Star FRONTIERSMAN

FRONTIER MELTING POT

Star FRONTIERSMAN

ON THE COVER
As the starship "Cyclope" earns its namesake by navigating towards a mysterious vortex, the sky itself screams protest with a violent storm. I came across this amazing picture when a friend sent me a link to the artist's Epilogue.net gallery. After contacting the author, he gave me permission to share it with all of you!

"Cyclope" by Jan Patrick Krasny © 2005

FOREWORD
I have been very pleased watching this project take off. I've seen many other Star Frontiers projects pop up and fade away over time. Some were very well thought-out, some were... well...

So what makes this project any different? I've been wondering about that. I worry that after all these months of hard work, the support for the project will fizzle. But each month I get surprised by last minute submissions that make my jaw drop. The creativity and talent of the Star Frontiers fan community amazes me.

I think that's the difference between this project and those that all have met ill fates. First of all, it's not "my" project anymore. In fact, in this issue, the only actual articles that I wrote were few in number (though I did do a lot of custom art). The difference is you: the reader. Each issue gets downloaded MANY times (in the month of May, issue #4 was downloaded 1,206 times!) and so your talent and creativity is being placed in the hands of many readers. I get feedback from many people who tell me that they enjoy the collaborative works of this webzine – even if they don't particularly care for the actual game upon which it's based!

So where are we headed? I'd like to see more creative writing in the future (and am excited that not one but two people have offered to start a monthly serial). Other than that, just more goodies like we've been providing.

Question for all of you:
Many people have commented that they'd like to have real copies of this webzine in their hands... a real magazine. I think that's beyond the scope of what we can do. However, how much would you be willing to pay for an annual perfect-bound book that includes all the issues as-is, just compiled into a single volume for purchase on www.lulu.com?

Bill Logan
Referee@StarFrontiersman.com
Last Revision: 06.04.2007

DON'T TANGO WITH THE TANGLER

By Larry Moore

Tangler grenades are a staple for any would be traveler. Not only are they harmless, but in the right hands can be effective in capturing NPC's you wish to interrogate. Depending on the situation, they are simply a way to subdue a misguided enemy from harming you or your party... or even himself.
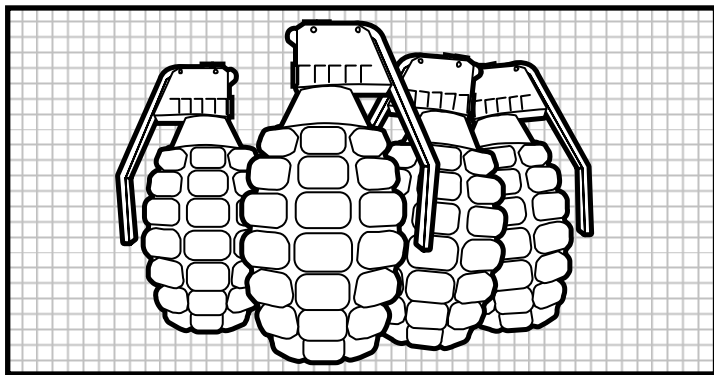
DELIVERY SYSTEMS

Like other grenades, tanglers are normally thrown after pulling a pin. However, there are other types of delivery options, as discussed below. Note that these options don't change the cost of the grenade; they are just types of grenade delivery systems that may be selected on purchase. Referees may wish to require specification of grenade type, or may assume any modern grenade in the Frontier can do any of these as desired. These delivery systems can be used with any grenade but this article is mostly focused on the Tangler grenade.

- **Pin-Pulling** – A removable pin is pulled from the top of the grenade while a handle lever is held in place, but nothing happens. The pin can even be reinserted without anything bad happening. When the operator releases the handle, however, the grenade is set and the charge will fire in 3-4 seconds (just enough time to hurl it away). This is the standard, classic form of grenade delivery.

- **Variable Timer** – These types of grenades lack either a pin or a handle lever. Instead they have a small dial (with a setting between 1 and 10) and a pushbutton. When the dial is set and the button is double-pushed, the variable timer begins its countdown. A setting of "1" results in a countdown of 1 turn (six seconds) while a setting of "10" results in a countdown of 10 turns (1 minute). Once the button is pushed, the timer is committed and cannot be modified. If a character has a demolitions skill and spends a turn doing it, he may disassemble the variable timer from the grenade before the time expires with a successful Defuse Charge roll. When the timer expires, the grenade explodes.

Adventurers often use variable timer grenades to set impromptu charges to damage doors and such. For a Tangler grenade, this makes an excellent booby trap for when you're being followed!

- **Detonation Button** – This simple type of grenade delivery system has two buttons, one for the thumb and one for the forefinger. It's not possible for the forefinger button to be accidentally pressed while in a pocket. When both buttons are pressed at the same time and then released simultaneously (as in a throwing motion presumably), the charge is set and will explode within 3-4 seconds – just enough time to hurl it at an enemy. This detonation method is very popular and found readily throughout the Frontier because it's mechanically simple and quite compact.

- **Voice Command** – This higher-tech delivery system has a button on it's top, and a highly amplified microphone receiver. It has a small amount of electronic memory. The character presses the button and speaks a command word into it, then release the button. From that point on, if the microphone senses the voice pattern speaking the command word, it will detonate. The voice command detonation option isn't all that popular because it has a limited range (the microphone won't detect the character's voice past 15 meters). Additionally, there have been some isolated cases of accidental detonation when improperly stowed. Voice recognition technology is more popular in the Voice Command Mine kit (see below).

- **Impact Detonation** – This type of grenade delivery system has no identifiable button, handle, pin, or technology. It has tail fins to force proper orientation in flight. Inside the body of the grenade, it detects sudden impact when the grenade hits its target at a significant velocity, as if it had been thrown. This type of grenade is dangerous to drop accidentally!

ENTANGLEMENT

A small charge in the center of the grenade is surrounded by hundreds of polymer threads made of an adhesive elastomeric material. Upon contact with oxygen, the hardening process begins. It typically takes mere seconds for the liquid threads to harden. The charge inside is harmless even when discharging next to a character.

As hundreds of sticky polymers shoot out in all directions, they entangle anything in they touch. The solidifying of the polymers is a sticky affair and adheres to characters, creatures, wood, metal, stone, and even glass. Its effects are messy, and can cause destructive effects to moving mechanical parts when their servos become overworked. The strands are strong enough to stop a fan blade from spinning... and can stick a character or NPC to a wall and keep them there.

The typical blast radius for a tangler grenade is 3 meters. Tangler mines (see below) can be much larger depending on the manufacture but typically its 5 meters.

AVOIDING ENTANGLEMENT

The only real way to avoid being entangled by these nonlethal grenades is to avoid being struck by the solidifying sticky strands. This is accomplished by making a Reaction Speed avoidance roll and either diving out of the blast radius (must start the next turn prone) or interposing something between the blast and yourself (like ducking behind a wall or a crate).

PARTIAL ENTANGLEMENT

This is an optional rule and may be ignored by Referees who want to keep entanglement simple. Using this rule, a player's character isn't necessarily doomed to become a slave on a pirate ship (or whatever) just because he failed his Reaction Speed avoidance roll and became entangled. It's possible he's not fully tangled. It can add a dramatic element to the story when the opponent thinks you're bound and gets a nice surprise when he learns (the hard way) that your gun hand wasn't bound at all... Whenever your character becomes tangled, roll 1d10:

d10	Entanglement Effect
1	One leg partially entangled. Character cannot walk, but can still have use of his other limbs. His inability to maneuver gives opponents a +5 to hit him and gives him a -5 to hit others.
2	Both legs entangled. The Character is unable to walk or dodge, though he still has use of his arms. Reduced mobility gives opponents a +10 to hit him and his lack of coordination causes the trapped character to have a -10 to hit others.
3	One of the character's hands (determine randomly) has become stuck to his weapon (or other item) and is stuck to a wall, post, door, floor, etc. Of course, he is unable to use that limb to do anything, but the rest of his body is still free to act. Reduced mobility gives opponents a +10 to hit him and his lack of coordination causes the trapped character to have a -10 to hit others.
4	The character's arms are stuck to his own torso. He can still walk or run, but his entire upper body (except head) is stuck solid. Reduced mobility gives opponents a +20 to hit him and his lack of coordination causes the trapped character to have a -20 to hit others.
5	The character's head has been covered by tangler threads and he is having trouble seeing or breathing. Because he can't see, his ability to fight is extremely restricted (-20 to hit, +20 to be hit). Because he can't breathe but never got a proper breath to hold before the tangler hit, he'll have to make a Stamina check every turn or else take 1d10 points of damage due to suffocation. Of course, since Dralasites breathe through their skin, they are immune to this suffocating effect.
6	Attempt to dodge failed – character is prone and stuck to the floor quite thoroughly. He can't move or attack, but can look around and talk and breathe normally.
7-9	The character is stuck fully to a nearby table, chair, crate, wall, creature, etc. He is quite vertical but held fast. He can look around, talk, listen, and breathe quite well.
10	The character is stuck fully in an awkward position (perhaps he was trying to succeed in his avoidance roll and got tangled in mid-leap). His awkward position will cause him great discomfort during his captivity. His breathing is labored and his blood is rushing to his head. He can talk but finds it difficult. He may even lapse into and out of unconsciousness due to his blood pressure and breathing.

UNENTANGLEMENT

Characters or creatures with a maximum STA score of 100 or more can break out of entanglement in a single turn. Those with a lower stamina must wait for a friend to administer solvaway (a small vial with enough dissolving agent to free one character from captivity) or for the strands to begin breaking down.

After 30 minutes, the material strength of the hardened strands begins to break down. The decay is quite rapid, and stuck creatures or characters will be able to break it apart and let the pieces crumble around him.

Some scientists claim that large amounts of exposure to tangler threads and/or solvaway can have negative effects on health, though the amount of exposure would have to be extreme for even a minor health-related malady. For game purposes, assume the threads and solvaway are both perfectly safe.
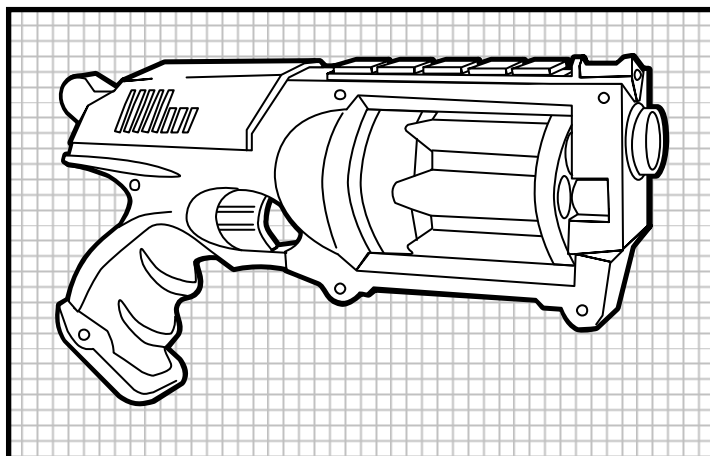
MINE KITS

These mine kits could be purchased for any type of grenade. Tangler mines are set in place and activated, then have special sensors (see below) to determine when they should detonate. They make fantastic perimeter defenses and non-lethal wards against intrusion.

A mine kit has two parts. First is the grenade itself, which mounts into the kit. Second is the sensory cluster, which act as the method of detonation (replacing whatever "delivery" type the grenade had previously). There are six basic types of tangler mine sensor clusters, as shown below:

- **Pressure Sensor** – This is the standard, classic form of mine sensor cluster. It assumes the mine will be burried into the ground or under debris. It has a simple weight cell that relays analog weight levels back to a central processor, where it compares the detected weight against the sensitivity adjustment set during the setting of the charge. It takes 5 turns to dig, bury, cover, perform a weight tare, calibrate the setting, and conceal. Any creature equaling or exceeding the weight setting will detonate the grenade and be tangled. If desired, the mine's detonation can be delayed 2 turns after the weight is released, in an attempt to entangle a larger group being followed by a party's scout who set it off.

- **Proximity Sensor** – This sensor can come in one of two forms: electromagnetic proximity sensor or laser-eye sensor. The electromagnetic sensor detects the presence of an electric field, either a bioelectric field generated by a living being or an activated defense screen (such as a sonic screen concealing the noises of an approaching intruder!). The laser-eye sensor is actually a beam and a receiver, which wirelessly reports data safely back to the mine central processor through a simple radio frequency transmitter/receiver pair. The mine will detonate if it detects the light beam is broken or the signal is somehow interrupted. It takes 2 turns to properly set and calibrate a mine equipped with a proximity-sensor cluster.

TANGLER GUN

•**Motion Sensor** – Using technology similar to the Motion Tracker (see this issue's Equipment article), this sensor cluster detects movement in the proximity of the mine. It can be calibrated to filter out repetitive motion (such as rotating satellite antennae) and can even have filters put in place to define minimum and maximum speeds and sizes of detected motion. When the proper sized object or creature moves at the proper speed, it will detonate the tangler. It takes 2 turns to set and calibrate a filter array for a mine equipped with a motion sensor cluster.

•**Time Delay** – Instead of a sensor, this cluster simply comes with a series of dials and buttons used to set a desired countdown. It can be set from 0 to 999 and can have hours, minutes, or seconds selected. Once selected and the "Initiate" button is pressed, the countdown begins. When it's done, the grenade in the mine kit will be detonated. Although not commonly used with Tangler grenades, it certainly could be. It takes only a single turn to set a mine equipped with a time delay delivery cluster.

•**Photon Sensor** – This type of sensor is set to detect either light or lack thereof, depending on the presence or lack of light in the turn directly following the turn in which it is set. Thus, if it is dark when the mine is set, the mine will detonate as soon as light becomes present. If it is light when the mine is set, it will detonate when darkness is detected. This can be used as a booby trap: simply place in a dark room near the door, and when the door is opened and the light in the hallway pours in, the person opening the door will be surprised. It takes only one turn to set a mine equipped with a photon cluster.

•**Voice Recognition Cluster** – This very modern cluster has a programmable logic controller that is programmed by simple voice recognition pattern. Simple commands are used to set and define its operation. It is very expensive to purchase and is destroyed by the mine's detonation (as are all sensor clusters). The character setting the mine simply speaks his command set to the mine "Mine. Activate. Motion Sense. One meter movement size. Ten meter minimum movement rate. One hundred meter maximum movement rate. Initiate." Its operation can be set to do any of the above sensor cluster types. It's also possible to set up exclusion rules (identification of friend or foe: IFF transponders) so allies never get affected. Voice Recognition Clusters are also quite difficult to defuse because they require programming knowledge to identify how they've been set. It takes only a single turn to set a mine equipped with a voice recognition cluster.

Although not common in the Frontier, the tangler gun is an extremely effective tool for law enforcement personnel and bounty hunters who prefer to bring them in alive rather than dead. It is a heavy pistol with a large fore-end, capable of firing tangler gelpacks that explode on impact, releasing their strands into the air, expanding and immediately beginning their hardening process.

The bullets fired by the gun are not hard, nor are they self-propelled. They are gelatinous and encased in a tough outer plastic wrap designed to rupture on impact. The gun itself doesn't fire through explosive means. No gunpowder or rocket fuel is used. Simple air compression is used, forcing air into the TanglerClip, causing the gelpack to be launched straight and true. The sound made by the tangler gun (as well as the general pneumatic nature of the weapon's delivery of its payload) has earned the weapon the nickname "spitball."

The weapon has a 20-SEU PowerClip in the handle, but this is simply to power the rapid air compressing pneumatic delivery system. The ammunition for this unusual weapon is the TanglerClip, which is a large cylinder with ten chambers, each with a tangler gelpack loaded into it with a thin plastsheet cover (to keep it from falling out when the gun is pointed downward). When the trigger is pressed, the PowerClip energizes the pneumatics and forces air into the chamber – breaking the plastsheet cover and launching the gelpack. The force of the air then rotates the cylinder clockwise to the next available cylinder. The weapon can be fired up to three times per turn in this manner. When the TanglerClip is depleted (10 shots), 1 SEU is drained from the PowerClip (it was drained gradually by firing those ten shots). When the PowerClip is depleted, the weapon can still be fired but must be pumped manually by pulling back on the top/back of the pistol. Pumping it in this manner builds up pressure without power, but reduces the rate of fire to one shot per turn.

Mine Kit Equipment	Cost (CR)	Weight	Turns to set
Mine Kit*	20	1kg	--
Sensor Cluster			
Motion	40	1kg	2
Pressure	35	1kg	5
Proximity	45	1kg	2
TimeDelay	25	1kg	1
Voice	150	1kg	1
Photon	20	1kg	1

(doesn't include grenade. Blast radius of 3 meters)

Tangler Gun
Cost: 250Cr
Weight: 2 kg
Damage: Entanglement
Ammo: 10 shot TanglerClip
Rate: 3 when powered, 1 when manually pumped
Defense: RS Avoidance Roll
Range: 5/10/20/40/80
Ammo Cost: 25Cr (10-shot TanglerClip)
Skill: Projectile Weapons

PLANET OF MYSTERY

Ahhh... Volturnus. Many of us got our first taste of Star Frontiers in a starliner plummeting towards the desert planet, fated for adventure. It all started with the first module in the series, SF0. Who would know the voyage would lead the characters into such an amazing story?

This article allows you... that's right you... to have a chance to help the story of the planet of mystery evolve. Do you have anything to contribute to the legacy of this adventurous locale? Have you created statistics for situations or environments that arose? Do you have some pictures of the creatures or characters you've met along your journeys? Have you come up with more details on the Star Devils or perhaps more Sathar constructs left behind? Or have you developed further adventures entirely? I for one don't want to feel like the story of that amazing world is over.

> **Author's Introduction**: The following race description assumes that the events of 'The Volturnus Adventure' were successfully resolved, and some several years have since past. In addition to the Mechanon expansion into space, other races of Volturnus have also ventured out. The Eorna were prodigious genetic manipulators and have successfully molded a few races worthy to travel the stars. Much of this race is taken from existing material (SF0, SF1, SF2)

Ul-Mor

Adapted by R. Kevin Smoot.

In terms of frontier history, the nomadic race of cephalopods called Ul-Mor has only recently begun traveling through space. Since their discovery on the planet Volturnus of the Zebulon star system, the Ul-Mor have spread out and now small communities of the species can be found on many systems, especially on the multi-cultural core worlds.

PHYSICAL STRUCTURE

Ul-Mor resemble octopi adapted to life on land. Like octopi, the Ul-Mor have eight large limbs. Each limb ends in five small tentacles useful for grasping and manipulation. They walk on the four largest and more muscular limbs, using the other four more dexterous limbs to hold weapons or tools. Despite all the limbs, Ul-Mor are not especially fast movers, in the past having made up for this by riding mounts of various types.

The Ul-Mor also have a ninth limb, a tentacle about 30 centimeters long. This tentacle is an extension of their central nervous system. The end contains a hard cartilaginous point encasing a series of nerve endings. The Ul-Mor can insert the tip of this tentacle into the fatty tissue surrounding the spinal cord of other creatures, achieving a nerve link that allows them to communicate directly with the creature's mind. The Ul-Mor use this tentacle so effectively that they can achieve a direct mind link with nearly any being.

Despite their obvious origins, Ul-Mor are no longer adapted for the water and cannot swim any better or longer than most other frontier races. Ul-Mor must breathe air, so breathing apparatus must be used for any underwater escapades. There are unsubstantiated rumors of a Volturnian race similar to Ul-Mor who are still completely water-dwelling.

SENSES

The Ul-Mor senses of sight and touch are the most developed. Cephalopod eyes are quite advanced, seeing full color ranges and well-defined senses of depth and distance. Their sight is also quite adapted to bright light as well as dim areas with little light.

The sense of touch is remarkable in Ul-Mor. Their entire skin surface is covered in receptor nerves, and even more so in their dexterous limbs. The degree of nerve control by Ul-Mor allows them to utilize all four manipulating limbs simultaneously without any hint of handedness (see racial abilities below).

SPEECH

The Ul-Mor can achieve verbal speech by muscular control over air forced through their respiratory system. The process of verbal speech is difficult and tiring for them. As a race, the Ul-Mor do not have a complex spoken language, since they communicate with each other using mind-link. Ul-Mor prefer their mind-link, but they often understand the spoken word of several languages. Their mind-link ability aids them in the learning process, helping them in understand terms and overall comprehension. In addition to this mind-link communication method, they have developed a sign language used in situations where mind-link proves impractical.

The Ul-Mor sign language has been simplified and adapted over the years to allow the more numerous core races to be able to learn. Because of the ease of expression, Ul-Mor Sign language has replaced the PanSLan (Pan-Galactic Sign Language) standard, as the language of choice for hearing and speech impaired individuals and other species that have difficulty with spoken language.

SOCIETY AND CUSTOMS

The Ul-Mor were formerly pastoral nomads inhabiting the deserts and rocky barrens of Volturnus, herding indigenous herds of creatures. Unknown to them at the time, the Ul-Mor were being genetically engineered by the Eorna race of Volturnus to eventually fight against the Sathar threat. Eventually as the Ul-Mor accepted the truth of their past, they embraced the other cultures of the frontier.

Much of the current Ul-Mor culture is still based on their religion, albeit that religion has had to adapt and change to reflect certain realities that were previously unknown to the Ul-Mor. The Ul-Mor still believe in a concept of 'Universality of Mind,' a deity-like concept that encompasses all things. Eventually all will become one with the One. Special Ul-Mor historians called Remembers, record those who have joined the One, forming long genealogies. With new technologies available to the Remembers, they have begun to add detailed genetic information to these histories, and the Remembers are quickly becoming a new kind of Geneticist-Priest type of occupation, with the respect of even the most devoted Vrusk scientists.

The basic social unit of the Ul-Mor is the 'clutch,' a kind of multi-partner marriage unit consisting of several Ul-Mor that have all found each other compatible. Formerly the males of the clutch worked as herders, hunters, and protectors, while the females maintained the home and incubated the clutch's eggs. Modern frontier attitudes have blurred these distinctions and now males and females have each expanded their roles into many new areas.

Since the Ul-Mor do not control any major world or population center, their former legal system has since disappeared. They still tend to follow laws to the letter, and tend not to understand legal 'gray areas' common in the frontier legal systems of various worlds.

Though the Ul-Mor are basically communal beings amongst themselves, they maintain distinct senses of individualism. Gone are the primitive headdresses of feathers and beads, but tattooing has flourished and become a primary outlet for displaying their individual tastes. Ul-Mor have also taken to fashion, especially forms of jewelry, to display how affluent they are.

ATTITUDES

The Ul-Mor have taken a liking to most of the frontier races, seeing each new being as part of the One, and therefore worthy of respect and understanding.

Of all the frontier races, the more civic-minded Vrusk are the most appreciated by Ul-Mor. Several communities of Ul-Mor have formally been incorporated into Vrusk Mega-Corporations, and both have benefited greatly from the 'mergers.'

Ul-Mor are rather equally disposed to the other races, although this is sometimes not reciprocated. Many are disturbed by the Ul-Mor preferred communication method. The Ul-Mor do hate the Sathar passionately, which is probably a genetically built-in mechanism that the Eorna race left in the Ul-Mor DNA. Even with the Remembers' genetic knowledge, no attempts to isolate and remove this genetic code have been recorded.

Ul-Mor have also taken to law enforcement careers. Mercilessly following the letter of the law has been a trademark of the Ul-Mor lawmen and criminals know there will be no negotiating when confronted by one.

SPECIAL ABILITIES

Mind Link – Ul-Mor can create a mind-link with another willing creature to allow for full communication. This communication method is generally superior to normal modes of conversation, as emotional content and advanced thinking processes that go beyond typical vocabulary can be conveyed. The result is like having the equivalent of level 8 in language skill (level 6 is normal maximum), or 120% comprehension. Occasionally a particular alien species' nervous system is incompatible with Ul-Mor physiology and a link cannot be established, however all the major frontier races may be linked.

This Mind Link ability has another substantial benefit. Ul-Mor take to hypno-training quite well, being able to learn new skills in half the time and half the cost using this teaching method. In particular, when learning languages, Ul-Mor need only spend 2 experience points per level of fluency instead of the 3 point normally required.

Multiple Appendages – All Ul-Mor can use their four dexterous limbs equally well, and players with Ul-Mor characters do not need to choose handedness (like Vrusk). Because of their advanced nervous system Ul-Mor can utilize 4 small tools or weapons simultaneously, giving them up to 4 attacks per turn.

Attacking with 2 melee weapons has no penalty. Attacking with 3 melee attacks incurs a –10% penalty to each attack, and 4 melee attacks the penalty is –20% to each attack.

This ability does not translate to ranged-weapons equally. Ul-Mor using more than one ranged weapon does not remove the penalty for multiple weapons, although the handedness penalty does not apply. For two weapons the penalty is –10% for each attack, for three the penalty is –20% for each attack, and for four ranged weapons the
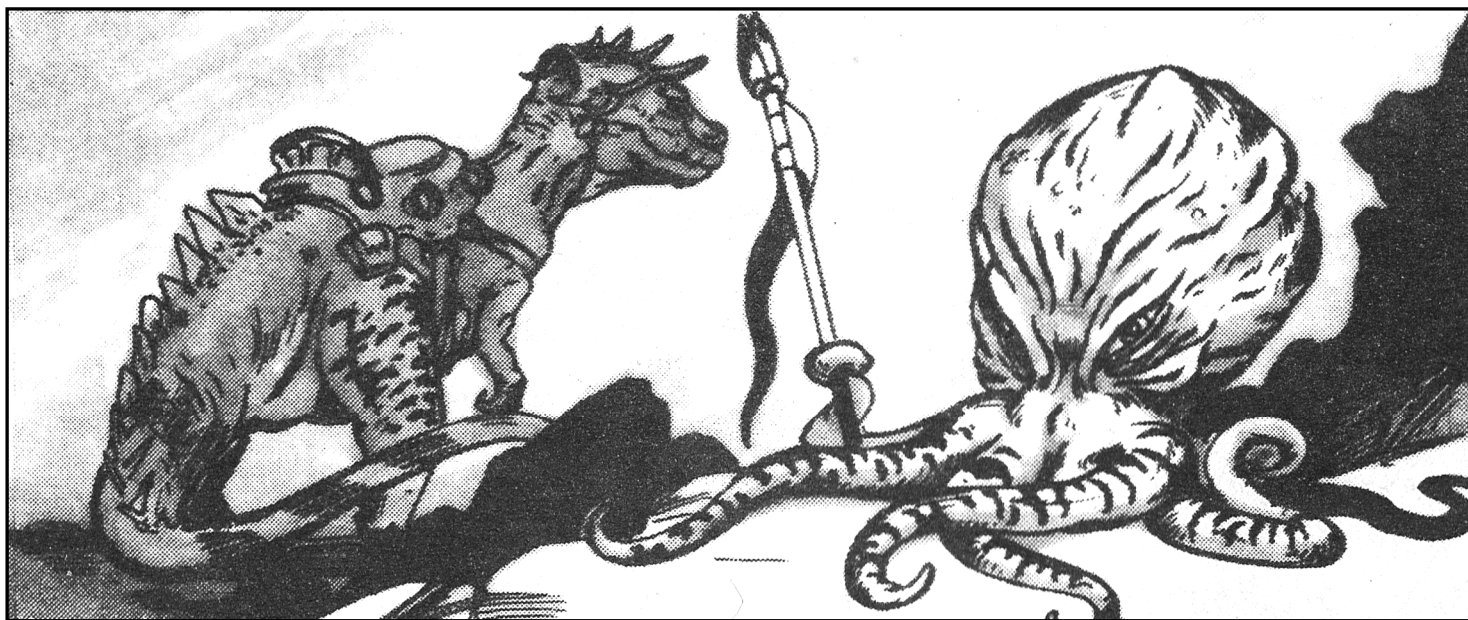
penalty is −30% to each attack. An individual cannot take careful aim with multiple ranged-weapons, ever.

Most often, Ul-Mor hold two melee weapons, and one light ranged weapon, and keep one hand free, attacking either ranged or melee as appropriate without penalty. Alternatively they hold two melee weapons and one rifle weapon.

Ul-Mor Sign Language – Ul-Mor sign language is an expressive signing language that can be easily taught to others. In addition to the standard starting languages, Ul-Mor begin play with Level 6 skill in the language when they begin their careers.

UL—MOR CHARACTERS

Characteristics	
Average Size	1.75 meters (body .75 meters, 4 muscular tentacles 1 meter each, 4 grasping tentacles, 1 meter length each)
Average Mass	70 kg (very densely muscled)
Average Lifespan	150 years
Reproductive System	heterosexual, ovoviviparous
Body Temperature	38 degrees Celsius

Ability Scores	
STR/STA	-5
DEX/RS	+5
INT/LOG	+5
PER/LDR	-5

Author's Note: These abilities have been extrapolated from stat blocks contained in the module SF0. Those stat blocks include level 2 in melee and thrown weapon skill. The module SF2 (on p.30) has stat blocks that include substantial bonuses to INT/LOG (+15) & PER/LDR (+5 net), but I cannot seem to understand any basis for the adjustments based upon any text description, so I made a judgment call to moderate the adjustments to what I have listed and attribute the SF2 module stats as assumed XP based increases for those warriors. If you see errors in my interpretation, please feel free to adjust as necessary.

Movement	
Walking	5 meters per turn on foot
Running	20 meters per turn on foot
Hourly	3 kilometers per hour

Special Abilities
Mind Link
Superior communication can be established with willing participants
Multiple Appendages
Up to four tools or weapons may be used
Ul-Mor Sign Language
Automatic extra language skill.

FROM THE ANNALS OF KA SHRISHEN TRALDOR

These pages are the mission logs of the crew of the Serena Dawn's exploration of the planet Volturnus. This crew set out to explore the system and the system's class M planet. Upon achieving orbit, the Serena Dawn was attacked by a pirate ship and from within by pirates planted amongst the crew. Many of the crew were killed or captured while a number of them escaped. This is an excerpt of the annals of Xa Shrishen Traldor.

> **Editor's Note**: I came across this document while web browsing, and although it uses races and setting information not found in Star Frontiers, it is a fun read and not only appropriate to this article, but very Star Frontiers.

00:02:09:07:08:43:00 = 00/02/18:00 VLT
We have evaluated our water supply and realize that at our current rate of consumption that we will run out sometime shortly after day 11VLT. Serena is scouting to the west, looking for the corpse of the creature. If she can find that, then maybe she can find tracks. We figure it had to have had vegetation. That would mean water.

Tsestar-sing and Tiinak are organising the first aid kits. Our young dralasite has taken a liking to our botanist. Despite being a stow-away, she seems most ready and eager to join us. I have learned that the young dralasite's parent died several years ago at the hands of pirates. How ironic.

Serena Silent-Strike's father died at the hands of pirates, several other crew members have various reasons for hating pirates. I for one have no use for them. I don't know if I will ever recover from what we have been through... If we survive it.

00:02:09:07:12:43:00 = 00/02/22:00 VLT
Serena is back. I've just got it all pieced together. It appears she could not find the corpse, nor even signs of where it had been. She travelled several hours west and found no signs of life, but did find one of those things in the sand about a km west of our camp like Shae stepped into. The debate continues: Stay here, move on. Which way to go?

00:02:09:08:09:43:00 = 00/03/15:00 VLT
We have decided to see if the mountains are more hospitable. Lacking any other direction, we must go some direction because just sitting here is killing our morale. Ulgar will carry Shae as his foot is badly damaged and Kiroth with do his best to hobble along with us. He is way too big for any of us to be much help with.

00:02:09:08:16:50:00 = 00/03:22:07 VLT
We found a small outcropping of rocks, about 5m in diameter and 1m high in places. Scattered with that outcropping is our first cactus. Tsestar-sing is wound up like an ancient hand watch and very excited. She is taking notes and cataloging. Studying and documenting. Her excitement is infectious and the discovery is uplifting. Plants mean water and despite the fact that these are

cacti, I am confident that we will find water long before our supplies run out!

00:02:09:09:16:43:00 = 00/04/18:00 VLT
We camped during the day and are moving out again at night. Same thing: sand, sand, and more sand. The ground is less rocky than further south.

00:02:09:09:17:48:00 = 00/04/19:05 VLT
Yahir (the Mechalus First Contact Specialist) and Ulgar are fighting one of those things Shae stepped into. It sprung up out of the sand and tried to bite Yahir. He dodged and has his pulse baton out. Ulgar is weilding his great sword.

00:02:09:09:17:51:00 = 00/04/19:08 VLT
The battle was pitched but over in a minute. Ulgar dispatched it quite readily, dispite having to dodge the rocks Tsestar-sing was throwing.

Yahir only has a small bump on the back of his head. They have requested that Tsestar-sing NOT help if we are attacked.

00:02:09:09:19:58:00 = 00/04/21:15 VLT
We have hid ourselves under our tent next to an out cropping of rocks. Ulgar says a sand storm is building. He told us not to bother setting up the tent, just spread the material out crawl underneath and wrap the edges underneath us up against the east side of the rocks.

00:02:09:10:02:28:00 = 00/04/23:45 VLT
The sounds of the wind and the feel of the blowing sand even through the tent material is somewhat a thrill. The air has been dead calm until now. Despite the force of nature, we appear to have placed ourselves out of harms way.

I beleive we are beginning to adapt and am becoming more optimistic every day that we will get out of here ok.

00:02:09:10:08:28:00 = 00/05/05:45 VLT
The sand storm has ended and we just set up the tent. The sun has returned and is beating down upon us.

00:02:09:10:16:35:00 = 00/05/13:52 VLT
A full grown creature like the two that followed Tsestar-sing was just sited in the distance. It was traveling west to east. It did not appear to see us and the Weren recommended that we not draw attention to ourselves.

00:02:09:12:01:45:00 = 00/06/15:02 VLT
The last day was more of the same until minutes ago. A "sand shark" attacked us. The Weren charged out to meet it to protect us. Kiroth is badly wounded, Tsestar-sing is afraid he will die.

This vicious beast is almost 4m long with a huge mouth of teeth and rows of multi-jointed legs that allow it to propel its self through the sand at amazing speeds. Its exoskeleton gives the illusion of a dorsal fin jutting through the sand.

Over the dune are over a dozen of the creatures like Tsestar-sing's babies. But these are mounted by octopi type creatures.

Oh, my. This is a first contact!! And I'm here to witness it!!

This is Xa Shrishen Traldor on Volurnous. The time is 12:03:17 on the ninth day of the twelfth month of the second year since the formation of the United Federation of Planets. I am witnessing first contact with the Octopus-People. Yahir, our Mechali first contact specialist is moving out to greet them flanked by Ulgar Ulgrak-ka, one of our Weren security officers.

Five of the plum-purple riders are closing the distance while.. four..eight..twelve.. fifteen. Fifteen of the riders stay back on the dune.

They have clubs and spears in their hands, but do not have them raised, nor leveled. As the get closer, I see that they are decorated with feathers, jewelry, and body paint. Possibly tattoos.

They are slowing as they get closer to Yahir.....

They are now stopped. The middle rider has just thrown down his weapons and dismounted. He is moving towards Yahir who has since put his pulse baton back on his belt...

He is coming right up to Yahir... and went right passed him... What is he...?

He is walking up to Tsestar-sing. He has a ninth tendril, much smaller than his other tenticles. By the each of his eight tenticles end in five smaller tenticles that allow the much more precise manipulation of held objects..

He touches her on the forehead with his tendril and she touches his forehead with her hand. Then she begins talking to him, despite that we cannot hear him speak.

She says they are the "Ul-Mor" and that their mounts are "Lopers". She says they recognize that we are in bad shape but are forbidden by law to help those who are not members of their tribe.

She is searching for some way they could help us without breaking their law. He suggests that we may become Ul-Mor through the Ritual of the Quickdeath.

This does not sound good. What do we do? Kiroth will surely die soon without their help, but will we perhaps all die in the Ritual?

There is but one course. We have a chance with this ritual, Kiroth has none without each. Each in turn, we agree.

They provide medicines for Kiroth to stablize his and place his on a loper. The rest of us are to follow behind them. As we are not tribe members, we may not travel with them, per say.

00:02:09:12:02:43:00 = 00/06/16:00 VLT
We are now travelling. We are about 4m behind the party of Ul-mor, but they have scouts off on both sides. I hope Kiroth survives the journey. ✪

STARPORT LAYOVERS

By RumRogue

When your characters are stuck on a starport, what do they see? Surely it's not quiet. Spacers of all sorts, rubbing shoulders and doing whatever it is that spacers do when not shooting at pirates and Sathar.

Referees can use the following table to add some depth to a group's stay at port. Use this table as desired: once per day, once per stay at port, or just throw those dice whenever you think it's a lull in the action and fun. Any of these could evolve into a subplot or entire adventure.

01. Starship being boarded by Port Security.
02. Mechanic removing access panel.
03. Quarantined alien ship.
04. Mysterious Vrusk selling information chip.
05. Two starship Captains arguing.
06. Starship under heavy guard.
07. Stow-away emerging from hiding place.
08. Starbase Guard searching cargo pods.
09. Bar fight spills out into street/passageway.
10. Group of fighter pilots heading for the bar.
11. Legendary fighter jock loading his ship.
12. Maintenance robot running amok.
13. Alarm/siren blaring in the distance.
14. Starbase Guard chasing a smuggler.
15. Drifter selling forged travel papers.
16. Ship on fire in the docking bay.
17. Deaf-mute Human talking with hand-gestures.
18. Exotic beast escapes its travel pod.
19. Mechanic examining laser damage on a ship.
20. Gunfight between guards and pirates in bay.
21. Merchant searching for his crew.
22. Bomb Squad searching corridors and bays.
23. Drifter looking for work for passage.
24. Wounded guard lying behind shipping crates.
25. Group of dock workers looking for a fight.
26. Crew members, apparently lost.
27. Vendor selling exotic plants and animals.
28. Father saying goodbye to his children.
29. Obsolete starship for sale. Dirt cheap.
30. Base Commander conducting and inspection.
31. Mysterious woman taking pictures of ships.
32. Dralasites haggling over the price of parts.
33. Prostitute.
34. Two starship pilots exchanging stories.
35. Yazirian bounty hunters closing in on their target.
36. Quarantined ship.
37. Ambassador preparing to leave.
38. Fugitive looking for passages on a ship
39. Group of drunken pilots.
40. Human beggar.
41. Group of crewmembers gambling.
42. Frightened woman running through the crowd.
43. Security scanning a ships hull.
44. Ground crew witting a ship with heavy weapons.
45. Custom official checking travel documents.
46. Expert gunner looking for work.
47. Woman looking for husband.
48. Mysterious figure selling access codes.
49. Individual painting mystic symbols on ship's hull, while crew watches.
50. Priest blessing group of departing soldiers.
51. Vendor selling war contraband.
52. Two vendors haggling over a deal.
53. Stow-away sneaking on board a ship.
54. Soldiers crowded around a bulletin board.
55. Two soldiers carrying an ammo bin.
56. Mixed group holding a ceremony.
57. Bounty hunters checking arrival logs.
58. Dock guard chasing away on-lookers.
59. Beautiful woman waiting on someone.
60. Work crew installing new equipment.
61. Police officer serving a warrant.
62. Convicted felons being transferred to a shuttle.
63. Wounded soldiers being off loaded from a starship.
64. Foreign dignitary being escorted to his ship.
65. High-tech machinery sitting on dock unguarded.
66. Starship preparing to debark.
67. Dralasite con artists running a parts scam.
68. Vrusk Pilot interviewing a new crew member.
69. Tram hauling engine parts from a warehouse.
70. Yazirian Drifter selling star charts.
71. Repair bots rewiring a ship.
72. Salvage workers dismantling a starship.
73. Human computer specialist looking for work. Credentials are forgeries.
74. Dralasite artist painting portraits.
75. Scream coming from cargo hold on a ship.
76. Elderly Yazarian female in a wheelchair.
77. Vendor selling artifacts.
78. Pickpocket studying the crowd.
79. Group of people purchasing a ship.
80. Dralasite pilot cleaning his sidearm.
81. Crowded bar with patrons waiting in line to enter.
82. Explosion from a ships cargo hold.
83. Foreign dignitary arguing with his attaché.
84. Vrusk scholar looking for passage to dig site.
85. Bounty hunter checking ship registration numbers.
86. Mortician loading body bags into a ship.
87. Experienced navigator looking for work.
88. Group of children playing on a scrap heap.
89. Group of mechanics talking.
90. Bay chief on a stroll.
91. Maintenance crew welding a portal shut.
92. Work crew removing access panels from corridor.
93. Drifter selling drugs.
94. Emergency vehicle racing down corridor.
95. Quarantined ship: deadly virus.
96. Vrusk shopkeeper closing his shop early.
97. Soldiers betting on two dueling robots.
98. Strange green fluid leaking from a cargo tube.
99. Two soldiers talking in private.
100. Expert star pilot looking for work. ✪

STARFLIGHT

By C. J. Williams

One of the most enjoyable sci-fi elements is when the heroes strap into small fighters and fly out to perform dangerous missions and combat. This aspect of the sci-fi hero seems to have been almost entirely overlooked in Star Frontiers—until now.

The uniqueness of different types of fighters and how they're equipped is sadly missing from the game. The only thing differentiating them in Knight Hawks was whether they were civilian or military. Then articles came along that gave more weapons and defensive options, but still the variety was stale. In fact, in previous information we are counseled not to even use fighters. So what was the point in including them in the first place?
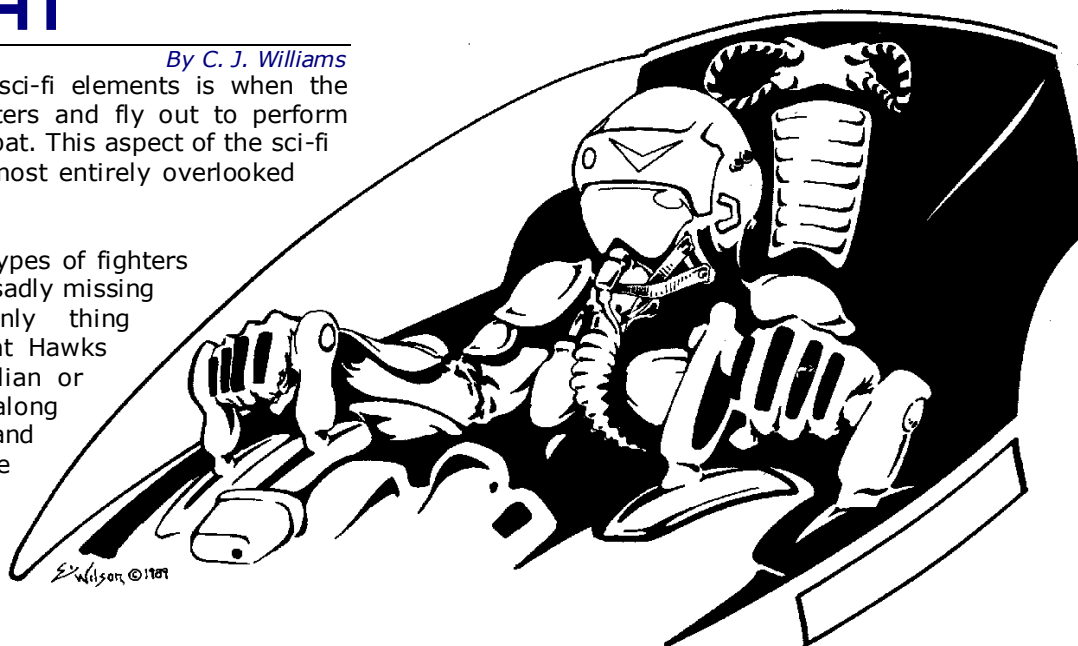
In order to make space fighters useable and more unique, one from the other, and to make space combat possible for these small vessels, fighter vs. fighter, we must look to the smaller combat scale of the Alpha Dawn vehicle rules system and analyze how fighters can be used.

For this system, the space fighters and shuttles have been reclassified as vehicles, instead of spaceships, as they are little more than cloud flyers with minor modifications for space travel. A fighter has very few gauges that can be found on most space ships.

Other treats in this article include more weapons available for fighters and aerospace vehicle system packages.

Though this article focuses on fighters, feel free to use this information to design your own aerospace vehicle. There's even information here that can be used for ground vehicles.

V Size (KH)	Mass in kg	Engine size
1 (1)	<200	
2 (1)	<500	
3 (1)	<1k	A1*
4 (1)	<2k	A1
5 (1)	<5k	A1
6 (1)	<10k	A1
7 (1)	<20k	A1, A2*
8 (1)	<50k	A1, A2*
9 (2)	<100k	A2
10 (2)	<200k	A2
11 (2)	<500k	A2

* Single engine design only.

AEROSPACE FIGHTERS

The Knight Hawks rules prove particularly ineffective for space units of size 1 and 2. The smaller the craft, the less relevant the spaceship stats prove to be. As it is, they are just relevant enough for the Assault Scout, but for nothing smaller.

To remedy this, these vehicle rules are being extended in this article to units of hull size 2 or less. A whole different scale of damage applies that is not as extreme as large spaceship damage.

The vehicles, weapons, defenses, and equipment in this article are by no means exhaustive, but contain all the items this author feels worth use from previous articles and new creations. Most items from other materials are not included here, but are useable with this system.

SIZE

Though actual vehicle classes are often dependent on area, mass, and even shape altogether to determine size, to keep things simple, a new size rating (as opposed to the KH size system) is given for vehicle types relying on the vehicle's base mass instead of its length. The cargo weight and weapons do not affect the vehicle's size, but the engines and computer systems do. Below is the size list with compatible engine sizes. You can either have single engines or dual engines.

AEROSPACE FIGHTER TYPES

Besides the vehicles in the Alpha Dawn rules, more flying vehicles may now be available. These types are defined below. As you read them, enjoy the various fighter types that are graphically represented with each description.

MINI-FLYERS

Little more than an air-bubble with a jet engine attached, the mini-flyer is able to reach high altitude space stations from a planet's surface, but does not have the capability to escape a planet's gravity without breaking apart. Mini-flyers cannot have any defenses and will only fit laser pods. They can only hold a single passenger (the pilot) and have limited cargo capacity. The low cost helps keep them viable, and surprisingly popular for personal transportation to and from orbital stations and high altitude launch platforms.

Mini-flyers
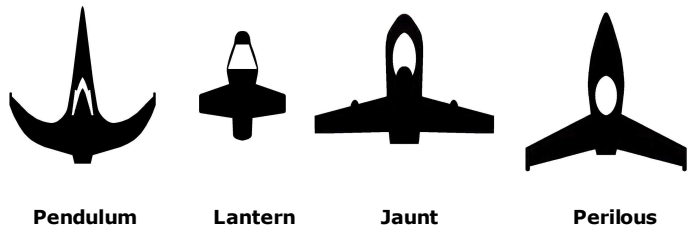
| Pendulum | Lantern | Jaunt | Perilous |

PERSONAL FIGHTERS

Personal fighters are often better armed than Cloud Flyers, but can only carry up to 2 people. Personal fighters have no bombing capability or armor to speak of, but their teeth can be nasty. Able to carry small assignments of piston and pod weapons, assault rockets, or missiles, personal fighters are the vehicle of choice for the more discriminating adventurer. They do cannot carry bombs. Careful, though, these aren't meant for war. Pirates often take on such vehicles and their pilots for a split of the booty, as a private air force is invaluable to commandeering civilian ships. They also prove invaluable for defending civilian ships.

Personal Fighters
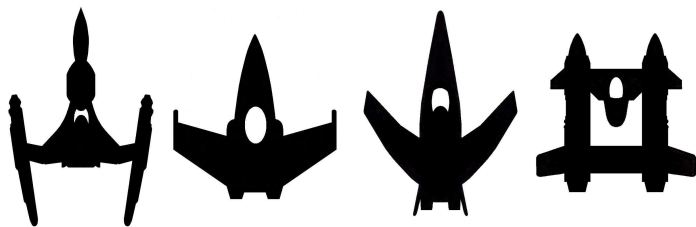
| Stylus | Hunter | Regent | Dijack |

MILITARY FIGHTERS

You won't find these for private sale, as they contain armor and advanced defenses for large scale skirmishes. Even black market traders know that private citizens can't be trusted with these weapons of mass destruction. No, they want them sold to the highest bidder in the largest quantity. The military fighter is heavy duty in both fire power and defenses and are built with armor standard. Even though military fighters have limited bombing payload capacity, if any, military fighters are ten times more effective than personal fighters. These are often granted under special permission to Privateers.

Military Fighters
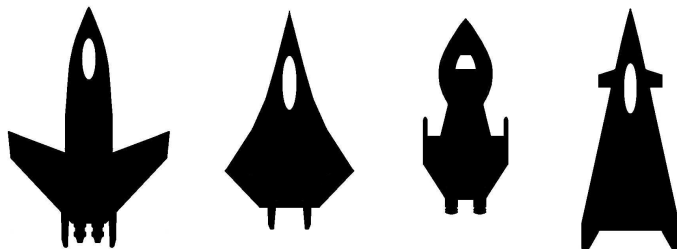
| Dark Hawk | Blade | Ripper | Black Dart |

MILITARY BOMBERS

Often 2-4 times the size of most military fighters, military bombers carry many times more the payload of any fighter and are also armored. These are highly specialized killing machines capable of toppling large building complexes, flattening settlements, sinking sea carriers, and crippling or even destroying large space vessels when grouped with other bombers. Bombers all require a minimum of two crewmen (pilot and copilot/navigator) and are extraordinarily durable. (Bombers are technically Hull Size 2 from Knight Hawks rules)

Bombers
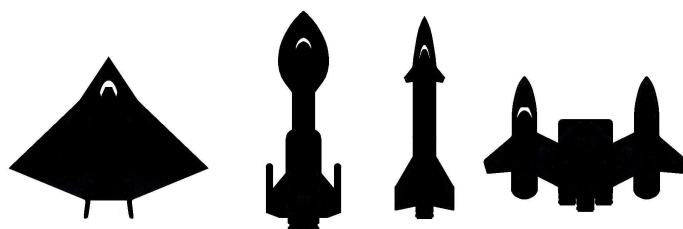
| Reaper | Trapper Arc | Clear Cutter | Massacre |

Fighter Type*	Size (KH)	PN	ADF/MR	ADM	VM	MM	Cargo Limit	SP	Cost***
Mini-flyer	3 (1)	1	6	-1	+1	+1	400kg/4m^3	10+d10	40,000Cr
Personal	4-5 (1)	1-2	6	0	0	0	8,000kg/12m^3	20+d10	>55,000Cr
Light Military	6-7 (1)	1-2	5	+1	0	0	16,000kg/18m^3	40+d10	>65,000Cr
Heavy Military	7-8 (1)	2-4	5	+1	0	-1	22,000kg/26m^3	45+d10	>80,000Cr
Light Bomber	8-9 (2)	2-8	5	+2	-1	-1	55,000kg/38m^3	45+d10	>105,000Cr
Heavy Bomber	10-11 (2)	2-12	5	+2	-1	-1	100,000kg/50m^3	50+d10	>120,000Cr

* Ordered according to size

** Costs are for empty structure only; it does not include equipment.

NEW ENGINES

What is not generally known is that small craft of size 2 or smaller maneuver by means of colloid thrusters (a type of miniature electrostatic ion thruster) which are built into the frames. These work independently of the ship's engines, though may derive their power from the engines. Because they are built into the aerospace vehicle, they are not a concern when choosing an engine for your craft.

Along with the new scale for fighters are new engine classifications. Engine size A1 is for Knight Hawks hull size 1, and engine size A2 is for Knight Hawks hull size 2 (See the Vehicle Size Table above for fighter size assignments).

Engines	Jet	Chemical	Plasma	After Burner
Size "A1"				
Fuel Cost	20xVSize	10xVSize	1xVSize/2	+10**
Prog. Level	1	1	4	1
Fnctn Pnts	2	3	14	1
Cost*	**8,000Cr**	**20,000Cr**	**55,000Cr**	**5,000Cr**
Size "A2"				
Fuel Cost	40xVSize	20xVSize	1xVSize/4	+20**
Prog. Level	1	1	4	1
Fnctn Pnts	2	3	14	1
Cost*	**15,000Cr**	**30,000Cr**	**100,000Cr**	**10,000Cr**

* Engine, installation and program costs per engine.
** Add this modifier to your fuel cost.

Jet Engine. These are not as efficient as other engines and are useless for space flight because of their need for air flow. Though they are less expensive to purchase and install, they are more expensive to maintain and keep fueled (they use much more fuel than other engines and require more maintenance).

Plasma Drive. In addition to rocket boosters and atomic engines, there is also the more expensive plasma drive. A plasma drive is considerably safer, more compact, and easier to find, but much more expensive than an atomic drive. Plasma power is achieved by pulling radiant atoms apart through ionization instead of colliding them. Additionally, plasma drives have virtually 0 radiation emissions. They are the most efficient for inner-system travel. These can be sized to fit on any size of craft.

These are the small thrusters you see on many of your favorite space fighters. They are low maintenance, highly efficient, and ideal for relatively comfortable high speed launches, as their thrust requires building, easing into the launch speed. Their big brothers that we've come to know simply as Ion Drives, use particle acceleration which can cause a craft to approach the speed of light.

After Burner. This injects fuel directly into the ignited exhaust ("after" the engine), causing the vehicle to increase its acceleration beyond its standard acceleration. This can be useful for escaping an enemy, catching up to an enemy, or getting that extra burst for escaping atmosphere. However, this is an extremely inefficient expenditure of fuel, so use it wisely. This is available for any engine planet-side or in space.

NEW WEAPONS

Normal weapons have been thoroughly covered in other articles, so we will only discuss new weapons for aerospace vehicles here.

Previous board game and miniatures rules only provided assault rockets to fighters, and mounted laser pods were provided in the Polyhedron #19 article, Laser Pod, by John Pickens and laser pistons, maxi-missiles and fusion bombs were provided in the Dragon Magazine, November 1986, article, An Interstellar Armory by Gus Monter. Now prepare yourself for several new additions.

Fighter	Missiles	Bombs	Starbursts	Assault Rockets	Laser Pod	Laser Piston	Dual Piston	Bolt Launcher
Mini-flyer	0	0	0	0	X			
Personal	(2-6)*	(2)*	1-2	(2)*	X	X		V Size 5
Light Military	2-8	2-4	1-4	2	X	X	V Size 7	X
Heavy Military	2-12	2-8	1-8	3	X	X	X	X
Light Bomber	2-14	1-15	1-12	4	X	X	X	X
Heavy Bomber	4-20	1-30	1-12	6	x	X	X	X

* Though not permitted, personal fighters may still be adapted to arm these weapons.

Weapon	MVS (MHS)	PL	FP	HDR*	HDR Mod*	RA (KH)	DTM	Restrictions	Mass	Ctr Avail	Cost**
Laser Piston (LP)	1 (1)	1	3	5d10	0	6	0	FF, RD, MPO	80kg	I, II, II	**1,500Cr**
Dual Piston (DP)	6 (1)	2	6	5d10	+10	6	0	FF, RD, MPO	110kg	I, II	**2,500Cr**
Bolt Launcher (BL)	4 (1)	2	5	4d10	+20	5	+10	FF, RD, MPO, LTD	140kg (100kg)	I	**3,000 Cr (3,000 Cr/2,000ct)**
Plasma Bomb (PlB)	7 (1)	1	2	4d100	+50	0	-20	MPO, LTD	1,000kg	I	**10,000Cr**
Bomb Launcher	7 (1)	2	4	--	+10	0	+5		800kg	I	**5,000Cr**
Redeye Missile	4 (1)	2	3	1d100	+40	6	-20	FF, MPO, LTD		I	**1,500Cr**
Guided Missile	4 (1)	2	3	1d100	+40	6	-20	FF, MPO, LTD		I, II	**1,500Cr**

* For Knight Hawks, divide all damage by 10 and round down.
** Costs include installation

With this system, the number of weapons a fighter can have is limited only by the tables in this article. You can have the maximum number of each weapon as long as you have the cargo mass allowance available for the fighter type. Weapons are not limited by cargo volume. This allows for a more realistic distribution of weapons on a fighter, as even today they can be loaded to bear.

Dual-action Piston. This works similarly to the normal laser piston, but uses the rebound of two juxtaposed pistons and barrels to produce twice the fire rate and require less energy. However, these are heavier and may only be equipped to craft with a Vehicle Size of 5 or more.

Proton Bolt and Launcher. This is a new and much more effective delivery system than the standard proton weapon. The Bolt Launcher is a recoilless weapon that uses large "smart" bullets designed for launching in space and other hostile environments. These "smart" bullets are programmed to ionize the protons of tri-carbon-incased hydrogen, producing a solid and relatively long-lasting proton bolt. Though recoilless, it is not free from vibration.

The Bolt Launcher can be attached to a personal fighter, but the mounting points must be serviced at a quarter of the cost after every use, as the vibrations could rip it from its mount after prolonged use. If the weapon itself is not serviced immediately after battle, it could lead to serious and even deadly consequences in later battles because of the discharge elements. It works against Albedo Screens and half capacity against Inertia Screens.

Plasma Bomb. Also called a "mini-nuke", the plasma bomb causes a limited fission explosion with limited radioactive effects. Though not free from dangerous levels of radiation, it only irradiates a 1 cubic mile radius. If detonated on a planet, the radiation may be blown up to 100 miles.

Missiles. There are several types of missiles available to aerospace vehicles of all sizes. Destroying missiles before they reach their targets isn't easy, but can be done, so they are provided with structural points. Missiles work in conjunction with your ship's targeting system.

- Redeye missiles have infrared sensors that track a target's heat trail.
- Guided Missiles are guided by the onboard computer that has locked onto a target (must have Target Tracker or better).

Bomb Launcher. A bomb launcher isn't so much a weapon as a delivery device. This vibration-resistant box attaches to a cargo bay and stores any number of bombs on an anti-vibration temperature control rack that delivers the bombs to a box that accelerates the bomb through a hole with minimum vibration and maximizes accuracy.

The bomb launcher is ideal for the very volatile Fusion bomb, giving the bomb 200% of its usual carrying distance and stability. It adusts to any cargo bay for Vehicle Size 7 to Knight Hawks "Hull Size" size 3.

Type	MR	ADF	SP
Missiles			
Redeye Missile	5	5	25
Guided Missile	5	5	25

TARGETING SYSTEMS

Special targeting systems are used for aerospace fighters. These systems range from simple to very complex.

Targeting System	Modifier
Crosshair	+5
Target Tracker	+10
Multi-target Tracker	+15
Target Discriminator	+20

Crosshair Targeting. A simple targeting system that provides a crosshair and on screen target measurement and locator. +5 to Hit. Crosshair targeting does not work with Guided Missiles.

Target Tracker. Provides all the abilities of the Crosshair Targeting, but provides a lock on without visual to the nearest target with a bias toward on screen targets. An inherent flaw exists in this technology in which if the pilot is chasing a target, another target that passes closer can distract the target tracker and cause you to lose your primary target. +10 to Hit.

Multi-target Tracker. Providing the abilities of the Target tracker, this system identifies all targets within a specific range and provides ranges for each target. Whichever target is within striking range gets a circle identifying it for attack. +15 to Hit.

Target Discriminator. Along with the abilities of the Multi-target Tracker, this targeting system not only chooses the best target and gives it a unique box, but is able to penetrate most forms of interference. +20 to Hit.

DEFENSES

When attacked by a ship using Knight Hawks rules, multiply damage and damage modifiers by 10.

Starburst. A decoy that emits ionized plasma and radio and electrical signals that radiates bright light and heat and confuses infrared and guided systems. Each time the vehicle is re-equipped with starbursts, the delivery system must be replaced. This makes starbursts a little more expensive, but also safer. These are similar to interceptor missiles in purpose, but are incapable of guided intercept and are very much smaller. You will find starburst stats on the weapons tables in this article.

NEW EQUIPMENT

In the list of new equipment are packages of communications, defense, and weapons programs with computer systems. These are packaged together to reduce costs and keep aerospace vehicle design simple. Any system can be used on any size aerospace unit that can fit the mass and volume, but you must pay the full price even for systems you do not use (ie., mini-flyers have no need for astrogation equipment).

System Package	Prog. Level	FP	Mass (kg)	Volume	Cost*
I	2	5	300-800 kg	3-8 m³	**9,000 Cr**
II	3	20	600-1,500 kg	6-15 m³	**28,000Cr**
III	4	40	1,500-2,400 kg	15-24 m³	**86,000Cr**
IV	5	64	2,900-3,800 kg	29-38 m³	**200,000Cr**
V	6	112	2,900-3,800 kg	29-.8 m³	**270,000Cr**

* Costs include installation.

System Package I. Ideal for keeping costs low, but is also low on amenities. Computer level 2. Contains: astrogation; crosshair targeting; videocom radio; computer lockout; life support; and parabattery.

System Package II. Often ideal for the standard personal fighter. Computer level 3. Contains: astrogation; target tracker; videocom radio; videocom screen (adjust cost for each screen according to Knight Hawks); computer lockout; damage control; life support; and parabattery.

System Package III. The most common military fighter control. Computer level 4. Contains: astrogation; multi-target tracker; subspace radio; videocom screen (adjust cost for each screen according to Knight Hawks); half-size camera system; skin sensors; security alarm; computer lockout; damage control; life support; and parabattery.

System Package IV. The most common military bomber configuration. Computer level 5 Contains: astrogation; target discriminator; subspace radio; videocom screen; half-size camera system; skin sensors; radar; security alarm; white noise broadcast; computer lockout; damage control; life support; and parabattery.

System Package V. Most often reserved for large military bombers and dignitary vessels. Computer level 6. Contains: astrogation; target discriminator; subspace radio; videocom screen; half-size camera system; skin sensors; radar; energy sensor; white noise broadcast; security alarm; computer lockout; damage control; life support; and parabattery.

DAMAGE
The hull points of your fighter are figured a little differently than in Knight Hawks. In these rules, we've used the Vehicle Structure Points from Alpha Dawn divided by 10 to determine damage resistance on the on the Fighter Type table (See SP). To interact with character weapons and defenses, multiply all fighter figures times 10. To determine Hull Points (HP), round up to the nearest ten and divide it by 10. You will still use the Advanced Game Damage Table from Knight Hawks to determine the type of damage. Do not access the table if damage is from a character weapon, unless critical damage is rolled.

DCR is calculated using the same formula in Knight hawks, but using the V Size in these rules.

You can use these aerospace vehicle rules to battle other fighters even in a game of Knight Hawks, but against the larger ships that have greater weapons, use the Knight Hawks weapons scale against the fighter's HP. The fighter, however, rolls damage against those units as normal, and divides the damage by 10.

Some weapons have a modifier. This modifier applies before the above-mentioned damage adjustments.

USING FIGHTERS
With having only been counseled against the use of fighters in the past, the understanding of how to use fighters is sadly undeveloped, so let us examine what uses fighters may have in Star Frontiers gaming.

Planetary Patrols. Large space-fairing vessels cannot enter a planet's atmosphere, but smaller vessels can. As a result, fighters are the weapon of choice for planet-side defense and ground and air battles. Fighters are also ideal as escorts for vessels of Knight Hawk Hull Size 4 or smaller. They can provide effective defense against pirates and other undesirables.

Bombing Runs. Probably the most important use of any fighter in war time. While bombers are, of course, used to bomb ships and installations, small fighters can help protect bombers and can even provide cover and confusion so that bombers are hard to pick out of a swarm.

Skirmishes. Swarms of fighters are an effective way of overwhelming an opponent's defenses. A squadron of fighters can often provide as much fire power as any Assault Scout. Imagine the power of a swarm.

Location Hopping. Simply going from location to location, players may want to have their own transportation to go from one part of a planet to another.

This also opens up potential broader planet-side adventure ideas. Going from location to location, characters can be reassured in having the firepower for their defense.

Reconnaissance. Being able to scout a wide area is problematic without personal flight transportation, and is therefore resolved with the use of fighters and shuttles.

Quick Escape. Ever felt trapped by your surroundings? Having a fighter on hand can help provide players with that badly needed means of escape. Such escapes themselves can provide very unique opportunities at role-playing as characters try to creatively make their way back to their vehicle.

TERMS
Several Terms are introduced in the tables in this article. The meanings of these terms are listed below.

Acceleration/Deceleration Modifier (ADM): Use this number to determine a unit's ADF. This number is used with hex dimension and time scale adjustments (A sliding scale for use with this number will be provided in a later article).

Maneuver Modifier (MM): Use this number to determine a unit's MR. This number is used with hex dimension and time scale adjustments (A sliding scale for use with this number will be provided in a later article).

Minimum Vehicle Size (MVS): Works the same as the MHS in Knight Hawks, determining the minimum size of vehicle needed for the particular equipment.

Passenger Number (PN): The number of passengers (including pilot) allowed for fighters within the type's range.

Vehicle Size (V Size): The weight class of a vehicle.

Velocity Modifier (VM): Use this number to determine a unit's movement. This number is used with hex dimension and time scale adjustments (A sliding scale for use with this number will be provided in a later article).

STAR FRONTIERS
A NEW DOOR TO ADVENTURE

You have now been given the opportunity to open up your gaming to a whole new variety of game play. Challenge yourself, challenge your players, and give aerospace fighters a chance in you campaigns.

Keep an eye out for future articles on vehicle combat and strategies that can help expand this avenue of game play even further for both role-playing and board game play. There will also be examples on how to put a fighter together, in case you haven't figured it out here.

> **Author's Note**: This system is experimental. If you have any suggested adjustments to this system, please contact me (C.J. Williams, c/o Referee@StarFrontiersman.com).
>
> Good gaming to you.

SAMPLE AEROSPACE VEHICLE RECORD

Ship Name: Revenant
Ship Type: Light Military Fighter **SIZE**: 6 (1)
OWNER: PGC **ADF**: 5 (+1)
HOME SYSTEM: Truane's Star **MR**: 5
CAPTAIN ABOARD: Lazar **DCR**: 38 (23)
SHIP'S AGE: 1 yr **SP (HP)**: 45 (5)
NUMBER OF ENGINES: 2
COMPUTER LEVEL: 3
ENGINE TYPE: Plasma Drive (A1) w/Afterburner
FUNCTION POINTS: 42
LAST OVERHAUL: (N/A)
SECURITY DEVICE: Computer Lockout
LAST MAINTENANCE: (N/A)
COMMUNICATION: Videocom radio w/screen
FUEL CARRIED: 1 pellet
PROGRAMS: astrogation, proton weapons control, damage control
WEAPONS: Bolt Launcher 4d10 (+20), 2 Assault Rockets, 4 Redeye Missiles, 4 Starbursts
DEFENSES: Light Armor, Reflective Hull, Proton Screen
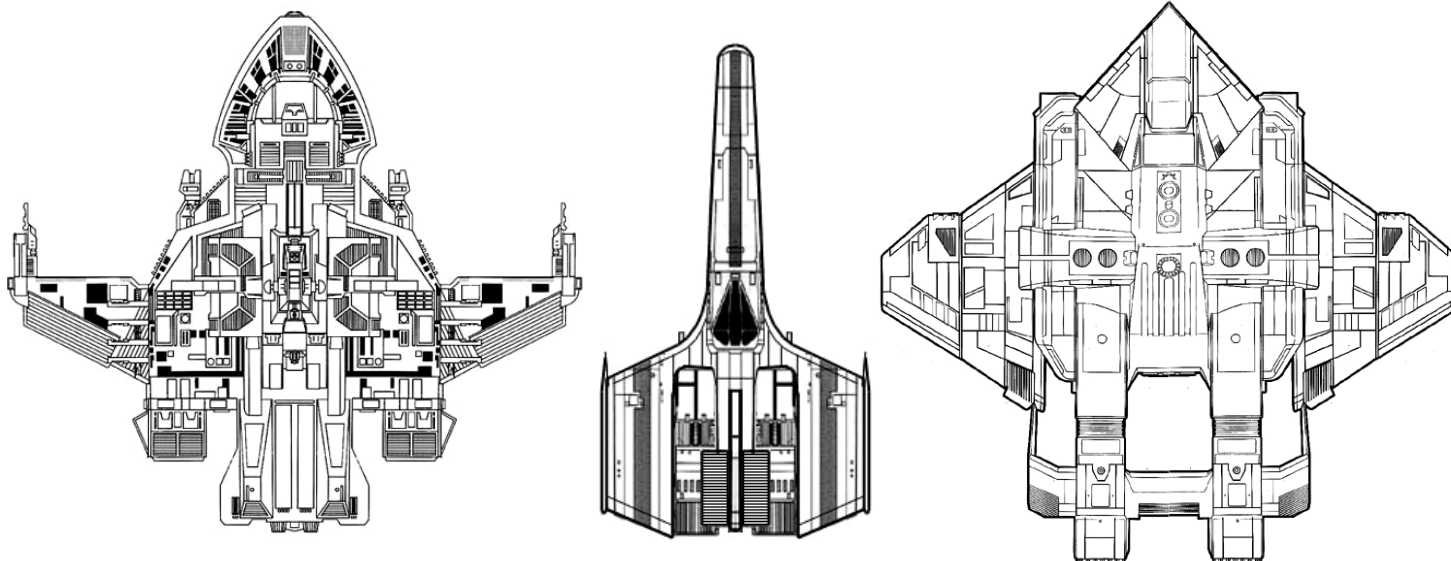
Weapons Chance to Hit Table

| Weapons	None	RH	PS	ES	SS	MS	LAP	HAP	ICM	SB
Laser Piston (LP)	65	40	65	65	65	20	--	-15	--	--
Dual Piston (DP)	65	40	65	65	65	20	--	-15	--	--
Bolt Launcher (BL)	50	50	25	60	30	40	-5	-10	--	--
Plasma Bomb (PlB)	70	70	70	70	80	70	--	--	--	--
Mines	60	60	60	60	60	60	-15	-20	-5	-3
Torpedoes	50	50	50	50	75	50	-15	-20	-10	-7
Assault Rocket	40	40	40	40	40	40	--	--	-5	-3
Rocket Battery	30	40	30	40	40	40	-15	-20	-3	-1
Maxi-missile	50	50	50	50	70	50	--	-10	-10	-4
Seeker Missile	75	75	75	75	75	75	--	-15	-8	-12
Redeye Missile	60	60	60	65	60	40	--	--	-15	-30
Guided Missile	75	75	75	50	75	75	--	-15	-8	-20

Abbreviations: Reflective Hull (RH), Proton Screen (PS), Electron Screen (ES), Stasis Screen (SS), Masking Screen (MS), Light Armor Plating Chance Modifier (LAP), Heavy Armor Plating Chance Modifier (HAP), Interceptor Missile Chance Modifier (ICM), Starburst Chance Modifier (SB)

EQUIPMENT

COMBAT ARMOR

By Madin Jackson
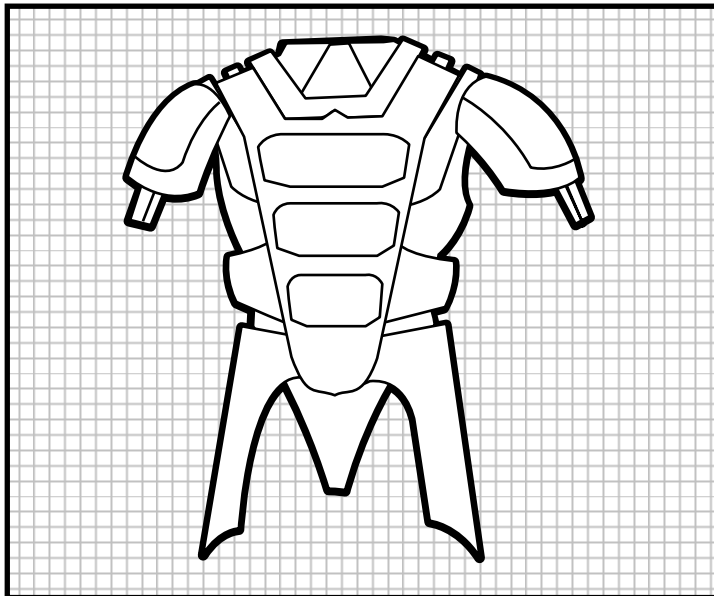
Editor's Note: This armor is handled quite differently than the Polyplate Armor found in the back of the Alpha Dawn Digitally Remastered book, and generally you should choose which of the two rules you'd like to use in your game. On the other hand, since they are quite different yet fairly equally balanced against one another, it could simply be an additional technology available to your characters in the Frontier. The Polyplate armor is an extrapolation of skeinsuits and albedo suits, while this armor is more an extrapolation of Knight Hawks Space Suits. Both are equally suited for Star Frontiers gaming.

Combat Armor was designed as additional protection for soldiers in wartime. It has since been adopted by mercenaries and corporate security for its decrease in potential casualties. Most Frontier worlds require special permits for Combat Armor, for private use.

The armor is created by using several strands of plasteel mynomers, woven together which are then electro-magnetically charged to thicken the mynomers and tighten the woven material. The mesh is then coated with a plastic polymer, giving it a hard, plastic shell. The interior is lined with padded material, allowing the armor to be worn for extended periods of time in the field, while still making the wearer comfortable. Combat Armor comes in three types: Light, Medium and Heavy.

- **Light Combat Armor** covers the shoulders, torso, abdomen and shins, providing maximum protection to vital areas. Light Combat Armor weighs 7kg and costs 650Cr.

- **Medium Combat Armor** covers the same areas as Light Combat Armor, but increases the density of the armor, to provide a greater defense. This means, however, that the armor is bulkier. Any character wearing Medium Combat Armor, must subtract 5 from his Dexterity and Reaction Speed tests. Medium Combat Armor weighs 15kg and costs 1,200Cr.

- **Heavy Combat Armor** covers the shoulders, forearms, torso, abdomen, shins and thighs, providing the greatest defense, short of only Powered Armor and Space Suit Armor. Reinforced Boots and Gauntlets cover the feet and hands. The armor is fairly bulky and any character wearing it must subtract 10 from his Dexterity and Reaction Speed tests. Heavy Combat Armor weighs 25kg and costs 2,000Cr.

PROTECTION

Combat Armor will protect a character to some degree from most weapons. The Weapon vs. Armor charts display the effect of armor on various weapons. While Combat armor is effective, it is nowhere near that of space suit armor and cannot be used in hazardous environments, where harmful gasses are present.

When Combat Armor has a percentage chance to protect the wearer, the Character being hit must roll a d100. If the number rolled is less than or equal to the suit's protection percentage, the weapon does not penetrate the armor (nothing gets hurt, the wearer or the armor). If the roll is unsuccessful, the weapon has punctured the armor, but only causes half of its normal damage to the wearer.

MAINTENANCE

Combat Armor must be continually repaired, or it will lose its protection, due to combat wear and tear. After any combat where the armor was worn, all effective protection values derived from the tables below will be reduced 5% unless a Technician character successfully makes a Repair Machinery roll (only one attempt is possible).

At the end of a mission/adventure, if situations allow, a weapon shop can repair all damage remaining on the suit at a cost of 25Cr and one hour per damage percent. Thus if your suit is damaged to -20%, it will cost (25Cr x 20 =) 500Cr and take 20 hours. Obviously, there is a point at which you should consider scrapping the armor and purchasing a new set.

For example: a character has had five combats during his adventure. He successfully rolled his Repair Machinery skill directly after three of those combats, so he has -10% worth of damage. If he were to get into another combat, his armor would have all of its protection percentages reduced by 10. At the end of the mission, his -10% can be repaired for (25CRx10=) 250Cr, and it will be in their hands for 10 hours.

WEAPONS VS. LIGHT ARMOR

Weapon Type	Effect of Armor
Blunt Weapons	30% Protection
Piercing Weapons	30% Protection
Needlers	60% Protection
Sonic Weapons	10% Protection
Bullets	30% Protection
Beam Weapons	25% Protection
Fragmentation Grenades	20% Protection
Gyrojet Rockets	20% Protection
Electric Sword	15% Protection
Vibroknife	10% Protection
Electrostunner	Full Penetration
Shock Gloves	Full Penetration
Stunstick	Full Penetration
Tangler Grenades	Full Penetration

WEAPON VS. MEDIUM ARMOR

Weapon Type	Effect of Armor
Blunt Weapons	50% Protection
Piercing Weapons	50% Protection
Needlers	No Penetration
Sonic Weapons	20% Protection
Bullets	40% Protection
Beam Weapons	30% Protection
Fragmentation Grenades	25% Protection
Gyrojet Rockets	25% Protection
Electric Sword	20% Protection
Vibroknife	20% Protection
Electrostunner	Full Penetration
Shock Gloves	Full Penetration
Stunstick	Full Penetration
Tangler Grenades	Full Penetration

WEAPON VS. HEAVY ARMOR

| Weapon Type	Effect of Armor
Blunt Weapons	60% Protection
Piercing Weapons	60% Protection
Needlers	No Penetration
Sonic Weapons	40% Protection
Bullets	60% Protection
Beam Weapons	40% Protection
Fragmentation Grenades	30% Protection
Gyrojet Rockets	35% Protection
Electric Sword	25% Protection
Vibroknife	20% Protection
Electrostunner	Full Penetration
Shock Gloves	Full Penetration
Stunstick	Full Penetration
Tangler Grenades	Full Penetration

Editor's note: If the above tables seem cumbersome in actual play, you can use the following rules instead:

Light Armor: 20% Protection.
Medium Combat Armor: 40% Protection.
Heavy Combat Armor: 60% Protection.

Versus Needlers: x2 Protection rating.
Versus Sonic/Beam: x1/2 Protection rating.
Versus shock, stun, or tangler effects: No protection.

MOTION TRACKER

By Madin Jackson
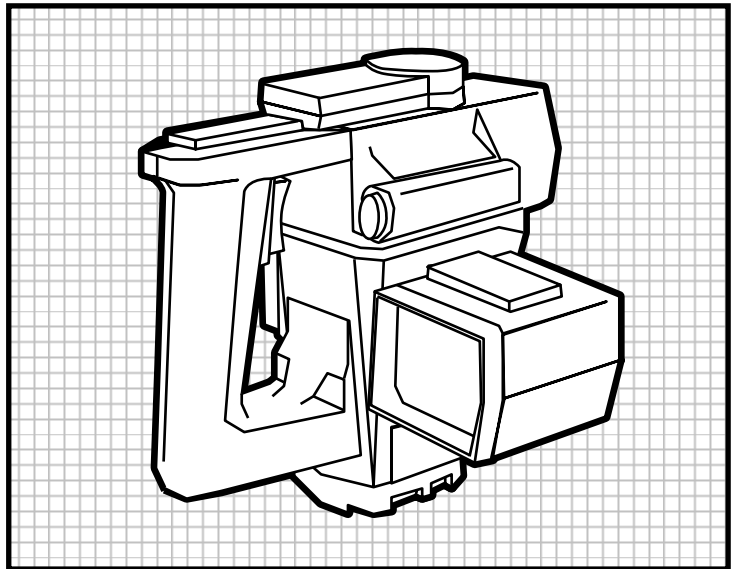
A sonar unit combined with passive, air-density sensors, the Motion Tracker is a hand-held motion sensor, which provides the user with information about unseen opponents. A Character must have the Computer skill to operate a Motion Tracker and requires a Displaying Information skill check. The device is operated by a trigger mounted in the handgrip; thus, when not in active use the Motion Tracker cannot be left on, conserving battery power and decreasing the possibility that the Motion Tracker, itself, is detected.

The location of detected movement is displayed on an LCD screen mounted on the top of the device as a set of probability contours ranging from black to white; black indicating no movement and white indicating a high probability of the location of movement. An auditory cue is also provided in the form of a reverberating tone that changes in pitch and reverb speed, based on the size and proximity. A Motion Tracker will indicate the position, size and speed of any object within its range.

Alpha: 1.123
Beta: 22.9
Radius: 40mm
8.25m
Targets: 8
Speed: 60
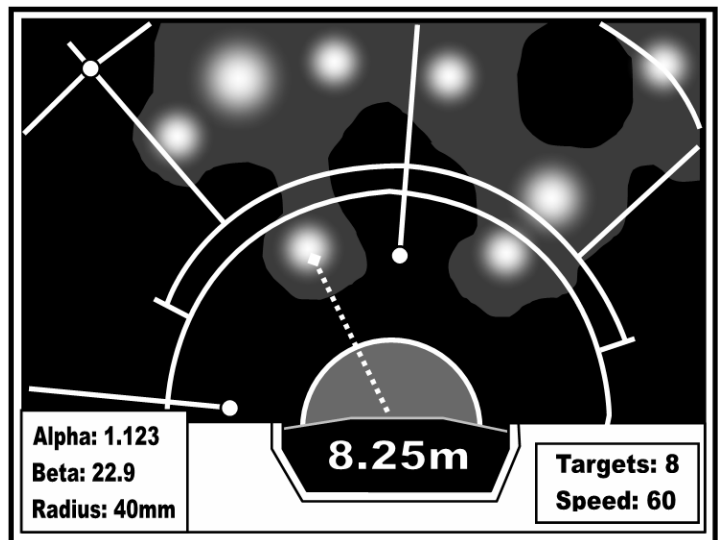
Motion Tracker Screenshot

SENTRY GUNS

By Madin Jackson

In ideal conditions (i.e., open terrain with no wind), the Motion Tracker can scan accurately up to a kilometer, however in buildings (such as the average, Frontier building with metal and synthesized walls which to a great extent, absorb the sonar bursts and returns), the effect range drops to 30 meters. The size of object the Motion Tracker is scanning for is determined by the user, down to a minimum diameter of about 60cm. The frequency and settings must be adjusted repeatedly to filter interference and operating the Motion Tracker in cluttered terrain is difficult without a good Computer skill. The Motion Tracker will not work in a vacuum.

The Motion Tracker can register movement on the far side of a solid obstacle, but the air flow between the two locations must be unblocked and the operator's task is made more difficult. For each corner or intervening obstacle, reduce the operator's Displaying Information skill check by minus 10; one corner is minus 10, two corners is minus 20 and so on.

If the operator uses a Motion Tracker successfully, then he or she receives accurate information regarding the number, position speed and size of all moving objects within the Tracker's range; if the roll is failed, then the information will be inaccurate to some degree. If the roll is failed by 10 or less, the Tracker will show the range and speed to all nearby targets, but the number and size of the targets will be unknown. If the result is failed by 20 or less, only the range will be known. If the roll fails by 30 or less, the operator receives no significant information. If the operator fails by more than half, the Referee should give the operator significantly incorrect information.

The device does have problems, however:

- First, because the tracker emits high-frequency, sonar bursts it can be easily detected by passive listening stations as a target for enemy fire or by cybernetic, sound enhancers.

- Second the Motion Tracker is designed to filter out slight, "natural" movement, such as insects or flags blowing, so a very slow target may be able to infiltrate a Motion Tracker's scan area.

- Third, because the Tracker uses air-density sensors (Doppler radar) to discriminate between immobile objects and targets, a target moving across the Tracker's scanning cone may be effectively invisible. Finally, the unit is vulnerable to ultrasound jamming.

The Motion Tracker uses a standard, power clip and provides the device power, for up to 48 hours of continuous use. The clip can be replaced in one turn. The device is available at many high tech worlds without a license (it could be used for hunting). It costs **500Cr** and weighs **1kg**.
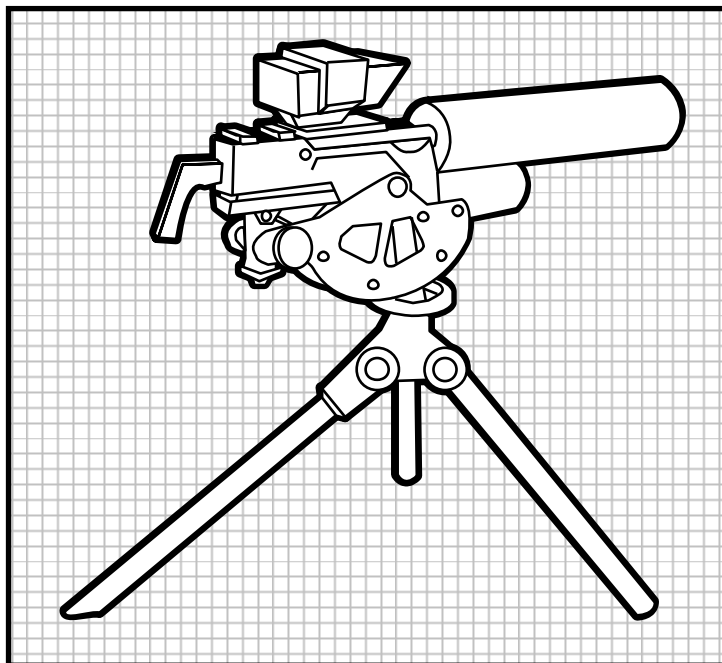
These are automated, heavy weapons, typically used as a perimeter, defense system. The weapon's average weight is around 25kg and can be assembled within 10 turns. The robotic weapon is mounted to a snap-open tripod, which includes an integrated modified Motion Detection Sensor, optical enhancements and servos for aiming and firing the weapon, as well as preventing recoil. A separate Control Module, weighing 1kg is used to program, activate and deactivate the weapon and can be operated up to half a kilometer away. The weapon is programmed to cover a given area, ranging from a 60 degree cone to all-around fire and out to 30 meters (the maximum range of the Sensor Suite). Once activated, it automatically tracks and fires at any target which enters its perimeter. It can fire up to 4 times, per turn.

Once the unit is placed into position, it may be specifically set to monitor targets in infrared or optical, depending on the profile of the target. In particular, targets with thermal or visual profiles, respectively. For the most comprehensive, target profile, the Sentry Gun will be set for multi-spectral mode. Here, data is transmitted from the Sentry's sensor suite (infrared, optical and motion) and is then cross-correlated by system software. If the Sentry Gun is set for auto-remote, all targets within the range of the of the 60 degree sensor cone will be targeted.

To prevent the possibility of casualties by means of 'friendly fire', Sentry Guns can be equipped to identify specific Identification – Friend or Foe (IFF) transponders. When a target enters a Sentry Gun's sensor range, the Sentry Gun will trigger IFF detection, through a coded, radio signal. If the Sentry Gun's

reads are positive, the target will be free to pass; otherwise, the weapon will open fire.

In 'semi-automatic' mode, a target's profile will be relayed back to the Control Module. Here, the system operator will choose whether or not to fire.

The Sentry Gun's sensor suite is mounted above the barrel of the weapon and is aligned to cover a 60 degree cone in front of the weapon. This sensor suite consists of a cooled, infrared detector, ambient light optics, an ultrasonic motion tracker and a lidar.

If a target's visual or thermal profile is known, the system may be set to just monitor these, specific targets, using infrared or optical. However, the system is usually set to multi-spectral mode, where the Sentry Gun's software cross-correlates received data from the different sensors to obtain a full, target profile.

Sentry Guns come in three types: Machine Gun, Heavy Laser and Grenade Launcher.

- The Heavy Laser comes equipped with a Type 1 Parabattery, and can fire up to 50 shots before it is depleted. A Parabattery is covered in the Alpha Dawn rulebook.

- The Machine Gun version is lighter and carries enough ammunition, in a specialized drum, for 50 bursts. The MachineDrum costs 200Cr and weighs 5kg.

- The Grenade Launcher is the lightest and smallest of all the Sentry Guns, and has the smallest ammo capacity, usually consisting of fragmentation or incendiary grenades (though tangler and doze grenades are not unheard of when interrogation of captured intruders is desired). A cylinder of pre-loaded grenades costs 500Cr and weighs 8kg.

All types are used to secure perimeters against non-intelligent lifeforms, as well as armed assaults. Sentry Guns are not normally employed in civilized areas, due to the danger to non-combatants. Only military and corporate sponsored mercenaries may legally use a Sentry Gun. Only Characters with an appropriate weapon skill, as well as the Computer skill can operate a Sentry Gun.

The Attack score of the Sentry Gun is 50%, plus 10% per level of the operator's Computer skill. If encountered in an area where you the person who placed/programmed it is unknown, assume a level 2 skill (70% chance to hit).

> **Editor's Note**: It should be possible to use the Sentry Gun like a normal heavy weapon according to standard skill rules if someone wants to bypass (switch-off) the automated sensing and firing controls. Of course, the Referee has the final say.

PULSE RIFLE

By Bill Logan
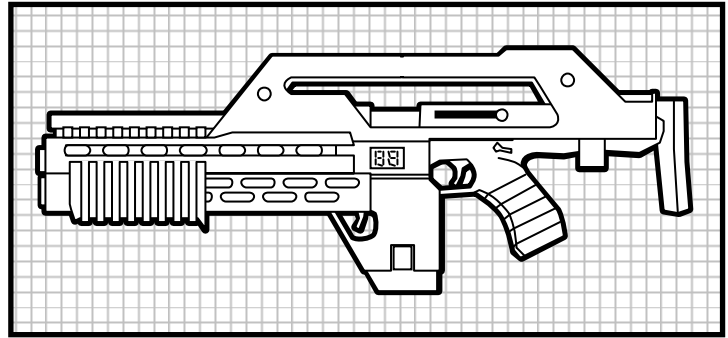
The Pulse Rifle is an air cooled, fully automatic, short to mid range combat rifle. Made of light alloy plates, it fires Armor Piercing slugs from a 99 round U-bend magazine in either semi automatic, four round burst, or fully automatic rates of fire.

The armor piercing bullets cause +1 point of damage, over and above what a normal bullet causes within the Alpha Dawn rules. For example: a single bullet causes 1d10+1, while a fully automatic burst causes 5d10+5.

The Pulse rifle has a small battery powered digital readout screen that displays number of rounds left in the magazine; the battery is located in the handgrip and often lasts the service lifetime of the weapon. With a retractable stock and an underslung grenade launcher, this weapon can be used as a carbine and an assault rifle.

- In Semi Automatic mode, the gun fires one single bullet each time the trigger is pressed. Up to three bullets per turn may be fired in this manner. Each bullet does 1d10+1 damage and the player rolls to hit for each bullet fired.

- In Burst Fire mode, the gun fires four bullets each time the trigger is pressed. The firer receives a bonus of +10 to hit, and causes 3d10+3 damage. The bullets are too tightly packed to aim a small burst at a crowd. The weapon can fire up to 2 four-round bursts per turn, each targeted independently, at the same or different targets.

- In Full Automatic mode, the gun sprays bullets wildly. It's not professional, as it wastes bullets. But this rifle has a lot of ammunition and when panicking, many soldiers are reduced to this option. Players mark off 10 bullets at a time and aim with a single attack roll that receives a bonus of +20. If struck, a target takes 5d10+5 damage. This mode of fire can spray crowds of people, as per standard automatic rifle.

- There is also a pump-action grenade rifle mounted under the barrel of the main weapon. It fires special cartridge fragmentation grenades that must be loaded individually (there is no quickload clip). Only four may be loaded at one time into the rifle. The grenades cause 8d10 damage in a 3 meter radius, as per a normal fragmentation grenade, half that with an RS roll.

YAZIRIAN DISC–GRENADES

By Bill Logan
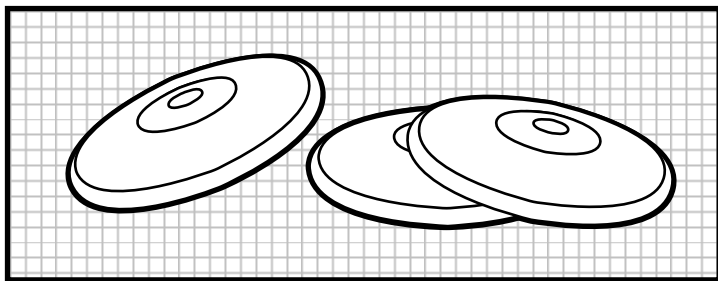
Yazirians have a keen sense of air currents and the weight distribution of gliding and flight. Their air cars must look like aerodynamic works of art – and probably handle like a dream. Their weapon of choice? A disc-shaped dueling blade that they hurl with both grace and precision. It only makes sense that they would take their keen embrace of the air and its usefulness to other technological developments.

The Yazirian disc-grenade is a smallish discus (15cm in diameter) with a curved outer lip. It's able to be thrown with a rapid motion flick of the wrist, hurling it forward to ride on the air. It's made of a lightweight plastic shell with an inner core consisting of gunpowder and fragments of steel and phosphors. It uses the thrower's Thrown Weapons skill, but can be used to throw around corners and bounce off certain solid surfaces in order to get it to where the thrower desires. In the right hands, it can get around defensive barriers.

The grenade inside the core will detonate on impact. Therefore, when bouncing the disc-grenade off solid surfaces, it's important for the thrower to understand the limits on how hard one can strike a wall with it without it exploding. Experience and practice is best, with training dummy disc-grenades being half the price of a normal one.

Yazirian disc-grenades can be purchased in any location where normal grenades are sold, as long as it's a world with a notable Yazirian population. They're quite common on Gruna Garu and sites decidedly Yazirian. Clan markings are often placed on these devices, left as a calling card in clan politics.

Type of throw	Penalty
Simple, normal throw	-0
Impressive throw (difficult air currents, rain, etc.)	-10
Challenging throw (throwing around an obstacle or bouncing once off a wall)	-20
Complex throw (using air currents to make complex aerial flight path, or bouncing off multiple obstacles)	-30

INERTIA WALL

By Bill Logan
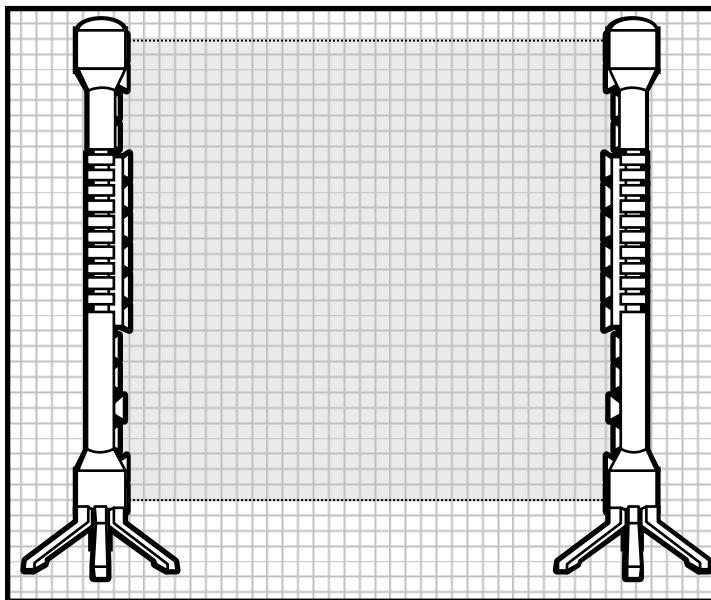
Operating off the same basic concept as the Inertia Screen, this device is designed to protect a larger number of characters. The technology consists of two poles and a control cabinet, linked by heavy cables and powered by a type 1 Parabattery.

The poles are each 2 meters in height. The base of the poles can be rammed into the ground and will hold in place firmly, or a four-legged stand can be attached to provide stability when the ground is too hard for insertion. The poles can be placed up to 10 meters apart from one another, providing an area large enough for up to ten characters to stand side-by-side and be protected.

The control cabinet is a small box into which the Parabattery is placed and some simple controls are mounted. The Inertia Wall is turned on and off with this device, and can have its polarity determined by a simple selector switch (the polarity refers to which direction objects can travel freely – protected characters can shoot projectiles out of the screen as effectively as if it weren't there).

Once activated, the Inertia Wall is more effective than a standard screen. It will completely halt all inertia-based attacks coming from the direction protected against. The Parabattery drains 2 SEU per turn. Additionally, for every die of damage that would have been caused to someone on the other side of the wall, subtract an additional 2 SEU. When the Parabattery is drained, the Inertia Wall fizzles and dissipates.

For example: An Inertia Wall is in place and set to protect four individuals. An enemy fires a full burst from an auto pistol at them, which would have caused 8d10 damage (5d10 + 1d10 per person after the first, in accordance with Alpha Dawn rules). This means this

turn the Parabattery is drained 10 SEU (two for the normal per-turn cost, eight for the damage it absorbed).

Note that a person can't walk through the Inertia Wall's protective field from one direction, but can from the other. Standing within the Inertia Field wall is dangerous – as it messes with the body's own electromagnetic process, causing 1d10 damage per turn.

Clever opponents will fire at the poles or the controller cabinet with energy-based weapons (the wall protects the poles against inertia damage). These can take 100 structural points of damage before being destroyed.

The Inertia Wall costs **5,000Cr** and weighs **100kg** in total, though this cost doesn't cover the parabattery that is required to power it. It's able to be stowed on a vehicle and pulled out/assembled for use in about 3 turns. It's most often fixed in-place on wall-mounted guard posts and in hallways where last stands are made to cover a dignitary's escape. ✪

BLASTAXE

By Bill Logan

This is a combination short polearm and light electro-laser. It takes a 20 SEU PowerClip in the handle, and fires an electro-laser beam at somewhat short range. The beam causes 4d10 damage and drains 2 SEU (just like the blast beam of an electrostunner). Unlike a proper electrostunner, however, the beam cannot be set to stun. The electro-beam is defeated easily with an active Gauss Screen or an Anti-Shock Implant.

When used in melee, this weapon is like a long axe half way between a polearm and a battle axe. It causes 3d10 inertia damage (plus punching score, as normal).

This weapon isn't that popular and so is seldom found brand new. It's often found in a pawn shop or in less high tech areas of the Frontier. To a fledgeling adventurer, however, this weapon offers some interesting and versitile options that should not be ignored. It costs 250 Credits and weighs just under 2 kilograms. It often comes with a leather harness worn over the shoulder, with the blade pointing down. ✪
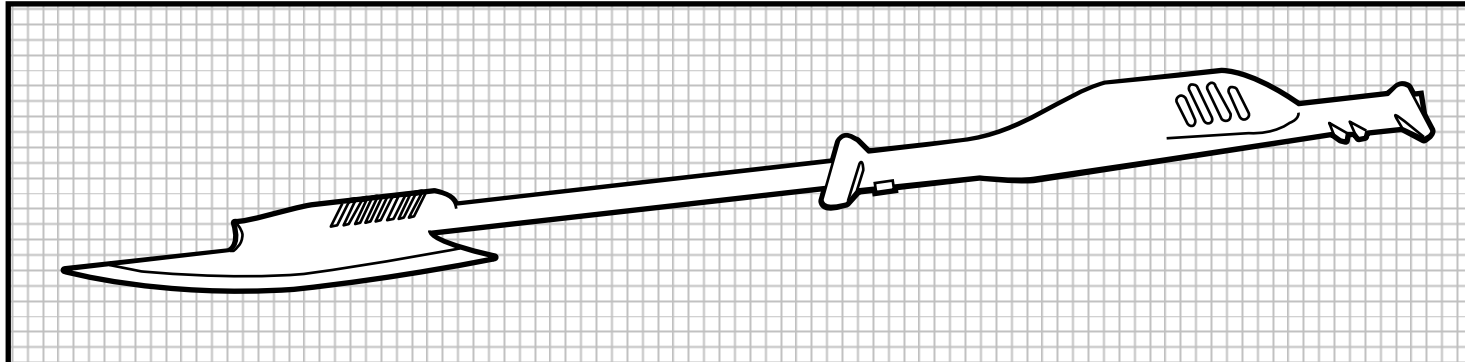
Ammunition	Cost	Weight	Energy/Rounds
Pulse Rifle Ammo			
PulseClip	**50Cr**	--	99 bullets
Cartridge Frag Gren	**25Cr**	--	1 grenade
Sentry Gun Ammo			
Type 1 Parabattery	**600Cr**	25kg	50 shots
MachineDrum	**200Cr**	5kg	50 bursts
FragCylinder	**500Cr**	8kg	25 shots
IncendiaryCylinder	**500Cr**	8kg	25 shots

Defenses	Mass	Cost	DEX/RS
Combat Armor			
- Light	7kg	**650Cr**	-0
- Medium	15kg	**1,200Cr**	-5
- Heavy	25kg	**2,000Cr**	-10
Inertia Wall	100kg	**5,000Cr**	--

Note:
The Inertia Wall also requires the purchase and use of a Type 1 Parabattery (500SEU). It drains 2 SEU per turn, plus 1 SEU per die of damage it absorbs.

Weapons	Cost (Cr)	Wgt (kg)	Damage	Ammo	SEU	Rate	Defense	Range (PB/S/M/L/E)
Pulse Rifle	**1,800Cr**	5kg		99 bullets				
- Semiautomatic Mode			1d10+1 per bullet		--	3	Inertia	10/40/100/150/300
- Burst Fire Mode			3d10+3 per burst		--	2	Inertia	10/40/100/150/300
- Full Auto Mode			5d10+5 per spray		--	1	Inertia	10/40/100/150/300
- Pump-Action Grenade			8d10 per grenade		--	1	Inertia	--/25/50/100/200
Sentry Guns								
- Heavy Laser	**12,000Cr**	35	10d10	50	10	4	Albedo	Special*
- Machine Gun	**7,000Cr**	25	10d10	50	--	4	Inertia	Special*
- Grenade Launcher	**5,000Cr**	20	by grenade	25	--	4	Inertia	Special*
Yazirian Disc-Grenade	**25Cr**	--	8d10, 3m radius	--	--	1	Inertia	5/15/25/50/75
Blastaxe (beam)	**300Cr**	2	4d10 beam	20 SEU	2	1	Albedo	5/15/-/-/-
(melee)			3d10 melee	--	--	--	Inertia	--

* Each weapon has the range of a normal weapon of its type, but is limited by the on-board sensors to a maximum 30m range.

ARCHETYPES

By Bill Logan and Andrew Modro

This article is my response to those people who feel the need to have game mechanics spelled out for every little thing in a game. There was a time when games were made with minimal rules – where having a special ability or a detailed story for your character wasn't codified with rules; it was defined by imagination. Sure, during this time men wore mullets and women wore tunic shirts with wide belts, but the idea that imagination is the fuel of good gaming has been lost in the myriad assortment of gaming supplements and handbooks. Someone once told me Star Frontiers was limited because every character eventually looked alike (due to limited skill list and simplistic approach to character generation). In defiance to this claim, I give you archetypes in every issue, each one having at least three concepts to play, showing that it's not the rules that make characters playable and unique, it's how they're played. This issue, I felt like exploring one simple concept in more depth and so I give you...

VRUSK PISTOLERO

Thanks to your natural speed and dexterity, you can do things with pistols that many can only dream. Not just deadly, you fight with a style and grace that have begun to make a real name for you throughout the Frontier.

DESPERADO

It's the third time today you've had to deal with Smith's goons. You've had a bad day - Ever since you put the word on the street that Smith's already a dead Yazirian... he just doesn't know it yet.

Your lower thorax takes schrapnel from the chunks of wall you dive behind, as the three goons sent to kill you unleash a rain of bullets at you. They're not very accurate, but with the sheer quantity of bullets they're spitting, they're very dangerous.

You check your pistols – one in each hand – and close your eyes, waiting for your moment. Just as the first clickityclickity of an empty rifle bulletclip reaches your ears, your body is already springing into motion.

You leap into the air, over the low wall that has been your shelter in the hail of bullets. Your body twists like only a Vrusk's can, spinning you around as you squeeze your triggers in a careful aim, sweeping death in two arcs. The goons, taken by surprise, stare in astonishment as you cut them down.

You land on top of the wall, balanced like you belong there, your arms sweeping down, pointing your two smoking guns down and away; they won't be needed anymore.

You raise your eyes slowly to watch the result of your handywork: three human thugs drop simultaneously to

VRUSK PISTOLERO			
STR/STA	*45/45*	PS	*+3*
DEH/RS	*60/50*	IM	*+5*
INT/LOG	*45/45*	RANGED	*30*
PER/LDR	*50/50*	MELEE	*30*

SPECIAL ABILITIES:
 Ambidexterity
  Note: when using two pistols, he'll have a -10 on both but no "off-hand" penalty.
 Comprehension 15%

SKILLS: *(Military PSA)*
 Projectile Weapons 1
 Either Beam Weapons 1 or Gyrojet Weapons 1

EQUIPMENT:
 Two Automatic Pistols

their knees, then flop forward – dead before their bodies make contact with the pavement. You smile as you see the skimmer they arrived in: directly behind them, door open, still running... and not a single bullet mark.

The day is looking up and Smith's hours are numbered.

Concept. He killed the woman you love, and shot your hand, ruining your musical career. You vowed vengeance, and have began your training. Fuelled by an amazing coordination and a strong sense of purpose, you accomplish what others simply can't – or won't. You don't care much for your own life: you've already committed it to your task.

Mixing your death wish with your existing flair for the dramatic (from your musical stage career), you pull off moves that make people stare wide-mouthed in surprised awe. In your own mind, when you walk down the hall towards your foe, you walk in slow motion with dramatic music punctuating your statement. You know you're cool. Your enemy knows you're cool. He just doesn't know how dead he is yet.

On the occasion that you have the time to reflect on the morality of what you've done, and what you've become, you sulk and ponder and try your hardest to play your candrolin (a complex Vrusk stringed instrument). In appropriate irony, your damaged hand is only capable of creating sad music, which in turn makes you think of her... or rather your lack of her...

turning your sad self-reflection into a re-determination to carry out your plan.

Referees are encouraged to let the character pull off his coolness for the most part. In the rare situation where he's outclassed, he should act in desperation and suddenly get really serious about his tactics and actions.

Also, the one who committed this atrocity against the character needs to be a recurring villain, or else the character will lose the focus that fuels his purpose. Alternatively, if he finally kills his enemy, you can have him find out that his foe was working under orders from someone higher-up, someone harder to get to... someone equally worthy of his wrath. This character concept exists out of purpose towards an end; if that end is given, a new purpose must be provided or the character's story gets diminished.

Development. Focus solely on the skills of destruction for this character. He has no need at this point in his life for anything else. He plans on accomplishing his mission or dying trying.

The best way to spend your earned experience points is to dump them into your weapon skill of choice. When your weapon skill gets to be around 3rd level, it becomes more cost effective to raise your Dexterity score. Don't underestimate the usefulness of Martial Arts as well... sometimes you'll be out of ammunition or caught with your guns put away.

Part of your mystique is your dramatic flair and impressive moves. For this reason, consider increasing your Leadership (for those intimidation or inspiration rolls) and your Reaction Speed (to pull off those freakish acts of celerity).

Equipment. Get guns. Lots of guns. Pistols, rifles, grenades, anything you'll need on your mission. Since you don't care whether you live or die, and you've become convinced that your actions are justified, you don't care much for the morality of theft. You'll take what you need to accomplish your task.

You'll also want to get some protection, but nothing that will keep you from being agile and quick. You're militant in your actions, but you care too much about style to buy a military skeinsuit. You'll spend the extra credits on a civilian version, just so you'll look good.

You'll need vehicles, but you probably won't pay for them yourself. You'll get them from the enemies who fail to keep you from your task. Unfortunately, most of your vehicles end up exploding in one way or another.

Goals. Put your dead wife's soul to rest, and make her proud doing it. If you can't impress a crowd with your music, you'll impress them with your moves. Make your enemy sorry for ever messing with you or yours.

SLINGER

You take another swig of your T'Lak'Tis and wipe your chin, slamming your shot glass on the bar. It's the second you've had... and already you feel the effects. You finally feel calmer, more relaxed.

You have a nervous disorder that makes your hands shake. The sweet hard nectar of T'Lak'Tis makes the hyper tension go away, and calms your nerves. So what if it's addictive. So what that people think you're an alcoholic. It's medicinal... isn't it?

As you look at your reflection in the mirror behind the robotic bar tender, you see a yazirian come up behind you with a smirk. You stare him in the eyes in the reflection, searching his motives.

"I hear you're fast," is all he says.

You push the glass to the end of the bar, in silent signal that you'd like another. "I take my drinking seriously, friend. It's not a good day to die. Have a drink on me, or walk away," you say quietly.

A few folks around you must have heard, as they inch away, leaving their stools vacant. By the look in his eyes and the sound of velcro being pulled off a gun holster strap, you know he's not going to take you up on the drink. Fine. It may be a bad day to die, but it's a pretty good day to kill.

You nod in the mirror. He catches the nod. You stand up, dropping credits on the bar, with an extra few for the owner, and the two of you head outside.

"You sure you want to do this, friend?" you ask as the doors part automatically and you are struck with the thick smell of the jungle planet on which the cantina stands.

"All my life," he admits.

Once you are in position, you unstrap your two holsters. They are specially made for you to allow a cross-reached draw you've come to be known for. The shiny handles (also custom) made from the bones of a quickdeath gleam in the twin suns. You squint at your opponent, located only ten yards away, holding your hands over your guns. They shake slightly. You need another drink.

Time drags on for a few long seconds... your senses expand like they always do mere moments from slinging. An avian makes a lone cry in the sky, and you can almost hear the nervous heartbeats of the onlookers huddled around the bar's windows jockeying for a good view. Not a bead of sweat runs down your face.

Then you see the yazirian reach. You reach. He doesn't panic like most do, but his speed isn't matched by skill. His gyrojet fires before your pistol, but your

bullet flies true while his goes wide. He takes the bullet in the shoulder and you both duck behind cover. The game is on.

Concept. You were born with a nervous disorder, but alcohol helps calm it. Your hands shake when sober, which makes you spend a bit of time in cantinas and taverns. Your nervous disorder also makes you fast. Very fast. Electrical signals just move quicker to your muscles, which react faster and more efficiently than those without the disorder.

A few years back you were called out on a duel because of some insult you accidentally leveled at some honor-bound slinger of minor renown. He underestimated you, and you dropped him before his guns reached their holsters. Word spread, and now people come to you, trying to make a name for themselves. It has landed you in quite a bit of trouble, but has also been helpful in getting odd jobs as bodyguard or enforcer.

Development. Increase Reaction Speed as soon as possible. Even getting one more point will give you another plus to your Initiative Modifier. Increase your gun skill too... shooting quick and shooting true are two very different things, both equally effective.

Sometimes you won't have time for a duel. Sometimes it'll just be an annoyance, or someone far too young will issue a challenge and you don't want to kill him. Maybe you don't even like the dueling. Having a higher Personality score may help in this regard.

Consider also developing your Comprehension score. You can read a lot in a man's eyes, and through the way he carries himself.

Equipment. Slinging builds legends, and you have to look the part. Since sometimes your life hangs in the balance, decided on the speed of your draw, you pay top credits for customized equipment. Whether it's for the quality or the style, it's worth paying for to spread your legend.

Goals. This concept doesn't include a specified goal. Stay alive... build your legend... and find a way to turn it all into profit. You may be motivated by fame, fortune, or neither, but making a name for yourself that will live on through the ages does sound good to you.

FATED MERCENARY

You shake your head and close your eyes, trying to get them out of your mind. Ever since your captivity, they've been there. Voices in a language you can't understand and never will. Your memories flood back to you – to the day it all happened...

Your unit was rising over a ridge, after the scouts declared it free. Your Vrusks were dropping off one by one due to the sinkholes on this desert world, and you
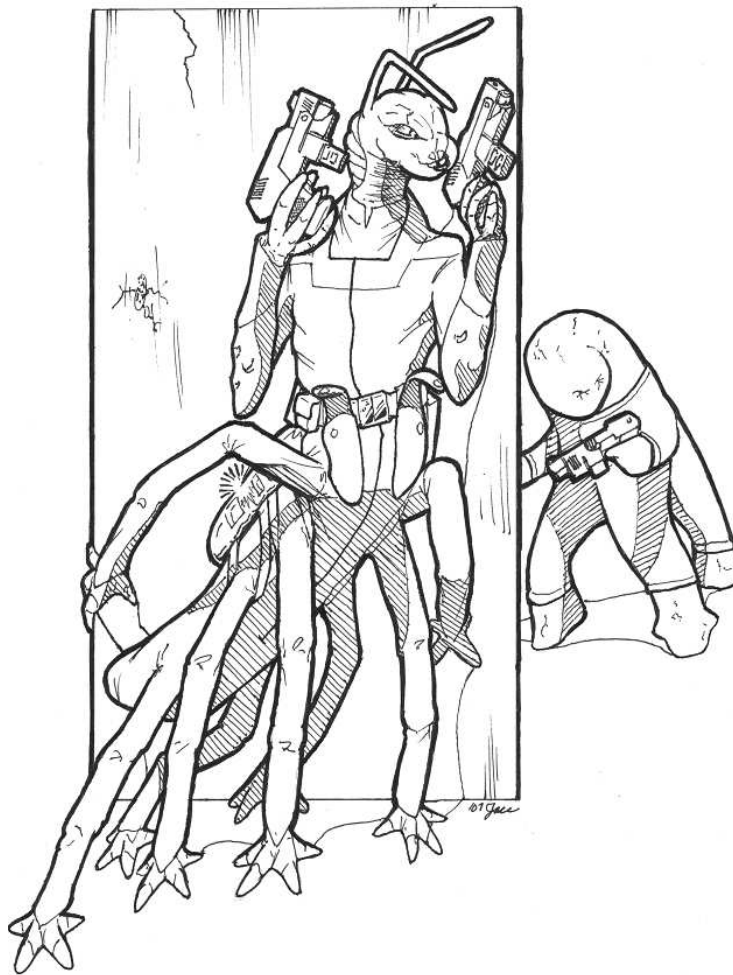
hadn't seen the Sathar you'd been sent to track yet. You were beginning to wonder if intel had the location of their crashed ship correct.

Then you saw it... a slug of a being with evil eyes and two sturdy pod-like legs. It held a weapon but didn't aim it. You were pretty sure it was smiling. Hidden Sathar agents sprung up all around your unit, all twenty men being suddenly caught by hurled technology similar to tangler grenades. Caught by surprise, you were all in trouble.

You don't know what all was done to you. All you know is that you were dragged to their lab in their ship and poked and prodded without mercy. Eventually, they brought in their leader with the missing arm and he stared his hollow frightful eyes into yours... into your mind... into your very soul. That was the first time you heard their voices.

Since that day you've worried about your sanity. You occasionally find yourself doing something you didn't intend to do, all the result of the hypnotic commands put into your head. You were discharged from the service even though they couldn't find anything technically wrong with you. Your wife couldn't handle your mood swings and inability to control your anger. Your child is afraid of you. Your life has fallen apart and it's all their fault.

You're a soldier. It's all you know. You now live your life selling your guns to the highest bidder. Along the way, you're unraveling the pieces of your memory that are barred from you. You hate the Sathar, and some day you'll find the one that did this to you, and the next time he looks into your soul he'll find hatred so powerful that it will make him fear.

Concept. You were taken by Sathar and used as one of their pawns. Their hypnosis is now well worn off, but the terror of it all still haunts you and has become a focus of your life. You take on any mercenary job that brings you close to Sathar... to get some payback. Along the way you want to piece back together the hole in your mind. There was a year of your life where you have no memory. What happened to the rest of your unit? Why did everyone look at you funny when you came conscious? What did you do and where were you? And why do you still hear those accursed voices?

Development. Players of this concept of the Vrusk Pistolero should spend his earned experience on developing his weapon skills in order to survive the next encounter that will bring him face-to-face with the Sathar. He should work on building his LOG score also, to have a better chance at resisting the hypnotic effect of looking into the eyes of the slugmen. He could also consider picking up Psycho-social skill, to learn the effects of hypnosis and have a better chance at discovering the secrets of what was done to him.

It may also be helpful to rebuild contacts lost during the discharge from the Vrusk military on his homeworld. They might be able to shed some light on the dark recesses of his past.

Equipment. You're a soldier (or at least you were), so you should look the role. A military skeinsuit, a combat helmet, and some grenades will help you sell your services as a mercenary. Never underestimate the helpfulness of an inertia or albedo screen either.

It may also be helpful for you to pick up some basic survival gear. If your missions ever take you too close to Sathar, stealth and planning may be important, and using your environment to the best effect could be helpful.

Goals. Face your darkest fear by facing the Frontier's most powerful foe: the Sathar. Get back the memories that the dread slugs took from your brain. Maybe rip that Sathar's other arm off and see if that makes the voices in your head stop!

EDGES AND FLAWS
If you're using the optional Edge & Flaw system provided at the back of the Alpha Dawn remastered book, here are a couple ideas:

Quick-Draw: Your character has developed an amazing ability to draw his weapons and fire them all in the same turn. Normally, character can do this but have a penalty of -3 to their Initiative roll for that turn. If you invoke this edge, your character will receive a bonus of +3 instead, though you can only fire once (not use the full rate of fire for that weapon). Your Referee may decide that you need

to specify a certain weapon type and size for this effect: auto pistol, laser pistol, etc.

Slow-motion Moment: Your character can calm his heart down and still use his adrenaline to full effect. Invoking this edge makes the world go in slow motion all around you. In game terms, you get a bonus of +25 to the next action roll you attempt. Referees may wish to limit use of this seemingly powerful edge to combat only.

Paired Pistol Expert: As long as you have an identical type and size of weapon in each hand, you can invoke this advantage. It allows you to fire both weapons without penalty for that turn only. Since you're already ambidextrous, this edge only eliminates the normal -10 penalty you'd otherwise have received when firing two weapons. The penalty is eliminated for all shots you fire in that turn.

Legendary Figure: Your reputation proceeds you. When in any type of social interaction, you can invoke this edge and force someone to have heard of you and your moves. You can of course work this to your own advantage... make him afraid, impressed, or whatever suits your need. This edge won't make the NPC under your control, but it might change his opinion of you. You can use it to gain a contact or get some financial assistance. Referees should make sure to allow this edge to actually function... yes, it gives some direction of the storyline to the player but that's what some edges are for.

Single-Minded Focus: Your character is so focused on some task or quest that he foregoes all other forms of activity. His dedication, though perhaps admirable, can cause problems in his life. Perhaps his family and friends become less able to deal with his obsession. Or maybe it has caused financial stress because of work-related problems. Focusing on one task to the point where eating and bathing become a secondary consideration can have many social impacts. The Referee may invoke this flaw to cause story-related drawbacks to your character.

The Shakes: Your character's hands shake. This may be a result of combat shock or nervous system damage or even a birth defect or disorder of some type. You should name a specific activity or medicine that helps you, but acquiring the medicine should either be difficult, expensive, or just carry with it negative effects (addictive, drunkenness, etc.). The Referee can invoke this flaw whenever he wants to make your hand-shakes cause a -25 modifier to something you're trying to accomplish.

Traumatic Flashbacks: Your character had something happen in his past that troubles him to this day. He occasionally holds his head and screams to overpower the memories and sounds that flood his mind. His past is a dark cloud, and he just can't seem to shake it. The Referee invokes this flaw when he wants to force the player to role-play that he's re-living some past event or series of events. He might suddenly begin to see the enemy robots as the Sathar who one kidnapped him, or as the pirates who burned down his Frontier settlement.

LOCATIONS
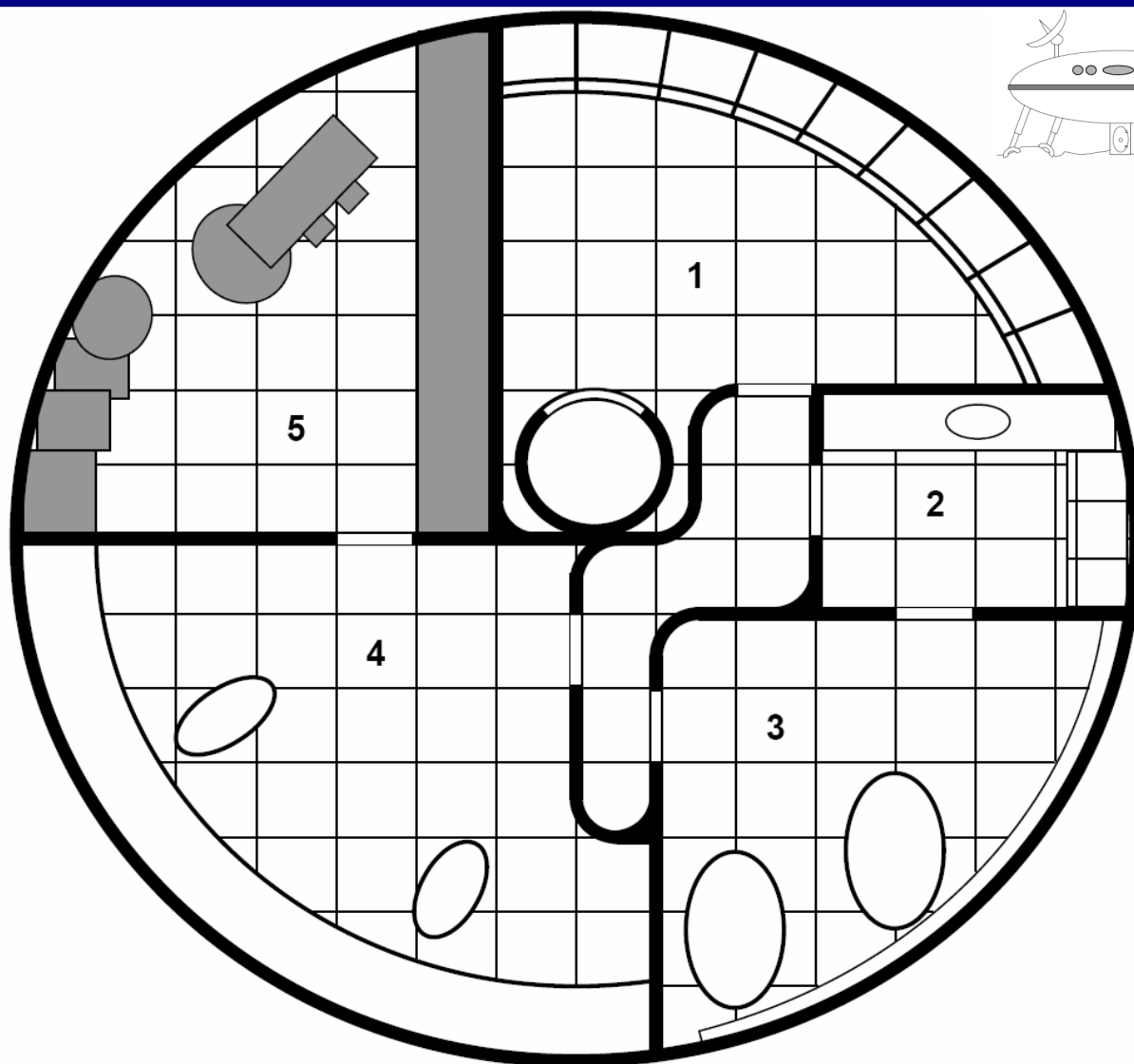
SATHAR LISTENING POST

By Scott Iles

One of the many covert operations the evil Sathar carry out against the UPF is clandestine surveillance of Federation planets. To accomplish this, small listening posts are set up on inconspicuous asteroids near inhabited planets. These installations are fairly standardized and have a crew of two.

The post is accessed through a lift tube under the egg-like hull. The lift rises and opens into an equipment bay (1), with a curving wall of storage cabinets holding spare parts, space suits, and extra-vehicle equipment.

Room 2 is a galley/refreshment area. Cabinets on the outside wall hold what are presumably Sathar foodstuffs, with preparation equipment and washing facilities on the counter area.

Room 3 is a Sathar sleeping area. A trough leads from the galley wall around to the two sleeping tanks.

Room 4 is the command center. From here the two Sathar crewmen can monitor and record the transmissions that are received from the Frontier worlds. A long, curving control panel lines the outer wall of the room. Two Sathar couches slide on tracks in the floor so all parts of the panel can be accessed.

Room 5 contains the monitoring and recording equipment, as well as the power reactor. Maintenance and repairs to this equipment can be performed here. The spare parts are stored in Room 1.
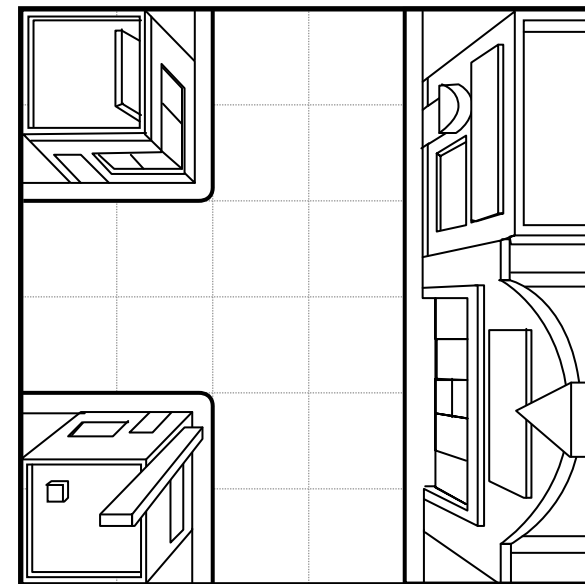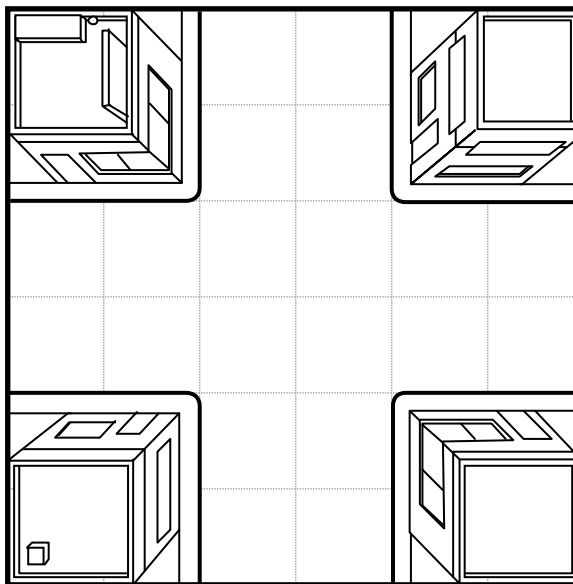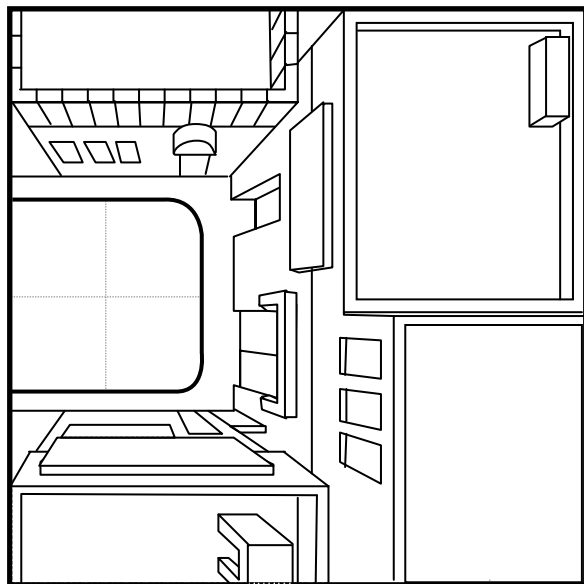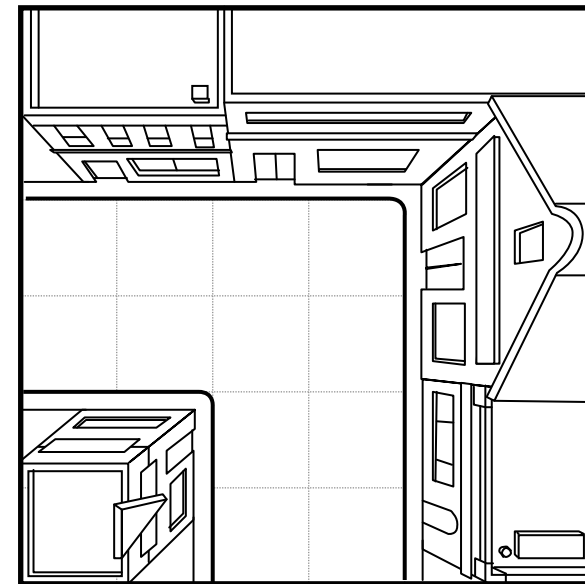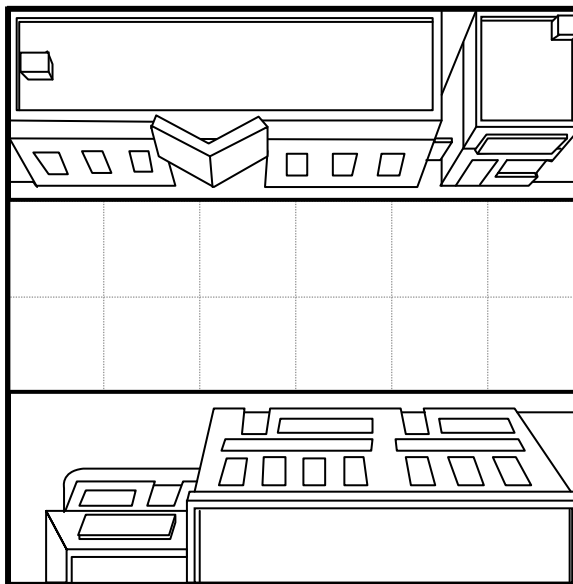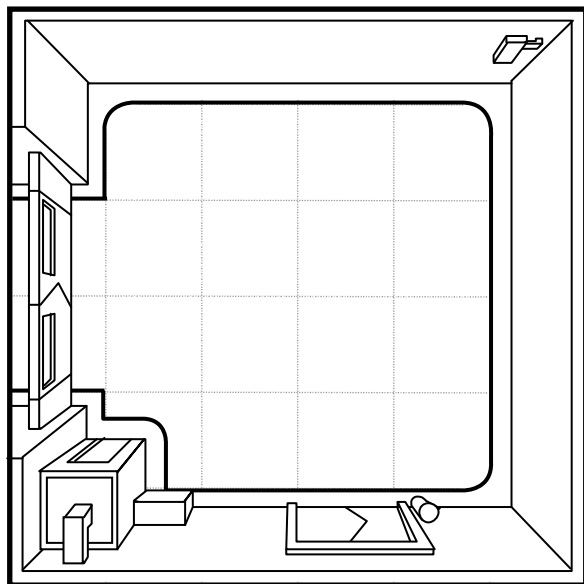
CITY TILES

City Tiles: Print as many as desired, preferably on cardstock or project paper (the sticky stuff) to adhere to project board. Assemble in any orientation (they should all line up). Each square represents approximately five meters. The scale isn't perfect, but it should give a good feel for being in a city. You can put names on the signs above businesses with a pen after printing. Future tiles may include interior tiles, which may have scales as small as 1-2 meters per square.

ADVERSARIES

XENOMORPHS (ALIENS)

By Madin Jackson

Editor's Note: The Alien movies scared the heck outta me as a kid. I've used elements of that genre of Sci-Fi horror in games here and there, including Star Frontiers. This article was submitted and I initially feared that it didn't feel like Star Frontiers. But then my mind started rolling out ideas...

Imagine that a human starship misjumps into the Frontier because of damaged engines. The crew is scared to death because of an encounter with something horrible... and probably shoots anyone non-human on site. Unknown to the humans now stuck in the Frontier, and unknown to the players who found the ship... somethings are lurking within the darker regions of the ship's engines, waiting to unleash their animal wrath. The Frontier is a big place, but may not be large enough to hide from this adversary.

Or maybe the Aliens are yet another of the Sathar's constructs, a creature either native to a Sathar homeworld now believed extinct, or a beastie genetically engineered in a Sathar lab and unintentionally unleashed... perhaps this adversary is directly responsible for the silence from Sathar space the Frontier has witnessed...

Some of this material is original; some of this material is derived from several online sources, including an out-of-print game by the now-defunct Leading Edge publishing group. This author claims credit for the conversion and for the added details specific to the Star Frontiers game, not the original intellectual property of the Aliens license.

LIFECYCLE OF THE ALIENS

THE EGG

The Egg contains the first form of an Alien. Eggs may be laid by any of the adult Alien forms, but the Queen is by far the most prolific and efficient Egg-layer, as described later. The Egg itself is made of a polarized silicate, like the exoskeletons of all Alien forms. The silicate is extremely tough and durable and is an ideal protection for the newly-created Facehugger within it. For the purposes of gameplay, an Alien Egg has 50 stamina points, before being destroyed, killing the Facehugger inside and is immune to needler weapons. An Egg laid by a Queen weighs 30 kilograms, while one laid by a normal, adult Alien is less than a quarter of that weight. The difference lies in their long-term durability. Queen-laid Eggs will protect and support the Facehugger for centuries, while Eggs from other Aliens last only a few months.

THE FACEHUGGER

The Facehugger looks like two long, spindly hands which have been joined together and to which a longs tail has been attached. The outside of the Facehugger is mad of an extremely tough polarized silicate, but the inner surface, the "palm" of the hands, is less well protected.

The Facehugger is dormant within the Egg and can wait there for an unlimited time. It will awaken in response to movement outside the Egg by sensing vibrations, rather like a spider, the Facehugger is keyed to respond to the repeated motion patters of living creatures and is even capable of determining the approximate mass of the life form. If the lifeform weighs less at least 15 kilograms, the Facehugger will awaken and will attack. It possesses good instincts regarding attack techniques and will wait until the target is as close as possible to the Egg before springing. When the Egg opens, a small amount of a special gas is released, which prevents nearby Eggs from opening from a short time, a minute or so, in a ventilated area? After this period has elapsed, another Egg can open in response to other life forms, or the continuing struggles of the original target. Due to their unique physiology, dralasites are immune the reproductive qualities of a Facehugger and are ignored, for one of the other, Frontier races. Other types of Aliens have no such compunction, however.

When in action, the Facehugger is capable of crawling on its "Fingers" at 60 meters/turn and of leaping up to 5 meters (in game terms, a Facehugger may leap at a target from one square away). The tail provides the remarkable power behind the Facehugger's leap and is used to carry the creature from the Egg to the head of a nearby target. Rules for the Facehugger's Leap and its behavior in combat are given below.

Facehugger Leap: When a Facehugger leaps at its target, it must roll its Attack value or less to attach itself to the target's head. If it makes the roll, the Facehugger grasps the target very tightly with its fingers while tightening its tail around the target's throat. It then inserts a flexible tube from the center of its inner surface into the target's mouth and emits a broad-spectrum parlaying agent from the end of the tube. This immediately enters the target's lungs and causes unconsciousness. If there is something between the tube and the target's mouth, like the faceplate of a helmet or similar, protective device, the Facehugger will secrete a sufficient quantity of Acid Blood to allow the tube to penetrate. This takes one turn.

If the Facehugger fails its roll by 10 or less, it has grabbed the target's head or upper torso, but has not been able to place itself properly or paralyze the target. It will attempt to paralyze the target again during the next turn.

If the attack fails by 10 or more or the character passes a successful Reaction Speed check, then the Facehugger missed the target entirely. The Facehugger will land within 2 meters of the target and during the next turn it will race after the closest, appropriate target using normal movement, until it catches up, at which time it will leap at the target and make another attempt to attach itself.

Facehugger Combat: When a Facehugger has partially grabbed a target but is not properly placed, it continues trying to immobilize the victim. It gets one try each turn at its Attack score. For each person assisting the target, reduce the Facehugger's Attack score by 10 (20 if the character has the Medical skill). If the Facehugger makes its roll, it can only be removed surgically. If it fails, it has been thrown off and must spend one turn recovering. The Facehugger will continue trying to attach itself until it is successful or it is thrown off the target.

A Facehugger that has grabbed a target cannot be safely shot off. If the situation is desperate Characters can try to shoot the Facehugger, but they have the same chance of hitting the Facehugger's victim as they do of hitting the Facehugger. If the attack roll hits, roll a 1d10. 1-5 hits the Facehugger and 6-10 hits the Facehugger's victim. If the victim is hit, roll damage normally. In addition, if the Facehugger is hit the victim and all nearby Characters are subject to Acid Spray.

Once it is firmly attached to its target, the Facehugger will implant one or more Chestburster Embryos inside the chest cavity of the target. Each Embryo is placed by the tube, which can be extended almost 2.4 meters initially and can grow at a rate of a half a meter per day, if necessary. As the implantation procedure goes on, the Facehugger will keep its host dormant by limiting its oxygen supply and reintroducing the paralyzing agent if necessary. The creature possesses a

marvelous ability to monitor a live host and to guarantee that it does not die.

The full implantation procedure takes 20 plus 1 to 5 hours. It then takes two more days for the Embryo(s) to mature into the Chestburster form. Throughout this 3 day period the Facehugger is slowly wasting away and it will generally die and fall off the host a few hours before the Chestburster hatches. If by some chance the Facehugger's implantation process and the growth of the Chestburster are interrupted by being placed in a Cryostasis chamber, Embryo implantation and incubation take 20 times longer as normal.

The number and type of Embryos planted by the Facehugger are determined by the state of the host and it's mass. If the host is dead during implantation, only a Warrior Alien can be produced. One Warrior Embryo can be implanted for every 15 kilograms of mass of the host. If the host is alive during the incubation, then any type of Alien can be produced, including a Queen or a Sentry. One Sentry Embryo can be implanted for every 25 kilograms of mass of the hosed, while only a single Queen Embryo can be implanted regardless of the host's size, though the minimum mass for a Queen Embryo is 50 kilograms. Decisions about what type of Embryo to implant are made by the Queen, if necessary.

Note that the Embryo type is determined when it is implanted. The only variation here is that if the host dies after implantation but before the Chestburster hatches, the Alien automatically grows into a warrior. Also, the masses given above are the minimums for each type and no Embryo can be planted in a host of less than 15 kilograms. For example a 70 kilogram host can only be used for 4 Warriors, or 2 Sentries or 1 Queen.

This embryo may take on some of the host's DNA or traits, such as bipedalism, quadrupealism and other body structure changes, possibly owing to the need to adapt, using indigenous wildlife as a reference for what features to retain for use in that particular environment. For example, an Alien created through a Yazirian host, typically have wings on which they can glide, whereas a one made from a Vrusk has eight legs, giving it increased speed.

THE CHESTBURSTER
The Chestburster is the immature form of the normal, adult Alien. It has a number of characteristics which are different from the adult forms, in particular its ability to regularly she its skin as it grows and the phenomenal rate at which it can eat and process food. For the purposes of gameplay, a Chestburster has 10 Stamina points, no attacks and a movement value of 30m/turn.

As mentioned before, the Chestburster is laid in the embryo form in the chest cavity of the Host and incubates over the course of two days. At the end of the incubation, the Chestburster weighs less than a kilogram and appears to be a cross between an adult Alien and a Facehugger; it has acquired the head and upper arms of an adult, but retains the long, powerful tail of the Facehugger.

When incubation ends, the Chestburster breaks out of its host, using its tail, teeth and even acid secretions to create an opening. In ideal circumstances, the Chestburster will then consume the Host to fuel its growth, but this is not vital. The creature requires a great supply of food, inorganic matter and water. It will consume a total of two times its eventual adult weight of this, of which roughly ¼ must be hydrocarbon-based matter (including animals, plants, nylon,

petrochemicals, plastics and so forth), ½ should be inorganic (including dirt, glass, sand and other substances high in silicon) and ¼ water. The adult weights of the various, Alien types are given in their descriptions on the following pages.

The growth rate of a Chestburster is phenomenal and is only limited by the food supply. With sufficient food, the Chestburster will attain its full size within a day of "hatching". If it does not find enough food to reach maturity with in three days, it will die; the creature's metabolism is far too fast to allow it to live for very long. Throughout the growth period, the Chestburster will maintain as low a profile as possible, as it is not fully capable of combat.

A Chestburster can chew its way through obstacles quickly; it can get through a standard, interior wall of a ship or building in about 20 seconds. There is no known limit to the materials which one can chew through, including steel and other metals, because it can secrete acid while chewing, if necessary.

Once the Chestburster reaches full size, its metabolism changes drastically. The skin thickens and hardens, the need for food comes to an end and it acquires the full use of its movement and combat abilities. The exact size and abilities of the adult Alien depend on the type: Warrior, Sentry or Queen.

WARRIOR
This is the most common Alien form. A Warrior stands about 2.4 meters tall and weighs nearly 150 kilograms. Its has all the dangerous attributes of the species; an incredibly tough exoskeleton of polarized silicate, concentrated acid for blood, powerful claws and teeth and a long tail used in battle and for balance.

There are 18 stingers on a Warrior's tail, each of which is 20cm long and contains a small sac of a paralyzing substance like that used by the Facehuggers. In combat, the Warrior can inject a stinger and its sac into a target, which results in the rapid incapacitation of the target, if the target fails a STA check. The stinger remains in place for a number of hours, during which time the sac continues to secrete the paralysis substance into the victim, every turn. The stingers can be regenerated in a single day and are only used against prey which is likely to be dangerous or to struggle powerfully.

The tubes on the Warrior's back produce a slimy web which gives the Warrior greater mobility. This works like a spider's web and it affixes itself tightly to any areas which have been encrusted by Resin. The web produced will easily hold the weight of a Warrior and a victim of similar size. The maximum distance the web can be shot by the tubes is 6 meters. Although the web naturally adheres to Resin, it can be used to attach the Warrior to other surfaces, as well; in such cases it cannot be shot and must be wrapped around a projection or some other attachment point. The tubes are also capable of coiling the web around themselves, which allows a Warrior to ascend through a webbed area at 3 meters per turn.

The limbs of every Warrior are studded with special glands which secrete small amounts of a web-like substance and acts as a light glue in contact with the Aliens' Resin. This allows the Warrior to maneuver easily through encrusted areas. There are also assorted hooks and spikes on the limbs which permits the Warrior to attach itself to the Resin, for ambushes and for use during periods of dormancy.

An additional use for the tubes on the Warrior's back is as a harness for prey. Victims of up to Yazirian size can be placed between the tubes and then webbed into location. This leaves the Warrior's limbs free for additional maneuvering and combat.

Warrior Aliens produce and shape Resin that forms the Alien Hive. The Resin is secreted from the mouth of the Warrior and is formed with the hands. Warriors perform the labor for the Hive, including building the tunnels and chambers, maintaining them and gathering available food and hosts for Eggs.

Lastly, a Warrior Alien can lay one Egg each day, if it eats 10 kilograms of organic and inorganic material.

SENTRY

The Sentry is the Alien type that links the Queen to the rest of the lair and which is the leader of all nearby aliens of other types. It is exactly like a Warrior, except that it has small sensors built into its hands which are capable of creating and sensing extremely small vibrations within the Resin and webbing of an Alien Hive.

These vibrations are a sophisticated form of communication and allow the Sentry to inform the Queen of what is going on in the Sentry's area in great detail. The Queen responds to this information, by giving instructions to the Sentry. The Sentry passes these orders to nearby Aliens vocally or by using the infrared pattering on its head, as described under Alien Metabolism.

There is no chance of the Sentry having its own opinion or of changing the Queen's orders. A Sentry is essentially a well-programmed communications machine, which accurately and quickly passes information to and from the Queen.

When operating outside the Hive, Sentries will attempt to leave a web trail behind them. Even a single strand of web is capable of passing the vibrations to and from the Queen and in this way, the Queen can remain in control of Aliens working at a considerable distance from the Hive.
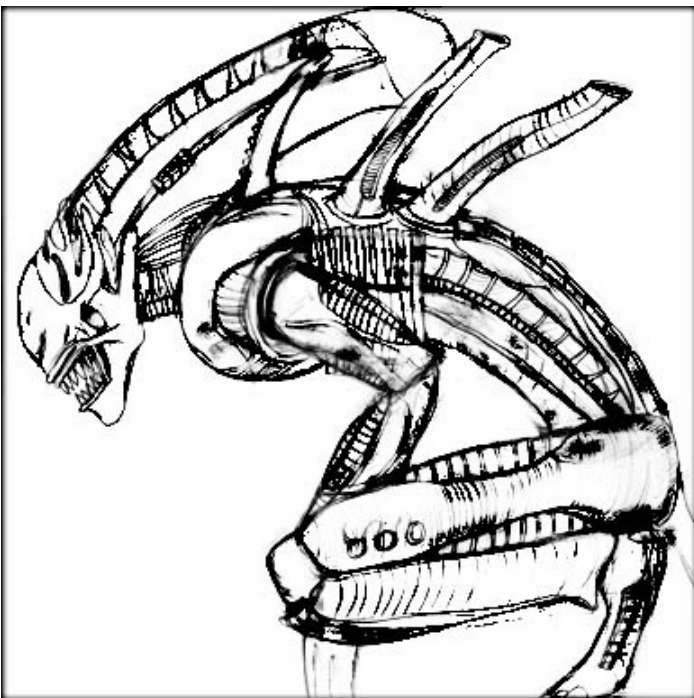
THE QUEEN

The Queen is, of course, the most devastating of all Aliens. Unlike other Aliens, she continues to grow and develop after reaching maturity, depending on her food supply, easily reaching 4.5 meters tall. Their body structure differs also, having twin sets of arms and being built more similarly to a theropod dinosaur than a humanoid. Queens have a much larger braincase than the average adults, protected by a large crest above their heads. Another well-known feature of the Queen is an immense ovipositor in its lower torso, which is responsible for creating Facehugger Eggs (similar to a queen termite). The Queen is able to detach from the egg sac, if necessary (as in the case of an emergency). Queens also have a higher ability to relate cause and effect to make observations and deductions, allowing them rudimentary understanding of technology in the same way as some primates.

A Queen goes through ten Stages of development; at each, she becomes larger, more powerful and more productive. The developments of a Queen and her abilities at each Stage are as follows.

When a Chestburster Queen matures, it is considered a Stage One Queen. It fights and lays Eggs exactly like a Warrior Alien, although it is better protected. It can only progress to Stage Two, by eating 300 kilograms of organic material, or about 4 human-sized victims. As each victim is consumed, the Queen sheds her outer layer of skin and grows a new, larger protective layer. The shedding and growth cycle takes a period of one day. After the fourth victim is devoured, the Queen has completed her growth into a Stage Two Queen.

At Stage Two, the Queen is capable of laying 10 Eggs a day, although it requires a supply of 10 kilograms of organic and 20 kilograms of inorganic material per Egg. Additionally, it has increased fighting abilities, as listed under Aliens in Combat. The last new ability of a Stage Two Queen is increased protection and the ability to survive greater damage.

To progress to Stage Three, the Queen must eat 450 kilograms of organic material, the equivalent of 6 more people, for a total of 10. She can lay 20 Eggs per day, if raw materials are available. Additionally, it has increased fighting abilities, as listed under Aliens in Combat.

Stage Four is reached after a total of 20 people have been eaten and give the Queen the ability to lay 30 Eggs per day. Additionally, it has increased fighting abilities, as listed under Aliens in Combat.

Stage Five requires 10 more people, as food, for a total of 30 and 40 Eggs per day, can be laid. Additionally, it has increased fighting abilities, as listed under Aliens in Combat.

The remaining Stages continue, in the same pattern. Each requires an additional 10 human-sized victims as food and increases the number of Eggs the Queen can lay each day, by 10. Additionally, it has increased fighting abilities, as listed under Aliens in Combat.

The highest possible Stage for a Queen is Stage Ten. When she reaches this Stage, she arranges for a Queen Embryo to hatch. As soon as the Chestburster form of the new Queen emerges, the old Queen will build this Hive up until it is capable of protecting another, new Queen and will then move on; in this way, a Stage Ten Queen is able to expand the area controlled by Aliens steadily and almost unstoppably.

Meanwhile, the new Queens left behind have full Hives to protect them and if food is available they can advance to become Stage Ten Queens, themselves.

ALIEN METABOLISM

The metabolism of the Alien is just as unusual as its reproductive cycle, as might be expected. The skin is composed of a polarized silica and provides remarkable protection from environmental extremes, as well as impact. All Aliens, regardless of type, are immune to needler weapons and extremely long falls.

In addition to these oddities, they do not have constant, cellular activity, like mammals, and consequently do not generate body heat, so they are invisible to infrared sensors.

Their internal energy is electrical, in nature and is circulated, via the devastating Acid which is their blood. The Acid is highly conductive and the molecules are ideal for energy storage and transportation. This process is similar to that used in automobile batteries and other small, electrical storage-devices.

Because of this, Aliens do not require organic food to survive. They need it to create Resin and webbing, to grow, as well as to heal from injuries, but to continue existing, they only need to have access to an electrical current. They can derive this energy from a number of sources, including solar energy, static electricity and direct current.

Aliens are even capable of surviving simply by being close to high levels of electrical power. For example, current moving in a power line induces a current in the Alien in much the same way that a radio signal induces a current in an antenna. This kind of current supplies enough power for an Alien to survive in dormancy and to recharge slowly, while inactive. Because of this affect, Aliens are attractive to the machinery of the Frontier; in a way, it "smells" good to them.

These sources of "food" make the Alien a creature of incredible endurance. It eats dirt and water to reach adult stage and once mature, can survive on the energy generated by a light breeze. The process of absorbing energy is a quick on and they can go to virtually have no energy to being fully "charged" in about an hour, if the energy is available. Their natural, physical abilities are enhanced by this arrangement, as an Alien which is active while exposed to a strong "food" source can work and fight indefinitely, without tiring.

In addition to the above, Aliens are also very efficient on a purely, physical level. They regenerate non-fatal damage within a day and can always recover from an injury which is not immediately fatal. Aliens have incredible strength and can lift and carry up to 200kg of weight.

Aliens, in all stages of their life cycles, have shown severe vulnerabilities to heat, such as fire and flame-throwers, but cold temperatures are an inadequate precautionary measure--except at the extremes, such as liquid nitrogen. Since they can adapt to a vacuum and endure cold climates, it is unlikely they would be driven off by chilly conditions, but blasts of hot steam or cold air can be effective, especially when paired together. It is postulated that applying both hot and cold temperatures in rapid succession would achieve a very lethal, "cracking" effect on an Alien's exoskeleton, similar to rapidly heating and cooling glass. Consequently, all Alien types take double damage from flamethrowers and incendiary weapons.

OTHER CHARACTERISTICS

The senses of the Aliens are good. Their vision is remarkably sharp and they can see further into the infrared than Humans and Yazirians, though not to the ability of Vrusks. They have an elongated, cylindrical head but lack visible eyes. The creature's lack of visible eyes serves to remove a massive weak point from a nigh invulnerable beast. Due to the absence of clearly visible eyes, Frontier scientists have concluded it is possible that the creature uses echolocation to "see" its environment, much like bats. They also have excellent hearing.

Aliens generally communicate by sound, although they do not have a language that is recognizable to the Frontier races. Their communications skills are like those of bees or ants, which carry vital messages about food or danger, but which are clearly beyond the realms of Frontier-style communication. In vacuum and other situations where sound is useless, Aliens communicate by adjusting the heat production of the surface of the head. Although this is invisible to most of the eyes of the Frontier races, the infrared abilities of Aliens make it easy for them to determine what patterns are being displayed.

Because Vrusks have better infrared sight than the other, Frontier races, a Vrusk Character has a chance to notice "speaking" Aliens, if he or she makes a successful Comprehension roll. If the Vrusk succeeds, he sees the color change and if they are already familiar with the Alien lifeform, can warn their party, spoiling the Aliens element of surprise. The Character must state that he or she is actively looking for changes in the infrared spectrum, however.

This infrared sense is one of the primary ways the Aliens track their prey. Their sense of smell is also used prominently, as it informs the Alien of the rough, organic composition of the victim and is frequently what alerts them to the presence of the victim in the first place. The Aliens can also detect their prey using pheromones, much like a colorful aura around the body.

Much like the Facehugger within its Egg, a dormant, adult Alien can remain in that state for decades or centuries with no loss of ability and it will wake up, only in the presence of food or danger.

Adult Aliens are well-adapted to swimming and can survive in vacuum for unknown lengths of time.

ALIEN HIVES

The Alien Hive is constructed from Resin which is secreted from the mouths of Warriors. This Resin is composed primarily of polarized silicon and is extremely tough and durable. It also has remarkable insulating properties and is semi-opaque. Much like termites, they mix Resin with solids, like dead victims and dead/cannibalized Xenomorphs or with dirt, trees or Frontier-made structures. These materials are then broken down by spitting acid on them and molding into shape and place, though it shows amazing heat and moisture-retaining qualities. Another important feature of the Resin is that it interferes with radio communications and any Characters penetrating deep into a Hive will find they lose contact with the outside world.

Aliens normally build their Hives around pre-existing structures, such as a natural ground depression, a frontier-made structure or a strand of trees. The Resin is used to insulate and protect the Hive, to provide structural framework

for the Aliens to move on and to create niches for concealment and rest in dormancy.

Aliens build the Hive so that they can use the walls, floors and ceilings for movement. Their gripping power, combined with special glands that secrete a contact cement, allow them to support themselves from the ceiling and walls, much like giant insects. This greatly increases their mobility and their Stalking ability, within the Hive.

Because the Resin is composed of the same type of material as the Alien's exoskeleton, the Hive provides ideal camouflage. If an Alien remains motionless, it is almost undetectable, blending perfectly into the wall or ceiling. This plays a key role in how deadly the Aliens are within their Hives.

Sentry Aliens have the ability to pick up and monitor vibrations through the Resin. This sense is used to communicate with the Queen and also provides them with exceptionally accurate remote sensors for tracking the movement of life, within the Hive. In essence, this gives the Sentry an accurate picture of numbers, movement and position of all life in the Hive. The Sentry thus has a much clearer picture of the situation within the lair than any Character could ever obtain.

REMOVING FACEHUGGERS

This is obviously of critical importance to anyone who is facing the possibility of Chestbursters in their future. The removal of a Facehugger is actually a fairly simple procedure, unless the survival of the host is also important; if so, it is extremely difficult.

Any attempt to remove the Facehugger is met by one of the defense mechanisms of the creature. If it is cut or injured, its Acid Blood endangers the host and anyone else nearby. If someone attempts to simply pull it off, it will anchor itself to the host, by tightening the grip of the tail around the host's throat. As a final defense, if the Facehugger is killed in any other way, it will inject the entire reserve of the paralyzing agent. Such a dose is lethal to any human, vrusk or yazirian.

The task of safely removing a Facehugger is extremely difficult and can only be attempted by someone with the Medical skill. The base chance is equal to half the character's Major Surgery sub-skill, if it applies to a team of trained medical personnel, who have not researched the problem and who have no special equipment. For a medical team which is experienced in dealing with removing Facehuggers and has special equipment, the task is equal to the character with the highest Major Surgery sub-skill.

If the attempt to remove a Facehugger fails, the creature is still removed alive from the patient and may be kept for study. The patient, however, is killed.

ALIENS IN COMBAT
The Aliens are the most dangerous species ever encountered by the Frontier and there are a number of special rules governing their actions in combat.
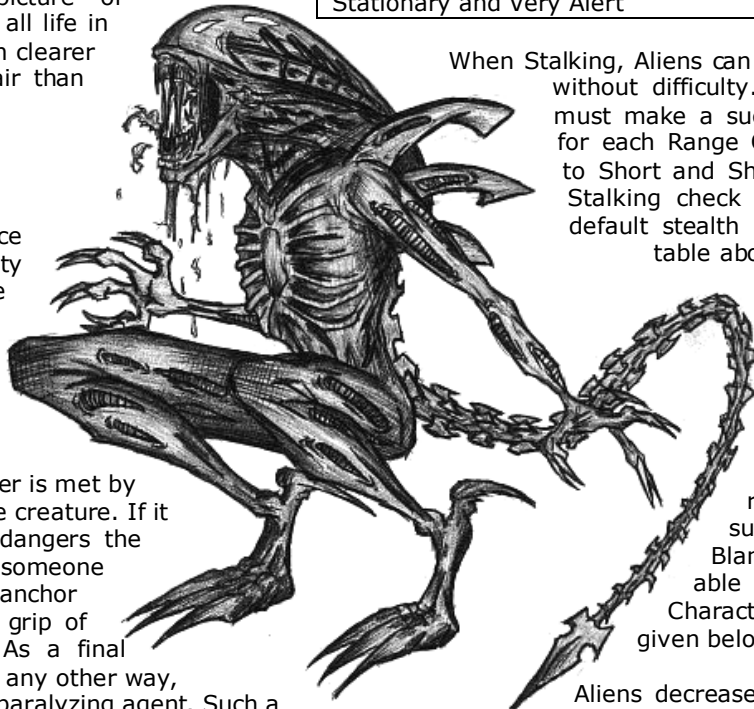
STALKING
Stalking is a vital part of a predator's attack, especially for creatures like Aliens which are hunting armed prey. The reason is simple; if a target with a weapon has some warning, it is easy to defeat an Alien at a distance. If the Alien can get close, however, it might be able to attack the target before he or she has a chance to open fire.

Because of natural abilities and extreme cunning, all Aliens have a default, stealth rating of 80%. Additional Difficulty Levels below are for an Alien or group of Aliens attempting to stalk prey. The Levels give assume confined terrain, such as jungle, a building or an Alien Hive, with many places to hide. For more open terrain, such as an urban street or countryside, the Difficulty Level is increased by 20.

ALIEN STALKING TABLE

Targets are:	Difficulty Level
At Leisure	+40
Cautious	+20
On Alert	--
Moving and Very Alert	-20
Stationary and Very Alert	-40

When Stalking, Aliens can close to Medium range, without difficulty. From that point, they must make a successful, Stalking check for each Range Category; from Medium to Short and Short to Point Blank. The Stalking check is equal to the Alien's default stealth rating, adjusted by the table above. If the Aliens fail the Stalking check at any point, they may have been spotted, the Characters can respond any way they want and the Aliens must decide whether to charge or run away. If they successfully close to Point Blank range, then they are able to pounce on the Characters using the guidelines given below.

Aliens decrease the Difficulty Level by 20, whenever the Characters are actually going directly through an area inhabited by Aliens. For example, a group of "bug hunters" are moving through an Alien Hive. They are very alert, so any Aliens attempting to Stalk them would be at -20. Because they are in the Alien's environment, however, the Aliens gain a +20, negating the modifier completely.

If this is the first contact between the Characters and an Alien or it's Hive, the Difficulty Levels are decreased by 20. This represents the Characters' unfamiliarity with the creature's behaviors and tactics.

ALIEN ATTACKS
To attack, an Alien must be within 2 meters of its target. A Warrior or Sentry attacks by Grabbing and immobilizing its prey, by Biting with its powerful, telescoping jaws, or by using the Stingers in its tail. To determine the type of attack used, roll a 1d10 each turn; on a 1, it Bites, on 2 through 9, it Grabs and on a 0, it Stings. All Alien attacks are considered Melee Attacks.

When an Alien attempts to Grab a target, the Referee makes an Attack roll for the creature. If the Alien succeeds, the target is grabbed. A grabbed target has been pinned by the Alien and cannot resist effectively. This means that the target is incapacitated. It cannot move, fire a weapon effectively, attempt melee attacks or take any other physical action. In addition, the target takes damage from being crushed by the Alien's grip. The Alien does 3-30 points of damage, due to the Alien's strength. If the target is still conscious and struggling, the Alien will continue to attack, each turn, until resistance ceases. Once the target is quiet, the Alien will try to take it to a safe place within the Lair, where it will be webbed in place and prepared for a Facehugger.

For Bite attacks, the Alien does 2d10 points of damage, if a successful Attack roll made. Note that extra armor protection given by a helmet or light armor is of no use here, since the jaws are penetrating through the front, where there is either no protection or simply a face shield.

Sting attacks do 4d10 points of damage on a successful hit. If the target takes any damage at all, it must make a STA check or it is automatically incapacitated by the paralyzing drug implanted by the stinger. The stinger will continue to disperse its paralyzing agent, requiring the Character to make a STA check each turn, until it is removed or they are incapacitated.

THE QUEEN

As devastating as Warriors are, they seem almost harmless when compared to the destructive power of a high Stage Alien Queen. Beginning at stage one, the great size of a Queen even gives her a special attack, called Trampling.

Because of her mass, the Queen can overrun Yazirian-sized or smaller opponents. Each turn, the Queen can move and anyone in her path is rammed and knocked aside. Each time that the Queen comes into contact with a possible target, the Queen makes an Attack roll and the target makes a Reaction Speed check. If the Queen is successful and the target fails the Reaction Speed check, the target is trampled for 2d10 points of damage times the Stage of the Alien Queen, with a minimum multiplier of 3. This represents the Queen stepping on or crushing the target, as she passes. If the Queen does not move during a turn, then she can try to make a Trampling attack against every, possible target within 2 meters. Trampling attacks are executed during the movement phase of a turn. If the Queen's Attack roll fails or the target makes a successful Reaction Speed check, the target narrowly avoids being trampled by the Queen.

In addition to Trampling, the Queen has the normal attacks of a Warrior Alien, except that it makes two attacks per turn (one Grab and a 50/50 chance of either a Bite or a Sting).

A Queen's Grab attack does 1d10 points of damage, times the Queen's Stage, with a minimum multiplier of 3. During the following turn, the Queen can either release the target and make another Grab at a new victim or Rend the target; the Referee makes the choice. If the Queen Rends the target, the target takes the maximum amount of damage, regardless of armor. This represents the fact that the Queen as torn the target, in two. If additional attacks are necessary, the Queen can Rend a target once per turn, in place of its normal, Grab attack.

For a Queen's Bite or Sting, the damage done is 1d10, times the Queen's Stage, plus 1d10. For example, a Stage 7 Queen does 8-80 points of damage (1d10 x 7 +1d10) with a bite or a sting.

If a target is successfully stung by a Queen's stinger and does more than half the target's stamina in damage, the target has been impaled and should be treated as though they had been grabbed. On the following turn, the Queen may Rend the target, as described above.

ACID BLOOD

The blood of an Alien is a highly-concentrated, molecular acid and it is extremely dangerous. An Alien's Acid Blood is capable of eating through any frontier-made material and can devastate facilities, equipment and nearby Characters whenever an Alien is wounded or killed.

Anytime an Alien takes damage, some of its blood will spray into the surrounding area. Every person or piece of equipment within the Spray Range must check for Acid Damage, using the following guidelines.

The Spray Range depends on the weapon which damaged the Alien. Pistols have an Acid Spray Range of 1 meter, Rifles and Shotguns have a Spray Range of 3 meters and Heavy Weapons and Explosive Weapons have a Spray Range of 5 meters. Every target inside the Acid Spray Range must make a Reaction Speed check. Failure indicates they have taken Acid Damage. If the Character succeeds, he or she has reacted fast enough to avoid the spray of Acid Blood.

An Alien hit by a Flame Unit (such as a flame thrower or incendiary grenade) or a Beam Weapon does not Spray Acid, at all; the Acid is consumed by the fire and the heat from a beam weapon instantly cauterizes wounds, so there is no Acid Spray.

ACID DAMAGE

When an Acid Spray from a Warrior, Sentry or Queen Alien hits a Character or a significant piece of equipment, the following rules are used to determine the damage done.

If the Spray is caused by a normal, small-arm weapon (pistols, rifles, and so forth) the victim takes 5-50 damage. Just roll a 1d10 and multiply the result, by 5. If the Spray is from a larger, heavy weapon, including machine guns and all Explosive Weapons, the damage is 30-300, rolling 1d10 and multiplying by 30.

The Acid Spray from a Facehugger does ¼ the normal damage and the maximum Spray Range is 2 meters, regardless of the weapon type.

When equipment is hit by an Acid Spray, roll damage normally. Use that damage roll as the percentage chance for equipment failure. If the roll is greater than the damaged rolled, the equipment still functions. If the roll is less than the damaged rolled, the equipment has been damaged and is unusable.

Inertia screens and skeinsuits reduce Acid Damage by half and by ¼ if both are used, but if the equipment damage roll fails, the items are still useless. Combat Armor will also reduce Acid Damage by half, but is always worthless afterwards.

ALIEN FACEHUGGER

Type	Small Xenomorph
Number	1 per egg
Move	Medium (60 m/turn)
IM/RS	+6/60
Stamina	25
Attack	65
Damage	special - listed under *Aliens in Combat.*
Special Attack	Acid Spray, Paralysis
Special Defense	Immune to Needlers. Acid blood.
Native World	Unknown

ALIEN WARRIOR

Type	Medium Xenomorph
Number	20-200 per hive
Move	Medium (60 m/turn)
IM/RS	+6/55
Stamina	70
Attack	75
Damage	3d10 claw, 2d10 bite, 4d10 tail
Special Attack	Acid Spray, Paralysis
Special Defense	Immune to Needlers. Acid blood.
Native World	Unknown

ALIEN QUEEN
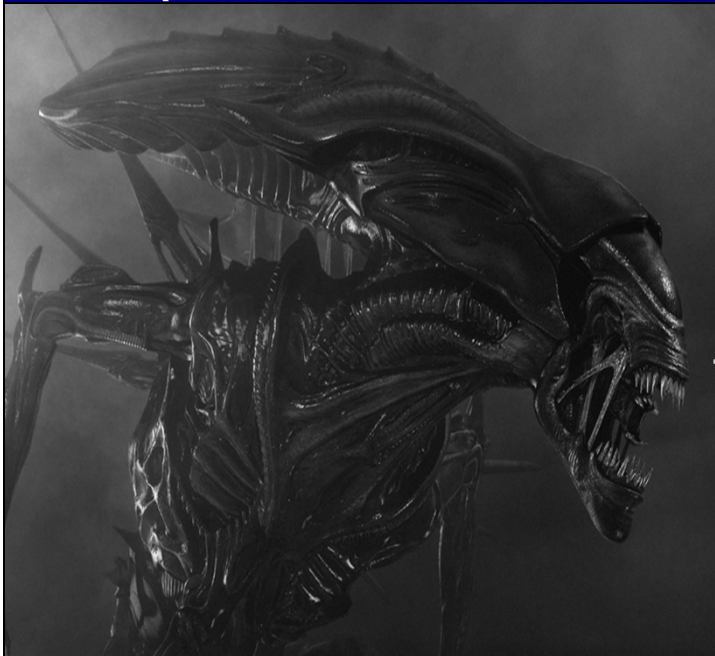
Type	Large Xenomorph
Number	1 per hive
Move	Medium (60 m/turn)
IM/RS	+5/50
Stamina	100 plus 20 points per stage after Two (100-280)
Attack	65
Damage	special - listed under *Aliens in Combat.*
Special Attack	Acid Spray, Trample, Paralysis
Special Defense	Immune to Needlers. Acid blood.
Native World	Unknown

Editor's Notes: Creature Compatibility

It's interesting to note that when a Facehugger places it's embryos into a host, the race of that host has some effect on the eventual appearance of the Chestburster and the resulting full-grown alien that it's destined to become.

Human Host – This union results in the standard Xenomorphs listed within the scope of this article.

Dralasite Host – Because of their amorphous nature, a Dralasite has a base 50% chance that the Facehugger can't figure out how to interface with it and therefore aborts the attempt, leaving the Dralasite ill (-15 on all rolls for 20 hours). A successful incubation will result in an alien able to regenerate at a rate of 5 STA per turn (unless reduced to zero Stamina).

Vrusk Host – This will result in an alien with eight legs, able to move at 90 m/turn.

Yazirian Host – The resulting alien will have wing-like membranes and will be able to glide, just like the yazirian. It will also be able to battle rage, with a base chance of 5% per combat round.

Other Hosts – An alien bursting from the chest of any other creature will retain some features of that base creature's physiology. Details of other races are left up to the Referee.

CHARACTER RACES

VIMH

By R. Kevin Smoot

The Vimh are scavenging mammalian creatures found throughout the frontier. Even the casual observer can see their rodentia ancestry. Each of the major frontier races has their own name for the race, usually quite derogatory in nature. The human term, 'ratling' is one of the least offensive terms, although they prefer to call themselves 'Vimh' (both singular and plural). Although not a proper scientific classification, Rodentia-Sapiens is the term that civil rights minded individuals have termed the Vimh.

PHYSICAL STRUCTURE

The Vimh are descended from some sort of rodent ancestry. Humans describe them as essentially having the appearance of a nearly man-sized rat. They have the typical rat-like face with sensitive whiskers, small but deft hands, and lower limbs that appear more primitive and animalistic than the Human or Yazirian humanoid form. Vimh have long hairless tails that are quite strong, but non-prehensile.

When standing completely upright a Vimh is almost 2 meters tall, although this is not their natural posture. They stand hunched over and appear roughly 1.5 meters tall, or roughly a little shorter than the average human. Internally, the organs of a Vimh are quite similar to the Human and Yazirian races, although the digestive system seems more robust than either of those mammalian races.
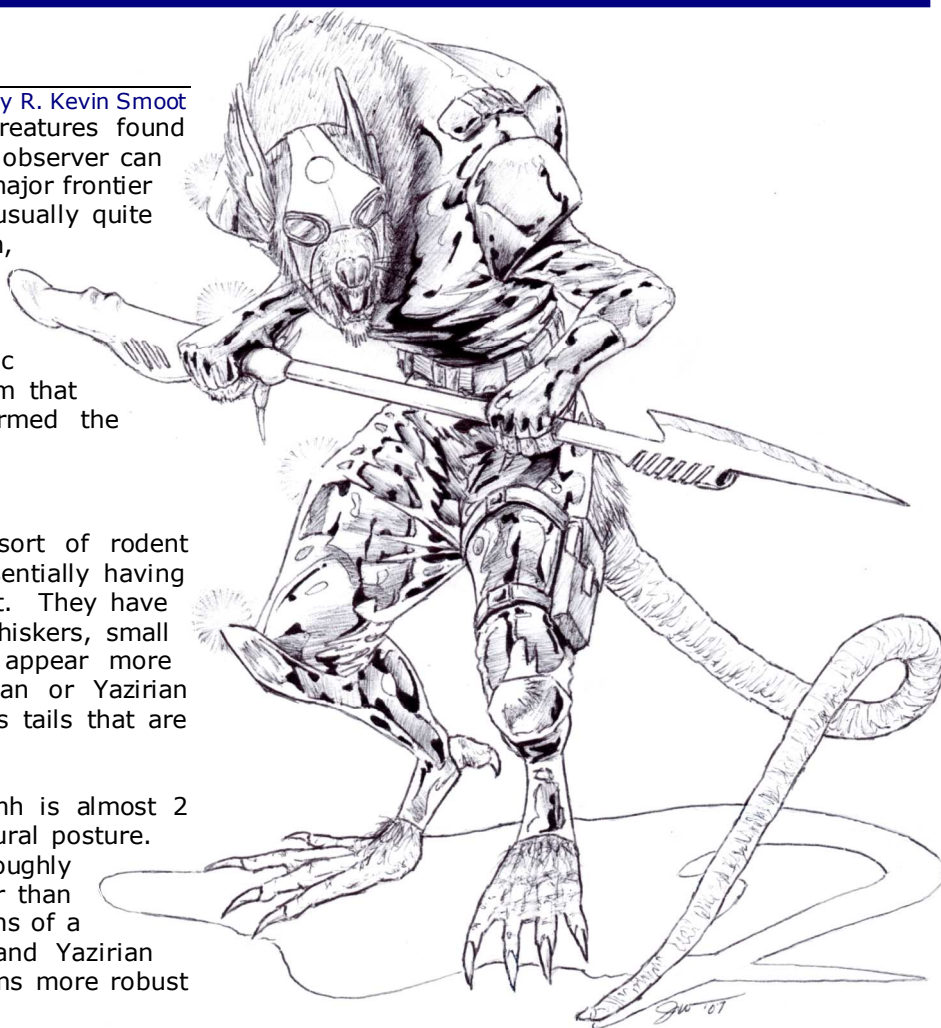
Vimh eyes are quite dark, generally described as beady. The whiskers on the Vimh face are quite sensitive to touch and vibration.

The hands and feet of a Vimh have some webbing between the digits – making the Vimh quite good swimmers. Even in cold water, a Vimh can swim for extended periods, as their furry coat is well developed for heat retention.

The skin color of Vimh is typically pale and pinkish to grayish, but the fur can vary wildly. Solid coats of browns, blacks, and grey tones are the most common fur colors. Less common are spotted coats or all white coats. Albinism is overall quite common as well, although not typical.

SENSES

Descended from tunneling rodents, the vision of the Vimh is not quite as good as Human sight in well lit areas, and not quite as good as Yazirian eyesight in darkness. However, the Vimh's acuity for close up details is remarkable. Sensitive facial whiskers enhance this close range vision, allowing the Vimh to detect even minute movements in close proximity. Distance vision is blurry and indistinct, so Vimh do not handle ranged-weapons well.

Vimh sense of smell is quite superior to humans, generally on par with Dralasite olfactory ability. Vimh can differentiate individuals by their smell alone. Vimh may also track by scent alone, although this requires training (i.e. environmental skill, tracking).

SPEECH

Vimh speech is accomplished in a manner similar to that of Yazirians and Humans. Air from lungs is forced through a larynx producing a variety of sounds. Their own tongue has a rodent-like skittering quality to it, as one would expect. Vimh language is quite advanced when describing qualities of smell, taste, food, and associated topics. Visual descriptions of landscapes, scenery, or objects at range are more difficult for a Vimh to convey, as they simply don't have as much vocabulary describing that kind of stimuli.

SOCIETY AND CUSTOMS

The Vimh are a prolific race found throughout the frontier. Their home world is a mystery, even to the Vimh. They just seem to appear wherever the other civilized races build settlements, apparently catching rides or otherwise stowing away on transport vehicles. Many speculate that the Vimh do not actually have a world of their own, but were genetically engineered on one of the core worlds. The unknown home world and lack of distinct Vimh culture seem to support this hypothesis. Regardless of origins, the Vimh are an ever-present part of life in urban slums of many worlds.

They live their lives day to day as scavengers, traders, and various criminal activities. Prodigious eaters, the Vimh find great amount of pleasure in food, so one could say that Vimh family relations are generally formed around the dinner table. If Vimh have a culture to speak of, it seems to be borrowed from the immediate surroundings. Vimh do not seem to care much about maintaining extended family relations beyond their immediate nuclear family members. Vimh produce many offspring, birthing almost every year if food supplies allow, with often three to four siblings per birthing.

The Vimh do not seem to have technology of their own, borrowing this and that from the major races. The occasional Vimh who ascends out of poverty has a great love of gadgetry and technology. When educated, Vimh gravitate to the technological trades. Because of their limited vision, Vimh combatants prefer melee and hand to hand combat tactics.

ATTITUDES

The Vimh have varied attitudes towards the frontier races. Some Vimh get along quite well with any of the races, while other Vimh seem soured by their second class status and despise the other races equally. Being mammalian, they generally will get along well with Humans and Yazirians if given a chance to overcome their social class stigma. Vimh do not care much for Dralasites, as they have very different concepts of what smells and tastes are pleasant, often causing arguments. Vimh and Vrusk have strained relations, as the Vrusk find them rather repulsive vermin that their corporations often try to remove from their premises. Surprisingly, even the Sathar seem to be unable to eradicate Vimh presence around their hidden bases.

SPECIAL ABILITIES

Iron Constitution (5) - In addition their great stamina, Vimh are naturally resistant to Infections, Diseases or Toxins. In the case of Toxins and Infections, the amount of damage is reduced by 5 points of stamina per damage increment. For Diseases, reduce the ability check penalty that a disease causes by five points. For contagious diseases, the referee may declare that the character is a carrier of the disease until treated or its course is run, even though the character takes no damage personally. Vimh can increase their Iron Constitution rating by spending 5 experience points for each point of increase to an upper limit of Iron Constitution (15).

Nearsighted – The Vimh do not have very clear distance vision. For all ranges other than point-blank, the Vimh have a –20% penalty on Ranged Weapon attacks.

Superior Olfactory Sense - The Vimh sense of smell and taste is very keen. Even in total dark they can rely on their scent to identify specific individuals, follow the trail left behind by someone's specific scent (requires Environmental Skill), or identify trace elements that would go unnoticed by others. The referee should grant a bonus to any ability check or skill check that would involve a sense of smell (use a base of +20% for guidance).

Swimming – Vimh are superior swimmers. They can swim faster and longer than many other races. See movement table below.

VIMH CHARACTERS

Characteristics	
Average Size	1.9m fully erect, 1.5m in natural posture
Average Mass	70kg male or female
Average Lifespan	60 years
Reproductive System	heterosexual, viviparous
Body Temperature	39 degrees Celsius

Ability Scores	
STR/STA	+20 STA only
DEX/RS	+5
INT/LOG	+0
PER/LDR	-10

Movement	
Walking	10meters per turn on foot 15 meters per turn if on all fours.
Running	20 meters per turn on foot 30 meters per turn on all fours.
Hourly	5 kilometers/hour (either mode).
Swimming	15 meters per turn, 2 kilometers per hour. Can swim 4 hours before taking Stamina damage.

Special Abilities
Iron Constitution Resistance to infection, disease, and toxins. 5%
Nearsighted Poor distance eyesight. -20% to hit on ranged attacks past Point Blank range.
Superior Olfactory Sense Extraordinary sense of smell and taste.
Swimming Swim faster and longer than other races.

Optional Ability
Bite Attack 1d10 damage base. Military PSA characters may take Bite Skill (but not characters with other PSA), increasing both chance of successful hit and extra damage according to 'more lethal combat' optional rule in Alpha Dawn, Digitally Remastered, Section 6.

GENERAL YAN-SOON

Shadowshack

Editor's Note: This article wasn't submitted, but I found it on a public forum at www.OmegaRising.com and thought I'd share it with you all.

I have a nifty adversary I use in my campaign from time to time, thrown in to disrupt the players during their roamings in the spacelanes.

One "General" Yan-Soon, a diplomatic yet aggressive Yazirian with vast financial backing, has a goal against the UPF: to overtake an outpost world and secede from the United Planetary Federation.

His title of general is not recognized by any government or colony in the UPF, he has no record of any military or government service. It is believed that any formal training may have come from outside the Frontier, be it the Piracy Ring, Sathar, or any other of the numerous outer-Frontier societies, or he could just as well be self-appointed to his cause.

His first attempt at an outpost world was Histran, which was quickly foiled by local residents and their small militia. Had he garnered more backing and allies it may have worked, but he underestimated the citizens --- he presumed fear would be enough. Of all people he should have known better, a Yazirian population fears no one.

His next major attempt gained some support at Laco, it is believed that he received some major financial backing from a mega-corporation (Streel?) as it would serve their interests as well to have an operation outside of UPF jurisdiction. Unfortunately Laco is too close to several major UPF and Spacefleet operations, and as a result all the traffic generated too much attention so while he briefly succeeded in overtaking Laco, it too was short lived and he was forced out before he could establish any sovereign power, but his brief tenure there disrupted a lot of traffic between Volturnus/Truane's Star and the rest of the Frontier, and thus woke the UPF up to his presence to make him a legitimate threat. Histran was too far away to garner any Frontier-wide recognition, but this most recent attempt hit much closer to home for many.

Speculation has it that his next attempt will either involve the vacated Planoran Pirate base in Clarion, or perhaps even an attempt right under the UPF's nose at Morgaine's World. Needless to say traffic at both ends is being closely monitored, as Yan-Soon is unpredictable. Clarion makes tactical sense as it is a major travel route yet far enough away from most Frontier worlds to offer a greater chance of success, but the local population is too large and the Clarion Royal Marines are among the best local militias in

the Frontier. Morgaine's World on the other hand, while being in "the hub of the Frontier", has an outpost status yet too centralized to start any activity without drawing any attention. But he is still just clever and bold enough to try it, and not an adversary to be underestimated. Dramune's Outer Reach is a third possibility, although the idea of organizing a chaotic criminal element tends to make this one the least likely. And finally, a habitable planet in an unclaimed system is highly possible, although such worlds would serve nothing for his mission and would only accomplish little more than a support and supply center.

Legions that have pledged loyalty to his cause can be found frequently in the spacelanes, and can present a challenge to any party at any time. Not to mention dropping some clues about future activity... ★

DOUBLE-EDGED SWORD SUBPLOT

By Bill Logan

The players are traveling from here to there. Neither the starting location nor the destination matters. It doesn't even matter whether the voyage is by foot, vehicle, or space vessel. The point is, they're going from point A to point B, as part of whatever adventure you have planned for them. This mini-scenario is designed to add a plot twist or subplot to an adventure.

Along the way, they see a battle going on. Some nefarious sorts are preying on what appears to be innocent somewhat well-to-do merchants of some sort. There are already several casualties. It's not obvious what caused the hostilities. When the players come into the scene, they won't be able to get either side to talk, as both are fully committed to battle.

Typical player reaction is to immediately take sides and battle the ruffians/brigands/pirates alongside the merchant bodyguards. One of the ruffians must get away. If they do this, they'll be offered financial reward (100Cr and their wounds tended to) and an explanation that it was all a typical robbery attempt. They'll part ways.

An atypical reaction would be to side with the ruffians... if the players take this option with some sort of inner rationale, let them. One of the merchants must get away. When the merchants are taken care of, the ruffians will state that the merchants had attacked them and they'll offer the characters 100Cr and their wounds tended. They'll part ways.

But what really happened? Well – this is one of those situations where the character's actions are doomed either way. If they helped the merchants, they did the wrong thing. If they helped the ruffians, they did the wrong thing.

When the characters arrive at their destination, they'll find that the destination belongs to whichever side they fought.

If they attacked ruffians, they find that the destination (planet, city, star system, etc.) is under the control of the ruffians, and that these "ruffians" were just normal folk without much in the way of organized militant equipment – banding together out of a common brotherhood. The merchants stole from them, and they were trying to get back an important artifact that belongs to them and defines them.

If they attacked the merchants, they find that the destination is under the control of the merchants. The ruffians were really assassins that were trying to kill the merchant prince, and succeeded. The merchant house is a powerful one, and the woman who steps up to claim the title of merchant princess is quite vindictive and protective of her now dead father.

If they broke up the fight or helped neither side, or something else unknown, you'll have to figure out a way to make that be the wrong thing to do!

It turns out that the one of their enemies who escaped returned here ahead of the player's characters. He spread the word about what the characters have done. Suddenly, the characters find themselves surrounded by the local military and ordered to surrender.

What do they do? How can they make this right? Is it going to keep them from completing whatever adventure or mission they were on when you dropped the double-edged sword subplot on them? ✪

PIRATE TRUST:
ARRR YOU GOING TO HELP ME?
By Larry Moore

A defected pirate pleads with your team to help him acquire an antidote for his daughter and son who were infected when he returned from an alien world. Adults are immune to the toxin. He is desperate and promises the characters untold wealth, supplies and equipment.

He has intimate knowledge of every aspect of the Pirate Horde! You suspect almost too much information. Should you trust him? Come to find out, he used to be the Horde leader!

Are your characters being led into a trap? Or is he sincere in his request to save his children and change his vocation?

Adventure Outline:
- Meeting at the spaceport
  o Meeting Bob the? What did you say you did for a living? Salvage and Recovery Operations?
- Aboard the ship
  o Flight prep aboard the Assault Scout; something doesn't add up. The ship is clean but why all the hidden holds and weapons blasts on the walls?
- Into the Void

  o Too late, Bob reveals his true identity, the dreaded leader of the Horde!
  o If you attack, dozens of security bots from hidden holds attack, what do you do? His story is so very compelling but you need something of trust.
- Assault and Crash
  o Attempting to get clearance from the Horde leads to an emergency landing on the plantet. Fortunatley for you the landing is successful with minor damage and well hidden from prying pirate eyes. Robots will fix the ship.
- Traveling to the antidote
  o Adventure getting the antidote.
- The Escape
  o Back to the ship and off to save the kiddies!

FUTURE ADVENTURE:
Bob decides to start a legal and official Salvage and Recovery business called, We Will Find Your Horde! The characters are hired to stay on staff.

Plot twist idea: The pirate doesn't come with the characters... instead he sends them alone to retrieve the antidote. Along the way, the characters are being escorted by two yazirians working for the horde leader, sent as "military support". Once the antidote is obtained, they are under orders to kill the characters and bring it back so the pirate leader won't have to pay them.

Another plot twist idea: The child they're trying to help isn't really the horde leader's child. It's the child of the PGC CEO who was kidnapped to be ransomed, and the Pirate is afraid of PGC wrath if the child dies. One of the yazirians accompanying the characters is a PGC agent who is trying to rescue the child. He might help the PCs instead of attacking them... or might carry through with the horde leader's plans in order to get the antidote back to the CEO's child to rescue him. ✪

SANCTUARY CITY
By Bill Logan

This adventure was actually used in a game played with my family. It lasted several sessions. I'll leave off the main storyline and present this as a storyline utility a Referee can simply dump into any mission he chooses.

PLAGUE WORLD
The players are on an alien world (doesn't matter where). The world was once higher in technology, post-industrial age but nowhere near achieving space flight. Their cities were strong and their problems seemed few... until the plagues struck.

The plagues spread rapidly and soon the cities were quarantined. A desperate attempt to find a cure was underway. It caused the natives who became infected to suddenly grow ravenously hungry to the point of aggression. If not kept constantly fed, they'd resort to cannibalism and worse. As time went on, the cure was nowhere to be found. The plague spread too rapidly. In the present time (the time when the characters arrive), the plague has mutated and subsided. The natives they meet are primitive because they've been unable to enter the dense cities. The planet is reduced to a post-

holocaust-like state (think Mad Max movies). Vehicles are plenty, though fuel is rare and carefully guarded. Weapons are unfortunately more common than one would like. Cities that have been reclaimed are decrepit husks of their former glory incapable of supporting the riffraff that try to eek out a meager existence there. That is, all cities except one.

SANCTUARY CITY

Sanctuary City was a potent military city that dated back to before the times of the plagues. It looks to be in excellent condition from afar. Natives cluster around the city in shanties, but tend to never enter the city itself for fear of death. The city's former robotic police force ("Sentries") have somehow taken over the city and some flaw in their program seems to be detecting any living thing in the city as a military target.

In the story I ran with my family, the city was the probable only remaining location that might have a functional subspace radio, and they were crashed here and in need of rescue. For your adventure, you should find a reason that the characters need to get into the city. Perhaps that's the entire reason they're here. Or maybe they're pursuing someone who has entered. Or maybe this is just a side-adventure and the players feel motivated to enter the city to get medicine for a sick villager. Whatever the reason, the characters need to enter the city and face the Sentries.

The city is simple to get around in. Roads are open and no cars drive around. Several cars exist but have been sitting there for a century, and dead natives that are over 100 years old can be found here and there in various states of decomposition. It seems the location was the site of some kind of war.

SENTRY TROUBLE

As soon as the characters enter the city, the Sentries will be a problem. They are everywhere. If one spots the characters, it spends one turn standing there doing nothing while blinking lights indicate communication activity to the robot brain located in the old police station. (it's calling for backup). All Sentry bots attack on site, indiscriminately.

The sentries are antiquated technology. Treat as "Gamma" security bots from Star Frontiersman, May 2007, Issue #1, with the following changes: May only fire once per turn with their laser weapons, chance to hit is only 60% because of antiquated sensor technology, and Stamina is only 80. This makes the robots able to be trapped by a Tangler grenade. Since they're much less effective than a typical robot of that type, make them VERY plentiful. Two per character in some instances. Make the players afraid of the city, and hint to them about communication among them being moderated by a robot brain computer. Hopefully they'll figure out that they need to get to the heart of the problem.

THE HEART OF THE PROBLEM

If the characters make their way to the old police station, they'll find the answers to the riddle of Sanctuary City:
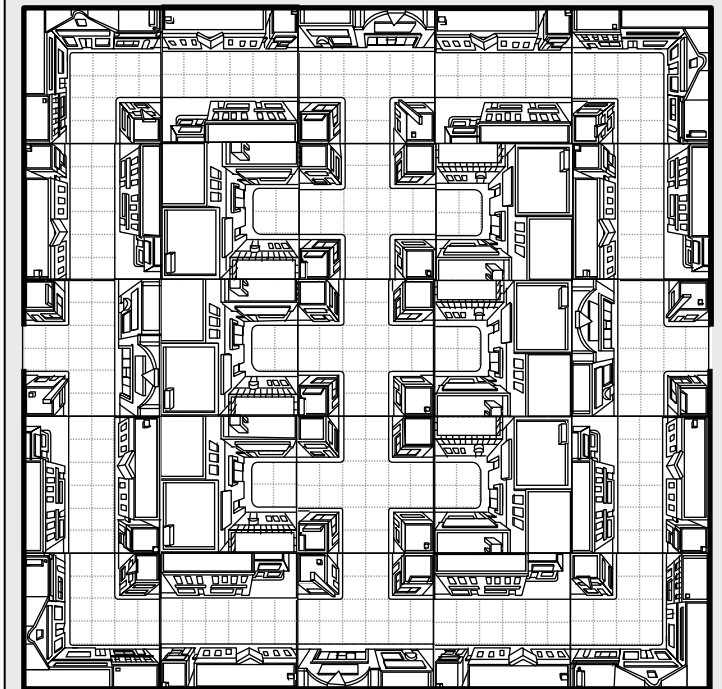
This was where the plague began. The Sentry bots weren't just police; they were protection against contamination. When the military lab located within the city discovered that its project escaped, spreading its plague fast and furious, they tried to contain it. When containment looked impossible, they did the unspeakable: initiated Project Omega... the extermination of everyone living within the city. This was the military lab's ultimate final solution if their containment of the virus failed. The robots have been stuck in Project Omega mode ever since.

A clever player may wish to disable this "Omega" mode. If they try this, the robot computer system has defenses, as well as several Sentries nearby. The task won't be easy – and all the characters will have to work together to pull it off.

BASTION OF HOPE

If the characters disable Project Omega, they'll find that suddenly the Sentries are very polite and protective robots, very capable of keeping the peace. They can convince those living in the shanty suburbs to re-enter the city, and it will be a bastion of hope to a downtrodden people.

Author's note: The city tiles in the Locations article in this issue were used to generate the city. I had several of them printed off and available, and simply added one as needed to keep the city feeling large and sprawling. Ahead of time, I jotted some notes down to keep track of the character's progress. Below is a sample of what a section of the city might look like. I used a felt-tip pen and wrote words on the six dead-end buildings: Fire Department, Police Department, Hospital, etc. If I would have also had the Motion Tracker and Sentry Guns from this issue, this adventure would have become even more interesting.

CLASSIFIEDS