None of the intended mechanisms for the supercavitation worked as were created during the testing phase, even the rocket torpedoes had problems but were useful in being used as standard weapons, and when it became apparent that the lofty goal could not be achieved in the given time frame, anything that could not be used for some other function was quietly erased from the project and covered up.

In the end, the Dorado was not selected for production as the main aquatic combat unit. Though some officers with influence were able to acquire the remaining prototype units for their own personal use, including a few being upgraded as "gladiator" versions.

Variants:

None officially.

Cosmic Heavens Characters:

Name/Rank:		Daniel Abraham Angelus, First High Lord Dominion						
Species:		Orvctolagus cuniculus domesticus - Blanc De Bouscat						
Born:		Unknown - presumed age at death: mid-50s years old						
Unique Features:		Heavily aged, unusually long ears, rail thin, confined to wheelchair or bed near end of life.						
Fur:	White		Hair:	Light gray, long.		Eyes:	Bright Blue/Green	
Height:	6' 2"		Weight:	150+ lbs.				
INT:	10	EDU:	8	Awareness	8	Danger Sense	5	
COOL:	10	Stability:	25	Dodge/Escap	5	Emotion Scan	3	
REFLEX:	5	Run:	18 m	Human Perception	5	Aura Viewing	3	
ATT:	8	Jump:	1.5 m	Expert: Philosophy	10	Psi Block	8	
EMP:	8	ZG Leap:	6 m	Leadership	9	Precognition	3	
TECH:	2	Stun:	6	Speech	9	Healing	2	
LUCK:	8	Lift:	60	Grooming, Style	3			
Move:	6	EV:	4	Persuasion	8			
BODY:	5	Throw:	20 m	Interview	3			
AM:	5			Zero-Gee	3			



Bio:

There are many mysteries surrounding the war, and even many more shrouding the years prior to the first shot. One of the more mysterious would be who was the person who would become known as the first High Lord Dominion of the Cosmic Heavens. No one truly knows who he was, or where he had came from. It was as though he simply appeared out of thin air fully formed and ready to fulfill his chosen mission. Only a few minutes of a grainy security camera shows him departing from a passenger shuttle, which the manifest of did not list him as a passenger, stands as a testament of his life before he began preaching his body of philosophies called "Angelism."

From the moment his feet touched the colony's "ground," Daniel A. Angelus began preaching his word to any and all who would listen; standing on his trademark fruit crate, and directing his words from street corners or parks to the passing throngs of people. Audiences were small at first, but slowly grew; but not before Angelus would be arrested for a serious of charges of disturbing the peace, and being homeless. It was during one of his early stints in jail that he met the man who would become his most loyal follower: Habakkuk Iscariot. After that meeting, Iscariot gave him a place to stay in his own home, and a job in his restaurant to keep him from getting into trouble with the law.

His teachings were based upon a wide range of eastern and western political and spiritual thought, though melded into one convoluted body of knowledge that with stood all inspections. No one ever was ever able to successfully debate him, his quick mind was always several steps ahead of anyone who challenged or questioned him. He answered all with a warm smile and expertly worded explanations that quelled all dissent or ignorance to the point of being described as mesmerizing or "Svengali like." Angelus was viewed as being very much like a father figure; never resorting to anger or malice, always smiling with open arms to every challenge or difficulty as if greeting an old friend. Many have described Daniel A. Angelus as being very dynamic and always constantly moving; rarely resting or slowing down for any situation. He always appeared to be somewhat frail, but always in good health despite "burning his candle at both ends." And if his words didn't hit home with his listeners, it was some of the "miracles" that were said to have been performed by him that convinced many of his abilities.

At first all went as normal, until Angelus developed what would be described as a small following, including the whole Iscariot family. Soon the family's restaurant began to regularly close early to host his sermons until they grew too large to be held there. Habakkuk soon bought an adjacent property to his to build what would become the first church of the fledgling cult. And from there, the beliefs taught by Angelus spread like wild fire across the colony, and then to neighboring colonies as his sermons were begun to be broadcast on public channels, and shared as recordings. As it became more accepted among the population, Daniel A. Angelus took it to the next step and entered into politics.

Never holding office of his own, seeing it as an impediment to spreading of his word, he helped many others run for office and shaped their policies with his teachings. In just twelve years, he managed to have enough believers serving as officials in nearly every office throughout the colony herd for it to be able to declare itself an independent state in 0095 AT. As the issue was put to public vote, the landslide victory took everyone outside of the colony herd by complete surprise, in particular ONE itself.

From there as the newly elected High Lord Dominion, Angelus reshaped the entire colony herd group while staving off the interference of ONE and other agencies while the new power structures were put into place. Through his own charm and charisma, he kept all outside forces at bay during countless negotiations and talks. Eventually everything slowly settled into the calmness of a "cold war" between all parties as Angelus and his followers went about transforming the fledgling independent nation.

Then in 0115 AT, Daniel A. Angelus collapsed during one of his many sermons and fell ill for many months before passing away from an never properly diagnosed sickness. From his death bed, he wrote his final series of books and declared Habakkuk Iscariot to be his successor.

Secret Information:

Perhaps one of the most shocking mysteries about Daniel A. Angelus, besides his earlier life, is his genuine character. No one has ever claimed to have heard a negative word or even sensed any level of hostility or anger from him. Even when confronted by an assassin, he smiled calmly to the disturbed man and spoke to him as if he was his own son, leading to the individual disarming himself and peacefully submitting himself to arrest. He even went much further by pardoning him and bring him into the fold as an assistant. No scandal nor mere gossip ever came close to tarnishing his character or public image, or that of his personal family; though many of his close followers such as the Iscariot family rarely shined as bright as he or his family.

Super Secret Information:

Before his death, Daniel Angelus told Habakkuk that the mission of Angelism was failing because instead of creating an independent nation, they had in fact crafted a "golden cage" where the Cosmic Havens would slowly stagnate and be prevented from ever reaching out further to the stars. The only way he saw to be able to break this "spiritual" stalemate was to start a war of unimaginable scale to shock the rest of Anthrokind in to seeing what was the proper path for them to follow.

Not only did he view the prophesied war as being necessary, but also knew that other parties had to be put into motion as well to bring about the changes he saw that were necessary, including the great political purges that would follow his death; especially those of his own family. He made up the lists of names of those that would resist the march to war, and thus would have to be removed; knowing full well that Habakkuk would not have to be the one with blood on his hands, that his wife and three eldest children would be more than eager to do the work for him. Habakkuk would only need to start the pebble rolling by setting his corrupt family loose and slowly shape his own image into that of a tyrant to rival theirs, while they made the world burn for him. With his last breath, he expressed his love for his close friend, and forgave him for the atrocities that he asked him to unleash upon the Earf Sphere.

Sources and Inspirations:

- <http://tvtropes.org/pmwiki/pmwiki.php/Main/WellIntentionedExtremist>
- <http://tvtropes.org/pmwiki/pmwiki.php/Main/WarForFunAndProfit>
- <http://tvtropes.org/pmwiki/pmwiki.php/Main/TheMessiah>
- <http://tvtropes.org/pmwiki/pmwiki.php/UsefulNotes/Christianity>
- <http://tvtropes.org/pmwiki/pmwiki.php/UsefulNotes/Gnosticism>

The Twelve Emissaries:

In the early days of the formation of the first church of Angelism, Daniel A. Angelus brought together a special group of followers that would later serve as fellow missionaries to spread his teachings across the colony herd. Many of these people would be drawn from various paths in life, but they all shared a gift in oratory, and a strength of devotion to both Angelus and his teachings.

It was in the period of mourning after Angelus's death that the cracks of division stared to appear among them as it was rumored that some were beginning to question the new leadership of Habakkuk Iscariot, and even hinting at the mysterious nature of Danial A. Angelus's illness. This divide quickly devolved into outright debate and accusations as the more outspoken of the Twelve seemingly turned on each other and other leaders of the movement. Factions were formed and civil war appeared to be almost inevitable, but not before the newly instated High Lord Dominion Habakkuk Iscariot called out for all of his fellow Emissaries to be brought before him and made to answer for their actions before the citizens of the Cosmic Heavens in a series of public trials. One by one, each of them were brought before the court that was specially formed to deal with the crisis, but before the first day of trial began it was clear the verdicts were already written, the punishments decided; all was needed was for the public theatrics of the trials to be performed to convince the citizens of their crimes.

It was during the first three weeks that Jonah Cephas, Pamela Baguette, and Andrew Saltire were found “guilty” of crimes against the nation, belief of Angelism, and the newly canonized Saint Angelus. A majority of the proceedings took an unexpected turn as the three stood as their own defense, and countered the endless cross examinations, and brought forth their own counter challenges to clear their names. But in the end, it appeared to have been futile until it was realized that it had all been a show with in a show to allow their fellow accused emissaries to escape their in-house arrests, and attempt to flee to outside the realm of the Cosmic Heavens.

Name:	Species/Gender:	Fate:
Habakkuk Iscariot	Albino Rat / Male	Inherited leadership role as High Lord Dominion, and lead the crusade to clear out all dissent and challenges to the new order.
James Boanerges	Water Buffalo / Male	Was caught in customs traveling under false documentation and disguise. Beaten by angry mob, was found dead with sword wound in chest.
Andrew Saltire	Bengal Tiger / Male	Tried in court, helped to drag out the proceedings with Jonah Cephas and Pamela Baguette by citing procedure rules, and obfuscation. Public execution: Haritsuke (磔).
Jaquenetta Cleopas	Calico Japanese Bobtail / Female	Killed by mob while waiting for departing ship, body was put on display shortly after death.
Simon Burning	Crested Ridge Back / Male	Attempted to escape via external airlock to awaiting private ship, was crushed to death by emergency doors when an explosion caused a decompression event.
Nataniela Tanner	Egyptian Cobra / Female	Rumored to have been captured by secret police, and to have been tortured by being flayed alive to be forced to reveal the locations of the others emissaries. Severed head was displayed in public afterward.
John Donner	Clydesdale / Male	Survived the trials by testifying against his fellow emissaries and offering evidence of their guilt. In doing so, he was cleared of the charges that were filed against him. Resigned from his political office in the Dominions, and retired to quiet seclusion.
Pamelia Baguette	Suffolk Sheep / Female	Tried in court, public execution: Haritsuke (磔).
Thomas Bezweifeln	Hanuman Langur / Male	Body was found by angry mob impaled by a spear through heart, body was mutilated and publicly displayed.
Jonah Cephas	Onagadori Bantam / Male	Tried in court, held up public proceedings using every regulation and legality available to him. Even changed his plea three times to further confuse the prosecution. Public execution: Haritsuke (磔).
Thaddeus Icon	Siberian Husky / Male	His disguise was exposed while trying to escape, chased and hounded by angry mob before leaping to his death from a bridge. But not before declaring his innocence, love and devotion to the Angelus cause to his pursuers.
Levi Ledger	Middle White Boar / Male	Body was found hanging from balcony of home, head severed and was never recovered.

The Angelus Family:

During the early formation of the Church of Angelism, Daniel A. Angelus married one of his first assistants, Mary, and had two children with her, Deborah and Elijah. During the confusion when it was discovered that the emissaries had escaped their separate confinements, Mary Angelus was put under house arrest for both her protection and to interrogate her for information on their whereabouts. Mary would never reveal any information about the emissaries, nor about her children that had also disappeared during the chaos. Part of the propaganda that was used to agitate the citizens into angry mobs was the accusation against the fleeing emissaries that they had kidnapped the Angelus children against their will as hostages.

The children would later be declared dead when their reported remains, including the blood soaked remnants of Elijah Angelus's brightly colored cloak, were found in the wreckage of an water carrier ship that had been a part of some of the emissaries escape plans (suspected to have been sabotaged by a planted bomb).

Mary Angelus would later die shortly after the massacres and political purges from an illness brought about from the stress of the ordeal and imprisonment.

John Donner:

Besides Habakkuk Iscariot, the only remaining survivor from Angelus's close circle of friends is John Donner. During the purge, he reluctantly gave evidence against his fellow emissaries, and was cleared of the treason charges that were filed against him. As order was brought to the Cosmic Heavens and the new rule of law began to sink in, Donner quietly resigned his position on the High Dominion council, and began a near secluded life out of the public spot light, only occasionally venturing out to perform his charitable work throughout the nation. His other known activities includes sponsoring particular Agoges and Krypteia that have earned his patronage. Such as the avatar orientated krypteia “Swords of Heaven,” many of which had distinguished themselves in combat during the “30 days of Hell,” and afterward during the fighting of the Demiurge Front.

Cosmic Heavens Characters:

Name/Rank:		Habakkuk Iscariot, High Lord Dominion						
Species:		Rattus Norvegicus -Albino						
Born:		November 8, 0056 AT (2188 AD) - 69 years old						
Unique Features:		Bald, heavily aged, obese, wears glasses, and walks with cane.						
Fur:	White		Hair:	None/Bald		Eyes:	Red	
Height:	5' 7"		Weight:	250+ lbs.				
INT:	8	EDU:	8	Awareness	6	Interview	3	
COOL:	10	Stability:	25	Dodge/Escape	3	Zero-Gee	3	
REFLEX:	5	Run:	15 m	Human Perception	5	Hand to Hand	3	
ATT:	5	Jump:	1 m	Interrogation	6			
EMP:	6	ZG Leap:	5 m	Intimidate	4			
TECH:	2	Stun:	6	Leadership	8			
LUCK:	7	Lift:	60 Kg	Survival	2			
Move:	5	EV:	4	Expert: History	8			
BODY:	6	Throw:	20 m	Grooming, Style	3			
AM:	0			Persuasion	4			



Bio:

Habakkuk Iscariot is the current High Lord Dominion of the Cosmic Heavens, coming into power after the death of Daniel A. Angelus in 0115 AT.

Many years ago when Daniel Angelus first began to preach his philosophy, Habakkuk was a well known business man and community leader, heavily involved in charity work and local issues. After Angelus's first arrest for being homeless and causing a disturbance with his public preachings, Iscariot tried to step in on his behalf, even going as far becoming a sponsor and offering him a day job in his restaurant as a dishwasher. Slowly over time, the two became more involved spreading the word of Angelism with Habakkuk taking on the role as his "right hand man" managing the publication of his books and scheduling speaking tours through out the colony herd. Long before the declaration of succession was made, both of their faces were equally synonymous with the movement having been featured on countless posters and video broadcasts. It was very rare to not see the one without the other being present at any event or occasion.

After the declaration was made, Habakkuk became even more active as part of the High Dominion council shaping the newly founded nation in every possible aspect as per Angelus's countless directives. There was little reason to ever question his motives or loyalties as he was highly supportive of anything Angelus proposed. Though after his death under mysterious circumstances, many noticed a major change in his personality as he became more fanatical and started preaching a much more militant form of Angelism, and pressuring for recognition of the Cosmic Heavens as a sovereign nation by the rest of the Earf Sphere.

As the war progressed from the first months of the Demiurge Front, Habakkuk's fanaticism slowly began to fade as he stepped away from his leadership roles in the day to day administrations, turning over more of his duties to his son Samael who has taken his father's militant views to ever higher heights.

Secret Information:

It is a carefully guarded secret that one of the biggest distractions for Habakkuk is the constant inter-familial fighting between his children that he has placed in positions of power in the Dominions and Powers hierarchies. It was thought that spreading them so far apart from each other and giving them other responsibilities would ease some of the tensions, but it has only made the situation even worse. Especially between the three oldest siblings.

If that was not enough, the infighting seems to be a small part of the Machiavellian orchestrations manipulated by his wife Jezebel Iscariot, who some would say is the real power behind the throne and the motivation for the continuing war. It was his wife Jezebel and his son Samael who orchestrated the numerous series of purges to clear out any threats to their authority, even forcing the wife and children of Daniel Angelus to flee from the colony herd group to places unknown. Though even his family problems do not do enough to explain his growing apathetic outlook and attitude towards the conflict and life in general.

Super Secret Information:

Deadly Sin: Apathy / Sloth

Before his death, Daniel Angelus told Habakkuk that the mission of Angelism was failing because instead of creating an independent nation, they had in fact crafted a "golden cage" where the Cosmic Havens would slowly stagnate, and be prevented from ever reaching out further to the stars. The only way he saw to be able to break this "spiritual" stalemate was to start a war of unimaginable scale to shock the rest of Anthrokind in to seeing what was the proper path for them to follow.

Daniel Angelus: "...be utterly amazed my friend, for you are going to do something in your days that you nor anyone would believe, even as I tell it to you..."

Habakkuk took this last directive from his High Lord and close friend to heart, and put it into motion shortly after Angelus's death. For the next ten years, he led his nation with his fiery speeches and near tyrannical leadership, using the religion of Angelism and a cult of personality to stamp out any resistance (or at least drive it deeper underground) and to further prepare the Cosmic Heavens for the "necessary" war.

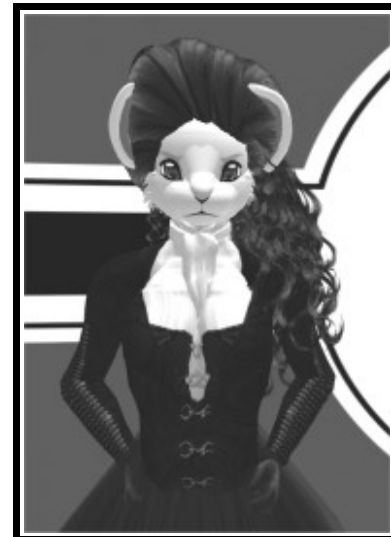
Even though he is following the secret directives his close friend left behind and remains as loyal as ever to the cause of Angelism, his spirit and will have been burnt out by the effort and the reality of watching his perceived failures as a father to his children and as a leader to his nation is taking its toll on him to the point that he is questioning everything, and feels that he can no longer contribute to the appointed mission that he was appointed to by Daniel Angelus.

Sources and Inspirations:

http://en.wikipedia.org/wiki/Gospel_of_judas
[http://en.wikipedia.org/wiki/Sloth_\(deadly_sin\)](http://en.wikipedia.org/wiki/Sloth_(deadly_sin))
<http://en.wikipedia.org/wiki/Apathy>
<http://en.wikipedia.org/wiki/Iscariot>
<http://en.wikipedia.org/wiki/Habakkuk>

Cosmic Heavens Characters:

Name/Rank:	Jezebel Iscariot, "Mother of Heaven"						
Species:	Rattus Norvegicus -Albino						
Born:	January 30, 0060 AT (2192 AD) - 65 years old						
Unique Features:	Always wears elaborate Victorian style dresses.						
Fur:	White	Hair:	Auburn	Eyes:	Red		
Height:	5' 8"	Weight:	155 lbs.				
INT:	9	EDU:	8	Awareness	5	Grooming/Style	5
COOL:	10	Stability:	25	Blade	5	Persuasion	8
REFLEX:	6	Run:	18 m	Dodge/Escape	5	Seduction	4
ATT:	8	Jump:	1.5 m	Handgun	4	Zero-Gee	5
EMP:	8	ZG Leap:	6 m	Hand to Hand	5	Danger Sense	4
TECH:	4	Stun:	6	Human Perception	5	Suggestion	4
LUCK:	8	Lift:	60	Interrogation	6	Emotion Scan	6
Move:	6	EV:	4	Stealth	5	Aura Viewing	3
BODY:	5	Throw:	20 m	Intimidate	8	Psi Block	5
AM:	5			Leadership	8		



Bio:

Born into a well to do family that was part of a long line of royalty, but then lost it all when they were forced to immigrate from Earf. Jezebel has fostered a deep anger and resentment against those who she saw as being responsible for rendering her family to such low levels of existence, and sought to regain it all through any means possible. As one of the first generations of her family to live in space she had many relatives who could still remember the family's glory days, and learned from them any possible skills, knowledge, or mannerisms to mold herself into a "proper woman." But at the same time, she sharpened her mind to higher levels of Machiavellian thinking to the point of always being able to see any plans within plans, and how to bend any situation to her benefit.

She had married an older man when she was just 16, but three years later became a widow when her then husband died from what appeared to have been natural causes. With the new estate that she received as a result of his death, Jezebel set her eyes upon expanding her enterprises further. At the age of 21, she met Habakkuk Iscariot, a then up and coming young businessman who immediately fell in love with her. Together they built up a series of businesses in their home colony cylinder until the arrival of Daniel A. Angelus changed everything, soon the Iscariot family was the cornerstone of the new religious movement.

Today, Jezebel is regarded as a saintly woman, often referred to as the "mother of heaven" as she makes frequent public appearances, seemingly being every where at once as she does charity work and public speeches to keep the national morale up.

Secret Information:

Jezebel has been the true power behind the throne since she married Habakkuk Iscariot; tirelessly she worked behind the scenes to build and expand all of his business ventures, making sure none ever failed or produced nothing that had no value to her or her purposes. All the while she observed everything that fell with in her extensive series of webs, no bit of gossip or scrap of information ever rarely escaped her attentions. She always made it a point to know everyone and the people that worked for them down the chain, if she did not already have someone in her employ as an information source, she always kept track of who to go to next if no information was to be had with her networks at the time.

Very cunning, Jezebel always seemed to have a instrument or option to use to get what she wanted, even manipulating her own children to serve her needs when necessary. Though often her children were her biggest liabilities, if not her most powerful tools. She has personally groomed Samael, Lilith, and Malhat to be her best pawns, while seemingly showering affection upon her two youngest daughters.

And despite her clandestine meddling in so many different affairs and agendas, nothing has ever been traced back to "sully" her position or image.

Super Secret Information:

Deadly Sin: Greed

And even though Jezebel has done all she can to stealthily build up her power base, it has not escaped the attentions of her husband who is in many ways her prisoner. But despite being her pawn in many ways, at the same time Habakkuk is using her to further his own plans. Nothing is out of the question for Jezebel Iscariot to use to further her own ends; murder, black mail, bribery, theft, false accusations, etc have all been used at least once by her and her agents.

And if that was not enough, Jezebel has known for a long time that she had a heightened level of awareness and was quite possibly an "awakened mind." She keeps her abilities secret and uses them sparingly, such as when she stopped several assassination attempts on her family. Jezebel has seen the secret reports of what other awakened individuals have gone through and has no intention of being reduced to the status of a mere lab rat when she is the "Queen of Heaven!"

Sources and Inspirations:

<http://en.wikipedia.org/wiki/Livia>

<http://en.wikipedia.org/wiki/Jezebel>

<http://en.wikipedia.org/wiki/Greed>

<http://en.wikipedia.org/wiki/Machiavellianism>

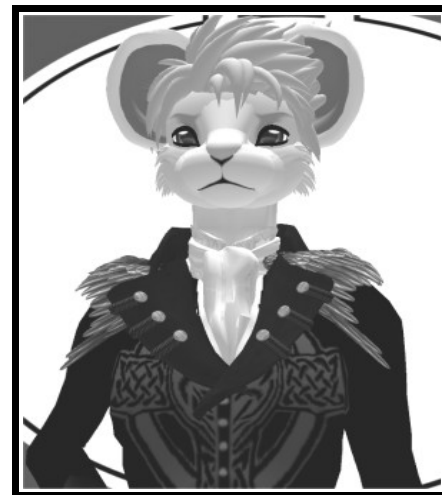
<http://tvtropes.org/pmwiki/pmwiki.php/Main/MyBelovedSmother>

<http://tvtropes.org/pmwiki/pmwiki.php/Main/GodSaveUsFromTheQueen>

<http://tvtropes.org/pmwiki/pmwiki.php/Main/ManipulativeBastard>

Cosmic Heavens Characters:

Name/Rank:		Samael Iscariot, Vice High Lord Dominion					
Species:		Rattus Norvegicus -Albino					
Born:		October 25, 0090 AT (2222 AD) - 35 years old					
Unique Features:		Always stands ram rod straight around other people, aloof, elist attitude.					
Fur:	White	Hair:	Pale White	Eyes:	Red		
Height:	6' 3"	Weight:	200 lbs.				
INT:	8	EDU:	8	Awareness	4	Expert: Tactics	6
COOL:	6	Stability:	15	Blade	2	Interrogation	6
REFLEX:	8	Run:	21 m	Dodge/Escape	5	Interview	4
ATT:	6	Jump:	2 m	Handgun	3	Psi Block	5
EMP:	6	ZG Leap:	7 m	Human Perception	3	Danger Sense	3
TECH:	5	Stun:	6	Intimidate	6	Emotion Scan	6
LUCK:	9	Lift:	60	Leadership	8	Suggestion	4
Move:	7	EV:	4	Persuasion	6		
BODY:	7	Throw:	20 m	Zero-Gee	4		
AM:	5			Grooming/Style	3		



Bio:

Born as the first son of Habakkuk and Jezebel Iscariot, Samael was always a bright child and was always willing to please both of his parents. Ever since he could walk and read, he would be seen at one of the family's businesses doing some odd job or task when not in school. When his parents became involved with the Angelism movement, his life changed quickly as he suddenly become a role model in the new teachings and methods under Daniel Angelus, held up as part of the new ideal child and citizen. As a result, Samael never had a true childhood and made few if any friends, always being required to be working for the cause and serving his parents in some role, often under the watchful gaze of his mother.

With his high intelligence and gifted oratory abilities, he soon became another prominent force within the Angelism movement before he was even eighteen, leading the Angel Youths in various functions and whipping up the audiences at rallies before his parents or Angelus would speak. The image of him standing before crowds and giving the adopted roman salute became almost as synonymous with the movement as the faces of its founders Angelus and the Iscariots.

Samael soon was given the position as his father's personal secretary, and began to realize what authority he had with in the Cosmic Heavens as he took on more power for himself while he obediently served under his father. At the same time he began to cultivate his own militant form of Angelism, spreading its seeds carefully while writing his father's speeches and documents. When Angelus passed away, he carefully orchestrated his own power grab while executing the orders from his mother and father to purge out any elements that may challenge their authority.

As the war began and dragged slowly on, Samael has taken on more of his father's duties as Habakkuk began his descent from the day to day functions of governing the Cosmic Heavens and the war effort. His public image is that of a stone statue, always standing tall and straight against the elements that threaten to buffet against his beloved nation or himself, with his saluting arm held out at a perfect angle and a stern look of determination on his face.

Secret Information:

Samael has the problem that many in authoritarian positions of power have: he wants to believe in his own propaganda but feels that he does not match up to it. Ever since he was a child, he had been pushed to be better than all of his peers and siblings, and to always put on a public image of being the "perfect" citizen and angel. While in the background he was constantly berated by his demanding father, and comforted by his manipulative mother. In addition he was responsible for much of the dirty work that went into forming the movement and maintaining his family's positions in power.

Despite him being constantly praised by his father in public, their relationship has always been distant, which is why he has always been more attached to his mother, who uses him as one of her many pawns in her own power games. As his father slowly moves back from his daily duties, Samael has eagerly moved in to occupy the power void left behind; both for his own gain and what he perceived as the betterment of the Cosmic Heavens. But Habakkuk has continued to take an even more disapproving tone with his son as of late, often mocking him for not being near any form of ideal that is good for the state.

Super Secret Information:

Deadly Sin: Pride

Samael is pretty close to being a model for being a stereotypical "momma's boy," when he fails to get any form of positive approval from his father, he can be expected to immediately go to his mother next. Quite frequently in a state of an all out conniption fit, where Jezebel will refocus him so as to concentrate on the agenda at hand.

While his power grows, Samael has abused his given authority numerous times and started many secret projects to develop new weapons to fight the war with, quite a few of them being of questionable strategic or tactical value..

Samael has manifested some abilities that can only be described as that of an awakened mind, but for the most part he is unaware of them, just accepting the fact that people tend to do what he demands of them because he is such a capable and gifted leader.

Sources and Inspirations:

<http://en.wikipedia.org/wiki/Pride>

<http://tvtropes.org/pmwiki/pmwiki.php/Main/TheCaligula>

<http://tvtropes.org/pmwiki/pmwiki.php/Main/MyBelovedSmother>

<http://tvtropes.org/pmwiki/pmwiki.php/Main/MommasBoy>

<http://en.wikipedia.org/wiki/Samael>

<http://tvtropes.org/pmwiki/pmwiki.php/Main/InadequateInheritor>

<http://tvtropes.org/pmwiki/pmwiki.php/Main/WellDoneSonGuy>

<http://tvtropes.org/pmwiki/pmwiki.php/Main/TheUnfavourite>

Cosmic Heavens Characters:

Name/Rank:	Lilith Iscariot, Admiral of the Fleets - Air						
Species:	Rattus Norvegicus -Albino						
Born:	0092 AT 2224 32						
Unique Features:	Wears hair in long pony tail.						
Fur:	White		Hair:	Black, with white streaks		Eyes:	Red
Height:	7' 2"		Weight:	360 lbs.			
INT:	8	EDU:	8	Awareness	4	Mecha Pilot	7
COOL:	9	Stability:	15	Auto weapons	3	Mecha Gunnery	6
REFLEX:	8	Run:	21 m	Blade	4	Mecha Melee	5
ATT:	6	Jump:	2 m	Dodge/Escape	5	Expert: Tactics	6
EMP:	5	ZG Leap:	7 m	Handgun	4	Psi Block	5
TECH:	4	Stun:	6	Hand to Hand	6	Danger Sense	4
LUCK:	8	Lift:	60	Human Perception	3		
Move:	7	EV:	4	Intimidate	5		
BODY:	9	Throw:	20 m	Leadership	8		
AM:	3			Zero-Gee	4		



Bio:

Lilith is almost the polar opposite of her older brother, where he would use guile or authority to deal with a problem, she will take the direct route and deal with the problem with her own level of physical force or personality. Very tall and muscular, Lilith has prided herself on being in the very top form of physical perfection, even though she bares many of the scars of combat and her rough training regime. But she is gregarious and good natured, considered by many to be one of the most likeable members of her family next to her mother or father. She is concerned with the well being and safety of all of the soldiers under her command, doing her best to never send them out on pointless missions or using them as disposable assets unlike some other military leaders, always leading her men from the front line when possible.

During the war, Lilith spends most of her time at the asteroid fortress Parochet, or occasionally visiting the other two fortresses Carroccio or Bimah, monitoring the day to day operations of the war.

Secret Information:

Much like her brother, Lilith was heavily pressured in being involved in all of the youth programs and training during the early days of the Angelism movement. Not one to mince words, she has always hated public speaking and preferred to lead by example and action.

She always hated the petty mental games of her brother Samael and younger sister Malhat, often getting involved in between them as the family peace enforcer to keep any collateral damage down to a minimum. Or to free their parents from having to intervene. Being appointed as Admiral of the Fleet has been seen as a wise choice in keeping the two out of each others hair as it were, but the inter-fighting still continues none the less.

Lilith is particularly close to her two younger sisters Naamah and Eisheth, most likely because neither of them ever really participated in the infighting of her other two siblings, and will do almost anything to protect or assist them when called upon.

Her one great personality flaw is her quick temper, particularly when the safety of her men or her younger sisters are in question. When in enraged, Lilith almost becomes more of a force of nature than an angry opponent. Charging into the conflict to end it quickly and efficiently as possible, even at the risk to her own safety. Though considering her body build, very little could counter her strengths.

Super Secret Information:

Deadly Sin: Wrath

During some point in her late teens, Lilith discovered that due to some undetected genetic defect or possible injury she sustained during training, that she was unable to have children of her own. This caused her a great amount of grief, and eventually leading her to both put her career and nation before her personal life and to eventually become a closeted lesbian. It has been suggested that several of her soldiers and officers directly under her command have been lovers at some point or another, and have formed a "sisterhood" of sorts to protect her from any possible revelations to other parties especially her own family.

Because of her inability to have children, Lilith has been one of the sponsors of a secret cloning program that was begun in 116 AT to create new generations of angels for what was then just a theoretical war. The program was composed of many different projects, with some growing the clones naturally while others experimented with forced maturing processes. Little information is available on the secret programs, though the existence of such an effort would explain why the national pool of "orphans" has remained fairly large even prior to the war.

Sources and Inspirations:

<http://en.wikipedia.org/wiki/Wrath>

<http://tvtropes.org/pmwiki/pmwiki.php/Main/GentleGiant>

<http://en.wikipedia.org/wiki/Lilith>

Cosmic Heavens Characters:

Name/Rank:	Malhat Iscariot, Admiral - Fire									
Species:	Rattus Norvegicus -Albino									
Born:	2228 0096 29									
Unique Features:	Wears goggles, long cloak, one long pony tail, and special forces armor pads.									
Fur:	White			Hair:	Red			Eyes:	Red	
Height:	5' 8"			Weight:	153 lbs					
INT:	9	EDU:	7	Awareness	5	Leadership	6	Psi-Block	5	
COOL:	10	Stability:	25	Blade	5	Mecha Pilot	6	Aura Viewing	3	
REFLEX:	8	Run:	27 m	Dodge/Escape	5	Mecha Melee	5			
ATT:	8	Jump:	2.2 m	Expert: Tactics	6	Mecha Gunnery	6			
EMP:	4	ZG Leap:	9 m	Handgun	4	Grooming/Style	3			
TECH:	5	Stun:	6	Hand to Hand	6	Persuasion	5			
LUCK:	8	Lift:	60 Kg	Human Perception	5	Seduction	5			
Move:	9	EV:	4	Interrogation	4	Zero-Gee	5			
BODY:	6	Throw:	21 m	Stealth	5	Danger Sense	4			
AM:	4			Intimidate	5	Emotion Scan	4			



Bio:

When Malhat was born, it was said she came into the world with a whisper, and was always a quiet child while growing up. Much like her mother, Jezebel Iscariot, Malhat grew into a cold and calculating woman, quick to adapt and learn from new developments and situations. As such, Malhat became a “right hand” for her mother; rising up quickly through the ranks in the military and internal security circles of the Cosmic Heavens. With her experience in dealing with matters of intelligence and spying, Malhat was a perfect selection for taking command of the Fire division. As such, she is personally responsible for the formation and coordination of several specialized units and projects, in particular avatar development.

Malhat is not as social or public as her other siblings tend to be, coming off as being fairly cold even when compared to her brother Samael. Often preferring to be standing off to the edges of the shadows or by the side of her parents at any function, watching the events as they unfold like a chess player or predator. She still as a manner of habit of being fairly quiet when in conversation, only speaking when she feels that is necessary. Usually she is dressed in a combination of standard or dress uniform with a cloak and special forces armor., to display her unique role in the Dominion and Powers hierarchy.

She tends to treat the soldiers under her command much more warmly than she does other people, almost as if they are more like family to her than her own, and is considered to be an no-nonsense “iron lady” by all. Malhat rarely makes any rash moves, always calculating before acting, and will often deal with a threat with unconventional or indirect solutions. It is not unusual for her to pull her forces out of an engagement and leave the “mopping up” and “real glory” to the other commanders in the field so as to preserve her own forces or to deal with other matters.

Secret Information:

Malhat is power hungry and wishes to increase her sphere of influence, which puts her at odds with her mother, and older brother. Lilith is not in any competition with her, but is an obstacle to some of her agendas since she does maintain order on several levels in both family and authority. Malhat regards Naamah and Eisheth as not being any real threat to her position, and tends to be more friendly towards them than to her older siblings.

Being in command of the Fire division, Malhat has access to a large body of constantly evolving information on a wide range of subjects and individuals. She will never directly threaten anyone, but will quietly hint at the fact that she always knows more than she lets on and that no one is ever truly out of her reach. Even though she is very close to her mother, Malhat does not share all of her knowledge so freely with her, though the two often “barter” with each other for select morsels of information as one would during a mere parlor game. Professional courtesy between manipulators perhaps.

Malhat also has a very keen interest in the progress achieved by the Rapture Foundation and its various “black” projects. One of her personal goals is seeing to it that several full regiment of awakened soldiers will be created in time to finish the war while it was still leaning in the Cosmic Heavens favor. In addition, Malhat also keeps a keen eye out for talented individuals to add to her own forces under her command.

Super Secret Information:

Deadly Sin: Envy

It would not be surprising if Malhat was ever found to be at the head of a coup, especially against her older brother. But with the level of cunning and subterfuge that she is capable of, one would have to wonder if she was really ever involved in the first place even where there is proof of it. Even though Lilith is fully aware of her sister's meddling and intrusions into the power structures of the Cosmic Heavens, the one pillar that keeps them both at bay is their mutual involvement in the secret cloning programs. To which it is to both their interests that the programs reach some level of achievement; Malhat's desire to create more awakened soldiers and Lilith's desire to have children of her own.

Malhat is perhaps the only other person that knows that her mother and siblings all possess some awakened mind abilities, but refuses to share that information with anyone else out of concern for her family, but mostly out of fear of her mother. Though she has allowed herself to be tested by some of the Rapture Foundation's researchers, her position of responsibility makes her too valuable of a subject to be experimented with. With her influence, she has allocated some specialized equipment to put aside for her personal use.

Sources and Inspirations:

<http://en.wikipedia.org/wiki/Envy>

http://gundam.wikia.com/wiki/Kycilia_Zabi

http://en.wikipedia.org/wiki/Agrat_Bat_Mahlat

<http://tvtropes.org/pmwiki/pmwiki.php/Main/TheChessmaster>

Cosmic Heavens Characters:

Name/Rank:	Naamah Iscariot, Rear Admiral - Water									
Species:	Rattus Norvegicus -Albino									
Born:	Feburary 14, 0101 AT (2233 AD) - 24 years old									
Unique Features:	Wears hair in two long pony tails. "Large tracts of land."									
Fur:	White		Hair:	Light Blue		Eyes:	Red			
Height:	5' 7"		Weight:	150 lbs.						
INT:	8	EDU:	6	Zero-Gee		4	Wardrobe/Style		3	
COOL:	7	Stability:	18	Awareness		4	Persuasion		4	
REFLEX:	8	Run:	21 m	Seduction		4	Human perception		5	
ATT:	9	Jump:	1.8 m	Dodge/Escape		4	Blade		4	
EMP:	6	ZG Leap:	7 m	Handgun		4	Social		4	
TECH:	5	Stun:	6	Hand to hand		4	Expert: Tactics		3	
LUCK:	8	Lift:	60 Kg	Mecha Pilot		6	Danger Sense		4	
Move:	7	EV:	4	Mecha Melee		5	Psi Block		3	
BODY:	6	Throw:	20	Mecha Gunnery		4	Psi Blast		3	
AM:	4			Personal Grooming		4	Telepathy		2	



Bio:

Naamah learned early on in life that being born fourth in line of succession meant that her prospects in being pressured into a burdensome leadership role were fairly low, which caused her to not take the importance of her future in the hierarchy all that seriously. With three older siblings trying to constantly out compete each other or arguing amongst themselves, she could take a much more leisurely approach to life if she made it clear that she was not a threat to either of them. None the less, Naamah earned high marks and praise for her natural abilities, and proven herself to be a very capable leader. Expecting to find herself a comfortable niche in an off to the side choir in the Dominions to sit out the war in, she found out much to her surprise that she was pressed into taking command of the Water forces. And to make matters worse, the original preparations to ready the forces under her new command were discovered almost at the last minute to not be enough to handle their expected missions. At this point, Naamah showed off a great deal of previously unrealized ability in leadership, and pulled off an apparent miracle in reorganizing and reequipping the whole division right before the start of the Demiurge Front invasion.

But even with her skill, securing the oceanic territories for the invasion to be even more troublesome than previously thought. So for a person who was looking forward to being passed by in the conflict was stuck in the middle of one of the most difficult sectors of the war, and constantly being demanded to quickly produce results.

Secret Information:

Behind the scenes of the public light, Naamah was regarded as the "wild child" of the family. Frequently going to balls and parties through out the Cosmic Heavens, and having more than her share of lovers. Which brought her into conflict with her older siblings and parents on more than one occasion to reel in her adulterous activities, who feared that such behaviors were too dangerously scandalous to let go unchecked. The only effect their interventions had was to make her more selective and secretive with her personal activities.

Naamah is only partially aware of her awakened abilities. As the war progresses, she will be tempted to explore them to find a means to defeat her enemies despite any possible risks involved.

Super Secret Information:

Deadly Sin: Lust

Naamah is currently having an affair with one of the officers under her command, Commodore Asmodai Le Sage. So far they have managed to keep their relationship secret with assistance from their loyal circle of officers and men serving under them. But it has affected their professional relationship in some ways, with Le Sage sometimes going out of his way to protect his lover while in combat even at the expense of leaving himself open to attack.

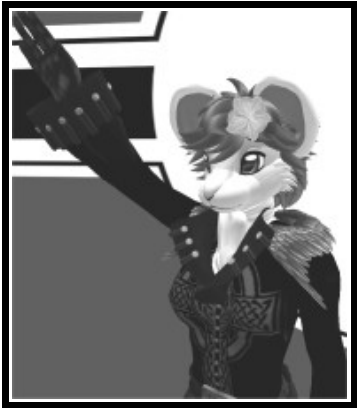
Sources and Inspirations:

<http://en.wikipedia.org/wiki/Lust>

[http://en.wikipedia.org/wiki/Naamah_\(demon\)](http://en.wikipedia.org/wiki/Naamah_(demon))

Cosmic Heavens Characters:

Name/Rank:		Eisheth Iscariot, Rear Admiral - Earf									
Species:		Rattus Norvegicus -Albino									
Born:		April 26, 0104 AT (2236 AD) - 21 years old									
Unique Features:		Often has: a flower in hair, and/or wine glass in hand.									
Fur:	White			Hair:	Light Green			Eyes:	Red		
Height:	5' 6"			Weight:	140 lbs.						
INT:	7	EDU:	6	Zero-Gee			4	Wardrobe/Style		3	
COOL:	7	Stability:	18	Awareness			4	Persuasion		4	
REFLEX:	8	Run:	21 m	Seduction			4	Human perception		5	
ATT:	8	Jump:	1.8 m	Dodge/Escape			4	Blade		4	
EMP:	5	ZG Leap:	7 m	Handgun			3	Social		4	
TECH:	5	Stun:	6	Hand to hand			4	Expert: Tactics		3	
LUCK:	8	Lift:	60 Kg	Mecha Pilot			4	Danger Sense		3	
Move:	7	EV:	4	Mecha Melee			4	Telepathy		2	
BODY:	5	Throw:	20	Mecha Gunnery			3	Psi Block		2	
AM:	3			Personal Grooming			4				



Bio:
As the youngest child in the Iscariot family, Eisheth lives the dilemma of being a young adult needing to prove herself while her family does their best to keep her protected from the horrors of the world. Though as highly skilled and capable as her older siblings, Eisheth is as naive and inexperienced as they were experienced and calculating. It was thought that putting her in command of the overall Demiurge Front invasion forces would put her out of harm's way, and with several advisers to “baby sit” her through the war, her position would be mainly as a figurehead. Initially Eisheth went with the plan, knowing that she was mostly a “rubber stamp” for her older siblings and other military leaders, but soon became bored with no real challenge being presented to her. Which has lead to her “meddling” in random past times, ranging from public parades and functions to serve as “bread and circuses” to the occupied populations, to even attempting to affect military policy and operations.

Secret Information:
Overall, Eisheth is bored and near powerless to do anything about it. Any opportunity that may present itself to her that she could use to break the monotony and allow her to prove herself would be pounced upon with more than merely great enthusiasm.
With little left for her to be allowed to do, Eisheth frequently throws parties to entertain the local populaces and members of the puppet governments currently in power. So much so, she has formed her own regiment from the local civilians to run what is considered to be her own personal amusement park. It is not uncommon to see her with a wine glass in hand during any time of the day.

Super Secret Information:
Deadly Sin: Gluttony
Despite her constant parties and events, Eisheth has done her best to keep out of anything that would be considered scandalous.

Sources and Inspirations:
<http://en.wikipedia.org/wiki/Gluttony>
http://en.wikipedia.org/wiki/Eisheth_Zenunim

Cosmic Heavens Characters:

Name/Rank:		Xaphan and Titivillus						
Species:		Ferret (<i>Mustela putorius furo</i>)						
Born:		Unknown, presumed age mid to late twenties						
Unique Features:		Identical twins with various cybernetic implants.						
Fur:	Light to dark brown		Hair:	Brown		Eyes:	Cybernetic.	
Height:	5' 8"		Weight:	150 lbs				
INT:	10	EDU:	10	Awareness		4		
COOL:	6	Stability:	15	Basic Repair		6		
REFLEX:	4	Run:	12 m	Jury Rig		8		
ATT:	5	Jump:	1 m	Mecha Design		9		
EMP:	4	ZG Leap:		Mecha Tech		9		
TECH:	8	Stun:	6	Programing		5		
LUCK:	5	Lift:	60 Kg	Zero-Gee		4		
Move:	4	EV:	4	Medical		6		
BODY:	5	Throw:	20 m					
AM:	0							



Bio:
Little is known about the mysterious twins outside of the Cosmic Heavens military industrial complex, and even that is limited. Both are highly intelligent and capable engineers, as well as extremely eccentric in nature. The two prodigies are part of the secret “brain trust” of the Emypyrean Corporation, and have frequent dealings with the Fire intelligence branches on foreign technologies and development on internal projects. Both were responsible for several of the successful weapon programs produced by the Emypyrean Corporation.

Personality and Traits:
Both twins are highly eccentric in personality and often display anti-social behaviors when interacting with other people. Both are highly strung, unable to sit still for very long in one place unless something manages to attract their full attention, otherwise they are frequently pacing or swaying back and forth. They share the same levels of obsessive compulsive disorders; such as handling every thing with tissue paper that they must touch, counting various visible features on items when encountered, countless attempts at reading over reports, avoiding physical contact except with each other, rarely leaving their own enclosed spaces, etc. It is speculated that neither twin has ever left their “personal nest” in Bay 13 of Emypyrean Corporation's zero-gee facilities, or ever experienced an actual gravity environment.
Xaphan is the one that does all of the talking for the two of them, often in the form of shouting or trying to dominate over others through the power of verbal force. Very short tempered, gets agitated over the smallest interruption, especially when it distracts him from what ever it is he is obsessed with at the moment. It is not uncommon for him to get so worked up that he starts to hyperventilate because his artificial lungs can not keep up with his long winding rants or tantrums. About the only way to get him to shut up is to shock or surprise him with something; such as proving him wrong, pointing out a mistake in their own figures, or showing him something out of the ordinary like intelligence reports of enemy weapon developments.

Titivillus is the most silent of the two, often cowering near his brother when in the presence of other people, constantly scribbling on any one of numerous pieces of paper, scrolls, or print outs that seem to always near by. It is unknown if he is recording the conversation at the moment, his thoughts on the matter at hand, or any form of random notes. About the only time he is observed to be speaking is when whispering in his brother's ear when Xaphan is not screaming at someone else.

Together they are nearly indistinguishable from one another, both have identical fur markings and body shapes, both eyes have been replaced with cybernetics. The only distinguishing feature between them is Xaphan's breathing apparatus on his back, which has four separate bellows that constantly pump air in and out of his respiratory system due to some unknown health problem.

Super Secret Information:
Even though they were responsible for the creation of the prototypes and production models of the Vulpecula, Lynx, Dorado, Pegasus, and Leo model lines of Avatars, Xaphan and Titivillus are very concerned about their present situation due to their failure to create more systems that succeeded into becoming mainline units for the Cosmic Heavens, and thus granting the Emypyrean Corporation production contracts to manufacture them. Nearly every unit designed by the two have been deemed to be overly complex to produce, or would create too many logistic issues to keep them functional in the field by the military acquisition choirs. Thus limiting their production runs to a few dozen or at most a mere 100 units. The company manages to stay a float by producing other company designed avatars under license for the Cosmic Heavens to help meet demand. Though one successful project headed by the twins has been to produce what has been the so called “gladiator” models, or custom refits of machines for ace pilots.

Understandably, this has put a great deal of pressure upon them to turn this trend around, which has not helped either of their already existing states of paranoia. They are more than aware that their genius minds can only keep them in good graces with the Emypyrean Corporation for so long, which has more than merely tolerated their eccentric behaviors and demands. The twins are desperate to create anything that would permanently establish them as the premiere technical minds in the Cosmic Heavens military industrial complex.

Sources and Inspirations:
<http://tvtropes.org/pmwiki/pmwiki.php/Main/MadScientist>
<http://tvtropes.org/pmwiki/pmwiki.php/Main/ForScience>

Future Developments and Stories Ideas:

Cosmic Heavens – Experimental Avatars:

Overview:

The YNA-666 Cancer is a third generation prototype developed from two previous prototypes in the series, the YNA-6 and YNA-66, to create a new system of control and locomotion based upon the use of self reconfiguring modular components directed by an awakened mind. Originally touted as to be a new “ultimate weapon” for the emerging presence of awakened individuals and their growing impact on the battlefield; the concept centered around an avatar machine that was composed of several modular components that can be directed by its pilot through mental thought alone to reconfigure, or even adapt to new forms to meet the ever changing conditions of any given combat zone.

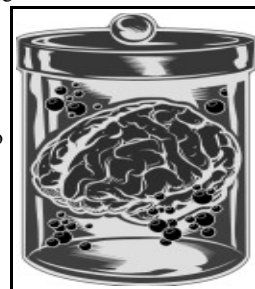
Early examples such as the YNA-6 used several small modules referred to as “Orbs;” each consisting of six connection points that can transmit motion or power, could expand or contract their shape, and a series of sensors to sense the environment around it, that could attach and detach themselves from one another to achieve a new function. Such as forming a long whip like appendage to wrap around another object, and then pull itself closer before reassembling into a more functional type limb with a manipulator extremity to further interact with the object.

Over time, the Orbs were redesigned to include even more abilities and to reduce their general size; such as self organizing or even self repairing. A swarm of Orbs could be commanded to assume a shape, perform a function as the new form, and even reorganize themselves to return to their requested shape after receiving damage from an unexpected event. Over time the Orbs would evolve into different types and sizes for other functions such as modular structure forms, defensive/offensive systems, additional mounting points, etc. Soon the Orbs would be joined by a new type of component known as “Spheres,” which were at first microscopic in size and then soon reduced to the nanometer range. What at first resembled a pile of collective junk with the YNA-6, became an accumulation of flotsam in a sea of gray goo in the YNA-66, and the YNA-666 resembling an skeletal techno-organic creature. The nano scaled spheres were able to flow and ripple into new shapes, while moving the larger Orb components of the avatar into position, transferring electrical power, and even serving as a “liquid frame” to keep the whole construct together.

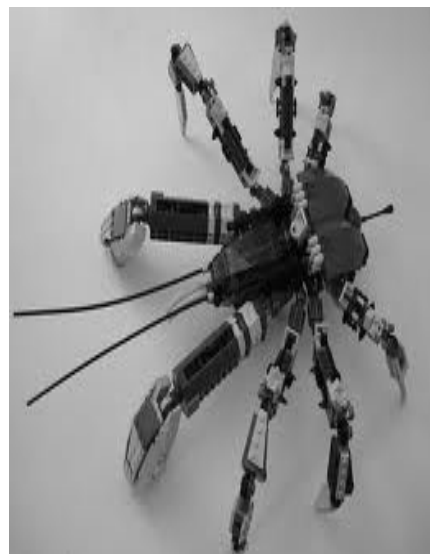
Even though the YNA-66 showed great promise, problems started to occur when the awakened mind test pilots began to have issues concentrating and directing the swarm of Orbs and Spheres. As the avatar slowly increased in size and complexity, more strain was placed upon the pilots as their brains tried to keep everything in order. Before long, the level of control dropped considerably as even the most simplest of tasks were only able to be completed with the clumsiest actions despite the strongest levels of concentration. Eventually it was decided to progress with the project by removing what was considered the most unreliable of components of the machine; the pilot.

The YNA-666 was built around an “artificial awakened brain” that was able to replicate most of the awakened abilities demonstrated by gifted “flesh and blood” pilots so far. The theory being that while a new group of pilots could be trained, the rest of the systems could be further refined and ready when the necessary training and conditioning was complete. The new machine would utilize much newer technology enabling the Spheres and Orbs to not only interact with each other, but other forms of matter as well; capable of dissembling it at the near atomic level to utilize the newly available materials to either repair themselves, or to create yet even more Spheres or Orbs.

The early phases of the YNA-666's testing showed even greater promise than before with the removal of the original test pilots, but as the testing progressed a new very fundamental problem began to emerge; the artificial brain could follow commands with little problem, but it did not have any real level of imagination, or even worse, no sense of motivation. It would follow the test commands with no question, but when given a test where it was required to fill in any information gaps or to make its own leaps of logic, it would simply stand there till commanded to halt the test. The researchers were perplexed, and no amount of alterations to the brain's programing could get it to overcome any of these short comings. That is until....



Name:	Weight (Full):	Cost:	Height / Length:
YNA-666 Cancer experimental avatar (initial form)	52.0 Tons	1330.0 points	8.0 meters / 16.0 meters
Form:	Mv:	MR:	Ground:
Beast Form	-6		9
x1 scale			+4 Ninja Leap
Power Plant:	Source:	XS:	Misc:
Main - Supercharged	Tethered (Hot)	5	Cable length 300 meters
Maneuver Pool	(+67% MP)		See General Technologies section.
Cockpit:	Controls:	Loc:	Enc:
AI Controlled	Refer to Multipliers.		Maneuver Pod for each.
Sensors:	Class:	Loc:	Kills:
Main	Striker	Head	1
Secondary Back-Up	Striker	Torso	1
Reserve Back-Up	Striker	Pod	1
Movement Systems:	Loc:	MA:	Kills:
None			
Options:	Loc:	Modifiers:	
2 x Micro-manipulators	Two in Head		
5 x Spotlights	Two in Head, one in Torso	One in each Arm	
Multipliers:	Loc:	Modifiers:	
Monocoque Construction			
ACE			+100% MP
Ninja Leaping			+4 MA to leap bonus, and multiple leaping.
Material Absorption			See Notes
Morphable Mecha			Infinite Portfolio
Internal Automation – Main Brain	Torso		Level 8, Port 10 (Mecha Piloting, Mecha Melee, Mecha Gunnery, Awareness, Mecha Tech, Mecha Design, 4 more skills)
Internal Automation – Secondary Brain #1	Torso		Level 6, Port 6 (Mecha Piloting, Mecha Melee, Mecha Gunnery, Awareness, Mecha Tech, Mecha Design)
Internal Automation – Secondary Brain #2	Torso		Level 6, Port 6 (Mecha Piloting, Mecha Melee, Mecha Gunnery, Awareness, Mecha Tech, Mecha Design)
Internal Automation – Secondary Brain #3	Torso		Level 6, Port 6 (Mecha Piloting, Mecha Melee, Mecha Gunnery, Awareness, Mecha Tech, Mecha Design)
Servos:	Class:	Type:	Space:
Head	Striker	Head	5
Torso	Striker	Torso	9
R & L Arm	Striker	Arm	6
R & L Leg – Main Pair	Medium Striker	Leg	8
R & L Leg – Second Pair	Striker	Leg	6
R & L Leg – Third Pair	Light Weight	Leg	5
Pod / Tail	Medium Striker	Pod	12
Weapons:	Damage:	Wa:	Range:
R & L Claw	2 + 2 K	(+2)	Melee (2 hex)
			Max Range:
			-
			Kills:
			2
			Shots:
			-
			Loc:
			Each Arm
			Special:
			Quick, Entangle, (range 2 hex)



Notes to GMs on how to play as the YNA-666 Cancer:

This unit was designed to be a starting germ for a larger threat to your PCs and the world at large. It is fairly harmless in the beginning, but once the key factor is introduced, it will grow and become a very serious threat that can only be defeated by special or extreme means.

First off, the artificial awakened brain is not stupid by any means, it is simply bored. Its mental engrams are based upon the accumulated observations of other awakened minds, and built along the same patterns that have been studied. Its ability to sense the environment around it is in fact quite remarkable, but for the most part its psychic senses overwhelm it with information that it has no real frame of reference to interpret it by. Simply put, it is a thinking machine that is given more information than it knows what to think with, and has no real purpose or reason to think about. Kind of like a much more calm version of “Marvin the Robot” from the “Hitchhiker's Guide to the Galaxy.” So much brain, but for what purpose?!

Second, to “release this beast” upon the world it needs to be given something to get its attention. In this case, it will have to meet another awakened mind or minds. This is where your PCs will come in. Don't smile just yet, you will only make your PCs worry way too soon.

Details of the Beast's confinement and eventual release:

The YNA-666 is kept in an enclosed test facility with concrete walls 10 ft thick with non-metallic support rebar, most likely a Kevlar like material, in its construction on all six sides. The internal space is 1000 meters on each side, by 500 meters tall. There is a power receptacle, which is made of an electrically conductive plastic and goes down several hundreds of meters into the floor below it before it connects to any kind of standard metallic power grid component, in the middle of the floor. A similar one is in the ceiling as well. One wall has a door made of a heavy "plug" made of the same construction as the walls, that is moved in and out of place by a series of hydraulic pistons that are secured as far away as possible from anything inside of the enclosed testing area.

This was all done as precautions in case the unit ever goes out of control, such as an unforeseen ecophagy incident or "gray goo" scenario. The YNA-666 gets its power from an external source that is fed to it from the receptacle in the floor or ceiling, and its movements are restricted by the length of the 300 meter conductive plastic cable. It has just enough freedom of movement to wander about in the center of the room without it being able to touch any of the walls. In case of an emergency, a set of explosive bolts in either receptacle can be set off to cut the power to the unit, destroying the cable connectors so that no one could plug it back in without some major repair work being done first. Having no "real source" of power internally, the YNA-666 will be forced to shut down. In theory.

As mentioned before, the YNA-666 is bored and has no real purpose in its mind, and has no reason to be concerned about what is outside of the six gray walls around it. It can sense some active minds around it, but they all appear as tiny floating blurry sparks of light in the far distance. And none of them interest the YNA-666 nor do any of them seem to try to reach out to it. That will all change when the first awakened mind is sensed within its range, particularly when said awakened mind uses one of their abilities. Using the rules for bonding would be one good way to bring this about.

Once it senses such a mind/person(s) near it, the YNA-666 will become extremely interested in the mind/person(s), and will start to do anything it can to get as close to the source of what it is sensing as possible. The longer it is kept from the awakened mind, the more determined it will become. It will start to ignore orders or commands as it wanders about its confined space, pointing in which ever direction it senses the mind/person(s) is at; possibly even pacing or shifting back and forth on its many legs, swaying its claw arms about, reaching out towards its object of desire, etc.

There are many ways to get the YNA-666 out of its confinement once it detects an awakened mind(s) and becomes obsessed with it(them) :

1.) If the secured area it is being kept at winds up being a site for mass combat, an avatar or some other type of machine may crash through the walls, become stranded, or sits still long enough for the YNA-666 to realize what an opportunity it represents and absorbs the unit and its power source.

2.) If the YNA-666 gets shut down after it starts to act erratically, it may by sheer will alone drag itself to where it can come into contact with a source of power it can either absorb into itself, or utilize until it can acquire a power source of its own so that it can be more mobile. Or more sinisterly, it may just play opossum till a more opportune time comes, such as if a fork lift is brought in while they figure out "what went wrong."

3.) The secret lab it is held at gets destroyed, and its "lifeless body" just happens to drift against an "oddly convenient" active power source.

4.) Or any other trope or cliché from any other horror movie may work as well.

How the Beast thinks:

Even though it has four separate IA systems, they all act as one with the main level 8 dictating to the three lower level 6s, using the "commanders rule" on page 49 in the Mekton Zeta Plus book. The "main brain" has four skill slots that were not filled when it was designed. These can be filled in later as the Cancer grows and evolves with new skills, even learning some awakened abilities of its own. Though more than likely it will only try to learn any abilities that it witnesses or senses itself, and not just "make up" something new along the way, though this is left up to the GM. Trauma, wild talents, or especially bonding are all possibilities. For the sense of scaling purposes, consider any awakened abilities to be at 1/10 scale (technically it is a 1/10 scale brain.), unless somehow the YNA-666 manages to get its claws on some kind of amplification equipment (see section on Awakened Minds).

To feed the Beast:

Once it is out of its confinement and mobile, the YNA-666 will seek out the mind/person(s) it has become obsessed with, and chase after them like a lost puppy of the Apocalypse, spreading chaos everywhere it goes. It will attempt to acquire anything that will help it accomplish its goal, such as absorbing more power plants or power sources, and any form of propulsion that will increase its speed or mobility. Weapons will not exactly interest it and might be discarded unless it starts to meet more resistance as it goes about its chase. Reconnaissance or sensor gear might be kept. Otherwise, it will absorb any form of physical armor, servos, or anything metallic it comes across.

The YNA-666 uses both of the Stupid Mekton Tricks rules Material Absorption and Morphable Mecha from the Mekton Zeta Plus manual with some modifications. This was done to try to present a simplified set of rules by using what should be available to you already to run this monster with. Effectively, the YNA-666 Cancer can do almost anything that you can imagine with some limitations.

Material Absorption:

Efficiency points are not used as spelled out since all weapons are considered to be hand-held (but can not be grabbed away), with no real limit on how many can be on any limb or servo at any time.

To represent how ravenous the Cancer is in its consumption of other machines, the first turn it attacks a target its absorption rate is 5 points. For every turn after the first that it continues to absorb the target, its absorption rate doubles. I.E. the first turn it absorbs 5 points per action, second turn it absorbs 10 points per action, third turn 20 points per action... Once it has completely absorbed a target into itself, the absorption rate drops back down to its original rate until it attempts to absorb another target. It can attempt to absorb as many targets as it has actions to use in one turn.

All construction points that are absorbed go into one central "points pool," and can be used to build up the YNA-666 Cancer via the Morphable Mecha rules.

Depending on the call of the GM, some refined armor types might have some/complete immunity to absorption attacks until the armor in the location is reduced to zero.

Morphable Mecha:

No changes from original rules, though there are limitations to what it can build or use the points for. Since for all practical purposes it is difficult to simply create new forms while on the fly, it is suggested that you create a few forms of your own beforehand to serve as new "levels" for the YNA-666 Cancer to grow into.

Due to its rather dynamic and fluid like nature of construction, it can not grant itself any form of environmental protection.

Due to its lack of real imagination, it can not create any new systems simply out of the blue, except for physical melee weapons (shock function not available). For it to have projectile, beam, missile weapons, ammunition, or other systems, it must absorb them from something else.

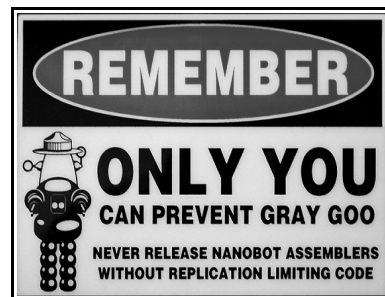
It can use its absorbed construction points to heal damage, but it must have enough spare unused points in its pool to do so. If desperate, it can reabsorb components of its existing form to get the points it needs to fix another section or part of its body.

Of all of its components, initial and soon to be acquired, it can never grow another brain or IA from scratch, nor can it repair either of its IA systems. It can acquire another one if it absorbs a target that has one already built in though.

It can use its construction points to change scales if necessary.

It is possible to create cable remote units from its construction points pool.

It can not change from beast form to any other native form; any new form it assumes is considered to be beast form no matter what.



Future Developments and Stories Ideas:

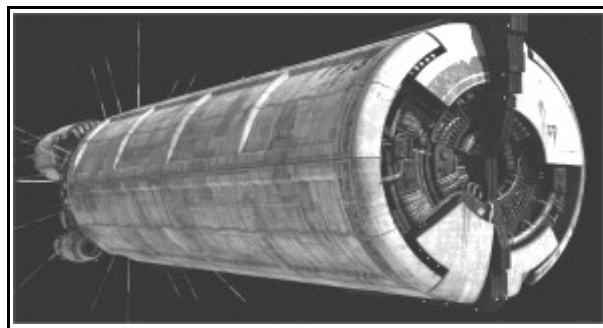
Cosmic Heavens – Experimental Ships:

Overview:

The Cup of Jamshid was commissioned for one function only: to serve as a mobile research vessel for the Rapture Foundation's pursuit to explore the boundaries of the Awakened Mind phenomena in complete secrecy and isolation.

Some theories on the phenomena suggested that only when a subject is totally isolated from all possible stimuli, including gravity or even other “normal” minds, that their consciousness will begin to reach out and go through the “awakening” process. Others felt that perhaps the closer one goes to the stars, the more likely the phenomena will be able to be demonstrated. Though some would say that the main concern were the possibly questionable and unethical methods that may have to be used to not only create such a “evolved” individual, but to develop their abilities to be useful in combat.

Either way, the Cup of Jamshid was built to do its job well, no matter what would research would be done within its hull.



Project “Sikuli”:

In their pursuit of understanding the phenomena of the “Awakened Mind,” many of the Rapture Foundation's black projects have developed several different ways of controlling and enhancing the abilities of their test subjects. Project Sikuli was one of several attempts of doing so through both biological and chemical means. It was thought that it was possible to speed up an individual's evolution by forcing any latent abilities to activate instantly rather than randomly as tests have shown, increase the scope of their power, or to keep them alert and functioning for hours at a time. Some success was achieved to prove that the goals were possible, but would require much more additional research on a larger scale and possibly under some rather unethical conditions.

The Vessel:

Larger than a Neptune class vessel, the Cup of Jamshid, was designed to be able to function completely alone for long periods of time away from port. Not meant to be a combat vessel, it can protect itself with its four particle weapon turrets. But unless it can escape from its attackers, it will not be able to survive a protracted battle for very long. The majority of its structure is devoted to space for its cargo holds, research facilities, vehicle and avatar bays, and the required living spaces for a very sizable amount of test subjects.

One of the unique features built in to its hull are higher than normal levels of automation and redundant fail safe systems. Each hull section or room can be sealed in case of a hull rupture, and jettisoned if need be. Nearly every system on the ship is responsive to voice commands of the small crew or the science staff, even when away from the bridge. It is quite possible for the ship to be controlled by one person if need be. Every room and hallway is equipped with tracks in the walls, floors, or ceilings for worker drones to move equipment or test subjects around the full length of the ship.

The Crew:

Mandorla Monitoring Neck Brace:

One of the main forms of restraint used by Rachmiel and his staff are the Mandorla Braces around the subject's neck. Functioning as a form of control over each test subject, it also monitors their vital signs and other details of their health, as well as being able to administer any series of medications or drugs by remote command. The neck brace completely envelops the neck of the subject, restricting their movements enough to allow them some range of motion, but mostly to keep them in line. If need be, the brace can lock the neck into place to prevent all motion altogether with the simple push of a button. When locked, the test subject can not turn their head in any direction and is forced to look forward until the locks are released. For more uncontrollable patients additional restraints can be used to bind the other limbs, or even further restrict the ability of the test subject to move on their own. The guard, scientist, or Rachmiel himself can choose which way a test subject may be restricted via any remote that is normally carried on their person or available controls on the wall of a secured area. If necessary, even the computer system of the ship can activate any or all of the remote restraints by verbal command.

Nepenthe "drug of forgetfulness"

Soma Mandala

Ichor - "blood of the gods"