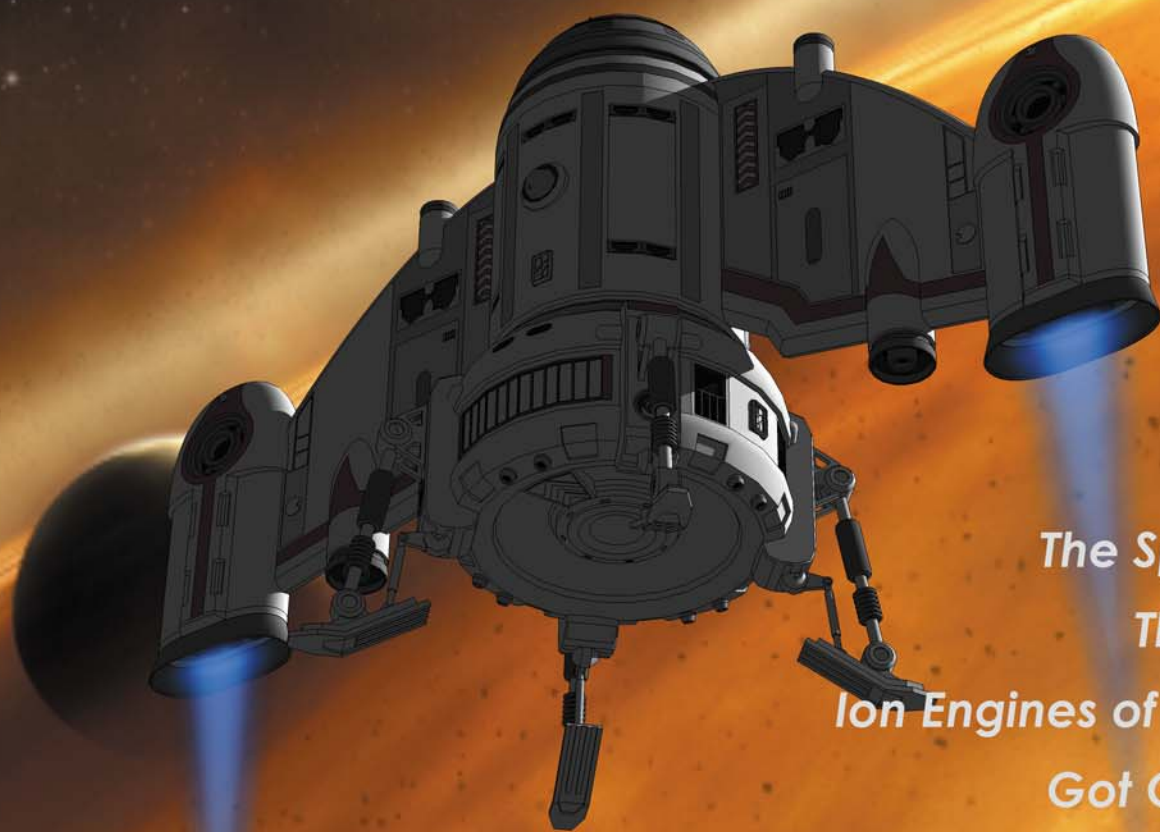


Frontier Explorer

Issue 14
Fall 2015



The Space Clans
The Artificers
Ion Engines of the Frontier
Got Gas Giants?
The Astral Horizon
Paxac the Puncher

*... an everlasting itch
for things remote ...*



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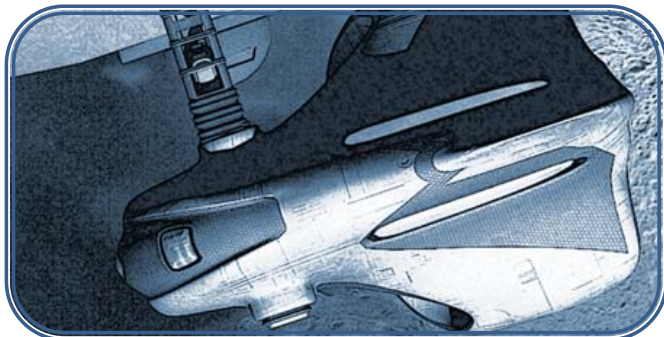
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FROM THE EDITORS

Welcome back explorers!

It always amazes me when another article of the Frontier Explorer comes together. When I start the process of putting an issue together, I'm always concerned that we won't have enough articles, or we won't have enough art, or that something will not work out and I'll have huge gaping empty spaces. But in the end it all works out and things never end up being as dire as I fear.

If you're reading this hot off the presses, you may have noticed that this issue is a little bit later than usual. (If you're reading this after the fact, you won't notice.) This actually has nothing to do with any of the worries above, we actually had plenty of content and art for this issue (a fact that is not always true). The main problem is that I've been stretched a little thin and just got behind in getting the editing done.

I'm back in school getting a Masters of Library Science, which is required for me to get tenure in my new position as an academic librarian. The only trick is that I have to do it on my own time and can't work on it at work. This semester has been particularly bad with lots of homework and assignments and has seriously eaten into the time I can spend on the 'zine. Hence the delay in publication. The good news is that I will be done next summer and only two more issues should be affected by this.

But enough of that. This issue brings you another great collection of material ranging from equipment to creatures, to ships, to stories. We have a game report in story format from a new author, Chris Tierney, detailing the adventures of a ten-limbed dralasite martial artist and his companions as well as a new (or maybe old) race detailed by Laura Mumma based on an article from the very first issue of Dragon magazine. We also have a short dralasite comedy act submitted by new author (and Patreon supporter) Scott Holliday.

I just want to take this opportunity to thank all of our writers and artists for all the great work that they create and contribute to the magazine. We couldn't do it without you. But enough rambling by me. The real reason you're here is to read and enjoy the great content. If there are any types of articles you'd like to see more of, drop us a line at editors@frontierexplorer.org and let us know. Otherwise, dive in and enjoy the magazine.

And as always, keep exploring!

- Tom Stephens
Senior Editor

PRODUCTION CREDITS



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“As for me, I am tormented with an everlasting itch for things remote. I love to sail forbidden seas, and land on barbarous coasts.”

— Herman Melville, Moby-Dick;

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THE SPACE CLANS

Edwin Cintron

The Space clans are a group of families that separated from the colonists of Minotaur when the leaders of the original colony fleet decided to scrap their ships in the founding of the colony. The families of the Space Clans were composed mostly of crew members, and they stole several of the utility ships during the off loading, fleeing to the local asteroid belt. Eventually they migrated to Dixon's Star to avoid conflicts with the Minotaur government.

In their present location in the Asteroid Belt of Dixon's Star, the clans live in a collection of doughnut-shaped ice ships and mine the asteroid belt. Each family has its own ship that can support over a thousand individuals. While there have been several major conflicts with the inhabitants of Dixon's Star, which the clans refer to as flatlanders, the inhabitants of Dixon's Star have grown dependent on the agricultural output of the Clans' ships that supplement the food imports from Timeon.

Mining products from the Space Clans are also required by the industries on Laco, and the clans are a major source of Federanium. Due to its density, any planet's Federanium has usually sunk to the core of planet, leaving the only source to be found in the core of asteroids that can be extracted by mining. Federanium is a byproduct of hypernovas and is usually found to be infused with mirror matter, a form of dark matter which is used in the production of thrust amplifiers for atomic and ion engines. Mirror matter is also used in the heat radiators of space craft, as excess heat is radiated off in the form of mirrors

photons.

The Space Clans are a meritocracy, each clan (generally a collection of closely related families), is led by a clan chief who is chosen by a series of trials and personal combats. The losers of the struggle are exiled to other clans, but a few of these contests have resulted in the death of the loser which the Clans consider to be a justified end result of the struggle.

The Clans are extremely reclusive, not welcoming visitors to their Homeships or asteroid facilities. They manufacture their own space ships, copies of those found throughout the Frontier. It is believed that they have a hidden ship yard in the asteroid belt of the Timeon system run by two clans that have remained in the system after the migration from Timeon which occurred after the First Common Muster. The ship yard is said to be equal to a class 1 construction center which has led to attempts of the UPF to have the Clans open this facility to the general public.

There are constant rumors that Space Clans are pirates or support the activities of pirates, but the Clans hate pirates with a passion. During the First Common Muster, the Clans took massive losses in the battle with Hatzek Naar's fleet. A few renegade Clan members have found places with pirate groups and said to be great assets due to intimate knowledge of hiding places in the asteroid fields of systems throughout the Frontier.

CLAN ICE SHIPS

Resembling mobile space stations, these ring-shaped craft are made of ice infused with plant fibers encased in an insulated skein covering. The ice plant fiber mixture, when frozen to around -80°C , forms a substance as tough as concrete that provides not only protection from micro-meteors but from cosmic radiation and solar rays.

Ship Names: Home ships

Owner: various Clans

Hull Size: 14

ADF: 3

MR: 3

Engines: 4 ion engines

DCR: 52

Hull points: 70

Passengers: 501 to 1000



SKIN SUITS

Due to long term exposure to zero or micro G environments, the clan have developed a garment that is their trademark. Skin suits are body tight garments that are embedded with an array of ultrasonic transducers. The high frequency vibrations produced by the transducers have the ability to strengthen bones and trick the muscles into thinking they are active so they become stronger helping prevent bone loss during extended exposure to zero gravity.

Because of the suit's ultrasonic transducers, skin suits act as sonic screens and can be worn under skeinsuits. They have an internal battery that holds a 10 SEU charge that provides extremely short duration defense against sonic attack and can also be used without interfering with any defensive screens.

General they cannot be brought on the open market. The few that become available fetch prices of over 10,000 credits.

N.E.O.N FLEET

The Clans maintain their own militia of privateer crafts. Called the Neon Fleet, it consists of over 10 privateer class vessels. Lacking in sheer fire power, they are highly skilled and have fought not only in the First and Second Common Musters, but in the closing battles of the corporate war in the Dixon's Star System and the Second Sathar War.

Presently both Star Law and the UPF navy have detached officers serving aboard several ships of the Neon Fleet as liaisons and to keep a close eye on their activities by the request of the planetary governments of both the Dixon's Star and Timeon systems.

TRUTH SEEKERS CULT

Among the Space Clans, a popular cult is the Truth Seekers. These individuals have dedicated their existence to insuring justice and that the truth is always known. They will not tell even the whitest of lies and vow that no crime goes unpunished. They can be identified by a tattoo of a set of balance scales on their right cheek.

Recent enlistments into Star Law has found many recruits from the Space Clans that are members of this cult, and this has caused some discussion among the higher brass of Star Laws on how it may affect future operations.

FE

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Do you enjoy the Frontier Explorer? Would you like to help support the production of the magazine and improve it? If so consider supporting our Patreon campaign (<https://www.patreon.com/FrontierExplorer>).

We love making the magazine and will continue to do so regardless of the outcome of this endeavor. However, the production and maintenance of the magazine and website have costs and that's where you can help.

In addition to just our deep felt thanks, there are perks to patronage. Depending on the level of support you get access to supporter only forum on the website, e-mailed a copy of the magazine in advance of its public release, early access to the articles for up-coming issues, and at the highest level, a print copy of each issue you support. In addition, supporters will be listed on the magazine's website and at some levels here in the magazine itself.

The patrons that helped support this issue of the magazine are:

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- At the **Station Master** Level - Pagan

I just want to give a huge shout out to these supporters for their contributions.

The money raised will be used to improve both the [Frontier Explorer](#) and [Star Frontiersman](#) magazines in various ways including improved web hosting, improved software and hardware for production, website upgrades and improvements with the magazine itself.

We'd love to have your support to help make the magazines the best that they can be. Jump on over to the Patreon site (<https://www.patreon.com/FrontierExplorer>), read all the details, and consider becoming a patron.

MY FRIEND JURAK AND FAT MAX

Eric Winsor

Greetings gentlebeings. I am pleased to present another article to you about the great diversity of creatures throughout the Frontier. Some time back we had the opportunity to visit New Pale. Due to our rushed time schedule and some other unplanned events we only had time to seek out the Cybernuk and then head on our way. We were dearly sorrowed to not have the time to visit our good friend and colleague Jurak Gu'ksto and his intrepid crew of the Alysse Maru. I am happy to report that we just had the great opportunity to sail aboard the Alysse Maru with Captain Gu'ksto.

THE DANGEROUS OCEANS OF NEW PALE - AN UNLIKELY REFUGE

The creatures of New Pale are fierce and the world was not easy to colonize. The humans call it a Jurassic world. Dralasilites call it the lunch bucket where you are the meal being served. Vrusk avoid the world and have various click names for primitive they call it. Yazirians call it Muta, the land of the prey. Great beasts roam and not many dare the dangers of living there. That is just the land, the oceans are a completely different story. A darker, more dangerous story. The beasts in the oceans are bigger, more dangerous, and mostly unknown to science. No one on New Pale takes any boat out to sea that is less than 150 meters in length and powered by the fastest engines available. Sitting still at sea on New Pale is asking for an attack from the depths below.

Yet the sea is the one refuge that the few that escaped the sathar had during the occupation. Ships such as the Alysse Maru took to the seas and traveled from island to island to keep their whereabouts hidden from the sathar patrols and orbital surveys. Jurak Gu'ksto had come to New Pale to study the jungles and the great beasts in them. He found himself pulled by his past back to the sea to aid the refugees. Jurak gave his passage off world to a young human woman and her child and reported his past maritime service to the underground government, volunteering to serve on one of the many fishing ships that desperate refugees were seeking escape upon. Jurak served aboard the Alyssw Maru as navigation officer throughout the occupation and is credited with devising the ship routes that kept Alysse Maru from being discovered by the sathar during the occupation.

The Alysse Maru was caught by a storm it was attempting to hide in the leading edge of and ran aground three months before the liberation of New Pale. Jurak lead one of twenty survivor teams from the wreck into hiding in the wilderness and returned them to the wreck of the Alysse Maru after the liberation for rescue.

During this time at sea Jurak rediscovered his juvenile fascination with ocean life. He was awed by the great beasts they encountered and evaded and determined to stay on New Pale and study these undiscovered terrors. Jurak is the pioneer of oceanographic wildlife study on New Pale. While many were studying monsters on land, Jurak assembled a crew from the survivors of the Alysse Maru, re-floated her and made discovery after discovery.

THE SEA DRAGON OF NEW PALE

One creature often encountered by the refugees on the Alysse Maru is the Sea Dragon. The refugees feared this great fish greatly. When Jurak joined the crew, even the captain warned him that they would avoid the beast at all cost. They had encountered them many times in their fishing expeditions where they would attack the ship, drawn in by the huge mass of bait that their lines brought to the surface. They described the great fish as a dragon with wings that flew in the sea like great bird. They even described the beast launching itself from the water to land upon the decks of ships and pull fish right off the lines and even crew from their stations.

Jurak did not believe the tales of the crew nor the stories running amok among the refugees. Three days into their

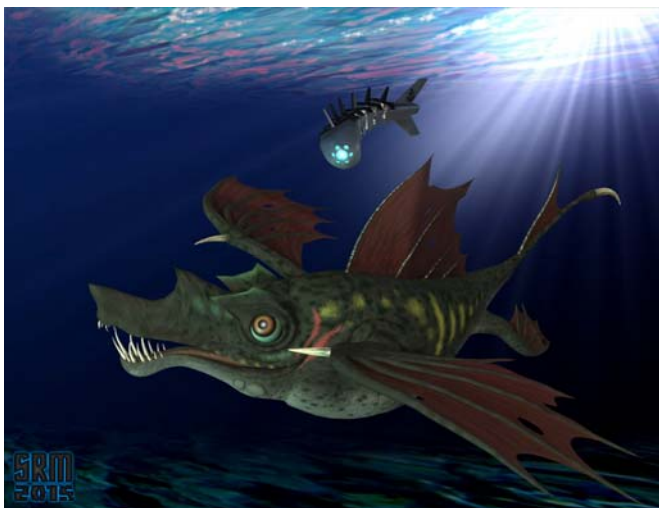


voyage the captain took him to the stern of the ship and Jurak saw with his own eyes a pair of sea dragons chasing the ship in its wake, the beasts launching themselves into the air. This was the seed of Jurak's fascination with the oceans of New Pale and his inspiration of how to evade the sathar.

The Alysse Maru was churning up the waters as it speed along and this opened up the view of many fish to be feed upon by the predators bellow. However, at the bow of the ship many fish were riding in the bow wake hiding from the predators. Any fish that could stay in the bow wake was hidden from the predators as they could not see them due to the distressed waters that obscured both the sight and sonar of the predators. Jurak realized that to hide a big ship that they must ride in front of any storm front. Those great ships of nature would hide them from being prey to sathar satellites and patrol craft.

AT SEA WITH JURAK GU'KSTO AND THE ALYSSE MARU

The Alysse Maru is an impressive science vessel. Jurak and his crew have done an amazing job converting her from a fishing ship to New Pale's premier oceanographic research vessel. I had to look to find the signs that she was once a fishing ship. Two of the side fishing winches have been re-purposed as cranes for submersible drones. One of the stern fishing winches remains at its mount to fish for bait fish to attract the beasts they desire to study. Nothing else hints at her fishing past. The damage from running aground is invisible in its repairs. The mess hall has a plaque with names and holograms of all the crew and refugees that perished in the wreck and subsequent survival in the wilderness. The Aysse Maru is a vessel worthy to sail upon and a lovely lady.



Drone's Eye View of Fat Max by Scott Mulder

Captain Gu'ksto has spent years studying the ecology of the marine life of New Pale and has literally written the book on the Sea Dragon. As soon as we had stowed our

gear we were briefed on the bridge about the migratory feeding patters of the sea dragon. The bridge displays were alive with charts showing migrating sea dragons with little moving icons for actual sea dragons that they had tagged with tracking beacons. Gu'ksto stabbed his finger at one on the screen and announced, "There is Fat Max, a big male that we have drones following right now." He tapped the display and up popped a view from one of a pair of drones swimming along with Fat Max as he hunted in the coasts of an island about 700 km away. Then he announced that we were going to go meet Fat Max personally and we would be there in about six hours. He turned to his crew and grinned back at us as he enthusiastically said, "Away Boys!" and we shot off at high speed out to the deep sea.

I caught myself on a railing and Gu'ksto reminded us that high speed is safety on New Pale's oceans. Leaving port at high speed was not a problem. It was expected and practically the law. Also, there was not the regular traffic I was used to on other worlds. The port was practically devoid of ships. There were a few fishing ships like us, 150 meters long, and full of fishing wenches. Then there were a few warships like in the old human histories. I thought this was peculiar and inquired of Captain Gu'ksto. He responded that they were for protection of the coastal drilling platforms from the ocean wildlife and occasionally from each other. There is a mineral boom on New Pale for local energy sources of atomics. This may have been one of the sathar interests in New Pale.

Once we were out to sea we immediately saw why speed is imperative to safety on the surface. A large school of four or five meter long fish came boiling to the surface at great speed from deep below on our port side. They were being chased to the surface by a very large creature maybe twenty meters long. The beast erupted from the surface snapping multiple fish in its jaws. It quickly snapped at as many fish as it could, biting them into pieces before the school fled. Then it proceeded to consume the dead and dying as quickly as it could before any scavengers arrived. The helmsman, a seasoned fisherman, explained to us that if we slowed down or stopped for too long one of those beasts or another would come launching to the surface to attack us. He pointed to the corner and explained that Jimmy at the sonar would not look away from his monitors because it was his duty to detect such attacks so that he could take evasive action. Then he tapped the cover of a red button above his right hand and said that if anything got real aggressive that he would just feed it some indigestion. Dwain explained to me that he meant depth charges and pointed out the rows of barrels on the stern of the ship. Jimmy did chuckle at my sudden growl of understanding but kept his eyes fixed on the monitors.

There were a few other scenes of Jurassic marine predation in the six hours were en route to Fat Max. Captain Gu'ksto pulled us away from a light lunch in the

galley to see some Dako Kurosan feeding on fish in our wake some distance away. He told us to keep watching with our magnigoggles to the center of the frenzy on the port side wake as he watched a sonar monitor. Suddenly a giant mouth erupted around the frenzy and clamped shut taking the majority of the fish down with it. We never saw what the big fish was or how big it really was. "That!", Gu'ksto said, "Is Manananggal nga Dagat. That is why we go fast!" None of the subsequent scenes of predation were quite as awe inspiring after that. When we arrived near Fat Max the helmsman put us into a random pattern around Max while the crew readied us to drop a submersible to visit Fat Max.

DANCING WITH FAT MAX

The drones sport a set of spines to deter being chewed upon by the subjects they observe. When we were within a few kilometers of Fat Max, we climbed in a larger drone squeezing three in a space made for two and we were submersed into the dangers of the sea to meet Fat Max in person. The Alysse Moru slowed just long enough to drop us when the sonar operator gave his approval.

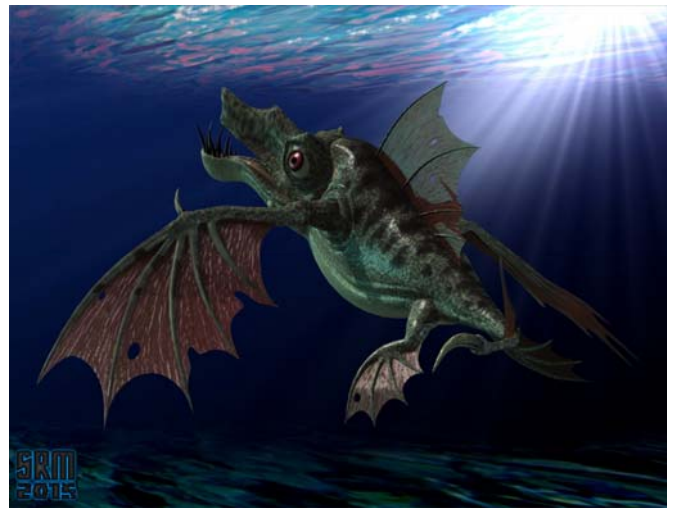
After the regulated communications checks with Alysse Moru, Tik got on the comms and wished us well. Then he asked in parting what our defensive protection would be if we did get chomped on by anything that wouldn't be deterred by the dura-alloy spikes on our hull. Gu'ksto motioned to the rows upon rows of parabatteries behind us and said that those are not just for propulsion. He explained that they could dump their charge several times into the hull to give anything that approached to bite down a very shocking discouragement. He then assured us that it would kill the small stuff and Tik was reassured that safety precautions were accounted for. Dwain behind me seemed rather anxious to see something try and take a bite of us.

The submersible glided swiftly through the water without any sound powered by its caterpillar drive. We soon sighted Fat Max and we turned our course towards one of the drones and matched speed with it. Gu'ksto explained that Max was accustomed to the drones and treated them as nonthreatening because they only looked like a fish but did not present an electric field like a fish or present scent in the water like fish. They keep the drones in constant patrol with any Sea Dragon that takes to them. However they are still wary of unexpected moves and will attack if the drone does anything out of the ordinary that is perceived as a threat.

We swam along with the drone for about ten minutes and then Gu'ksto took us closer to Max once the drone had positioned us parallel to his head. Gu'ksto explained that it was better to approach from plain sight than to catch Fat Max unaware. Max's maw was long and full of teeth. The front top and bottom teeth were dominated by massive fangs with the bottom a good four times longer than the

top. The mouth is long and slender, making it quite suited for biting and tearing away chunks of flesh to be swallowed later. The entire snout was easily 1.5 to 2 meters long. Dwain commented that Fat Max could eat him in one bite and not get any fatter. Gu'ksto responded that was why he was inside the submersible, but that he was working on plans to one day be able to swim outside with a Sea Dragon with a submersible holo screen.

We let our speed fall off so that Max began to swim past us. This allowed us to view Max's flanks and back. The fore fins or wings are attached like great arms and move much like wings do. I discussed the resemblance with Captain Gu'ksto and he agreed that it appeared that the sea dragon is a biological link between the creatures on land and the creatures in the sea. Most worlds no longer have these living links. Neither of us could tell if the sea dragon was progressing to leave the oceans or had returned to the oceans. The Sea dragon has two gill slits behind its jaw and clearly breaths from the water. What was not known was if the sea dragon could breathe air directly through those gills but it was postulated because the gills do have lung like features on the inside but they are never inflated.



Dagat Bakunawa by Scott Mulder

Falling further back towards the rear and following Max's flanks we were able to observe his hind fins and tail. These hind fins also exhibit leg like traits that would suggest it is adapted to crawling on land. Gu'ksto confirmed that he had observed sea dragons crawling on the sea bed using their hind fins to produce forward motion while they used the single claws on their wings to probe for creatures hiding in the sand and mud. The tail however was a mystery to us. The tail does sport a caudal fin on the top but the tail is much too flexible for the fin to help provide any locomotion. The heavy tail claw also showed signs that the fish was using muscle strength to keep it erect in the water. Perhaps the top caudal fin aids the sea dragon in keeping the claw of its tail horizontal in the water. Dwain asked about its use as a weapon and

Gu'ksto answered that he had never seen it employed to attack anything. Dwain responded that it sure seemed to keep any other fish from approaching from behind. This appeared to be true because we all noticed that other fish would swim off at an angle when they approached the sea dragon from directly behind the tail claw. Movements of the tail toward other fish also appeared to elicit this response.

Dwain and I asked about maneuvering the submersible to get a view of the underside of Max. Captain Gu'ksto said he would try but would not press his luck. We were in shallow water of 200 to 300 meters and Max was keeping close to the bottom in our presence. He seemed to be making an effort to protect his underside from us. Gu'ksto explained that this was common among sea dragons because they can't reach their bellies themselves. He further explained that when sea dragons are encountered in the deep sea that they travel in groups of two or more and constantly trade position from top to bottom as they patrol. Death, he reminded us, comes from bellow. He further explained that we were visiting Fat Max because he was here in the shallows were it was safer.

Total length, Fat Max was about fourteen meters long putting him at the larger of his kind. Gu'ksto explained that Max was one of the older and more successful sea dragons he was tracking. Max's success had allowed him to grow larger and being larger had allowed him to take on better prey. Hence Max had become a bit fat for a sea dragon in his stomach section. Humorously Gu'ksto added that when Max was first tracked the ship cook had joked that he was fat enough to make good eating and that the crew should catch him. So, Gu'ksto had named him Max after the cook because the cook would not think of eating anything that shared his name.

One of the smaller drones passed us and Gu'ksto directed our attention to the sonar scope and the collection of dots appearing on the far end. "This shall be lunch for Max," he explained. He then described how he would send one of the drones out to the school of fish on the scope and entice the school to chase it in our direction. The drones are only about a third of our size and if they swim in a fleeing manor they can cause the school of fish to chase them. The school would then come into range of the sea dragon unawares if we were lucky and Max would dart at them and attack.

Captain Gu'ksto keyed a few commands to the drones and one swam off like any other fish in the direction of the school on the sonar scope. We watched the video feed of the drone as it approached the school of fish. Large slender fish about two to three meters in length were picking amongst the rocks on the sea floor as the drone arrived. The drone stopped suddenly like any fish would when sensing danger and the fish in the school stopped for an instant too. Then the drone turned around and darted toward us in a zig zag path between rocks like a

frightened fish would and the school of fish took chase. Gu'ksto started growling under his breath, "wait, wait, wait" repeatedly.

The drone was almost upon us when the sea dragon darted at it and took a quick bite its metal hull. Max quickly discerned that the drone was not food and darted again into the school of pursuing fish who were in the process of changing to a retreat. Max bit down several times and the water filled with blood and shiny scales. Four or five fish had paid for their greedy pursuit of the drone with their lives. The rest of the school was scattered into the distance. Max began gulping down their lost colleagues, swallowing them whole.

The blood and gore seemed to invigorate Max and he became more active and agitated after the feast. He darted to and fro in search of more prey. He lifted boulders from the sea floor and dug with his wing claws searching for hidden fish. Then he turned back toward us and darted swiftly toward us mouth open.

"Time for our retreat!" growled Gu'ksto as Dwain pushed over our cramped cabin to see over my shoulder through the forward dura-alloy bubble. Gu'ksto turned the submersible about 20 degrees to starboard to start our retreat just as Max bit down. Captain Gu'ksto smashed his hand down on the electrical discharge button and Max jerked away. Gu'ksto thrust the throttle full forward and we shot away while Dwain's eyes were pushing wide out of his head and he squirmed all over us for a better view.

New Pale Sea Dragon (Dagat Bakunawa)	
TYPE:	Carnivore
SIZE:	Giant : 10 - 15m
NUMBER:	1-4
MOVE (swimming):	100 m/turn
MOVE (darting):	120 m/turn (short bursts)
IM/RS:	6/55
STAMINA:	300 - 400
ATTACK:	Crushing bite, thrashing tail
DAMAGE:	5d10
SPECIAL ATTACK:	Fast ascent from bellow
SPECIAL DEFENSE:	None
NATIVE WORLD:	New Pale (all oceans)

GM NOTES

Jurak Gu'ksto's major benefactor is GodCo. Jurak Gu'ksto is a devout follower of the Family of One. He has chosen sea blue as his ships uniform colors and religious colors for himself. He is not political beyond his love for marine life and does not take sides on Family of One politics.

Racés

THE ARTIFICERS

A Conversion by Laura Mumma

A VOID RACE FOR STAR FRONTIERS

“Any sufficiently advanced technology is indistinguishable from magic.” – Arthur C. Clarke, The Lost Worlds of 2001.

In Dragon Magazine June Volume 1, Number 1 James M. Ward wrote an article called Magic And Science Are They Compatible in D&D? In it he argued that many aspects of magic in D&D could be actually explained with science or science based ideas and magic was in fact science as understood by primitive people. He thus created a race called the “Artificers” whose super-science would appear magical to demonstrate this concept. (Latter on the term “Artificer” in D&D would become a specialized magic-user player character class; it is Ward’s original concept I wish to explore.)

Keeping in mind that James M. Ward was presenting magic as in fact science, we have here a mysterious ancient race of beings with super technology. Thus as early as June of 1976 we have a prototype for Techno-Mages and mysterious Ancients from Atlantis presented for Dungeon Masters to use in their settings. James Ward suggested this race be used to challenge players that had become too powerful in D&D, Similarly this race could be used to challenge players in Star Frontiers. Most importantly they offer referees a NPC alien race with mysterious motives, technology, and origins that might present new twists to the Star Frontiers setting.

In converting this basic idea presented by Mr. Ward I have attempted to make this race a challenge to PC’s in Star Frontiers while retaining his original ideas. I have heavily drawn on his original article previously mentioned.

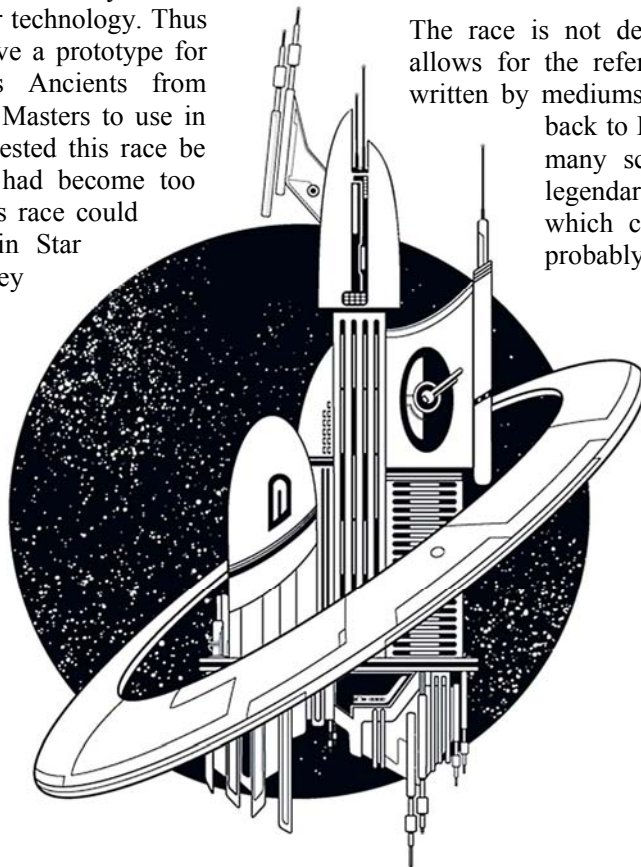
HOMEWORLD & RACE

This race, or possibly several allied races, were able to transport their “Island land Atlantis to another nearby dimension”, Atlantis may also have been the mythic island of Erythea and as Erythea is a less known name referee’s may wish to use this name as well. If as a referee you decide they have several colonies or ships there are several mythic, folklore, and legendary hidden lands, sunken lands, or cities that would make for good inspiration.

This race can trans-dimensionally travel and appears to be able to inhabit other layers of space. This means they very may well be not just traveling in the Void but inhabiting the Void and other layers of space not currently accessible to the many Frontier races. It is possible their “homeworld” could be very literally a floating island in space maintained by fabulous super technology or just as likely a city that is also a ship or even a sunken city maintained habitable with ancient super technology.

The race is not described, but the Atlantis tie in allows for the referee to include lore-based books written by mediums and works that go all the way back to Plato’s/Solon’s Atlantis and from many sci-fi authors or works on such legendary lands. In addition, any race which can trans-dimensional travel can probably disguise themselves as any race.

Their true nature should be mysterious and it is possible they are comprised of more than one race. This is a race that depends on its intelligence, guile, cunning, and will. When working up ability stats for Artificers they should be high in the LOG/INT pair but low in the STR/STA pair and average for the other abilities. Artificers will have gadgets to compensate for physical weaknesses in any environment they are operating in.



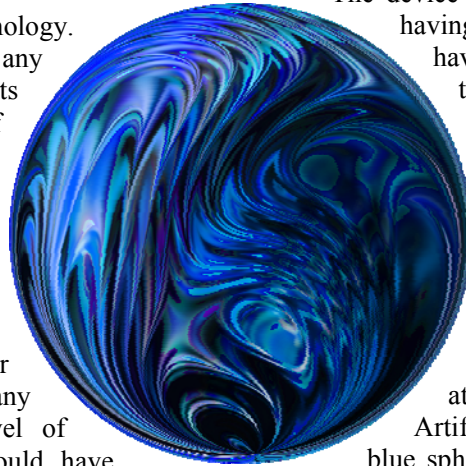
Emerald Station by Peter Saga (www.artofpetersaga.com)

TECHNOLOGY

“However far modern science and technics have fallen short of their inherent possibilities, they have taught mankind at least one lesson: Nothing is impossible.” – Lewis S. Mumford, *Technics and Civilization*, 1934.

This race has a high degree of technology. They have devices that can counter any common Star Frontiers science effects just as they can counter the magic of D&D. (The referee should feel free to create devices that nullify Star Frontier technology or makes such technology look primitive).

Any race of beings that can move their home or themselves into and out of various dimensions would appear magical, god-like and mysterious to any semi-intelligent race not at their level of technology. Even high tech races would have space myths about them. Some of these myths should contradict, should be fairy tale, or tall tale sounding, and inspire fear and respect.



NUMBERS AND ATTITUDES

Artificers are psionic, scientists of technology, students of the multidimensional universe, and the biological sciences. Artificers use illusion and trickery as their first line of defense, followed with fear and display of power as their second choice. Artificers usually occur on their own or a Master with an apprentice or two of lower ranking Artificers. A lot of Artificers in one local should give anyone with common sense pause for concern.

Artificers can run the whole motive range from benevolent but meddling individual to cruel malevolent type from a PC’s point of view. The Artificers have their own motives for helping, hindering, experimenting, interfering or not interfering with other cultures. How others will subjectively view the Artificer’s activities may not be what the Artificer intends or even cares about.

STANDARD EQUIPMENT

“Technology shapes society and society shapes technology.” – Robert W. White, *Environmental Science and Technology*, 1990.

Artificers use three powerful devices at all times: a mobile “blue sphere,” a hand held weapon, and a computer.

Always remember Artificers prefer to have their devices fight for them and will have all manner of super-science gizmos (often disguised) to do just that. Artificers, when discovered, generally have a “stronghold,” base, lab, or facility from which they are living, operating, building devices, and experimenting from, or collecting things of

interest (like life forms or dangerous substances) to study and manipulate.

THE BLUE SPHERE

The “blue sphere” was created to fight for the Artificers. The device comes in three sizes: the largest sphere having a diameter of 1 meter, the middle sphere having a diameter of two-thirds meter, and the smallest sphere having a diameter of one-third meter. These are also badges or rank since the smallest is the most powerful and only the highest-ranking leaders use the smallest spheres.

These spheres are able to shoot two beams while floating beside their master. These beams can be whatever its master needs at the time in the way of attacking or defending abilities. The Artificer need only think their need and their blue sphere will respond accordingly (it is up to the referee how this thought technology works, linked implant, mental psionic ability, or biological link to the device are just a few examples.) Blue spheres will also respond to spoken commands by their master.

The possible rays that can be generated by a sphere depend on its size and are given in the lists below.

LARGEST SPHERE

- 20 points of Damage Absorber
- Heat Ray (3d10)
- Healing Ray five points per turn
- Displacement Ray x1
- 50 point Damage Shield

MIDDLE SPHERE

- 30 points of Damage Absorber
- Heat Ray (5d10)
- Healing Ray ten points per turn
- Displacement Ray x2
- 100 point Damage Shield
- Damping Shell
- Fear Ray SL2

SMALLEST SPHERE

- 40 points of Damage Absorber
- Heat Ray (7d10)
- Restoration Ray
- Displacement Ray x3
- 200 point Damage Shield
- Damping Shell
- Fear Ray SL4
- Anti-Sphere Ray
- Charm Ray

DESCRIPTION OF RAYS

DAMAGE ABSORBER

This ray will take the damage potential from a mental attack or weapon from its master if the ray is trained on the Artificer at the instant of damage occurrence with the limitation of only being able to take a maximum stated amount per turn.

HEAT RAY

This is just that, a ray of heat that does the stated amount of damage per turn.

HEALING RAY

Consider this a type of healing ray, doing the stated amount of healing per turn.

DISPLACEMENT RAY

A being hit with the Displacement Ray will appear to be 1 meter (multiplied by the number) from where it actually is. The referee can roll a 1d10 to determine where the displaced individual actually is. Attackers have a 50% disadvantage to hit the displaced individual. If the individual is hit the effect stops until the end of the turn, but resumes as soon as the ray-affected individual moves again on their next turn.

Duration: 1 minute

DAMAGE SHIELD

To prevent the sphere from being destroyed this ray can stop harmful actions on itself at the maximum rate, with only the damage over the given amount affecting the sphere. The sphere can take 100 points of actual damage before being destroyed.

Duration: 1 minute

DAMPING SHELL

Cuts off all forms of broadcasted or externally drawn power sources to the object or individual within the shell.

Duration: 1 hour

FEAR RAY

The fear ray can instill fear in the chosen target by making a mental attack against him (treat as LOG contest between the Artificer with a bonus of 10xSL listed for the sphere and the intended victim). The victim flees away from the Artificer at maximum speed for one minute, but will continue to put as much distance it can from the Artificer. If the victim is cornered or trapped, he will go berserk, fighting until he can get free.

Duration: 1 hour

CHARM RAY

The target creature must make a LOG/INT check, and does so with advantage of 10% if the Artificer is fighting it. If it fails its check, it is charmed by the ray until the ray effects wear off or until the Artificer or their companions do anything harmful to it. The charmed creature regards

the Artificer as a friendly acquaintance. When the Ray wears off, the target knows it was charmed.

Duration: 1 hour.

ANTI-SPHERE RAY

This will negate any effects of a pistol sphere or a blue sphere.

Duration: Instantaneous

RESTORATION RAY

This ray completely regenerates any being dead or dying and always works if applied within 1 hour of death.

Duration: Instantaneous

The best way to negate a "blue sphere" is to place it in a damping shell, which will cut off its energy supply. When this happens the sphere becomes useless.

THE CRYSTAL PISTOL/CATAPULT

The pistol catapult is a hand held weapon that looks much like a small catapult made of an unbreakable crystal with spring steel like material. It shoots a five centimeters sphere (they look like marbles) for a maximum range of 50 meters. These spheres are only active upon being released from the pistol and emit their stored power on contact. There are different types of spheres, all color-coded for easy identification.

RED SPHERE

Upon contact, this sphere (from the point of contact) will emit a 5-meter circle of heat, so intense that it melts everything and anything in an area. The sphere does 1d100+50 damage to living beings (they are being cooked alive).

BLACK SPHERE

Upon contact, this sphere (from the point of contact) will emit a 5-meter circle of disintegrating energy. The target can be a creature, an object, or a creation of mental force. A creature targeted by this sphere must make a DEX/RS check. On a failed save, the target takes 6d10+40 force damage. If this damage reduces the target to 0 Stamina, it is disintegrated.

A disintegrated creature and everything it is wearing and carrying are reduced to a pile of fine gray dust. The creature can be restored to life only by means of a Regeneration Ray. If the target is larger than the sphere when it disintegrates, a 5-meter sphere portion of it is disintegrated. Artificer technology is not affected by this sphere, so if the target is carrying Artificer technology, that will be left intact.

CLEAR SPHERE

Upon contact, this sphere (from the point of contact) will emit a 5-meter circle of nullifying energy. Which means any stored energy source (i.e. battery or loaded energy weapon) ceases to function permanently as the energy source is instantly drained.

BROWN SPHERE

Upon contact, this sphere (from the point of contact) will emit an illusion of a vast maze. Those in that 5-meter circle must travel through this mental maze to free themselves of the effects.

PURPLE SPHERE

Upon contact, this sphere (from the point of contact) will emit a 5-meter circle of death on all living things within the 5 meters sphere. Any creature, friend or foe, successfully hit has most of his hit points drained away. The creature is left with only STA points equal to his STA/5. If this does not do at least 5 points of damage to the creature, then it is reduced to zero STA points. Any creature with zero or fewer STA points is killed instantly. All normal plants, small animals or other simple life forms are assumed to have been attacked successfully and suffer the consequences. Interestingly, germs and other microscopic organisms are unaffected.

SILVER SPHERE

Upon contact, this sphere (from the point of contact) will emit a 5-meter circle of synthetic crystal with the resistance of diamond to physical forces. The wall will go to a maximum height of 20 meters, length 40 meters, and a thickness 5 meters. It will always fill any passage or space to the fullest possible extent.

Obviously there are many more colors one can create spheres for following these basic examples that can have equally wondrous and dangerous effects on the target.

THE COMPUTER

Finally the most powerful of all devices of the Artificers is their mighty offensive and defensive computers. This device has a core power source that allows them to create great amounts of heat and is able to analyze and counteract any attacks sent at it. It is able to analyze up to 100 attacks of any kind (including psionic) sent at it per turn. Its primary form of attack is to analyze the Stamina of its enemies and emit a double amount of that in a heat ray. These computers are used in the more sensitive areas of Artificer bases.

The computer's greatest weakness is its strict following of its program, which can allow more intelligent beings to use logic to get around it. This type device can be made in varying strengths and forms to present an unusual obstacle for players. Obviously Star Frontiers PCs may have an added advantage in dealing with a computer so referees should feel free to make these computers very deadly to all but their keepers.

*"There are more things in heaven and earth, Horatio,
Than are dreamt of in your philosophy."*

- Hamlet (1.5.167-8), Hamlet to Horatio

SOME FINAL THOUGHTS

In D&D the Artificer ceased to be a unique race and ultimately became a specific class of wizards that any race could become. Though introduced as a prestige class for gnome arcane spell casters, by the 4th edition they were given a draconic heritage. The class started as a specialty in the School of Thaumaturgy in the 2nd edition rules. The artificer channels magic or psionic power into or through non-living items for their own personal use. Basically in all versions they make, power, and fix wondrous works of mechanical "magic." In this basic respect the Artificers are still builders of wondrous super-science, though striped it seems of some of their other aspects.

"We are dreamers, shapers, singers, and makers. We study the mysteries of laser and circuit, crystal and scanner, holographic demons and invocations of equations. These are the tools we employ, and we know many things."

– Elric Babylon 5

For Star Frontiers I suggest this race of trans-dimensional beings be used as the powerful mysterious NPCs they were intended to be, wielders of super-science devices capable of creating all sorts of shenanigan situations for those few who meet and survive the experience

They have super-science on a level that should humble others if they choose to use it. Artificers; disguised of course; might even hire PCs to do odd jobs for them. Sending PCs off on dangerous missions to retrieve items, materials, plants and animals, or maybe hiring their ship for transport to move about the Frontier incognito.

Dr. McCoy: Three witches... what appears to be a castle, and a black cat.

Captain James T. Kirk: If we weren't missing two officers and a third one dead, I'd say someone was playing an elaborate trick-or-treat on us.

Mr. Spock: 'Trick-or-treat', Captain?

Captain James T. Kirk: Yes, Mr. Spock... You'd be a natural. I'll explain it to you one day.

From the Star Trek TV Series Episode Catspaw 1967

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Gamma Dawn, by Mr. Scott Ireland and Bill Logan, 2007



A single spotlight flares up, casting a wide circle of light upon the center crease of the curtains. “Straight from the jeweled stages of Terledrom, we bring you the astonishing comedy duo that you've all heard about! RolyPoly and Ker-Plunk!”

There are no cheers. A few of the more outspoken patrons groan. A pair of yazirians near the back leave a tip on their table and beat a hasty retreat. And yet, when the curtains open, most of the audience is already smiling. If nothing else, tomorrow they will be able to brag about the ordeal to friends and family.

RolyPoly is not large for a Dral, and all his mass is in the air since he only has one leg and four heads. Obviously, six of the eyespots are fakes. But all four of the upper limbs move their faces in sync, so there's no way to tell which one is which. His skin has been dyed a garish mix of pink and green. He's also naked, which is against the law here even for Dralasites. A few of the women in the room avert their eyes and blush in counterfeit modesty.

In contrast, Ker-Plunk is fully clothed in layers of black and gold cloth studded with sparkling gemstones. Even her antennae are adorned with hanging jewels. In each hand, she holds a waving silvery pom-pom, an ancient human ritual device intended for dancing and sports events.

Neither one has a microphone visible, but it could easily be hidden among Ker-Plunk's jewelry or somewhere inside RolyPoly. The two pause, perhaps expecting a reaction from the audience. But this is not Terledrom, and the crowd remains silent.

Ker-Plunk speaks first. “Tough audience tonight RP!”

One of RolyPoly's heads says, “they're just slow. Give them time to warm up.”

“What do you call a place where everyone is slow to speak?”

A different head responds, “A drawler-site?”

“You think that was funny?”

“What do I look like? A droll-a-sight?”

There are a few groans before Ker-Plunk continues. “Maybe this crowd is all business?”

“Brusque with a Vrusk?”

“We can't all be as friendly as you. Can you imagine what they'd call me?”

“An amorous lady Vrusk? I'd call you a Frisk.”

“You're the one all painted up for the party, can you imagine if a human did that?”

RolyPoly switches one of his heads for his leg, revealing that this one too has a face. It even has fake nose and glasses. “We could call him a hue-man.”

“At least you aren't singing about it this time.”

“I'm not a hummin' either.”

“How do you come up with those stupid human jokes?”

“You have to act paranoid! It's just like they named their home system: They See Us!”

Ker-Plunk pauses in mock despair, “Sometimes I wish you were a robot. At least then you'd have hands.”

The rearmost head extrudes a wrench. “You'd have to give me tech-knuckle-support.”

“Or I could legally wave goodbye and throw you into the ocean.”

“Then, if I had a boat, I'd be a yacht-sea-rian.”

“So many groans! But nobody's laughing. Maybe we should send you on a ship back to Fromeltar.”

“That's funny. You're the one with the eggs, but you want me to enter the boid.”

“Well, before we go, I at least want to get to the meat of this act!”

“Meat? Oh no! Not that yak-sear-ian joke again!”

“I want to tell at least one joke!”

There is a pause. The room grows quiet. RolyPoly nods to Ker-Plunk with one of his heads. The spotlight focuses in on her making her jewelry sparkle like a holoflare.

“Finally, I get my chance!” She shakes her pom-poms in triumph and gives the Vrusk body-language equivalent of an evil smile, “A robot captures an UI-Mor, a Kurabanda, and an Edestekai. Since it wasn't programmed regarding what to do with captives, it ties them to the blades of it's owner's jetcopter. But keep in mind, this isn't just any ordinary jetcopter! It's been souped up with an enhanced type 4 parabattery for extra power.”

Even RolyPoly looks puzzled, “All right...”

“So, what do you think they say when the owner shows up and turns the ignition?”

Another pause for dramatic effect. RolyPoly finally shrugs.

“Volt-turn-us!”



While Atomic Engines are the stars of travel on the Frontier, Ion engines are the overlooked workhorse. The atomic fuel pellet expended on a single jump represents a major expense for most cargo ship at cost of 10,000 Credit per engine, while the same trip would use 1017 units of fuel per engine at a cost of 10170 credits. Add to this the cost of over haul and the initial purchase costs, Ion rockets not only make sense for in system ships but can be a cheap alternative to standard Atomic drive.

HOW WE COMPUTED THE COST OF FUEL LOAD
An Ion engine use 1 fuel unit per ADF, An ADF is basically 1 G of acceleration over a 10 minute period (Knight Hawks combat turn.) To accelerate to 1% speed of light would take 508.5 ADF and additional 508.5 ADF to decelerate. At 10 Cr. per fuel that comes to 10170 Cr per jump.

Generally overlooked in the Knight Hawk construction rules is ship power. While Atomic drives can be tapped as a power source, Ion engines will need to draw on an external source of power in order to operate. Generally all space craft are equipped with a bank of parabatteries to provide backup power. Standard ion engine will require at least 1000 SEU of power to make a change of 1 ADF. See chart to see energy cost per engine type:

POWER REQUIREMENT PER ENGINE TYPE

Class	SEU
A	1,000 / ADF
B	2,000 / ADF
C	3,000 / ADF

Generally a generator will also be required to recharge the parabattery banks and provide ship power. Typical these generators require a power source, while solar arrays can be used by system ships, 5 square meters of solar panel is needed for each SEU/HR the generator can produce. Solar panels cost 10 Credits per 5 square meters, and are destroy on any weapon hit. (Optionally you can rule the number of m² destroyed is equal to damage the weapon inflicts)

Atomic piles can also power these generators, a typical portal self-contained fission pile is 3m in diameter by 15m long and can provide 200 SEU/s and has a life span of 30 years. Cost of one of these piles is 1 million credits. The reactor requires a 4 function point computer program.

Typically only 1 such reactor is needed for most ion drive starships but if the craft is heavily armed, a second reactor is needed to run any energy weapons the ship processes. A typical laser battery requires 20 SEU per shot, and electron or proton particle beams 100 SEU. Spinal weapons and laser cannon will consume 1000 SEU per shot. Typically these units will have their own banks of parabatteries to draw power from, but are quickly depleted without a secondary reactor to recharge them.

As a rule of thumb, we can assume that all Star Frontier ships will have installed parabatteries to handle ships function. In the case of Atomic Drives these batteries will be recharged whenever the drives are in use.

STANDARD NUMBER OF INSTALLED PARABATTERIES PER SHIP SIZE

Ship size	Parabatteries
1 to 4	5 to 20 type 4
5 to 14	25 to 40 type 4
15 to 20	45 to 100 type 4

Generally this is enough to provide 24 hours of power to life support and ship equipment, use of weapons will quickly drain these batteries if atomic engines are off or if no portable pile is available.

PIRATE STEALTH CRAFT

Cunning pirates have taken advantage of the ion drive's invisibility to energy detectors (which actually detects the radioactive and heated exhaust of Atomic drives) to ambush lightly or unarmed merchant craft. Coated with radar absorbing paint, the craft uses its ion drives to get within visible range, where it uses additional atomic drives for a sudden burst of acceleration to get within boarding range before the ship can escape.

PIRATE STEALTH CRAFT

- Hull size:** 4
- Types of engines:** 2 ions, 2 atomic
- ADF:** 1 / 4 **MR:** 4 **DCR:** 32
- Hull Points:** 20
- Weapons:** laser battery
- Defenses:** Radar absorbing material
- Sensors:** energy detector, radar.
- Note:** when in stealth mode, radar is set to passive and uses target radar transmission to home in on target.



REMUS CLASS SHUTTLE

The Remus class shuttle is a Hull Size 2 shuttle equipped with chemical rockets designed to move small parties and limited equipment around the inner region of a star system. It can land and lift off from planets and is aerodynamically designed for flight within an atmosphere. Its major drawback is the lack of a proper airlock, requiring that it mate with ships and stations equipped with the appropriate docking collar and airlock. Alternately, if all occupants are wearing vacuum suits, the air can be pumped into reserve tanks and the door opened to allow egress to the outside. While it is classed as a system ship, it also lacks the accommodations for a prolonged journey to the outer system and is largely limited to operation around the inhabited planets and stations in the inner system.

The design flaws inherent in this craft have led to them being discounted and sold off on the cheap or converted to digger shuttles. Note that the ship is presented with two rocket engines for aesthetic purposes but they are treated as 1 class A chemical engine.

HS: 2 **HP:** 10

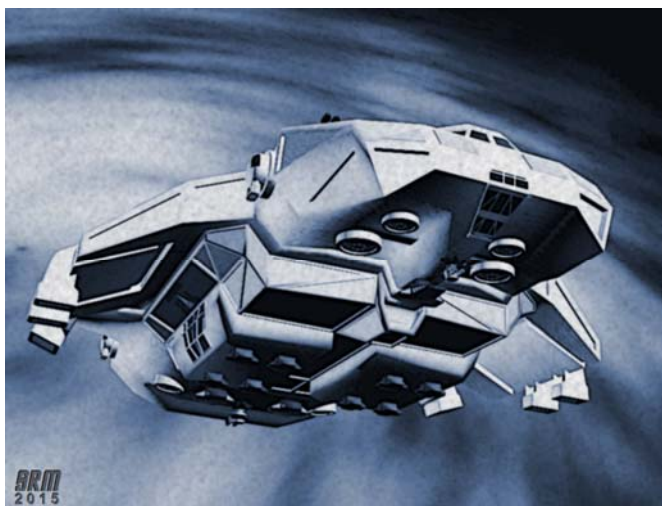
ADF: 1 **MR:** 4

Weapons: None

Defenses: Reflective Hull

Computer: level 2 with a total of 18 fp.

Programs: Analysis 1(2), Communication 1(3), Computer Security 1(2), Information Storage (2), Drive Program 1(3), Life support 1(2), Backup Life support 1(2), Shuttle Astrogation program 1(3)



COST (FUEL SOLD SEPARATELY)

Star Ship Construction Center Type	Cost
Type I	182,000 Cr
Type II	202,000 Cr
Type III	232,000 Cr

Variants: digger shuttle + 8000 Cr for digger shuttle nose conversion.

ROMULUS CLASS RUNABOUT

The Romulus Class Runabout has many of the same design flaws as the Remus shuttle but its engine has been upgraded to ion thrust. The rear cargo compartment has also been converted to a 4 bunk journey class passenger cabin.

HS: 2

HP: 10

ADF: 1

MR: 4

Weapons: None

Defenses: Reflective Hull

Computer: Level 3 with a total of 44 fp.

Programs: Analysis 1(2), Communication 1(3), Computer Security 1(2), Information Storage (2), Ion Drive Program 3(12), Life support 1(2), Backup Life support 1(2), Shuttle Astrogation program 4(24)

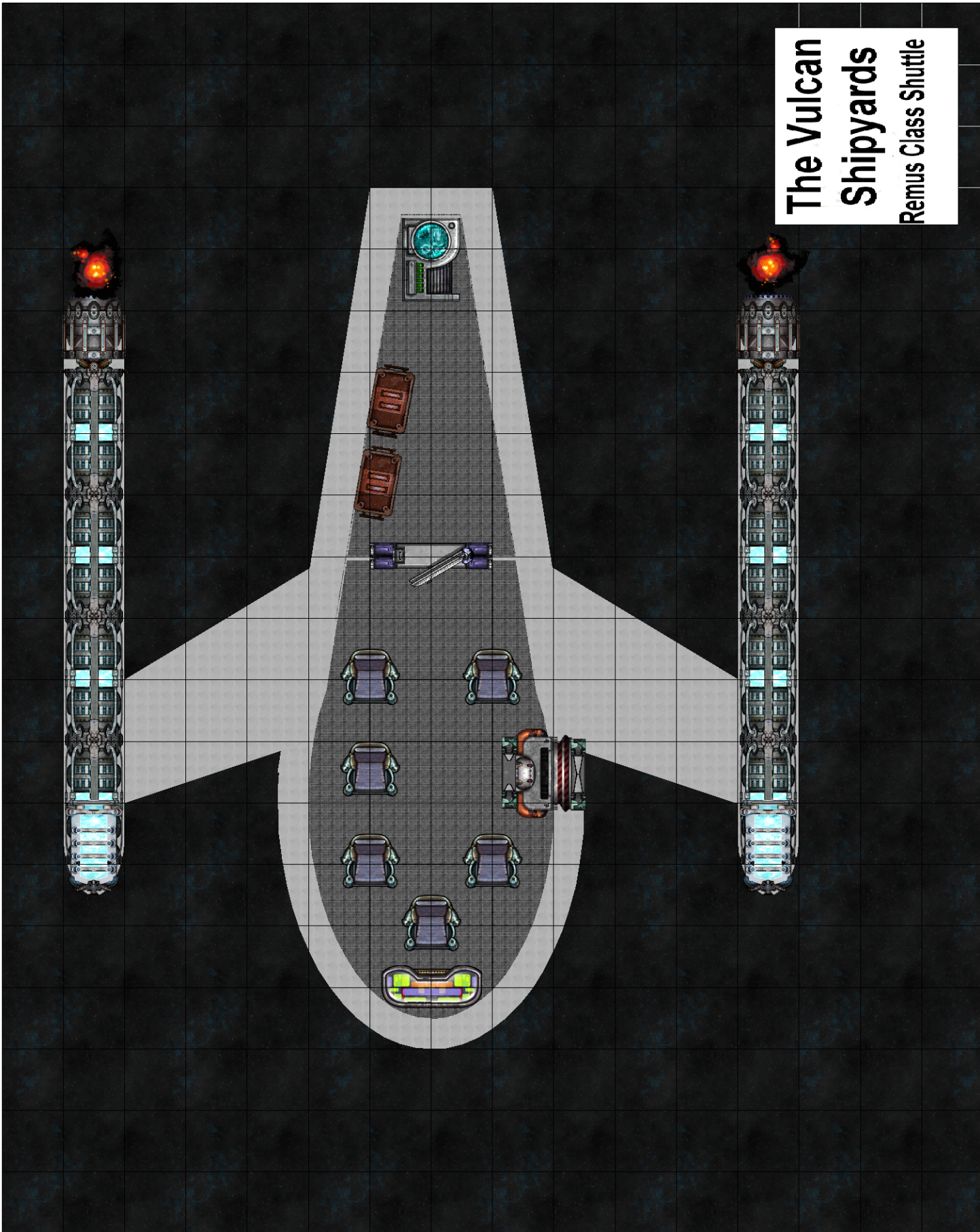
COST (FUEL SOLD SEPARATELY)

Star Ship Construction Center Type	Cost
Type 1	275,000 Cr
Type 2	345,000 Cr

Note: it is not uncommon for deals to be found on these ships with a 15% to 35% savings. If one should be available for an even higher saving one might expect some serious maintenance issues but this is the reason they say, "Don't look a gift shuttle in the engine access penal."

The Vulcan Shipyards

Remus Class Shuttle





SMALL CRITTER ABOLISHMENT, REMOVAL, & ERADICATION - CROP REGULATING OVERWATCH ROBOT (SCARECROW BOT)

Occasionally, on one of the worlds where agriculture is a significant part of the economy it becomes necessary to drive off pests and protect crops. An ancient practice from another world far removed from the Frontier was to post a scarecrow in a field and hope it would drive off avian pests. Notoriously ineffective, the scarecrow became a human cultural icon associated with harvest. Tachton Instruments' new SCARECROW Bot (Small Critter Abolishment, Removal, & Eradication Crop Regulating Over Watch Robot) fits this niche need.

The Scarecrow bot is designed to patrol agricultural fields, identify pest creatures and prevent crop loss through abrogation of the threat they pose. It is equipped with a sonic screen, infrared and acoustic sensors, as well as a weapon arm. The weapon arm comes in automatic, laser, gyro-jet, or needler rifle variants. Legs, wheels, and tracked methods of propulsion are standard but the robot can be ordered with a hover upgrade for 2000 Cr.

THE SCARECROW ROBOT

Standard body, Level 3 robotic processor brain, type A parabattery, IR and Acoustic sensors, Attack/Defense program, Search and Destroy program, standard modes of propulsion (legs, wheels, or tracked- choose at time of purchase) and a rifle arm with a double clip of ammunition (automatic, laser, gyro-jet or needler rifle- choose at time of purchase). 10,800 Cr. Movement is at 120m/turn like similar search and destroy robots.

STANDARD PROGRAMMING

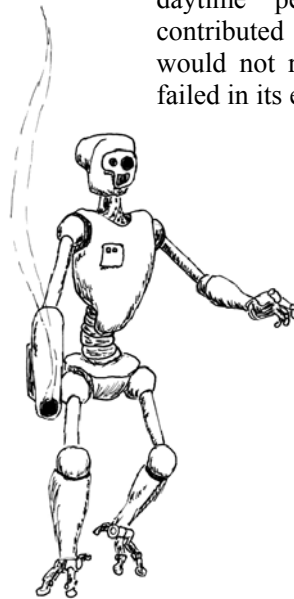
Standard Mission: Patrol Agricultural Assets and Identify and remove Pests.

Function 1: This function can be as simple as a map of the agricultural asset or a written description.

Function 2. This function defines what a pest is. It may identify pests as creatures of a particular size. Example: creatures size small and tiny are all pests in which case all creatures conforming to size small or tiny will be attacked by the robot. Alternately it may include bio scans of specific species. In this case it will only attack those creatures specifically identified as pest.

It should be noted that the language of the mission with the search and destroy program will ensure that the robot will pursue those creatures it deems pests beyond its programmed patrol area.

Optional Function 3: Rearm and recharge as needed or during non-peak pest activity times (i.e. nocturnal or daytime periods). Inclusion of this function has contributed to accidental malfunctions where the robot would not rearm until the specified period and thereby failed in its eradication mission.



COMMON MALFUNCTIONS

For some reason the second function has been known to become corrupt. There are several instances where the robot identified any sized creature as a pest including medium sized sapient beings like humans, dralasites, yazirians, and vrusk. With lawsuits pending Tachton Instruments refuses to comment on this at this time.

ENCOUNTER HOOK

The player characters are traveling through agricultural areas and run afoul of a Scarecrow robot with corrupted programming causing it to attempt to eradicate them as pest.

Equipment

LIMP SOFTLY CARRYING A BIG STICK

Tom Verreault

Hezred “Wolfen” Arsclan was a cargo handler more suited to mercenary pursuits but he had tired of corporate conflicts and signed on as a cargo handler with a Capellen Free Merchant captain. He had possessed no real skills needed on to run a star ship but the captain seemed happy to have him aboard as grunt labor and as a show of muscle if negotiations looked to be a little dicey.

It was on his third visit to the planet Faire when a robotic cargo arm had slammed into him breaking his leg. The med station at the port had surgically repaired his leg but the doctor warned that he needed to take it easy while the leg fully healed. Naturally they wanted him to use crutches but no self-respecting yazirian warrior would hobble around on such silly things.

The captain had insisted that he visit a stall in the Minzii Marketplace and use his name with the proprietor. It had been phrased as an order but Hezred doubted he would buy a “walking stick” even from a place known by such an intriguing name as “The Big Stick”.

“Honored, I am, to have a great yazirian warrior in my humble shop.”

“Yeah, yeah,” grumbled Hezred, “I am certain that you are a most noble shop keeper and purveyor of goods but if I was truly a great warrior then surely I would have been able to dodge the robotic arm that smashed my leg. I’m not really interested in a crutch, cane or walking stick I’m simply here to appease my captain.”

“But of course, a proud warrior such as you would scoff at the humble canes and walking sticks in my stock no matter how elegant they are and I would be embarrassed to show a seasoned warrior the ones that have concealed weapons in them.”

A smirk began at the corner of Hezred’s mussel and became a full toothy grin, “Did you say concealed weapons?”

The ifshnit proprietor grinned back, “Well, yes we do carry a few canes and walking sticks with concealed weapons, after all it was us ifshnits that invented

the saying, ‘walk softly and carry a big stick.’”

CANES AND WALKING STICKS

These items provide a bonus for characters walking in rough terrain to not fall or trip. When required to make an ability or skill check for maneuvers in rough or broken terrain, a cane provides a +5 bonus and a walking stick a +10 bonus. Walking sticks are easily made by characters in the wilderness for no cost but the bonus from a rough made walking stick is only +5. However if the walking stick is made by a character utilizing an appropriate skill for making tools then the bonus is the normal +10. A cane or walking stick will double as a night stick in melee combat.

Elegantly carved canes and walking sticks command higher prices depending the quality of the craftsman ship (25 Cr to 150 Cr).

Standard Cost: 10 Cr

Mass: N/A if used to walk otherwise 1 kg

CANE SWORD

The cane sword is a waking cane with a concealed sword. It may be used as a night stick without drawing the sword or as a sword. It otherwise functions as a cane for walking.

Cost: 40 Cr

Mass: 2 kg

WALKING STICK POLE ARM

This item appears to be a normal walking stick but when a special locking mechanism is depressed at the middle and the top and bottom halves of the stick are rotated a quarter turn in opposite directions a blade emerges from the top end and locks in place making the walking stick a pole arm. To retract the pole arm blade the same procedure is followed in reverse.

Cost: 60 Cr

Mass: 4 kg



FE

TITAN RISING: 2299

EPIISODE #7.0: "BETRAYAL"

1/20



C.S.S. INTREPID

APPROACHING THE SOL SYSTEM'S HYPERSPACE JUMP POINT NEAR THE PLANET VENUS.

...AND THE SHIP'S X.O. COMMANDER GARRET MEETS HIS NEW XIN FTL TECHNICIAN.

DAMN IT!



YOU CANNOT BE SERIOUS?

JUST WHAT THIS SHIP NEEDS...

GUM-DROP TRAILER TRASH!

COMMANDER GARRET LOOKS PRETTY BOILED.



WHAT'S HIS ISSUE?



APPARENTLY THE COMMANDER'S NOT A FAN OF OUR NEW FTL TECH.

LIEUTENANT GOLDMAN...

WHEN YOU'RE FINISHED GAWKING TAKE MY STATION.

AND GOLDMAN... YOU SHOULD AVOID SPECULATING ON MY INTENTIONS.

HELLO?

I KNOW SOMEONE IS DOWN HERE...

MOMENTS LATER...

THIS IS GARRET, IS ANYONE ELSE WORKING HERE IN THIS SECTION?

A MUTUAL FRIEND TOLD ME THAT I COULD FIND YOU HERE.

COMMANDER GARRET ENTERS ENGINEERING IN THE SHIP'S CORE.

THAT... IS CLOSE ENOUGH!

WHO IS THIS MUTUAL FRIEND THAT SENT YOU?

DENTAK!

VERY WELL, GARRET...

WHAT IS IT THAT YOU WANT FROM ME?

THE ALLIANCE BROUGHT IN A NEW FTL TECH THAT IS A XIN FEMALE.

I SUSPECT SHE IS A CLAN COUNCIL OPERATIVE.

...MAKE IT LOOK LIKE AN ACCIDENT.

CONTACT IS... STRICTLY OUTSIDE OUR PROTOCOL. PROCEED CAUTIOUSLY.

TO BE CONTINUED...

GOT GAS GIANTS?

Tom Verreault

BUILDING SCALE KNIGHT HAWKS TERRAIN

Years ago I had created a couple of planets by painting Styrofoam balls and mounting them on some two piece plastic Champaign glass bases (purchased at a combination dollar and party store). They were easy projects had I was following a tutorial I had found on the internet which primarily detailed painting the moon. These planets roughly approximated one Knight Hawks hex as the scale for Knight Hawks miniatures is one hex equals 2 inches which makes my early gas giant only slightly larger than Earth at 3 inches.

The reality is that gas giants are huge and should more properly take up 7 to 14 hexes worth of space in diameter. Also I had mused ever since making these planets how to do a gas giant with rings. One idea that had come up was using a vinyl music album as the rings and dry-brushing gray paint onto the grooves of the album to simulate the dust rings of a gas giant. On a recent trip to the craft store I spotted a new product, half Styrofoam spheres. I bought some 3 inch half spheres as a test along



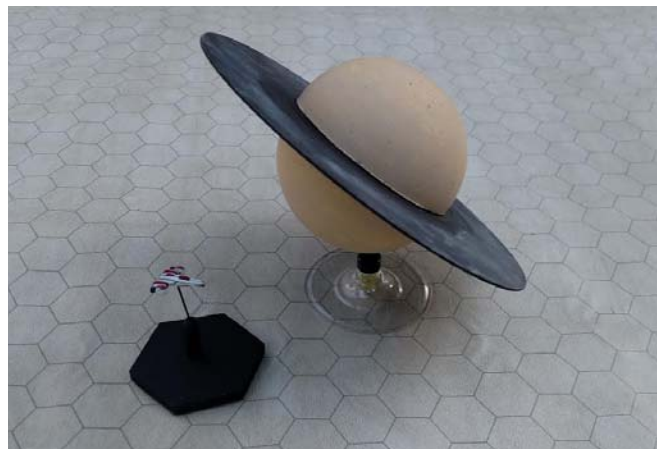
believe that the dry-brushing technique would give a good look for the rings like it does when used in painting chainmail armor on 25mm miniatures but alas there is not enough texture to the grooves on the record. Still, as a test of concept my first gas giant with rings looked serviceable. It had a nice dramatic angle to the rings and this in turn suggested some effects for ships firing at targets obscured by the rings (counting the rings as a masking screen if the weapon's fire tracks through the dust ring).

However, there were some problems. The planet sits higher than many of my star ship miniatures and there could be issues of subjectivity as to whether rings should come into play. Also the height of the model combined with the negligible weight of the base makes this mode prone to being easily tipped over.



with a vinyl 45 record and rounded up another plastic base.

The half spheres were easily painted with acrylic craft paint and I jammed an old paint brush into the flat sides to hold the half spheres while painting them. The record was primed with flat black enamel primer then gray acrylic paint was dry-brushed onto the grooves. I had initially



Thinking about the problems of the first model lead to a new test of concept using only one half sphere and cutting the 45 record in half. I used a miter box and a coping saw to create a 45 degree cut of the half sphere and jammed an old paintbrush into the side with an obtuse angle for ease of painting. The record was scored with a metal tool and straight edge before being snapped in half.



The resulting gas giant sits flush on the table and perhaps better matches the 2 dimensional nature of Knight Hawks space combat.

These new gas giants are by far my favorite but they are not really to scale. However, I now knew what I wanted for a gas giant terrain piece. With a trip to the craft store and to the Goodwill store I purchase an 8 inch half sphere and a full size vinyl album. Goodwill was the only place I could find old used vinyl albums in my area as not even the dusty used book stores carry them anymore.

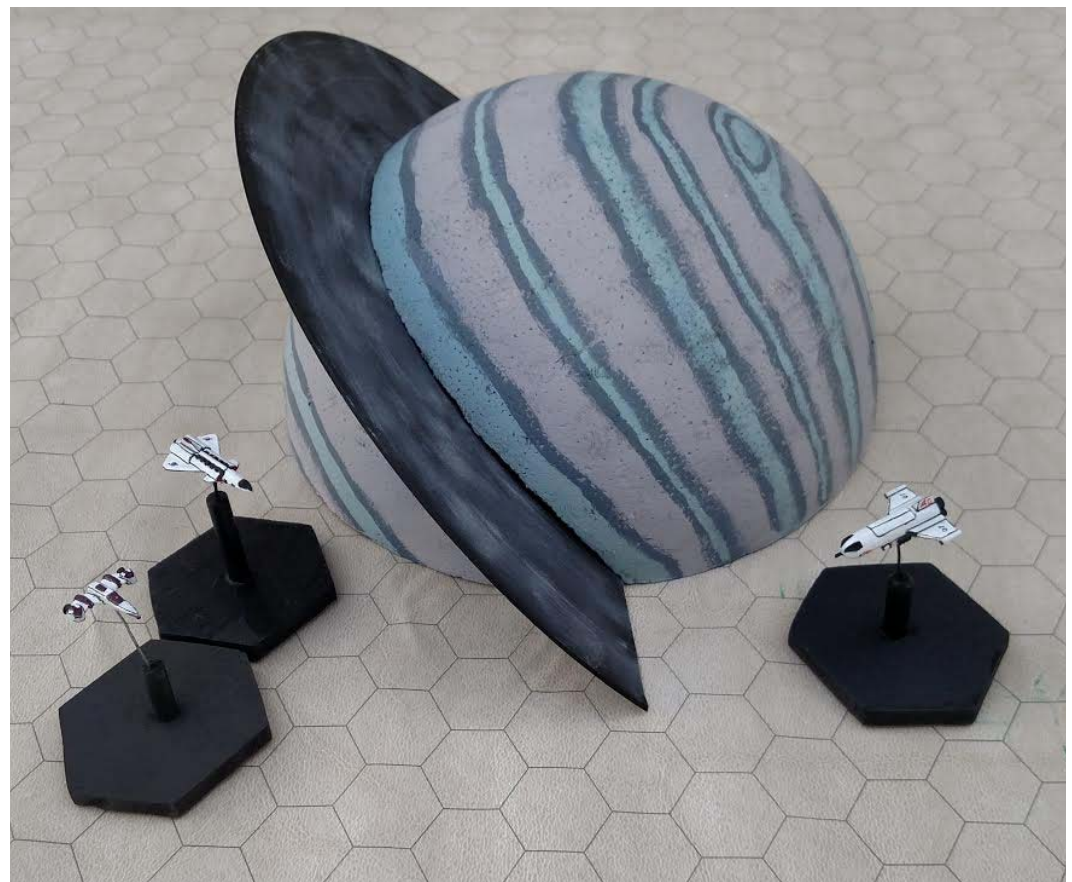
I should note that the 8 inch half sphere is a hollow shell (not solid like the 3 inch) and it did not fit into my miter box. To make a good cut at a good dramatic angle I stretched a piece of string from pole to pole on the half sphere and enlisted one of my kids in marking the sphere along that string with a sharpie. I used the coping saw again and endeavored to get as straight a cut as possible (it was straight enough). The vinyl album was similarly snapped in half and painted as before and the half sphere was painted in a blue and purple Jupiter like pattern. The other gas giants had been assembled with some high end



modelling super glue but for this one I used hot glue.

Now I have a scale gas giant model that dominates the gaming table and impacts combat the way a real gas giant might. It provides blocking terrain that cannot be moved through (the planet itself) and hindering terrain that has an effect on combat (the rings) and possibly movement. Good war gaming terrain should have eye appeal, looking good on the table and it should have an impact on the tactics of the game. The large gas giant model does both. Also the 3 inch gas giant with rings can stand in for Terledrom in the Fromeltar system of the Star Frontiers setting since this is a habitable world with rings. So both sizes of my new gas giants are very usable in future Knight Hawks games.

FE

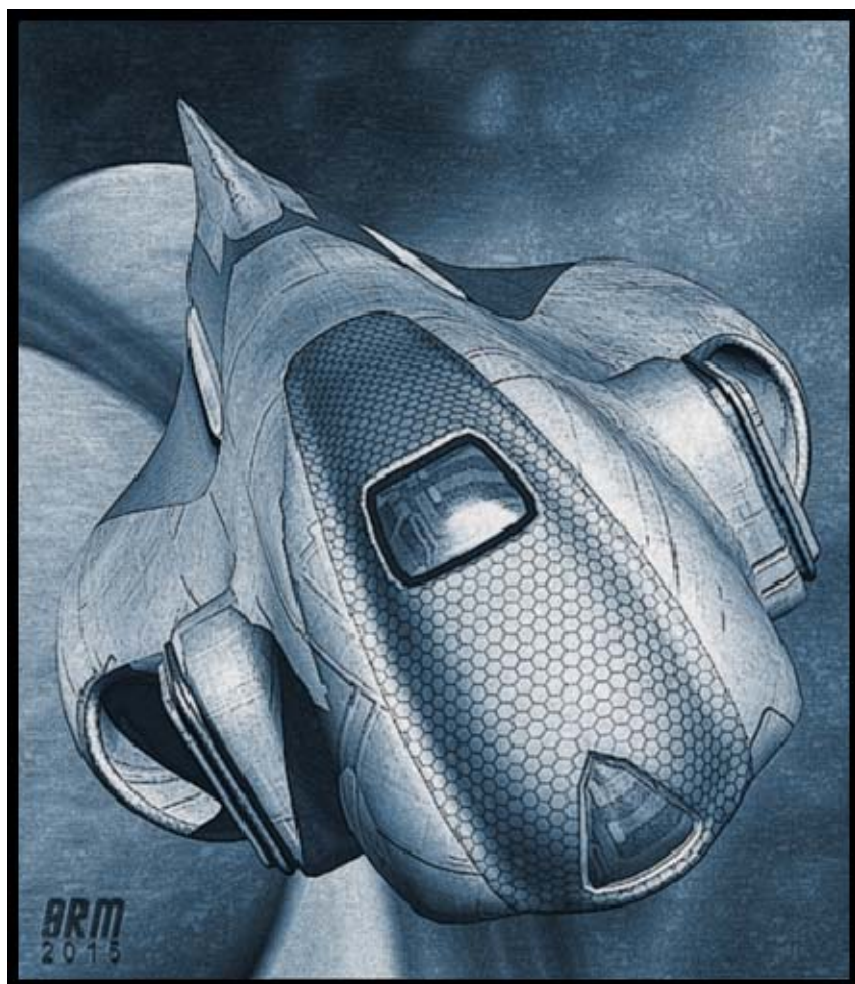




A NEW STARLINER DESIGN FOR GOBLINOID GAMES' STARSHIPS & SPACEMEN 2ND EDITION.

Designed for First Class adventure by renowned starship engineer Dylan Winslett, the S.S. Astral Horizon is a well-known executive luxury liner based out of Europa Akonis in the Sol System. Commissioned in 2286 by Europa Akonis Travel (EA Travel), this elegant luxury micro-liner has five decks of comfortable work and living space which can accommodate up to forty passengers and

crew. This vessel features three V.I.P. state rooms, twelve passenger cabins, a full service medical facility with two examination beds, and a five star rated automated cafeteria style galley. The Astral Horizon is protected by a powerful defensive screen system and one bow mounted laser beam array which provides safety and security from many of the common hazards found in deep space travel. The ship is powered by twin Lunadyne Class-A Internal Pod Hyper-Drive Cores, which produce an impressive 50 EU's of drive energy per day, giving the Astral Horizon plenty of "power under the hood" for both short trips and distant journeys. With a cruising speed of Warp 4 (4 LY / Day) the Astral Horizon can easily reach many near-by star systems in a matter of days with plenty of time to spare. Travel for business or pleasure on this fine vessel is available either through private charter or on one of EA Travel's monthly interstellar cruises to some of the Frontier's finest resort destinations.



PASSENGER FARE COST

TRAVEL CLASS	COST PER DAY
Economy Class	1 Unit (5,000 Cr.)
Business Class	1.5 Units (7,500 Cr.)
First Class	2 Units (10,000 Cr.)
Presidential / V.I.P.	3 Units (15,000 Cr.)

TRAVEL CLASS ASSIGNMENTS

TRAVEL CLASS	LOCATION
Presidential / V.I.P.	Deck 2
Captain's Quarters	Deck 2
Economy Class	Deck 3
Business Class	Deck 3
First Class	Deck 4
Crew Quarters	Deck 4

ASTRAL HORIZON DIRECTORY

Maps for the decks are found at the end of the article.

DECK #1: BRIDGE

#1: Bridge (01-C-B01)

- Command & Control Center
- Computer Core Interface Terminals
- Helm Operator's Console
- Navigation Operator's console
- Captain's Control Console
- Engineer's Control Console
- Communication's Control Console
- Damage Control Station
- Ship Wide System Interface
- Beam Bank Gunnery Control
- Defense Screen Control Console
- Reinforced Radiation Shelter
- Emergency Blast Door

#2: Central Corridor (01-C-C01)

- Emergency Access Panel
- General Access Restroom / "Head" (1)
- Maintenance Storage (2)
- Computer Core Interface Terminals
- Self-Sealing Bulkheads

#3: Lift (01-C-L01)

- Elevator Lift
- Reinforced Radiation Shelter

#4: Engineering Access (01-C-E01)

- Engine Access Ladder Tubes (6)
- Computer Interface Terminals

DECK #2: SHIP'S SERVICES

#1: Ship's Galley (02-C-G01)

- Occupancy 10-12 Adults
- Computer Core Interface Terminals
- Automated Food Service Unit
- Food Preparation Stations
- Dining Tables (3)

#2: Central Corridor (02-C-C01)

- Computer Core Interface Terminals
- Ladder Access Tube
- Emergency Access Panel
- Self-Sealing Bulkheads

#3: V.I.P. State Room (02-P-PC01)

- V.I.P. Accommodation
- Occupancy: 1-2 Adults
- State Room Bed Sleep Unit
- Computer Core Interface Terminal
- Attached Private Restroom

#4: V.I.P. State Room (02-P-PC02)

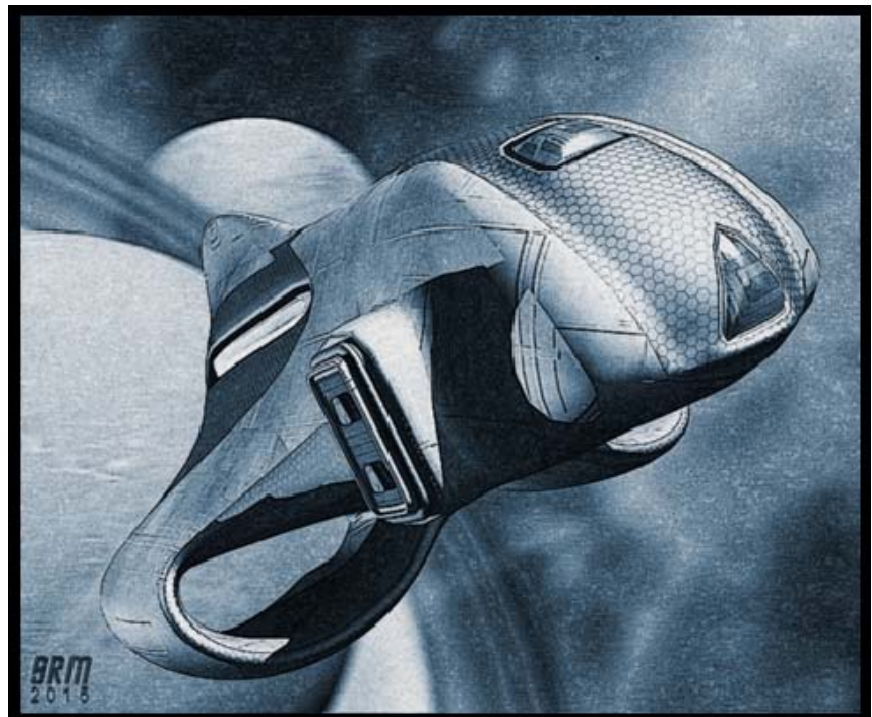
- V.I.P. Accommodation
- Occupancy: 1-2 Adults
- State Room Bed Sleep Unit
- Computer Core Interface Terminal
- Personal Item Storage
- Attached Private Restroom

#5: Medical Bay (02-P-M01)

- Medical Examination Bays (2)
- Medical Cryo Tube (1)
- Computer Core Interface Terminals
- Reinforced Radiation Shelter
- Attached Private Restroom

#6: V.I.P. State Room (02-SB-PC01)

- V.I.P. Accommodation
- Occupancy: 1-2 Adults
- State Room Bed Sleep Unit
- Computer Core Interface Terminal
- Personal Item Storage
- Attached Private Restroom



Frontier Explorer

#7: Captain's Quarters (02-SB-CC01)

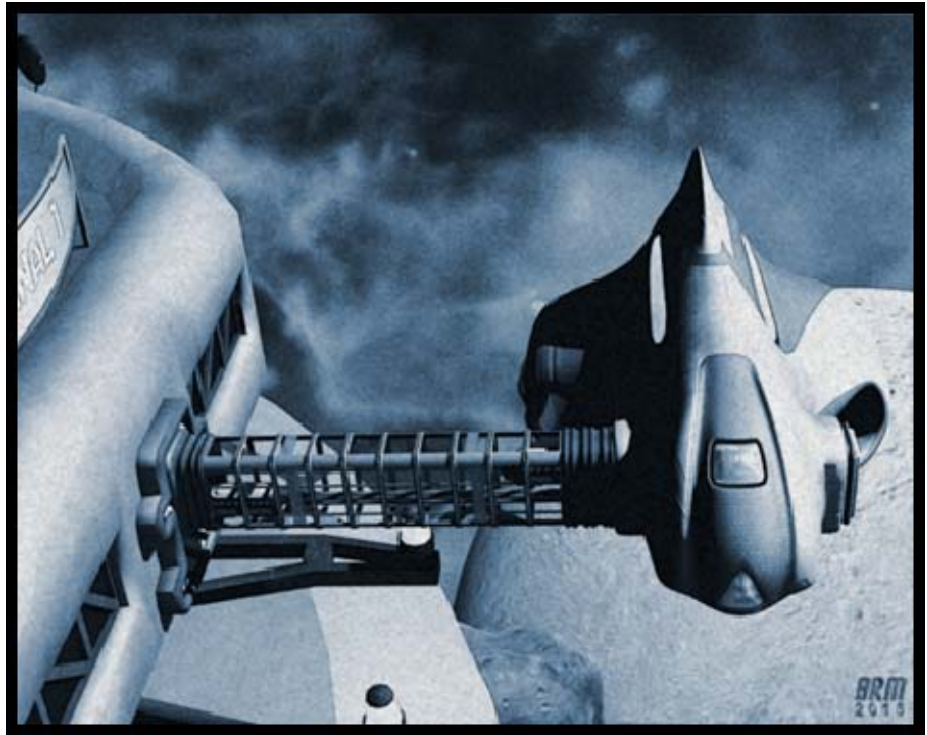
- V.I.P. Accommodation
- Occupancy: 1-2 Adults
- State Room Bed Sleep Unit
- Computer Core Interface Terminal
- Personal Item Storage
- Captain's Locker / Safe
- Attached Private Restroom

#8: Security Station (02-SB-S01)

- Computer Core Interface Terminal
- Reinforced Radiation Shelter
- Ship's Locker / Safe
- Security Armory
- Conference Table
- Private Restroom

#9: Lift (02-C-L01)

- Elevator Lift
- Reinforced Radiation Shelter



DECK #3: QUARTERS

#1: Passenger Cabin (03-P-PC01)

- Business Class Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units
- Personal Item Storage
- Shared Restroom

#2: Passenger Cabin (03-P-PC02)

- Business Class Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units
- Personal Item Storage
- Shared Restroom

#3: Central Corridor (03-C-C01)

- Computer Core Interface Terminals
- Ladder Access Tube
- Emergency Access Panel
- General Access Restrooms / "Head" (3)
- Self-Sealing Bulkheads

#4: Passenger Cabin (03-SB-PC01)

- Business Class Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units
- Personal Item Storage
- Shared Restroom

#5: Passenger Cabin (03-SB-PC02)

- Business Class Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units
- Personal Item Storage
- Shared Restroom

#6: Port Side Airlock (03-P-AC01)

- Docking Collar
- Personnel Hatch
- EVA Pressure Suit Lockers
- 10 EVA Radiation Suits
- Decontamination Station
- First Aid Station

#7: Starboard Side Airlock (03-SB-AC01)

- Docking Collar
- Personnel Hatch
- EVA Pressure Suit Lockers
- 10 EVA Radiation Suits
- Decontamination Station
- First Aid Station

#8: Passenger Cabin (03-P-PC03)

- Economy Class Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units
- Personal Item Storage
- Shared Restroom

#9: Passenger Cabin (03-P-PC04)

- Economy Class Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units
- Personal Item Storage
- Shared Restroom

#10: Passenger Cabin (03-SB-PC03)

- Economy Class Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units
- Personal Item Storage
- Shared Restroom

#11: Passenger Cabin (03-SB-PC04)

- Economy Class Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units
- Personal Item Storage
- Shared Restroom

#12: Lift (03-C-C01)

- Elevator Lift
- Reinforced Radiation Shelter

DECK #4: QUARTERS

#1: Passenger Cabin (04-P-PC01)

- First Class Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units
- Personal Item Storage
- Shared Restroom

#2: Passenger Cabin (04-P-PC-02)

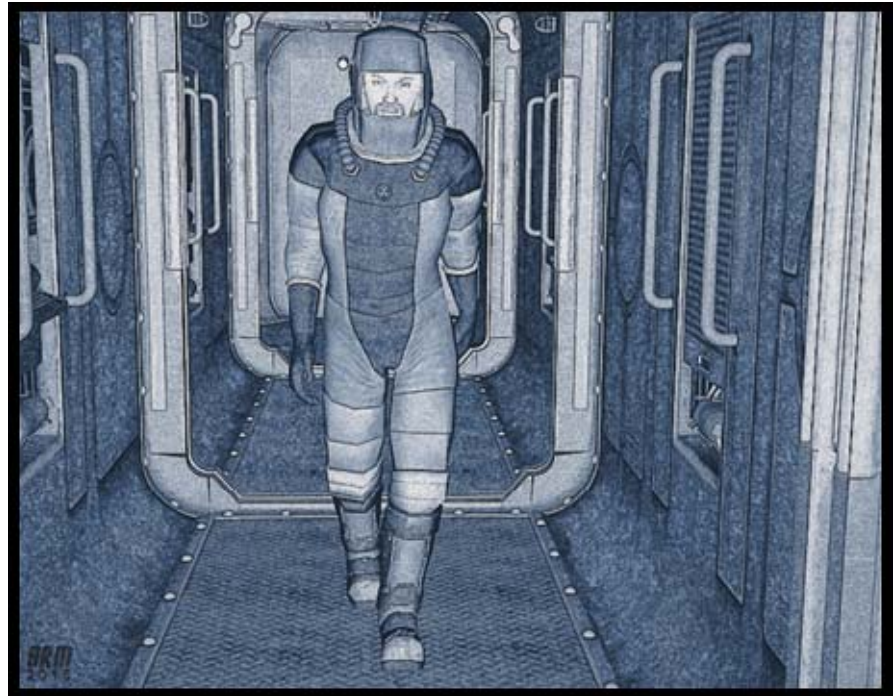
- First Class Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units
- Personal Item Storage
- Shared Restroom

#3: Central Corridor (04-C-C01)

- Computer Core Interface Terminals
- Ladder Access Tube
- Emergency Access Panel
- General Access Restrooms / “Head” (3)
- Self-Sealing Bulkheads

#4: Passenger Cabin (04-SB-PC01)

- First Class Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units



- Personal Item Storage
- Shared Restroom

#5: Passenger Cabin (04-SB-PC02)

- First Class Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units
- Personal Item Storage
- Shared Restroom

#6: Port Side Airlock (04-P-AC01)

- Docking Collar
- Personnel Hatch
- EVA Pressure Suit Lockers
- 10 EVA Radiation Suits
- Decontamination Station
- First Aid Station

#7: Starboard Side Airlock (04-SB-AC01)

- Docking Collar
- Personnel Hatch
- EVA Pressure Suit Lockers
- 10 EVA Radiation Suits
- Decontamination Station
- First Aid Station

#8: Crew Cabin (04-P-CC01)

- Crew Accommodation
- Occupancy: 2 Adults
- Bunk Bed Sleep Units
- Personal Item Storage
- Shared Restroom

#9: Crew Cabin (04-P-CC02)

Frontier Explorer

- Crew Accommodation
 - Occupancy: 2 Adults
 - Bunk Bed Sleep Units
 - Personal Item Storage
 - Shared Restroom
- #10: Crew Cabin (04-SB-CC01)
- Crew Accommodation
 - Occupancy: 2 Adults
 - Bunk Bed Sleep Units
 - Personal Item Storage
 - Shared Restroom
- #11: Crew Cabin (04-SB-CC02)
- Crew Accommodation
 - Occupancy: 2 Adults
 - Bunk Bed Sleep Units
 - Personal Item Storage
 - Shared Restroom
- #12: Lift (04-C-L01)
- Elevator Lift
 - Reinforced Radiation Shelter

DECK #5: ENGINEERING

- #1: Engineering (05-C-E01)
- Operator Control Consoles (2)
 - Main Engineering Control
 - Hyperdrive Engine Control
 - Life Support Control
 - Damage Control Station
 - Ship's Computer Core
 - Auxiliary Bridge
- #2: Central Corridor (05-C-C01)
- Computer Core Interface Terminals
 - Ladder Access Tube
 - Emergency Access Panel
 - Self-Sealing Bulkheads
- #3: Robotics Bay (05-P-E02)
- Robot Service Bays (5)
 - Computer Core Interface Terminals
 - Maintenance Support Robots (4)
 - Security Support Robot (1)
 - Operator Control Console
 - Attached Private Restroom
- #4: Teleporter Bay (05-P-E03)
- Teleporter Unit
 - Operator Control Console
 - Computer Core Interface Terminals
- #5: Cargo Bay #1 (05-SB-CB01)
- Perishable / Cold Storage

- #6: Cargo Bay #2 (05-SB-CB02)
- Standard Cargo Storage
 - Attached Private Restroom
- #7: Lift (05-C-L01)
- Elevator Lift
 - Reinforced Radiation Shelter
 - Emergency Access Panels (2)
 - Emergency Life Boat Access

SHIP SPECIFICATIONS

Ship's Name:	Astral Horizon	
Ship Class:	E5000	
Ship Type:	Star Liner	
Designation:	SL	
Naming Convention	None	
Prefix:	S.S.	
Hull Class:	Class I	
Hull Configuration:	Horizontal	
Decks:	5	
Government / Agency:	Civilian	
Commissioned In Class:	2	
Construction Cost:	600 Units	
Manufacturer:	Lunadyne	
Min. Command Rank:	Ensign	
Command Crew:	3-5	
Crew Compliment:	10	
Passenger Capacity:	30 Adults	
Power Point Base:	50 EU	
Atmospheric Flight	Limited	
FTL Capable:	H-Drive	
Hyper-Drive Pods:	Half Pod	
Hyper-Drive Core:	Class A (x2)	
Cruise Speed	Warp 4	
Emergency Speed	Warp 6	
Teleporter Capacity:	1	
Shuttlecraft:	1 (Life Boat)	
Sick Bay Capacity:	2	
Cryo Tubes:	1	
Ship's Locker Capacity:	T/6	M/3
Beam Banks / Arrays:	1	
Ion Torpedoes:	0	
Defense Systems:	Screens	

COMMAND CREW

The Astral Horizon has five Senior Command Crew Officers that govern the various functions and operation of the ship. All crew members report directly to their respective Command Crew Officer who in turn reports directly to the Captain. Provided below is a list of the Astral Horizon’s Command Crew in descending order of authority and command succession. In the event of a catastrophic emergency, where one or more of the ship’s Command Crew becomes incapacitated, the next Officer in succession would assume command of the ship. The ship’s Captain, Executive Officer, and Medical Officer are the only Officers with the authority to relieve another Command Crew Officer from active duty.

- Captain
- Executive Officer
- Medical Officer
- Chief Engineer
- Marshal (Security)



SHIP’S LOCKER (EQUIPMENT)

Located on Deck #2 in the Astral Horizon’s security office, the Ship’s Locker contains the crew’s emergency equipment storage. Access to the Ship’s locker requires authorization from the Captain or one of the ship’s Command Crew Officers.

- 1 Universal Translator
- 1 Data Recorder
- 2 Electro Stunners
- 2 Communicators
- 1 Medkit
- 2 Beam Pistols

PORTS OF CALL

The Astral Horizon is based out of the Europa Akonis space station located in orbit around Jupiter’s sixth closest moon in the Sol System. From this base of operation, the Astral Horizon makes monthly cruises to its twelve Port

Of Call destinations. EA Travel maintains travel agreements with each of these spaceports to provide continuous use of their facilities for the Astral Horizon throughout the entire year.

SECTOR / PLANET	SPACE PORT
Sol / Earth	San Francisco
Sol / Moon	Tyco Colony
Sol / Mars	Cydonia Colony
Sol / Europa (Moon)	Europa Akonis
Sol / P-Centauri II	Centaurus Colony
Sol / Tauron	Solace
Sol / Siren A III	Port Siren
Sol / Rigel III	Talgorak City
Sol / Vega Prime	Vega Colony
Sol / (N/A)	Starbase Alpha
Sol / Voltanis	Nakara
Sol / Altair	Port Liberty

Traveler’s desiring to book a trip to a location that is not included in one of our monthly cruises are encouraged to contact EA Travel directly for more information on private charter bookings or use of one of our affiliate vendors.

CHARTER GROUP RATES

Private charter group rates for travel on the Astral Horizon are based on the level of service requested for all passengers in the group for each day of the charter. The Interstellar Travel Administration requires that charter groups may not exceed 30 adult passengers for this starship.

SERVICE LEVEL	COST PER DAY
Economy Class	30 Units (150,000 Cr.)
Business Class	45 Units (225,000 Cr.)
First Class	60 Units (300,000 Cr.)

KH STATS

If you'd like to use the Astral Horizon in your Star Frontiers game, here are the complete Knight Hawks stats for the ship.

Note that not all of the features (e.g. passenger accommodations) translate directly from Starships & Spacemen into Star Frontiers. And obviously the decks are in the wrong orientation but it's designed for a different game system.

Hull size: 7

Engines: 2 Atomic Class B engines

HP: 35

ADF: 3

MR: 3

DCR: 41

Life Support:

Primary: 60

Backup: 60

Passenger Accommodations:

First Class: 4 (1 for captain)

Journey Class: 32 (8 for crew)

Computer:

Level: 4 (123 FP)

Programs: Drive 5 (64), Life Support 1 (3), Alarm 2 (2), Computer Lockout 4 (8), Damage Control 2 (4), Skin Sensors 1 (1), Laser Battery 1 (4), Analysis 3 (9), Communication 2 (6), Information Storage 2 (4), Robot Management 4 (16), Maintenance 1 (2)

Communication Equipment: videocom radio – 2 extra screens, subpace radio, intercom – 3 master panels, 35 standard panels,

Weapons: Laser Battery

Defenses: Reflective Hull

Other Equipment: Radar, Energy Sensors, Camera system, skin sensors, Laboratory (medical bay)

Cost: 1,700,200 Cr. (no fuel)

1,820,200 Cr. (fully fueled)

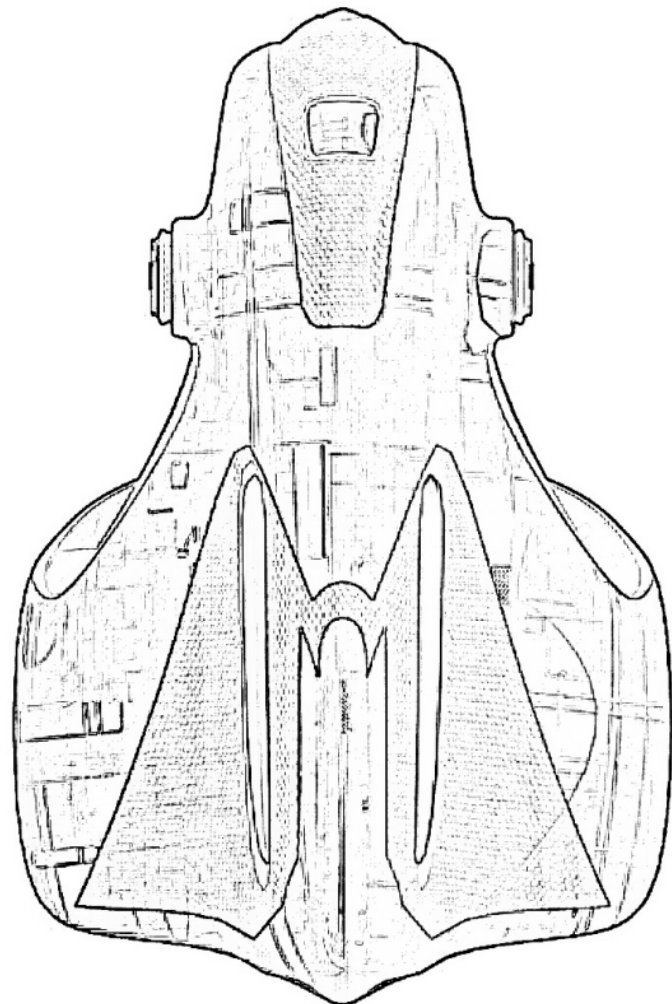
CONVERSION NOTES

The total space occupied by the inhabitable portion of the deck plans is roughly the size of a hull size 6 ship. With the extra wings and such I upgraded it to hull size 7.

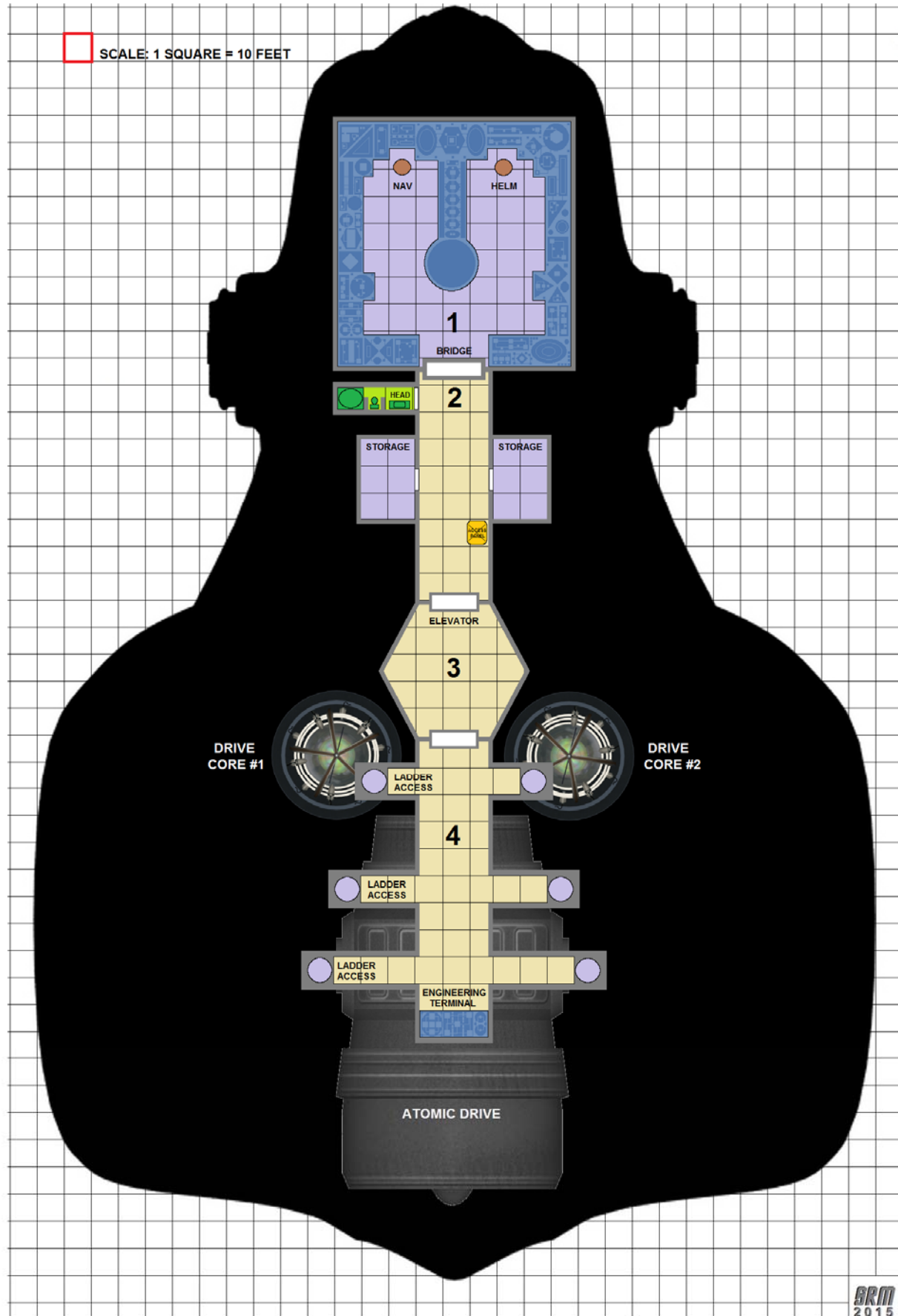
I couldn't really include a screen system using the KH rules without sacrificing performance. Plus the only one that fit in a ship this small is a masking screen which doesn't match the description. And technically the laser battery plus reflective hull is more than a civilian HS 7 ship should have but only by half a hull size point so I'm letting it slide.

The VIP and ship's Captain's quarters were treated as first class accommodations. The rest were treated as Journey class with no storage class berths included. It should be noted that all of the accommodations on this ship are quite spacious, being nearly double the required minimum.

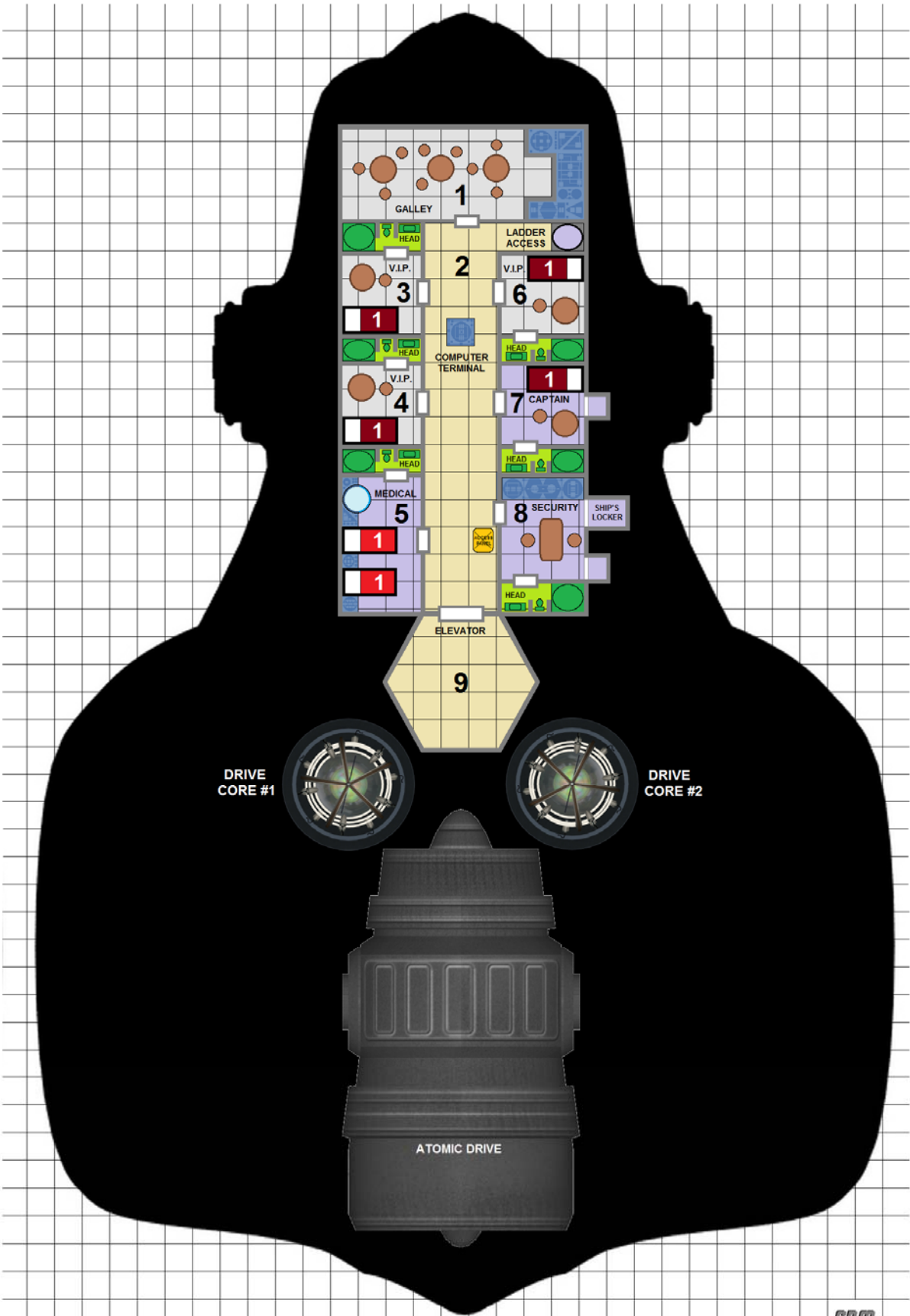
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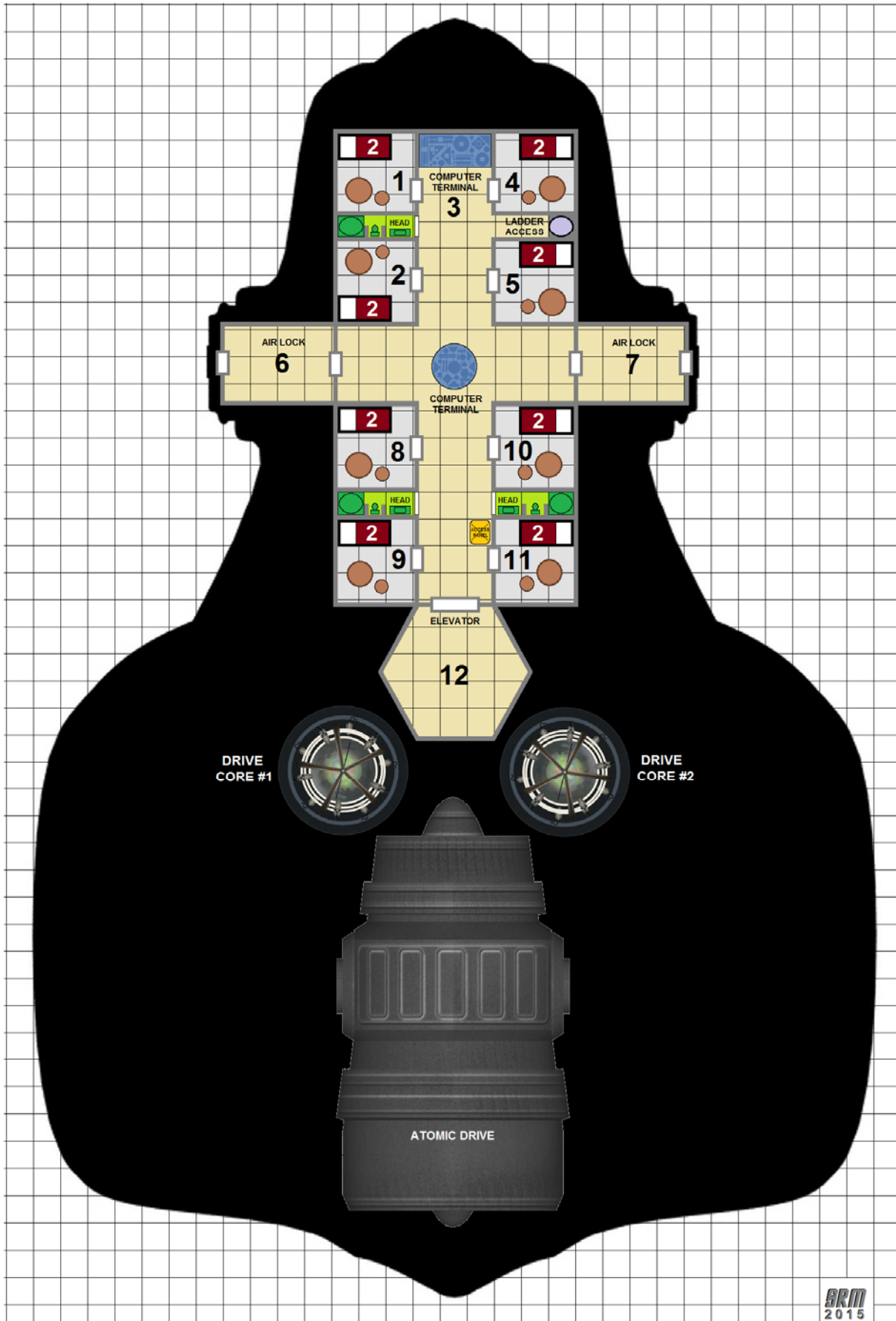
DECK #1: BRIDGE



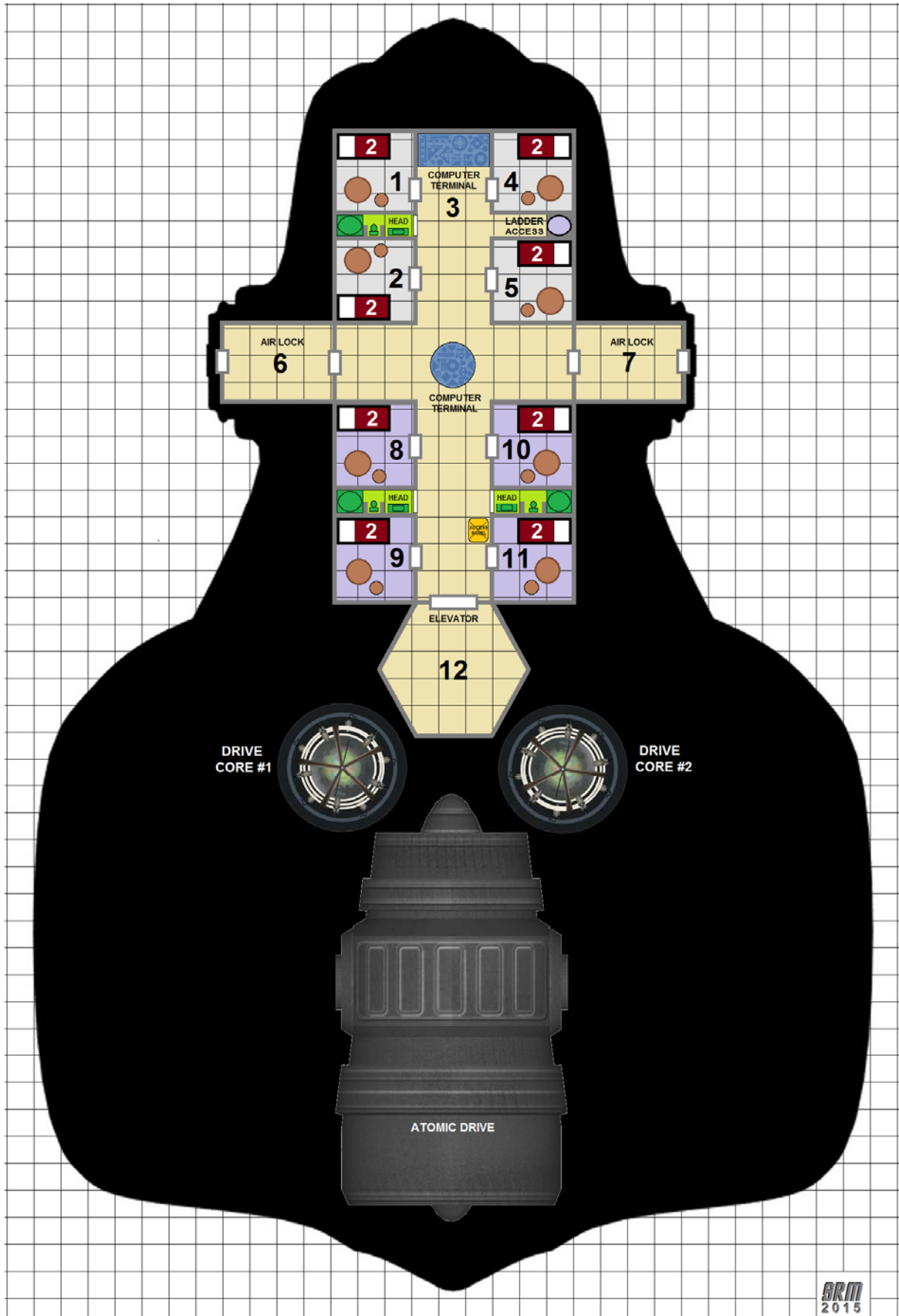
DECK #2: SHIP'S SERVICES



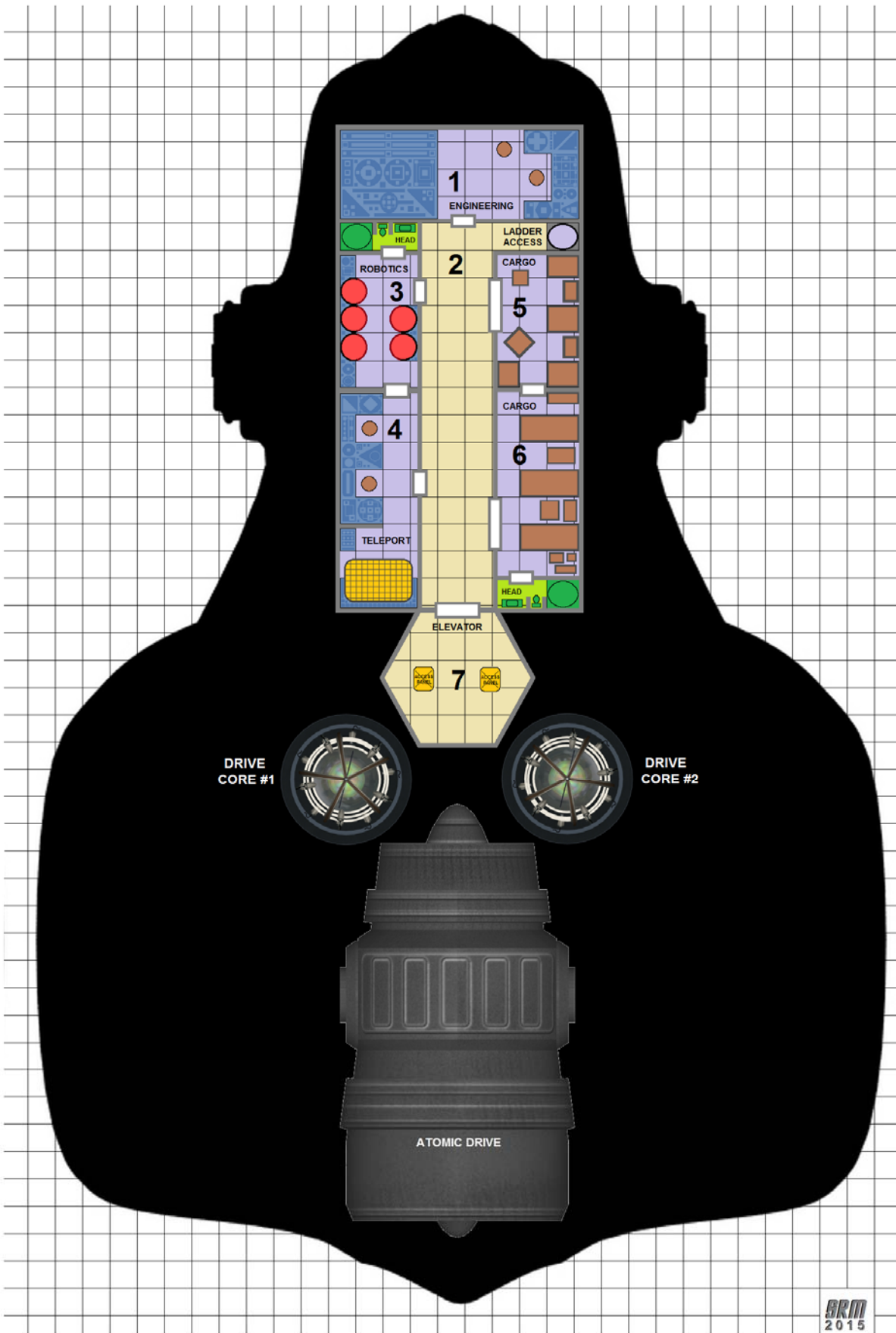
DECK #3: QUARTERS



DECK #4: QUARTERS



DECK #5: ENGINEERING



Creatures

CREATURE CONVERSIONS

Laura Mumma

THE ARN OR VRUSK DRAGON BUGS

To my knowledge the Arn and the Giant Arn (Mutated Dragonflies) first appeared in 1978 in the 1st edition of Gamma World page 22 and page 53 by James M. Ward and Gary Jaquet. In addition, information was used from the 1983 2nd edition of Gamma World by James E. Ward, Gary Jaquet, and David James Ritchie in this conversion for Star Frontiers.

THE ARN

The Arn (Dragon Bugs)	
Type	Small to Medium Carnivore
Number	1-6
Move	Medium - 6 meters/turn (on the ground), 10 to 50 meters/turn top speed (flight)
IM/RS	5/50
Stamina	100
Attack	65
# of Attacks	1
Special Defense	N/A
Special Attack	N/A
Damage	Bite 1d10
Planet of Origin	Vrusk Homeworld
Natural Habitat	Clear, Desert, Mountain, Forest, Ruins, Radioactive Zones,

This 1 to 2 meters long dragonfly-like insect is native to the Vrusk home-world was brought to the Frontier as a pet. It is often used by small humanoids as a riding mount or beast of burden. Arns can be taught to hunt on command or deliver packages and messages. Arns cannot fly with more than 6 to 20 kilograms on their backs and must be caught and trained when young to be of any use.

The Arn has large mandibles, which can bite doing 1d10 of damage. It can fly backwards, change direction in mid-air, and hover for up to a minute (10 turns). It possesses six legs, but cannot walk well. It eats any other small creatures (land, aquatic if on surface of water, or aerial) it can catch. They are usually found around marshes, lakes, ponds, streams, and wetlands because their larvae, known as "nymphs", are aquatic.



Laura Mumma

THE GREATER ARN

The Greater Arn (Giant Dragon Bug)	
Type	Giant Carnivore
Number	1-6
Move	Medium 2 meters/turn (on the ground) 9 to 45 meters/turn top speed (flight)
IM/RS	5/45
Stamina	100
Attack	60
# of Attacks	2
Special Defense	N/A
Special Attack	Poison Tail 2d10
Damage	Bite 2d10
Planet of Origin	Vrusk Homeworld
Natural Habitat	Mountain, Forest

This is a larger species of the Arn. It is a larger, stronger, tougher species and has a scorpion-like stinger in the tail which does 2d10 damage plus injects a poison with intensity of S15/T5. This means that unless the victim is treated they will suffer 15 points of damage per turn for 5 turns. The Greater Arn's bite can inflict 2d10 of damage as well.

A Greater Arn is typically about 10 meters long and they are used as mounts by Vrusk. It is strong enough to carry two lightly equipped, human sized beings or a single Vrusk. Like its smaller cousin this creature needs a water

source to raise its young and must be trained at an early age. It can fly backwards, change direction in mid-air, and hover for up to a minute (10 turns). It possesses six legs, but cannot walk well.

REFERENCES

- Gamma World, by James M. Ward and Gary Jaquet, 1978, TSR Rules,
- Gamma World, by James M. Ward, Gary Jaquet, and David J. Ritchie 1983, TSR Rules
- Star Frontiers, by TSR Staff, editing by Steve Winter, 1980, TSR

THE LURKER ABOVE

The Lurker Above creature first appeared in The Strategic Review #3 Autumn 1975. Next the creature appeared in the first edition Advanced Dungeons & Dragons original Monster Manual 1977 by Gary Gygax. Following that it was an alien creature introduced to AD&D from a crashed space ship in Module S3 Expedition to the Barrier Peaks by Gary Gygax published 1980 but Module S3 was originally a 1976 Origins II tournament scenario. What this all means for referees and the Star Frontiers setting is The Lurker Above is really an alien creature from an unknown planet. In my setting when an alien ship crashed on Yaziria the creature became naturalized; Yazirians thus believe it is a native creature; actual planet of origin unknown.

The Lurker Above	
TYPE	Giant Carnivore
NUMBER	1-4
MOVE	Very Slow 1.5 meters/13.5 meters
IM/RS	2/20
STAMINA	85
ATTACK	75
# OF ATTACKS	1
DAMAGE	1d10 Constriction
SPECIAL ATTACKS	Smothers
SPECIAL DEFENSES	Camouflage/silent movement
NATIVE WORLD	Unknown
HABITAT	caves, caverns, tunnels.

DESCRIPTION

This terrible beast somewhat resembles a large manta ray. Its grayish belly is so textured as to appear to be stone, and the Lurker typically attaches itself to a ceiling where it is almost impossible to detect (PCs have only a 10% chance to detect it by eyesight alone) unless actually prodded. In a large chamber there maybe as many as 4 of them, but normally only one is encountered.

The Lurker can creep along surfaces but very slowly. They move about by means of a gas, which makes them neutrally buoyant, and a flapping of their wing like appendages, which can be over 6 meters tip to tip. The size of this creature varies by its age from 1 to over 6 meters.



Laura Mumma

Generally PCs will be attacked by a Large to Giant Lurker, though a Lurker as small as 2 meters can easily attack an individual human sized or smaller PC. Lurkers can attack multiple victims at once if large enough, a 1 meter sized Lurker can still kill if it engulfs the head of its victim.

Despite the creature’s potential full-grown size and strength it is very light weight. They are a stealth predator and surprise their prey. All INT rolls to detect them receive a -30 modifier.

When disturbed the Lurker drops from the ceiling, smothering all creatures beneath in the tough folds of its “wings.” This constriction causes 1d10 STA damage per turn, and the victims will smother in 2-5 turns in any event unless they kill the Lurker and thus break free. Unintelligent, the Lurker will fight until dead. Prey caught in its grip cannot fight unless the weapons used are both short and in hand at the time the creature falls upon them.

The female Lurker lays glutinous sacks of eggs on the ground, and newborns feed upon vermin that can be found on cave floors.

This creature, though dangerous to pursue, has a hide that has become prized by Yazirians for a variety of uses.

REFERENCES

- The Strategic Review Volume 1, Number 3 Autumn 1975, Creature Features Presenting New Dungeons & Dragons Monsters For Your Enjoyment
- Advanced Dungeons & Dragons original Monster Manual 1977 by Gary Gygax,
- Module S3 Expedition to the Barrier Peaks by Gary Gygax republished 1980 but was available in 1976.

[https://en.wikipedia.org/wiki/Lurker_\(Dungeons_%26_Dragons\)](https://en.wikipedia.org/wiki/Lurker_(Dungeons_%26_Dragons))

PAXAC THE PUNCHER

Chris Tierney

We begin today's adventures with a leisurely breakfast at the Meltar Hotel. Paxac, a ten limbed Dralasilite Martial Artist, and Vicky, a Dralasilite Mentalist, were determined to get jobs and make some money. After spending hours in the unemployment office, they decided that their options were limited. On the way out, they caught sight of a woman, the same one who had been trailing them for a few days now.

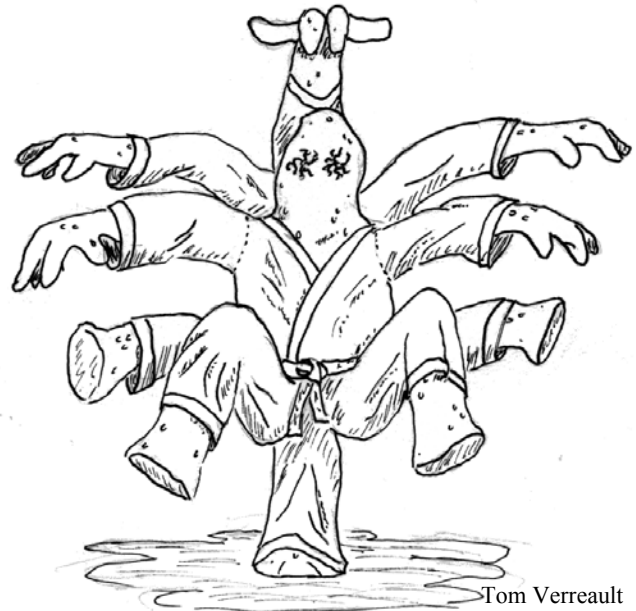
Paxac had an idea. If only there was a martial arts tournament that he could compete in. Not five minutes later, he found a poster. It was an advertisement for an upcoming five day martial arts tournament. He had two days to get ready. He and Vicky headed to Little Sengsen, the Dralasilite District.

Finding and renting an apartment there, Paxac headed out to the MerCo Arena to get registered for the tournament. He quickly showed everyone his power by completely demolishing a punching bag with his first punch. Most of the people training around him backed away. This was the first of many crushing punches that he would deliver that week.

Heading back to the hotel, Paxac and Vicky noticed something sprinkled on their pillow, calling the concierge, he assured them that it was a fine Dralasilite sleep aid. Over the night they absorbed it through their skin and had pleasant dreams and a very good sleep. The following morning, they packed up their belongings and checked out. Leaving luxury behind and heading to their back ally apartment in Little Sengsen.

Paxac stepped into the ring on the first day of the tournament and faced off with Bruno. The fight lasted three seconds. Paxac hit Bruno, and Bruno hit the floor. The referee revived Bruno with a shot of Stimdose, and Paxac put him right back down again. Vicky should have had more faith in her buddy and bet more money. Instead, she decided to capitalize on the opportunity and a plan was hatched.

Day two of the tournament Paxac faced a Yazerian named Fonn-Ar the Warrior. Fonn-Ar seemed to have more control over his battle rage, and was able to go right into it at the beginning of the fight. Paxac was surprised with a strange throw, a complicated Yazerian move that he had not seen before. Standing up, Paxac quickly dropped Fonn-Ar.



By the third day, Vicky's plan was in full swing. She had cards printed up and was trying to sell hats. The cards started selling out, so she ordered 1000 more. This day, Paxac faced off with a Vrusk named Gdtlask. A quick grapple started off the fight, one of Paxac's own tactics turned against him. It didn't last long though. Paxac actually dented the brain pan of the Vrusk with his final punch. The judges, actually docked his pay by 200 credits because the fights ended so quick.

By the fourth day, everyone knew Paxac's name. Cards were selling well, and Paxac pulled off a stunning performance of breaking boards, ice, and bricks. Good fun was had by all that day. Around this time Miles, the group's human medic, finally cleared customs and joined his companions. He was happy to bet on Paxac and sit by the ringside.

He was approached by the strange woman who Paxac and Vicky glimpsed back at the unemployment office. They couldn't get to him quickly, and by the time they did, Miles was well into a conversation with the young woman. It turns out that she was a handmaiden to the Lady Hellien Galavar, the wife of an important and influential politician. She had a problem that she wanted solved discretely. She was trying to hire Paxac, Vicky, and Miles. They agreed to a meeting the following day, after the final match.



Cyberpunk Boxer by Z. G. Fisher

Being undefeated and a crowd favorite, Paxac stepped into the ring with thunderous applause. The odds were even for this fight. His opponent, Puncher Smith was a well-known cyborg who really beat his opponents. Paxac was not afraid. In an unexpected turn of events, Vicky was arrested and led away before the fight started. She protested that Paxac needed her, but Paxac was intent on fighting, and chose to rely on Miles for ringside support.

Vicky watched the fight from the confines of the local police station. Puncher Smith shelled out a serious beating. Paxac went down. It looked like the fight was over. In true form, Paxac was able to beat Puncher Smith into submission. He won the grand prize.

Meanwhile, Vicky was back at the precinct pleading ignorance of the law about needing a peddler's permit to sell things at public events. The police were having none of it. They finally agreed to charge her with a felony and fine her 700 credits. Upon paying the fine, she was let go. It was clear that the local authorities wanted no more work than the bare minimum.

After the fight, Miles and Paxac headed to the Dock's Bar to meet with Lady Galavar. In the meantime, Cyprus, the fourth member of the crew, was finally released from his quarantine and headed to the stadium to meet up. He

arrived there to find everybody gone and the staff cleaning up. Vicky was also there at the south gate looking into her winnings. When assured that all tickets had been paid out, she headed to the Dock's Bar as well. Cyprus called his buddies and got a pin for their location. He arrived at the same time as Vicky.

While they were on the mass transit, Lady Galavar told her story:

I was not born to rank and money, but to poverty and hardship. To survive, I worked as a cabaret dancer, singer, and actress in places far seedier than this one. Then I met Srennoval, we fell in love, and I buried my past to become an important man's wife. However, an old ... indiscretion ... has come back to haunt me.

She paused, blushing, seemingly deciding whether or not to continue, before plunging ahead:

Long ago I was the lead actress in an... inappropriate... holo vid. It was never released, and I'd thought it lost. Two days ago I received a data crystal containing the holo vid and a note stating that the Noirlon Times will receive the original unless I pay 30,000 credits by tonight. If that holo vid goes public it would destroy my husband's career... and, besides, he has no idea that I...

The group agreed to 600 credits per person to go make a trade: the video for 30,000 credits. The meeting place was the Trix Café, table 23 at 17:00 the following day. After the meeting she gave Miles a credit chip with 30,000 credits and quickly left.

Just then, Cyprus noticed a Vrusk woman eying the party. Upon confronting her he learned that she was a reporter named Jury Ness. She had been tailing Lady Galavar and was looking for a scoop. Cyprus hatched a plan and they negotiated payment terms. Cyprus demanded more than she could commit to and they went separate ways, with a promise of a call in the morning.

On the following day, Miles and Cyprus needed better clothes to get into the Trix Café. After finding a clothing shop, Cyprus and Miles were led to a back room to fill in their customer profiles. After an hour of seemingly inane questions, Cyprus snapped. He started eating the computer tablet that he was holding. He started cracking off fingers and eating them as well. Miles was frustrated with the process too, but was then slightly amused by seeing Cyprus lose it.

In the end, Cyprus bought a nice black velvet cloak and Miles ended up with a green corduroy suit that looked more like a pair of green pants with a smoking jacket. When they finished shopping and rejoined Paxac and Vicky, the party ran into some trouble. A group of thugs approached and gave a warning:

“Outworlders, walk away. You’re bangin’ heads against some very big people, and believe me, that ain’t somethin’

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you want. Go back to your junkyard ship and blast off ... for your health.”

Paxac and Cyprus beat them senseless. The police soon arrived. Miles cleaned his finger prints off the weapon he had lifted and all seemed well. The party showed up at the agreed upon place and experienced a slight sense of Déjà vu. Like they had been there before, even though no one in the party had ever been on Gran Quivera ever before.

TRIX CAFÉ

Everyone arrived just before 17:00. Trix Café is a swanky bar, full of music, raucous laughter, fancy people, and smoky tables. As the heroes enter they are warmly greeted by Trixia, the six-armed, blue-skinned Vrusk owner of the bar. They were led to a back room. A strong looking Yazerian approached. He introduced himself as Drakkan Ferr.

He asked if the party wanted dinner, and they agreed to eat before conducting business. A nice Chianti was ordered, and talks began. After dinner, Miles handed over the credit chip and the exchange was made. Miles had the holoivid and things looked golden, until some thugs showed up. A fight started and Paxac beat the thugs senseless. Drakkan made a move for the cube and Cypress grabbed it.

The bouncers stepped into the fight and engaged the thugs. It turns out that Jury Ness had tailed the group to the restaurant. When the fight broke out, she activated her well concealed vidcam and started filming. The bouncers seemed to be allied with Drakkan, and with his prospects dimming, he made a break for the exit. He was stopped by the police, and the fight quickly ended. Just before the ending, Cyprus threw the holoivid to Jury. She made a clean break and escaped. The police arrested everyone.

AFTERMATH

The party was unhappy in jail. They spent a week cooling their heels there, but in the end everyone agreed to pay a fine and do some volunteer work for the police. Jury Ness published the video and got the scoop, leading to a great promotion. Lady Galavar was disgraced and her husband divorced her. Councilman Galavar spun his way out of any accusations that were made, although in the process his reputation was severely damaged.

No payment was made, as Lady Galavar was indisposed and disgraced. The party later learned that Drakkar Ferr made a large payment to get out of prison and rebooted his career with a million credit contract. The party paid their fines and got out a week later.

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[Little Sengsen at Night](#) by [Shoeven Photography](#)

Frontier Fiction

A WEDDING TALE

Edwin Cintron

From the journal of Iseabella Shimout, or as we all know her, Granny Shimout.

I was not always a Shimout, I was born Iseabella of the Timeon Starfire Clan. I grew up abroad my family ship the Dark Passion. Oh those were the days when the Frontier was young and the space clans ruled the star lanes. The only drives capable of accelerating a craft to the velocities needed to enter the Void were nuclear impulse engines, similar to the original Orion rockets that were used by the first colony ships that left earth. Tons upon tons of fissionable were needed, and the clans grew rich mining the asteroids for radioactive elements. Thorium breeder reactors cooked the radioactive waste into usable fuels while our asteroid ship yards labored to supply ships to human worlds of the Frontier.

But we did not imagine that our love of freedom would spell our downfall. When the humans of Kidad Ad came to us for aid to overthrow their Vrusk ruler, we supplied them with the weapons and support they needed. Oh so proud we were. The Vrusk manager of the world fled in disgrace and would gather the pirates of the Frontier to attack the worlds of man. It was the Captain Morgaine of White Light that brought us the warning and moved the clans to join the militias of the flatlanders to meet Hartzck Naar's fleet at Timeon.

The battle itself would be costly, we knew not how Hartzck Naar welded the scum of the Frontier into an effective fleet. But he did and the Clans took the brunt of the losses. I watched as my own father died of radiation burns from a particle beam that swept through our battle bridge. I wept but hid it behind the mask of rage.

We battled our way through Hartzck Naar's fleet, grappling his flagship with our tow lines. I lead the boarding party only to find another clan had beat us abroad. That when I saw him! Unarmed with a score of dead pirates floating around him, Mercury of the Shimout clan. The Shimout were a clan of techs and scientists, workers of the breeder reactors of the clans, not warriors and yet Mercury stood untouched among our enemies.

I lifted my polarize visor to get a better at the young fool, and our eyes met. A Vrusk warrior drifted into the corridor and in a blink of an eye, Mercury's legs wrapped around its neck. I heard a loud snap and watch as Mercury smiled.



"Oh angel, what are you called? You must be a Valkyrie come to carry the souls of my cousins who have fallen. It would be worth dying to have you cradle me in your arms." His voice came over the radio. I could not help but smile as no man ever dare call me beautiful. To flirt as a battle raged showed such bravo, and my heart skipped as he gazed at me.

"Are you mad, do you not see the battle that rages around you." I replied.

"If I am mad, it's you that drive me so. Marry me." He roared, causing me to blush.

"I have no time to waste with you, I seek Hartzck. He's to pay for the death of my father." I screamed, hoping to bring the young Shimout to his senses.

"Wait here, my love and I will bring him to you. A bride gift." He replied and disappeared down the corridor.

I do not understand why I held my marines at that air lock. He was one man, unarmed against Hartzck's crew. Maybe it was the clanman respect of a grand gesture or maybe it was a desire to see if Mercury could live up to his boast. We soon found ourselves pressed as the pirates counter attack in an attempt to drive us from their ship.

We fought with lasers and vibro blades and then the fighting stopped. A chorus of Vrusk's wails filled the comm channels as Mercury arrived with the broken body of Hartzck, his limbs shattered and barely conscience. Mercury drifted and placed Hartzck at my feet. The

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remaining pirates on board surrender and the pirate ships scattered, but I stood still as the eyes of my clan folk starred at me and Mercury.

"What will it be angel? Is my bride gift worthy of your heart. Or do you have another wish? " he broadcast as he attempted to bow, which in the micro g of space turned into a somersault.

Shouts of "marry the fool!" and laughter filled the radio waves, and was interrupted as a flood of White Light marines along with Morgaine enter the ship. Starring around Morgaine eyes caught the sight of struggling Hartzck drifting in front of me. He motioned to the marines to retrieve him, but Mercury floated across their path.

"Out of the way boy, we going to take Hartzck Naar, back to White Light to meet justice!", barked one the marines.

A laugh came from Mercury's comm, "Seem that the fair lady there has first call on that, you'll

have to get through me if you want to change that."

It was a tense moment, as the Marines from White Light starred down at Mercury. Around them Clan men ready themselves for what appear to be another battle; instead Morgaine's laughter filled the comm channels.

"You have jets boy, don't see why we cannot have a captain's court right here and now and dole out a sentence that will insure that justice is met to the little lady's liking."

"Stop we have one small matter to settle," I was surprised to hear myself say, "Captain Morgaine, could you do me the favor and marry me and this mad man," pointing at Mercury.

"Why not, seems that way no one will get away from their fate." Morgaine chuckled.

The wedding took place on Hartzck Naar's own flag ship with the remaining Clan ships gathered around it. When it became apparent that the ship could not support all the well-wishers, those that could not fit aboard, gathered in their vac suits, and stared in through the view ports from outside. My mother wept not just tears of mourning for my father but also tears of happiness. She whispered over a secure channel that she never imagine that I could find someone who could win over my fierce heart. Morgaine had a wedding march piped in from his ship's comm that mingled with the banter of marines and clan folk.

My Uncle drifted over to my side. His eyes wet with sorrow. "You're really going to marry this popping jay? Do you love him?" he asked with the tone of parental authority that came with him now being the patriarch of the clan.

"Yes!" I lied, " Love has nothing to do with it. The Clans need this, let them remember that today was more than a

day for weeping over our dead. Today will be remembered as the wedding day of Iseabella Starfire to Mercury of Shimout clan." Of course I loved him, Mercury won my heart the minute our eyes met.

My uncle smiled, maybe he knew my heart or he was just smiling at my cunning.

Morgaine escorted the young Mercury, who seem to hesitate as my uncle guided me forward.

"No escaping boy, you and Hartzck are doomed, sure as a photon at a black hole horizon." Morgaine laughed.

All grew quiet when Morgaine began reciting the wedding vows, the whole time Mercury smiled. We both said the "I do's" trembling with anticipation to the cheers of the clans. Instead of a feat, there was a captain's mast, where Morgaine and the heads of the clan judged Hartzck and the members of his pirate band that were captured. There could be one verdict, and when it was pronounce Hartzck met it with silence.

"Death by spacing," uttered Morgaine.

The pirates were lead to the main airlock, along the way clan men and women slashed at their vac suits with vibro blades, I even took my vengeance on Hartzck. Forty-two cuts, one for every member of the clan lost in the battle including my father. By the time we got to the lock their suits were tattered and they were bleeding from nicks made by blades that cut too deep. We all watched as they were jettisoned, the space around the flag ship became filled with a cloud of bodies and crystallized blood.

I drew little comfort at the sight, it did not ease the sorrow of my father's death. Mercury leaned and our helmets touch and I could hear him say, "Let's go, we've had enough of death for today."

We searched and found Hartzck's cabin, and as we entered the ships acceleration alarm sounded. Some kind soul had figure out what our disappearance meant. No flatlander really understand that zero gee sex is more of art learned by long practice with a partner, for a newly wedded couple it would be more of hindrance than a pleasure. We both couldn't help to giggle as we stripped from out vac suits and felt the pull of g force as the engines fired.

When we finally emerged from the cabin the next day we found a crew of volunteers laboring to convert the Vrusk warship for human use. We were met with smiles and good nature taunts and I took command of the helm. "Where to my love?" I asked Mercury who simply smiled and pointed to toward the vast deepness of space.

That is how I became a Shimout, and over the decades I would know joy and sorrow, but it would always seem as yesterday that Mercury and I met over a battlefield, with him stealing my heart.



GRYMZ

GUIDE TO INTERGALACTIC CONQUEST



LESSON #14: SHINY!

