Issue 16 Spring2016



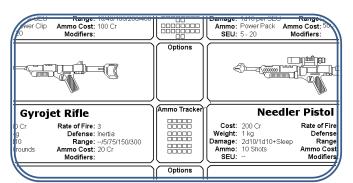
Weyland-Yutani
Want a New Ride?
Weapon Cards
Nugkta Cultivation
The Ecology of a Sathar Agent
Phri'sk Anyone?

... The real challenge is to work out what aliens might actually be like.

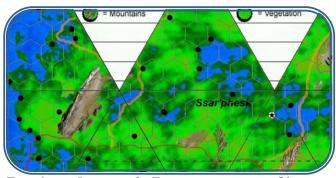


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FROM THE EDITORS

Welcome back explorers!

I want to give a huge shout out to the Star Frontiers fans on the Star Frontiers Revival site. Without them, this issue would not have happened. As I sat down to start looking at the articles for this issue, I realized I didn't have any. Not a single article in this issue was originally in the submission queue back in early March. Scott sent me the comics back in January but that was all I had. I put out a call for submissions on the forums and the members came through in spades.

I especially want to thank Chris Donovan and Joseph Cabadas. They each submitted a number of articles that make the backbone of this issue. I was really excited to see Joseph's work with the S'sessu. He took this race and really fleshed out their worlds and culture, greatly expanding on the original 2 page Dragon article.

Chris Donovan has been hard at work on the forums and the Star Frontiers Wiki developing new vehicles and equipment, some of which he submitted for inclusion in this issue. He also submitted the Ecology of A Sathar Agent article that dove-tailed nicely with the S'sessu articles. These articles, combined with another Mintzii Marketplace article by Tom Verreault and the weapon cards play aide by Tollon, combined to give this issue a pair of mini themes: new equipment and satherians.

This issue is really a reminder that the Frontier Explorer is a community project. I may edit it and put it all together, but it can't happen without your support. Just as I put out a call on the forums for submissions, this is a call to you the readers. I know that you all have wonderful ideas that would be of interest to others. Share them! Even if it is just a short creature description or a single piece of equipment or a vehicle. Write it up, jump over to the magazine's website, and submit it for publication.

The call for submissions on the forums yielded quite a bit a content, so much so that some didn't fit in this issue. But we can always use more. Having a large submission queue means that we have more flexibility in article selection so that we can aim for a more diverse mix of articles or focus on a specific theme as needed. By sharing your ideas, you help the Frontier to grow and make it a richer place.

Additionally, we are looking for artists. If you'd be interested in helping to create art or illustrations for articles in the magazine, email me at editors@frontierexplorer.org and let me know. We can never have too many art pieces.

I hope you enjoy this issue as much I as did.

- Tom Stephens Senior Editor

PRODUCTION CREDITS



Cover Art: End of the Road, by Tom Stephens. Explorer model by Jay Thurman, helicopters and background by MysticMorning.

Back cover comic: Scott Mulder **Banner Logo Image:** NASA

Editors: Tom Stephens, Tom Verreault

Layout: Tom Stephens **Full Cover Quote:**

To my mathematical brain, the numbers alone make thinking about aliens perfectly rational. The real challenge is to work out what aliens might actually be like.

- Stephen Hawking

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WHAT THE PLAYERS KNOW

Weyland-Yutani is something of a mystery. No one is certain just how old it truly is. Any records that might reveal that information have disappeared - some conspiracy theorists say deliberately. It has been around as long as anyone can remember, and was in many senses the Pan-Gal of the Frontier before Pan-Gal became Pan-Gal.

After the ascension of PGC to the No. 1 slot in the economy of the Frontier, W-Y began a long slide into obscurity. It still exists and has a presence in most markets and fields of endeavor, but is no longer considered a leading example of Frontier corporate operations. Nonetheless, W-Y remains a powerful mega-corporation. Often seen as a "budget option" compared to other corporations, it has embraced down-market business, providing solid, if not leading-edge products at reasonable prices.

W-Y's slogan ("Building Better Worlds") would seem to indicate an interest in "planetforming" operations, but it has never been known to have access to that sort of technology. It is also said that W-Y has a strong interest in xenobiology, and has a close relationship with the UPF Planetary Survey Administration and the Frontier Expeditionary Force.

One oddity about the Company is that it is almost exclusively made up of human employees. A few non-humans work in the lower echelons of its various divisions, but its upper management is exclusively human. It does business with non-human corporations, but it tends to keep such business at arms-length. This is accepted as simply being a quirk of corporate culture, much like the dominance of vrusk over their Trade Houses.

WHAT THE GM KNOWS

It was inevitable that sooner or later W-Y's original incarnation was going to smuggle a specimen of xenomorph XX121 to the human homeworld, with predictable results. In the last, desperate months before the fall of humanity's cradle, members of the senior management made plans to escape and survive at any cost.

Using their access to records and the all-but-abandoned orbital shipyards (interstellar travel having been essentially eliminated as the Xenos spread from planet to planet), the plotters found an old account of signals from



intelligent life from a remote sector of the galaxy received generations before when mankind was still using prehyperspace technology for interstellar travel.

Several waves of exploration and colony craft had departed for the new territories, so it was hoped that there would be more humans already there to jump-start a new human civilization. No one knew for certain, as contact over those distances was difficult and the old reports had not indicated sufficient compelling reasons for mass migration, despite the worsening environmental condition of the planet at the time.

The plotters copied the data then erased the records so that no one else who might be looking could follow them. They then loaded what supplies they could into several half-finished but functional ships, along with copies of the designs for their most important technologies (hyperdrive, gravity generation, etc). While they no longer had access to the metallic ore that made these possible (the world providing it having been overrun some time ago), it was hoped that this new Frontier would yield a new source. Then they abandoned the homeworld to its fate. [Authors note: Yes, I am implying that W-Y (albeit an early incarnation) is the same "Company" as the one mentioned in Avatar.]

After a long journey, most of it spent in hypersleep, they arrived in the Frontier making planetfall on Gran Quivera. Before they landed, the erased their navigational computers, making it look like systems failures and data corruption, just in case.

The new arrivals found themselves welcomed by their human cousins and the other three races that dominated the region with them. Utilizing some of their advanced designs, they quickly established a new Weyland-Yutani and quickly made themselves indispensable.

As the new corporation's influence waxed, it quietly went about the business of making sure that any and all traces of the navigational data that would point back towards the homeworld that existed in the Frontier vanished. Viruses erased navigational databases, hard-copies were stolen and destroyed. The Company caught a break in that most humans seemed to have lost interest in their origins, which meant that the data was not as widely distributed as it would otherwise have been. The survivors swore never to talk about what happened to the homeworld. Once that was accomplished, the Company settled down to watch, not knowing if others would somehow manage to find their haven, and possibly bring the scourge of the Xenos.

Over the long years, the Company has continued to keep watch. Despite no longer being the premiere corporation of the Frontier, it still has its carefully hidden tentacles nearly everywhere. The Sathar Wars only served to make it even more determined to guard against the threat of non-human species to a peaceful society. The longstanding obsession with keeping humanity from returning to Homeworld - which would risk spreading the Xeno threat once again - has over the years expanded into a deep-seated dislike of all non-humans. This dislike has been kept in check because the Company does not want to be seen as hostile to other races, which might lead to confrontations that would weaken the Frontier as a whole through in-fighting. The non-humans just might be needed in the event the Xeno horde ever did show up, after all...

WEYLAND-YUTANI CORPORATE PROFILE

Headquarters: Port Loren, Gran Quivera, Prenglar

Chief Executive: Andre Tyson Bishop V (Human)

Subsidiaries: none known.

All acquisitions officially become/are merged into divisions/subdivisions of W-Y (W-Y Research & Development, W-Y Colonial Operations, W-Y Energy Production, etc)



Allies: Public: W-Y attempts

to maintain friendly relations (or, at least, the pretense of such) with most corporations. *Secret*: There is a great deal of support in the Company for the Kraatar Liberation Corps, HUSP, and other pro-human racist groups, but that support is carefully masked.

Enemies: The Company is in a state of quiet "cold war" with Streel, which it views as threatening its hold on the budget technology market. It butts heads with GODCo

over the later's burgeoning "planet-forming" technologies (on top of its general antipathy for non-human species). Business with Vrusk Trade Houses is kept to a minimum and usually conducted through intermediaries.

Occasional Opposition: Relations with the Brotherhood of Spacers become strained from time to time over contract disputes. Pan-Gal has never been forgiven for overtaking the Company's lead position in the Frontier, but the resources that would be expended in fighting PGC are better used elsewhere. UniHo is watched carefully, lest it eat too much into the Company's chosen market niche.

FINAL NOTE

GMs should carefully consider before using/introducing W-Y into their games as I have written them here. The technology buried in the Company's archives (gravity fields, fusion tech, true hyperdrive, etc) has the potential to radically change aspects of the game setting's look and feel. I made them dependent on Unobtanium so that there was a reason why they weren't already being used. If your group is comfortable with it, then go for it.

Obviously, the Xenos are as big a potential threat (or more so) as the Sathar. I'm sure the idea that the worms might find and enslave them as they have other species like the cybodragons, slithers, etc probably gives those in the know at the Company nightmares.

Editor's Note: You can find the stats for the Xenos in issue 5 of the <u>Star Frontiersman</u>.





FIGHTING STAFF

"So you think you can just walk in here and start throwing your weight around?" asked the big Yazirian as his two friends moved to flank Rex. One of them tapped a heavy baton into the palm of his off hand. The other pulled out a wicked -looking fighting knife. All three smiled toothily at the human.

Rex, for his part, gave no appearance of being concerned. "All I'm asking is if any of you fine gentlebeings know where I can find Yk'Zir'Kiz'Ik. One little address and I'm out of your lives. No one has to wind up in MedCenter over this…"

"Oh, but I think someone does, no-hair," the first one said nastily. "We don't like people who ask questions around these parts." He started to step back as his associates stepped forward.

There was a flurry of movement, the flash of light on metal. Blows rained down on the two weapon-toting monkeys in rapid succession. Return blows were blocked. In less time than it would take to tell the tale, the two yazirians lay unconscious on the bar floor. Rex stood over them with a two meter long metal staff in hands that had appeared to be empty just seconds ago. He looked up at the leader, who was now nervously retreating even further without turning his back.

Rex stalked forward, giving his staff a twirl for show. "Shouldn't have done that, yaz...You made me start this. Now I get to end it...one way or another. Now, do I get my question answered...?"

A Fighting Staff is a cylinder of memory metal, around 10 cm in length with a single activation toggle. When the toggle is pressed, the weapon releases itself, becoming the equivalent of a 2 meter long quarterstaff. The opening/collapsing function of a fighting staff is powered by a SEU minidisc, which is good for 100s of openings and closings before needing replacement.

Fighting staffs offer a good option for characters who cannot or do not want to carry ranged weapons but still desire a measure of protection in a concealable package.

A character seen to be using a fighting staff may draw attention from authorities, but generally there are no laws specifically regulating or forbidding them. They are a popular choice in communities that ban the use of ranged weapons by civilians.

VISUAL REFERENCE

http://vignette3.wikia.nocookie.net/starfrontiers/images/3/3a/Denn%27bok.png/revision/latest?cb=20160302022446 (a collapsed fighting staff [image is of a Minbari "fighting pike"])

FORCE LANCE

Force lances are similar to - but more sophisticated than - ordinary fighting staffs, incorporating a small energy weapon into one end. Because it must house the mechanisms for the energy weapon, a force lance cannot collapse as completely as a fighting staff, being approximately 31 cm long in collapsed mode.

Considered somewhat impractical for front-line use, force lances are frequently used as light or "dress" duty weapons, as well as by bodyguards and other special agents who like having the silent, less-lethal weapon option in addition to a ranged attack.

The lance's energy weapon is equivalent to an electrostunner set on blast, and has approximately the same range. Because of its smaller dimensions, a force lance may only use mini-powerclips, limiting it to five shots before the clip must be replaced.

VISUAL REFERENCE

http://vignette2.wikia.nocookie.net/starfrontiers/images/0/07/Image_73885.png/revision/latest?cb=20160302022556 (image created by rschulte at Renderosity. Author has released mesh for public use)

HOLD-OUT PISTOLS

Hold-out pistols are designed to be secreted in a pocket, hidden holster, or other place of concealment. They are intended to be backup weapons for characters who lose their primary weapon(s), or by beings who desire not to be seen obviously armed, but for whatever reason don't want to try to hide a full-size pistol. They are approximately the size of a human palm, which is why they are sometimes referred to as "palm pistols".

As a result of their small size, hold-out pistols have limited range compared to full-size pistols as well as limited ammunition capacity. They do similar damage, however. Many jurisdictions heavily regulate or outright ban the possession and use of hold-out pistols.

Types of hold-out pistol include:

LASER HOLD-OUTS

Laser Hold-Outs are a type of laser weapon. They are ordinarily used as a backup or emergency weapon. Hold-out Lasers are powered by two SEU microdiscs, and can be set to use one or both discs (giving a damage of either 2d10 or 4d10) before needing to be reloaded.

VISUAL REFERENCE

http://vignette1.wikia.nocookie.net/starfrontiers/images/3/35/Hold_out_laser.jpg/revision/latest?cb=20160301075521 (cropped from screen cap from Galactica 1980)

NEEDLER HOLD-OUT

A Hold-Out Needle Pistol, or "hold-out needler" is a weapon with an especially bad reputation. The most common form is a unit worn on the underside of the forearm that is designed to be fired from inside the sleeve by a particular motion of the wrist. Since it is designed to be used exclusively covertly (the user never *looks* like he's going for or holding a gun, it is a favored option of spies, kidnappers and assassins.

Hold-out needlers can be loaded with different types of darts, depending on the user's preference:

- the normal needler round (2d10 inertia damage), or
- the normal needler anesthetic round (1d10 inertia damage + sleep), or
- a round coated with a fast-acting lethal toxin (1d10 inertia+ S25/T3 poison) or
- a small, explosive-tipped dart (3d10 inertia damage).

Because of the extremely short range the weapon is normally used at, 5 meters or less normally, 7 meters at most, many makers forgo the magnetic coil delivery system and use simple compressed gas/air. Depending on the model, they can hold up to 3 needles.

Because they are so popular with criminals, hold-out needlers are flatly illegal in many jurisdictions. This also makes them a bit expensive compared to other hold outs.

VISUAL REFERENCE

http://vignette3.wikia.nocookie.net/starfrontiers/images/f/f 2/Mp wrist-

gun_prob1.jpg/revision/latest?cb=20160304032217 (Wrist pistol from Moonraker).

PROJECTILE HOLD-OUT

A Projectile Hold-Out is a small, easily concealable type of slug thrower. It is usually used as a backup or emergency weapon. Projectile holdouts come in two types: Light and Heavy.

Heavy pistols use a heavier caliber round and do more damage, but Light ones have higher ammunition capacity. They are otherwise similar in performance.

VISUAL REFERENCE

http://vignette1.wikia.nocookie.net/starfrontiers/images/a/af/Reliant-Signal-9-

612x660.png/revision/latest?cb=20160301082948 (light hold out pistol [real world Reliant-Signal])

http://vignette2.wikia.nocookie.net/starfrontiers/images/9/98/Backup-

300x300.jpg/revision/latest?cb=20160301083627 (heavy hold out pistol [type unknown])

PROTON HOLD-OUT

A Proton Hold-Out is a small, easily concealable type of proton weaponry. It is usually used as a backup or emergency weapon. Proton hold-outs come in a variety of forms. One, the Rafflur M-1 is approximately the size and shape of a cigar.

Proton hold-outs use SEU microdiscs as a power source. They expend all of a disc's energy in one blast, causing 4d10 damage. Aside from that, they are largely similar in other respects to other types of hold-out pistols.

VISUAL REFERENCE

http://vignette3.wikia.nocookie.net/starfrontiers/images/a/a9/Raffleur_M-1.jpg/revision/latest?cb=20160301144558

Weapon	Skill	Damage	Ammo	Rate	Defense	Range	Cost	Kg
Fighting Staff	Melee	2d10	none	1	Inertia	none	50	.5
Force Lance	Melee/ Beam	2d10+PS (staff) 4d10 (blast)	none/10 SEU (miniclip)	1/1	Inertia/Gauss or Anti-Shock	none 0-5/6-15/-/-	650	1
Hold-Out Pistol, Laser	Beam	2d10/4d10	4 SEU (x2 microdisc)	1	Albedo	5/8/12/30/-	250 (10)	.5
Hold-Out Pistol, Needle	Projectile	2d10/ 1d10 + sleep/ 1d10 + S25/T3/ 3d10	1-3	1	Inertia/Inertia + STA check	5/7/-/-/-	350- 600 *	
Hold-Out Pistol, Light	Projectile	1d10	4 rounds	1	Inertia	5/8/12/30/-	50 (1)	.5
Hold-Out Pistol, Heavy	Projectile	2d10	2 rounds	1	Inertia	5/8/12/30/-	75 (1)	.5
Hold-Out Pistol, Proton	Beam	4d10	SEU microdisc	1	Synth	5/8/12/30/-	300 (10)	0.5



"Sanchez! Why aren't these repairs done?"

"Well El Cap-I-tan, " responded Sanchez with a drawn out emphasis on the syllables of the title, "we haven't restocked parts and supplies on this bucket of bolts in months and I'm scraping the bottom of the barrel and having to manufacture stuff by hand before I can even make a repair. Look at this not one bit ion bonding tape left in any of the tool kits or the ship's workshop."

"I don't want he hear your excuses, I want repairs made so we can lift off on time and not lose this contract!"

"That ain't going to happen as things stand now so you got two choices: lose the contract or put up some credits to restock and resupply materials, supplies and parts. So what's it going to be?"

The captain fumed and glared at his engineer for a full minute before relenting, "Fine, take some credit vouchers and go down to the Minzii Market Place and get some supplies but be back by two hours and get this work done or so help me I'll find a new ship's engineer!"

Sanchez entered a showroom "Tixch's Tech, Parts and Supplies" and his eyes widened bigger than a peckin's eggs.

"I'll take the whole store," he murmured to the Ifshnit proprietor as he approached.

"Gratified I am to here that, most worthy of technicians, Tixch endeavors to stock his showroom with everything available in the Frontier that a technician or engineer could desire. What specifically can I help you with today?"

"Well I have a list of parts, spares, and supplies that I need to fill fast and make repairs or my ship will lose its current contract," Sanchez said handing over a file pad computer with the list of desired material.

Looking over the list the diminutive Tixch nodded, "I'm certain I can help you with this and perhaps I could give you a discount in exchange for a small service? Delivery of some crates to my cousin on Volturnus that I need expedited?"

"Yes I do believe that we are making a brief stopover at Volturnus and we'll be able to help you out providing there is no contraband in the shipment, I know an honest ishnit like yourself would never involve himself in such a venture but my captain is very particular and would want to make certain."

"Oh no, no contraband and your captain is welcome to search the shipment. It's purely a shipment of a new product: Durable Ultrastrong Conductive Tape. In fact I see on your list ion bonding tape and I believe that you should consider this product instead. Ion bonding tape bonds to metal which this does was well but this product has so many more surfaces it can bond to."

The proprietor demonstrated with a half used roll of tape, "You see the tape is initially conductive and after it's applied these leads from the roll are attached to opposite ends of the tape and you depress this button which sends an electrical charge through the tape. The electrical charge initiates a molecular bond that bonds it to the surface below. After bonding the tape is no longer conductive and becomes insulating. Each roll of tape has a micro power source in the middle of the roll and power leads that store there as well. This tape has even been used to seal punctures in space suits as vacuum doesn't affect it."

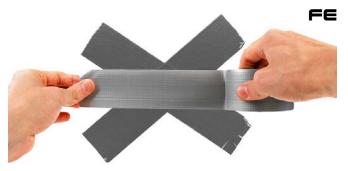
"Wow," exclaimed Sanchez, "We'll take that instead of the ion bonding tape. In fact I want double because there is no telling when we'll be low on supplies again."

D.U.C.T.

(DURABLE ULTRA-STRONG CONDUCTIVE TAPE)

Comes in a variety of colors including camouflage and molecularly bonds to surfaces when a weak electric charge is passed through the surface of the tape. The center of the roll holds the micro-power source and power leads. An entire roll can be braided into a 30m rope and the molecular bond will allow it to support 200 kg. It bonds to almost everything and has become a universal fix all overtaking the ion bonding tape that use to be stocked in technician tool kits.

Cost: 5 Cr/ roll Mass: N/A





Editor's Note: For both this article and the New Weapons article above, there were many images which the author listed as visual references that we didn't include in the magazine. This was done mainly as we were not sure about or able to acquire official permission to use the images, or they just didn't fit for space and layout considerations. We encourage you to follow the links to see the concepts the author had in mind.

HOVER PLATFORM

"Where in the Void did you dig those relics up, Doctor?" Lieutenant Shrag asked the elderly human checking off things being loaded into the landing stage of the expedition's survey-scout. The monkey-like Yazirian female stared at several round vehicles lined up on the loading dock's floor nearby. Four of the six open-topped craft were barely large enough to carry one or two passengers. The other two were large enough to seat four.

"I'm glad we were able to get those hover platforms, Lieutenant," the doctor replied. "Like me, they may be old, but they've been around, and lived to come home again. We'll get a lot more done with them around."

Shrag walked over to the nearest one while listening to the human. She inspected the thing dubiously. It looked like a good kick from a juvenile would put a large hole in the fairing, which was more than a bit scratched up and had several dings in it." I could probably bend this fairing."

The human chuckled. "And you could bend it right back again. That's why I asked for them. If we have to, we can patch them back together from pieces of packing plast. And the hoverfans will run like old-fashioned clockwork with just a few minutes care every week or so. Not like the over-thought, over-designed junk most people use now-days..." He made another notation on his manifest and muttered to himself. "Besides, those skinflints at the University wouldn't pay for better..."

His comment wouldn't have been heard by many. Shrag's keen ears picked it up though. She glanced at the human, rolled her eyes, and wondered if it were too late to scrounge a few flight pods from the Expeditionary Force's motor pool...

Author's Note: The hover platform was inspired by the Williams X-Jet "Flying Pulpit, and the Johnny Quest animated series

Hover Platform				
Purchasing				
Manufacturer: Various companies				
Cost to Own:	1,100, 1,250, or 1,375 Cr			
Rental Cost:	15 Cr plus 15 Cr/day			
Transmission				
Propulsion Type:	hover			
Top Speed:	133m/t (80kph)			
Turn Speed:	67m/t (40kph)			
Acceleration Speed:	67m/t			
Deceleration Speed:	15m/t			
Power				
Power plant:	1 Type 0 or 1 Type 1 Parabattery			
Range:	500 or 1000km			
Fuel Economy:	.5 SEU/km			
Capacity				
Crew:	1			
Passengers:	none, 1, or up to 3			
Cargo Limit:	none, 81kg, or 243kg (1 cubic meters or up to 5 cubic meters)			
Armaments:	None			
Armor:	None			
Other Equipment:	varies			

A Hover platform (also known as a flight platform, hover disk, or flight disk) is a form of hover transportation from the early days of the Frontier that is still in use by budget-conscious adventurers, a few corporations, and on the "frontier of the Frontier" by



colonists and civilian exploration teams. They aren't normally found in more developed areas, as their slow speed and relative lack of maneuverability interfere with traffic patterns.

Hover platforms are not high-performance vehicles. They are, however, cheap, stable (+20% to Control checks), and extremely reliable. The controls are basic and intuitive enough that anyone can quickly learn them (requires no Piloting skill).

One- and two-man hover platforms consist of a single hoverfan, a platform to stand on, controls, and a fairing to reduce wind resistance and provide a grip for the pilot's non-piloting hand as well as the passenger (if any). The fairing is made from the lightest material possible to reduce weight (does not count as "target inside a vehicle" for combat purposes, but movement penalties still apply). Some models omit the fairing and provide only a basic rail for grip purposes. Normally, hover platforms do not offer protection from the elements. The larger, four-man version can be fitted with a basic hard-shell canopy, or even more rarely, one made of cloth.

The four-man hover platform consists of three hoverfans inside a saucer-shaped hull with bench seating for up to four passengers and a surrounding rail for grip purposes. The rear seat can be removed entirely as well as half the front seat to turn the platform into a cargo carrier (up to 243 kg and about five cubic meters, depending on configuration). Some models sacrifice 50 kg of cargo/passenger capacity by fitting a Type AA power generator and fuel, retaining the regular parabattery as a backup power-source. One popular option is a solar converter with the panels placed around the upper edge of the disc. This gives the vehicle virtually unlimited range in daylight as well as a reserve energy supply for overcast days and night operations.

MILITARY MODIFICATION OPTIONS

One and two-man hover platforms cannot be armored or have weapons mounted. The four-man version can be fitted with a simple pintle-style mount if the owner was willing to sacrifice the passenger space/weight capacity. Passengers can, if they desire, use side-arms and longarms (standard penalties apply).

CIVILIAN MODIFICATION OPTIONS

One and two-man hover platforms cannot be modified at all. The 4-man platform can be fitted with several small systems (radio communications, etc) within space/mass limitations.

VISUAL REFERENCES

http://vignette2.wikia.nocookie.net/starfrontiers/images/7/75/One_man_platform.jpg/revision/latest?cb=20160130035241 (Williams X-Jet "Flying Pulpit)

http://vignette2.wikia.nocookie.net/starfrontiers/images/a/a1/2_man_platform.jpg/revision/latest?cb=201601300352 41 (cropped from screencap of an episode of Jonny Quest (original series)

http://vignette4.wikia.nocookie.net/starfrontiers/images/8/87/Four_man_platform.jpg/revision/latest?cb=20160130035241 (left side: 3d model from internet, right side: screencap from Jonny Quest)

JETPACK



latuaak			
Jetpack			
Purchasing			
Manufacturer: various			
Cost to Own:	2,000 Cr		
Rental Cost:	50 Cr plus 50 Cr/day		
Trans	mission		
Propulsion Type:	Thrust/VTOL		
Top Speed:	134m/t (80kph)		
Turn Speed:	50m/t (30kph)		
Acceleration Speed:	25m/t		
Deceleration Speed:	25m/t		
Po	ower		
Power plant:	Type 0 Parabattery		
Range:	500km		
Fuel Economy:	.5 SEU/km		
Сар	pacity		
Crew:	1		
Passengers:	none		
Cargo Limit:	none		
Armaments:	none		
Armor:	none		
Other Equipment:	none		

A **Jetpack** is a one-man form of transportation used for light scouting duty, as well as in terrain that unduly restricts larger flying craft such as jetcopters and aircars. They are also frequently used as auxilliary vehicles in conjunction with Explorers. Jetpacks consist of a pair of small turbofan engines similar to those found in aircars attached to a power source and worn as a backpack, with the total unit weighing approximately 35kg. There are many different brands and configurations available, but they all share similar characteristics.

Jetpacks are much slower than most forms of aerial transportation, but have the advantage of being able to operate in extremely close quarters over broken terrain. They have an operational ceiling of up to 3,000 meters, though in normal usage, pilots prefer to operate much closer to the ground, attaining altitudes of no more than 15-20 meters. The maximum one-way range of a jetpack is 500km.

The lack of storage capacity means that jetpacks cannot carry any cargo other than what the pilot might be able to carry in his pockets or on a belt. Jetpacks cannot be armored nor can weapons be mounted on them.

HEAVY EXPLORER

A **Heavy Explorer** is a multi-wheeled, enlarged version of the standard Explorer. They form the heart of most major survey and research expeditions throughout the Frontier. Heavy Explorers are capable of the same range of travel as a standard explorer over most terrain, although some models have slightly less facility with very challenging terrain, and all models do so over extremely steep terrain.

Heavy Explorers come equipped with a standardized package of basic communications and sensing equipment, as well as a large capacity water tank (300-600 liter), water purification and reclamation equipment, storage for 3 months' rations. One Type 3 computer (with dedicated parabattery) serves most conceivable computing needs. A Type A generator provides recharge capacity for an



Heavy Explorer				
Purchasing				
Manufacturer:	various			
Cost to Own:	30-55,000 Cr			
Rental Cost:	350 Cr plus 250 Cr/day			
Trans	mission			
Propulsion Type:	Ground			
Top Speed:	125m/t (75kph)			
Turn Speed:	50m/t (30kph)			
Acceleration Speed:	24m/t			
Deceleration Speed:	18m/t			
Power				
Power plant:	2x Type 3 Parabatteries			
Range: 2000km				
Fuel Economy:	2 SEU/km			
Capacity				
Crew:	1 (2 with gunner)			
Passengers:	7			
Cargo Limit:	7,500, 21 cubic meters			
Armaments:	none			
Armor:	none			
Other Equipment:	Basic environmental sensors, Type 3 computer w/parabattery, Type A power generator, radiophone, rations, water tank, water reclamator, ground cycle, 1 each standard Kits, 9 survival kits, basic equipment			

expedition's power packs and parabatteries.

A full set of kits (including one each of Techkit, Robcom kit, Environmental Kit, and Medikit, in addition to one Survival Kit for each passenger) and other basic equipment (binoculars, rope, etc.) rounds out the package. A utility ground cycle is available as an auxiliary vehicle.

The remaining ~7,500kg/21 cubic meters of cargo capacity can be configured to suit the needs/preferences of individual owners, though renters generally have to make due with the standard configuration supplemented by their own personal gear.

MILITARY CONVERSION OPTIONS

The usual armaments and defenses can be installed per the rules/costs for those added to the standard Explorer. The

installed gear can be swapped out for any military equipment desired.

VISUAL REFERENCES

http://www.actionmobil.com/images/galleries/4achser/desert-challenger/01.jpg (Action Mobil global Explorer 7200)

http://i43.tinypic.com/2gyc5fr.jpg

http://vignette3.wikia.nocookie.net/starfrontiers/images/7/74/Heavy Explorer 1.jpg/revision/latest?cb=20160204234221 (image based on a Foremost "Terrabus" with modifications by me)

https://s-media-cache-

<u>ak0.pinimg.com/736x/bf/9b/b9/bf9bb93a1fd95f8e333005</u> <u>5bf4c434a9.jpg</u> (Wisent 8x8, representing a "militarized" Heavy Explorer)

ARC HEAVY EXPLORER

The ARC Heavy Explorer (known affectionately by operators as an "Ark") is one of the most sophisticated mobile laboratories to be found anywhere in Frontier space. It certainly is one of the most expensive, much more so than regular Explorer or Heavy Explorer types.

Arks are capable of providing a crew of four (driver and 3 mission specialists) with all the necessary facilities to conduct basic research/survey work for extended periods of time without outside support. Due to the extensive amount of installed equipment, the number of specialists cannot be increased. It is therefore necessary that expeditions utilizing Arks be more highly cross-trained than normal to be effective.

Rugged and reliable, Arks can be maintained with onboard micro-fabrication equipment except for the most extreme damage to major components. Food synthesis and water reclamation/purification systems virtually eliminate the need for external resupply in any environment where liquid water and basic organic materials exist, though the food thus produced will never be considered gourmet quality.^[1]

Arks are powered by a Type 1 power generator supplemented by two Type 3 parabatteries. The power source is typically either solar or a small RTG (radioisotope thermal generator) power pack^[2]. This permits the vehicle to run at top speed while still charging one battery (the second being an emergency reserve) and providing power for onboard equipment. With judicious use, this arrangement permits the vehicle to operate around the clock if required.

Arks mount a full range of omnidirectional cameras, basic

Author's Note: The ARC Heavy Explorer was inspired by the Filmation/CBS series Ark II.

ARC Heavy Explorer				
Purchasing				
Manufacturer:	Advanced Research Concepts			
Cost to Own:	55,000 Cr			
Rental Cost:	450 Cr plus 375 Cr/day			
Tran	smission			
Propulsion Type:	Ground (wheeled)			
Top Speed:	125m/t (75kph)			
Turn Speed:	50m/t (30kph)			
Acceleration Speed:	24m/t			
Deceleration Speed:	18m/t			
Power				
Power plant:	1x Type 1 power generator plus 2x Type 3 parabattery			
Range:	unlimited on generator, on batteries 2,000km			
Fuel Economy:	2 SEU/km			
Capacity				
Crew:	1			
Passengers:	3			
Cargo Limit:	500kg, 5 cubic meters			
Armaments:	x1 heavy laser (nose)			
Armor:	Inertia Screen, Albedo coating			
Other Equipment:	Cameras, environmental sensors, laboratory equipment, food synthesizer, radar, radiophone, toolkits, survival kits			

environmental sensors measuring radiation, air quality, etc, as well as a short-range radar (range ~500km). The onboard facilities are capable of significantly more sophisticated analysis than portable environmental kits (+20% to Environmental skill checks), and the medical suite, though limited to one person at a time, counts as being a hospital for healing purposes. Arks are radiation resistant, are fully sealable against dangerous atmospheric conditions, and against submersion in water during amphibious crossings.

Arks typically carry either one light ground or hover car, or two to three ground cycles (informally known as Roamers) as auxiliary transport, as well as a jetpack, glijet, or other single-person aerial conveyance for impassable terrain.^[3].

Arks are protected by Inertia screens and an Albedo coating. A nose-mounted industrial/mining laser is included for helping remove travel obstacles (use Heavy Laser damage, but at one-quarter the range).

NOTES

- 1. Treat as survival rations, but with a range of flavorings to make them palatable. Provided access to the needed raw organic material, the food synthesizer can provide sufficient rations for four people per day.
- 2. An ARC radio-thermal power source is good for at least 1 standard year before its core needs replacement under normal usage.
- 3. Treat a light ground car as a normal ground car with half the passenger and cargo capacity of a normal one. For more information on the ground cycle, see below. For Jetpacks, see separate article.

VISUAL REFERENCES

http://vignette1.wikia.nocookie.net/starfrontiers/images/a/a9/ARC_II_2.jpg/revision/latest?cb=20160220184559 (a typical "Ark")

http://vignette2.wikia.nocookie.net/starfrontiers/images/1/1f/Roamer.jpg/revision/latest?cb=20160201184006 (aground car "Roamer")

http://vignette2.wikia.nocookie.net/starfrontiers/images/9/93/ArkAnimated3.jpg/revision/latest?cb=20160130031734 (multiple views, a piece of concept art for a proposed Ark II animated series)

EXPLORATION/UTILITY GROUND CYCLE

An **Exploration/Utility Ground Cycle** is a type of ground cycle used as a means of covering relatively small areas for scouting and general work purposes, particularly over challenging terrain. They are commonly found as part of the equipment carried by Explorers.

The cycle is light (weighing approximately 73kg), but robust. It consists of a sturdy polymer shell over a lightweight alloy frame.

As an off-road vehicle, the cycle can handle tight spaces and rugged terrain, up to a 60 degree slope on the ascent. Its over-sized, self-sealing tires make it exceptionally good at traversing areas of boggy ground without sinking into the mire. Combined with the lack of mass, the tires give sufficient buoyancy that the cycle actually floats on water when not burdened by a rider.

The cycle is modular, and can be disassembled and packed away in less than five minutes. The "packed" size of the cycle is just over 1 cubic meter.

The primary drawbacks of such cycles are range (only 500km due to the use of a Type-0 parabattery), and lack of passenger/cargo capacity (no passengers, and only

Exploration/Utility Ground Cycle				
Purchasing				
Manufacturer: various				
Cost to Own:	1,000 Cr			
Rental Cost:	25 Cr plus 25 Cr/day			
Tran	smission			
Propulsion Type:	Ground (wheeled)			
Top Speed:	100m/t (60kph)			
Turn Speed:	70m/t (42kph)			
Acceleration Speed:	50m/t			
Deceleration Speed:	30m/t			
Power				
Power plant:	Type-0 Parabattery			
Range:	500km			
Fuel Economy:	.5 SEU/km			
Ca	apacity			
Crew:	1			
Passengers:	none			
Cargo Limit:	25kg less than 750 cubic cm			
Armaments:	none			
Armor:	none			
Other Equipment:	none			

30 kg / 750 cubic centimeters cargo - about the size of a large backpack).

Exploration/Utility ground cycles cannot be armored, nor can weapons be mounted.

VISUAL REFERENCES

http://vignette3.wikia.nocookie.net/starfrontiers/images/f/f 6/Taurus 2x2.jpg/revision/latest?cb=20160220144130





Editor's Note: The weapon cards on the following pages are designed to be printed out and used at the table during games to keep track of the relevant information about each weapon.

As you can see from the cards to the right, each one contains the name of the weapon, its game statistics, an image of the weapon, a box to track ammo (typically 3 clips worth) and a small box for notes.

Cards can be printed for each of the weapons carried by PCs, opponents, or other NPCs and used by the players and referee to track ammo and any other notes about the weapon. If the PC picks up a weapon from a downed opponent, the referee can simply hand them the relevant card which has all the needed game stats including its current ammo state.

Cards are provided for all of the standard Beam, Projectile, and Gyrojet weapons from the Star Frontiers games along with a few extras created by the author.

We recommend printing them on cardstock or heavy paper to improve durability but they work just fine on paper as well.

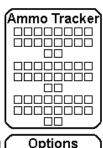
Look for additional weapon cards (based on weapons from the magazines), plus blank ones for use in creating your own weapons, in a future issue.

Laser Pistol

Cost: 600 Cr Rate of Fire: 2 Weight: 1 kg Defense: Albedo Damage: 1d10 per SEU Range: 5/20/50/100/200

Ammo: 20 Power Clip Ammo Cost: 100 Cr

SEU: 1 - 10 Modifiers:





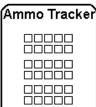
Gyrojet Pistol

Cost: 200 Cr Rate of Fire: 3 Weight: 1 Kg Defense: Inertia

Damage: 2d10 Range: --/5/50/100/150 Ammo Cost: 10 Cr Ammo: 10 rounds

SEU: --

Modifiers:



Options

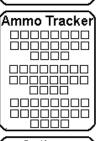


Semi-Automatic Pistol

Cost: 150 Cr. Rate of Fire: 3 Defense: Inertia Weight: 1.5 kg

Damage: 1d10 Range: 5/15/30/60/150 Ammo: 20 rounds Ammo Cost: 2 Cr

Modifiers: SEU:





Options

Ammo Tracker Ammo Tracker Ammo Tracker Options Options Options Range: --/100/500/1000/2000 Range: 5/10/20/40/100 Range: 10/40/100/150/300 Defense: Inertia Ammo Cost: 10 Cr Defense: Intertia Rate of Fire: 3 Heavy Laser Rifle Defense: Albedo Ammo Cost: 500 Cr Rate of Fire: 3(1) Ammo Cost: 5 Cr Modifiers: **Automatic Rifle** Needler Pistol Modifiers Rate of Fire: Modifiers: Damage: 2d10/1d10+Sleep Damage: 1d10 per SEU Ammo: Power Pack Damage: 1d10/5d10 Ammo: 20 rounds Ammo: 10 Shots Weight: 20 Kgs 200 Cr Cost: 300 Cr **SEU:** 5-20 Weight: 4 kg Weight: SEU: Cost SEU: Cost: Ammo Tracker Ammo Tracke Ammo Trackei Options Options Options Range: 10/40/100/200/400 Range: --/5/75/150/300 Range: 5/15/30/60/150 Defense: Albedo Defense: Intertia Ammo Cost: 100 Cr Defense: Inertia Ammo Cost: 20 Cr Rate of Fire: 3(1) Ammo Cost: 2 Cr **Automatic Pisto**l Rate of Fire: 3 Rate of Fire: 2 Modifiers: Modifiers: Modifiers: **Gyrojet Rifle** Laser Rifle Ammo: 20 Power Clip Damage: 1d10 per SEU **Damage: 1**d10/5d10 Ammo: 10 rounds Ammo: 20 rounds 2008 C Cost: 200 Cr Cost: 300 Cr **SEU:** 1-20 Damage: 3d10 Weight: 2 kg Weight: 3 kg Weight: 4 kg Cost: SEU: SEU:

Ammo Tracker Ammo Tracker Ammo Tracker Options Options Options Loose Range: 5/15/20/40/70/100 Range: 2/10/20/40 Ammo Cost: 100 Cr Defense: Sonic Defense: Gauss / A-S Range: 5/10/15 Rate of Fire: Ammo Cost: 100 Cr Defense: Inertia Modifiers: Ammo: 1 Powder & Shot Ammo Cost: 10 Cr Electrostunner Sonic Disruptor Rate of Fire: 1 Rate of Fire: Modifiers: Modifiers: Musket Damage: 6d10/4d10/2d10/100 **Ammo:** 20 Power Clip **SEU:** 2 Ammo: 20 Power Clip Damage: 4d10 or stun 500 Cr Cost: 700 Cr Cost: 200 Cr <u>_</u> & Damage: 1d10 Weight: 4 kg Weight: 2 kg SEU: 4 Weight: SEU Cost: Ammo Tracker Ammo Tracker Ammo Tracker Options Options Options Range: --/70/200/500/1000 Range: 10/20/40/75/150 Defense: Sonic/A-S Range: 2/10/20/50 Defense: Inertia Ammo Cost: 100 Cr Ammo Cost: 20 Cr Defense: Inertia Ammo Cost: 50 Cr Rate of Fire: 3 Modifiers: Rate of Fire: 1 Rate of Fire: Modifiers: Modifiers: **Needler Rifle** Sonic Stunner **Machine Gun** Damage: 3d10/1d10+Sleep 20 Power Clip Ammo: 10 Shots 100 belt 2000 Cr 20 kg 10d10 500 Cr Cost: 300 Cr Stun Stun Weight: 4 kg SEU: Damage: SEU: Weight: Ammo: Damage: Ammo: Cost: Cost: SEU: Weight:

Ammo Tracker Ammo Tracker Options Options Options Ammo Cost: 10 CR, 20 loose shells Range: --/70/200/500/1000 Range: 5/15/40/75/150 Grenade Mortar **Rocket Launcher** Defense: Inertia Defense: Inertia Ammo Cost: 15 Cr 8 Rate of Fire: 1/2 Rate of Fire: 2 Modifiers: Modifiers: Range: --/200/500/1000/2000 Shotgun Ammo: as Grenade Defense: RS Check Cost: 2000 Cr Damage: 1 shell Ammo: 1 Rocket Ammo Tracker Ammo Cost: 8 Cr Cost: 5000 Cr Weight: 15 **Cost:** 200 Cr Damage: 15d10 Ammo: 5 shot Rate of Fire: 1/2 Damage: 2d10 SEU: --Weight: 3 kg Modifiers: Weight: 15 SEU: --SEU: Ammo Tracker Ammo Tracker Ammo Tracker Options Options Options Range: 5/25/50/100 Range: --/150/1000/2000/3000 Range: --/25/50/100/200 Ammo Cost: 500 Cr Defense: Sonic Rate of Fire: % Defense: RS Check Rate of Fire: 1 Modifiers: Ammo Cost: 3 Cr Sonic Devastator Defense: Inertia Recoilless Rifle Ammo Cost: 10 Cr **Grenade Rifle** Modifiers: Rate of Fire: 1/2 Damage: 20d10/15d10/10d10/5d10 Modifiers: Ammo: Power Pack Damage: as Grenade Cost: 4000 Cr Cost: 5000 Cr Ammo: 1 bullet Weight: 15 Kg Damage: 12d10 Ammo: 1 Shell Cost: 700 Cr Weight: 20 kg Weight: 4 kg SEU: 10 SEU: SEU:



Greetings gentlebeings. This time Tik and I would like to report about a plant and the insects it attracts. Typically insects are an annoyance to Humans, Yazirian, Dralasites, Osakar, Ifshnit, Humma, and even Vrusk. However Vrusk are the beings most suited to understand insects. Tik has reminded me to reinforce that Vrusk are not insects or bugs, they have an internal skeleton in addition to their carapace. Insects do not have an internal skeleton. However, there are many insects on the Vrusk homeworld and they have studied insects more than any other being in the Frontier. Humans know mice from their medical research, Yazirians know the dolbi from their medical studies, Vrusk know the T'Vv-th, an insect from their medical research. Four years ago Dwain, Tik, and I went to the Soula Islands here on Hakosoar for an ocean fishing expedition. We had no idea how excited the staff of the Nugkta Cultivation Laboratory Farm on the mainland would be to have a Vrusk show up. We just came back from an invited visit and Tik's insights made a big impact in the last few years.

NUGKTA TROUBLES AND POTENTIAL

Nugkta are a native plant that is known primarily for its flower like seed pod. The seed pods rupture and spray their seeds whereafter the pod dries and falls off the plant stem. The dried pods take on a lustrous and shiny yellow-gold coloring inside that is very flower like and attractive. The outside of the pods are a hard woody bark like material with the appearance and structure of scales or knobs. These remain very strong after the opened pod dries providing a very durable support for the flower like internal structure of the pod. These dried pods are commonly displayed as ornamental centerpieces in houses and buildings throughout Hakosoar but otherwise the plant is primarily considered a weed.

We on Hakosoar think of the nugkta as a weed because it attracts Tail Pincher bugs and Tail Pincher bugs attract Scorpion Flies. Hakosoarians dislike tail pinchers and scorpion flies because they both have painful bites and mildly toxic poisons. Many a small hanger on Hakosoar has had the experience of being swarmed by scorpion flies while wandering out to play in the outskirts of the village and come home sick and bitten all over their small bodies.

Hakosoarian families and clans rid the fields and ground bellow their homes of all nugkta plants to keep the tail pinchers away. Anyone walking among nugkta plants is sure to get half a dozen tail pincher bites on their legs and a few wiggled deep into their leg fur with their pinchers painfully imbedded into their skin. The bites release their poison into the blood and cause painful welts that itch and bleed.

Explorers and hunters that venture into the wild on Hakosoar wrap their legs or wear human like trousers and boots to keep from receiving daily tail pincher bites and the potential for tail pincher fever. The traditional Yazirian practice of tree camping is followed wherever trees are available to avoid sleeping on the ground where nugkta are prevalent.

Another reason Hakosoarians clear their home grounds from nugkta is that the seeds are also mildly poisonous and there have been occurrences of young hangers eating the seeds or chewing on the unexploded seed pods and getting a mouthful of poisonous seeds. No Yazirian mother wants to have her baby in the hospital for nugkta poisoning. Young hangers have died on a few occasions from a stomach full of seeds overpowering their little body's ability to suppress the poison at such a high level.

Yet as with so many poisons on so many worlds in the universe there is a potential medical benefit to the poison of the nugkta seed. Thus the Hyyay Hakosoar Communal Clan University invests heavily in research. HHCCU established the Nugkta Cultivation Laboratory Farm (NCLF) out here in the wild mainland near to the Soula Islands. Nugkta plants are very prolific here providing the NCLF an abundant supply of wild nugkta. They hope is to be able to cultivate a nugkta hybrid that produces a seed with the desirable substances in the poison and not the undesirable substances. These desirable substances have potential applications for enhancing stimdoze, staydoze, biocort, and omnimycin, medicines that have become essential to all the races of the Frontier.

Unfortunately bringing nugkta from wild propagation to controlled propagation has been a disaster. Crops fail after one or two seasons resulting in the loss of the entire hybridized plant species. Each attempt has to start again with wild nugkta plants painfully screened and selected so as to start with a stable control population. These wild plants must be collected in the wild as propagation of the plants in laboratory settings has failed entirely. All nugkta plants have had to be grown outside in open fields. Attempts to apply any types of controls upon the plants

have killed the entire fields in one or two seasons, time and time again.

This has been a trying effort of scientific study for the faculty and staff of the NCLF not only for the many failed attempts but also for the remote conditions they must work in and the many, many tail pinchers and scorpion flies that infest the nugkta fields. Attempts to eradicate the pests have been hampered by the large populations of these insects in the wild all around the NCLF facilities.

AND THEN CAME A VRUSK

Dwain, Tik, and I arrived by air car one late afternoon with plans to take our chartered boat out to the Soula Islands to catch some big fish. Our walk from the air car to the G'Soula River Inn was plagued by swarms of scorpion flies that gave Dwain and me a few painful stings as we hurriedly ran and wrapped ourselves in our cloaks and jackets. When we got into the inn a young Yazirian student from the NCLF was taking refuge from the swarms and helped us beat the bugs to death a soon as the door shut behind us. She commented about how horrid the creatures were. We could say nothing but agreements. I had received a sting on the left ear that was commencing to swell.

Tik commented that he had forgotten a bag in the air car and went back outside to fetch it. The NCLF student then went to the window and watched Tik casually wander back to the car and collect his bag, only flicking at a scorpion fly if it happened to get around one of the joints in his carapace. She commented back to us that it was lucky for him to be wearing armor with all of these devilish scorpion flies swarming all the time.

Tik returned to the inn and Faaglash the young Yazirain student meet him at the door and commented to him about how lucky he was to have natural protection from the scorpion flies. She then went on to explain how she had been studying them for the NCLF trying to find ways to drive them away from the nugkta fields so that they could work without full protective coverings. She expressed how exciting it would be to get the observational insights of a Vrusk on Scorpion Tail Dragon Fly behavior. This little bit of praise caught Tik's interest and he turned to us to inquire about excusing himself from the evening's activities. Our plan had been to explore the shore line but the scorpion flies had killed that desire in both Dwain and I. We told Tik we would rather stay inside the inn until our boat left the following morning. We all agreed that it would be excellent for Tik to spend the evening with Faaglash and the Scorpion Tail Dragon Flies.

Flaagash wrapped herself in a full body covering complete with a head covering and escorted Tik out to the world of the scorpion flies. We didn't see Tik for hours after that. He came back to the inn late all giddy with his antennae twitching with excitement. Tik took us down for

a late night meal as he had not eaten all evening because he was so busy touring scorpion fly nests, nugkta fields, and picking up tail pincher bugs. He was so excited that he produced a jar of tail pinchers, a jar of scorpion tails, and a potted nugkta plant from his abdomen pack and commenced a detailed lecture into his theories of their ecology while his food sat uneaten and drying out on the table.



Scorpion Tail Dragon Fly by Tom Verreault

Scorpion tail dragon flies he explained were at the top of a micro-ecology. The scorpion tails are a predator of the tail pinchers and thrive when this, their primary, food source is in abundance. The scorpion tails build nesting tubes of dirt and digestive fluids by consuming the dirt and then regurgitating it to build their nests. They lay two or three eggs in each nest. The larvae develop in the tube and then the dominant larvae will eat the others. The larvae then spends the rest of its pre-pupa state living in and foraging around this tube. Then it pupates inside the tube and emerges as an adult scorpion fly six days later. Adult scorpion flies begin mating immediately and will continue mating as long as there is an abundant food supply to supply their body's production of eggs. Hence adult scorpion flies are building new nesting tubes every day with some days completing two nests.

Tik then theorized that the scorpion flies acquired the toxin in their sting from the tail pinchers that they eat. He then revealed to us two sting marks on the soft skin between toe joints on his left front foot. One sting was swollen to a small bump and the other was not. Tik explained that the first sting had happened while visiting the nugkta fields the other had happened while out visiting a vast nesting ground far from the fields of nugkta plants.

Tik then got even more excited and pulled out one of the tail pincher bugs and let it crawl around on his fingers while he continued explaining how important tail pinchers

were. The tail pinchers, explained Tik, feed off of the sap in the leaves of the nugkta plants. He put his little tail pincher onto the nugkta plant and it promptly climbed under the leaves out of sight. Tik carefully lifted the leaf and there was the tail pincher latched onto the leaf sucking sap. The tail pinchers, Tik explained, are getting their poison from the sap of the immature nugkta plants. Tik's antennae practically buzzed with excitement. He further explained that the NCLF staff have been eradicating the tail pinchers to protect their crops of nugkta plants but he believed he had discovered that they were inadvertently killing their crop by doing so. Then he pulled a blossomed nugkta plant from his abdomen pack. Look here he exclaimed pointing at two tiny little holes at the base of the pod stem as he handed the plant to use with one hand and plucked his little tail pincher from the leaf of the other plant. The tail pinchers he exclaimed are symbiotic to the nugkta plant. They drink the sap of the leaves, their digestive systems convert it into a poison, they then inject that poison into the pod stems where it triggers the maturation and release of the pod seed. No tail pinchers means no nugkta propagation.



Tail Pincher and Nugkta Plant Symbiosys by Tom Verreault

This all sounded logical and got Dwain and I throwing questions back at Tik. Tik swatted back all of our questions in the same way he casually flicked away the scorpion flies. He had everything figured out including how to test his hypothesis. Tik took the little tail pincher in his hand and held it to the stem base of one of the unopened seed pods on the mature nugkta plant he had handed us. He explained that he had purposely collected that plant because all of its pods were mature and only one had any tail pincher punctures. He had the tail pincher inject its poison into the untouched seed pod stem base and then put the tail pincher back into the jar. Then he explained that this nugkta plant was to go out to sea with us and remain isolated from all other tail pinchers and scorpion flies or any other possible trigger for pod eruption. He fully expected the pod to erupt in the next few days while we were at sea fishing. He then set to eating his food rather triumphantly.

The next day we went to sea and Tik busied himself killing all the stray tail pinchers and scorpion flies that had stowed aboard. Two days later his nugkta plant that had been isolated in a makeshift plastic tent erupted and embedded its seeds into the top of the tent. Tik danced around on deck for hours dictating a report into his chronocom and neglected his fishing.

CULTIVATION SUCCESS

The return back from the fishing trip had Tik racing to the NCLF to present his report. They promptly agreed to isolate in a green house, not only a selected crop of nugkta plants, but also a control population of tail pinchers and a very limited supply of scorpion flies to manage the population of tail pinchers. Now, four years later the initial nugkta crop they started is continuing to thrive and several more crops have likewise been started and are successful. And, Tik's poison propagation to the scorpion fly is confirmed.

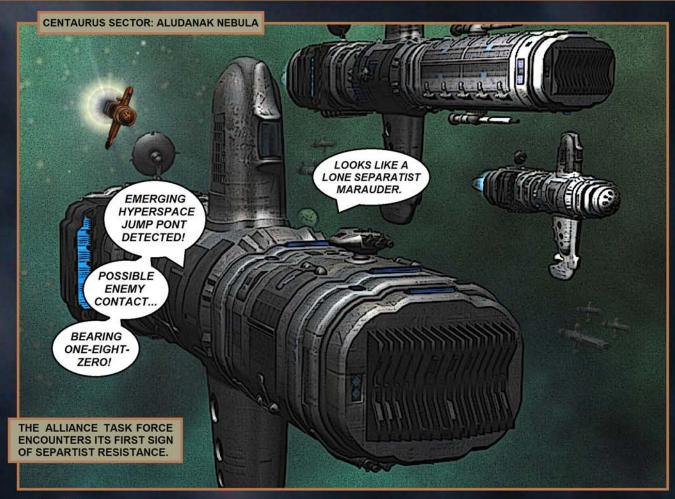
Nugkta Plant				
SIZE:	Small : 20 cm			
NUMBER:	1-10	,000		
STAMINA:	8	3		
DAMAGE:	1 STA per 20 s	eeds consumed		
NATIVE WORLD:	Hakosoar,	Scree Fron		
Nugkta Symbiote Insects				
Creature:	Nugkta Tail Pincher Bug	Scorpion Tail Dragon Fly		
TYPE:	Herbivore	Carnivore		
SIZE:	Tiny: 5mm	Tiny: 12mm		
NUMBER:	1-12	1-12		
MOVE:	1 m/turn	3 m/turn		
IM/RS:	7/70	8/80		
STAMINA:	2	3		
ATTACK:	30	55		
DAMAGE:	1 STA per bite	1 STA per bite		
SPECIAL ATTACK:	None	None		
SPECIAL DEFENSE:	None	None		
NATIVE WORLD:	Hakosoar, Scree Fron			

GM Notes

Tough nugkta hybridization has now successfully started it will be many years before medical byproducts of the poison are even available to begin studies.

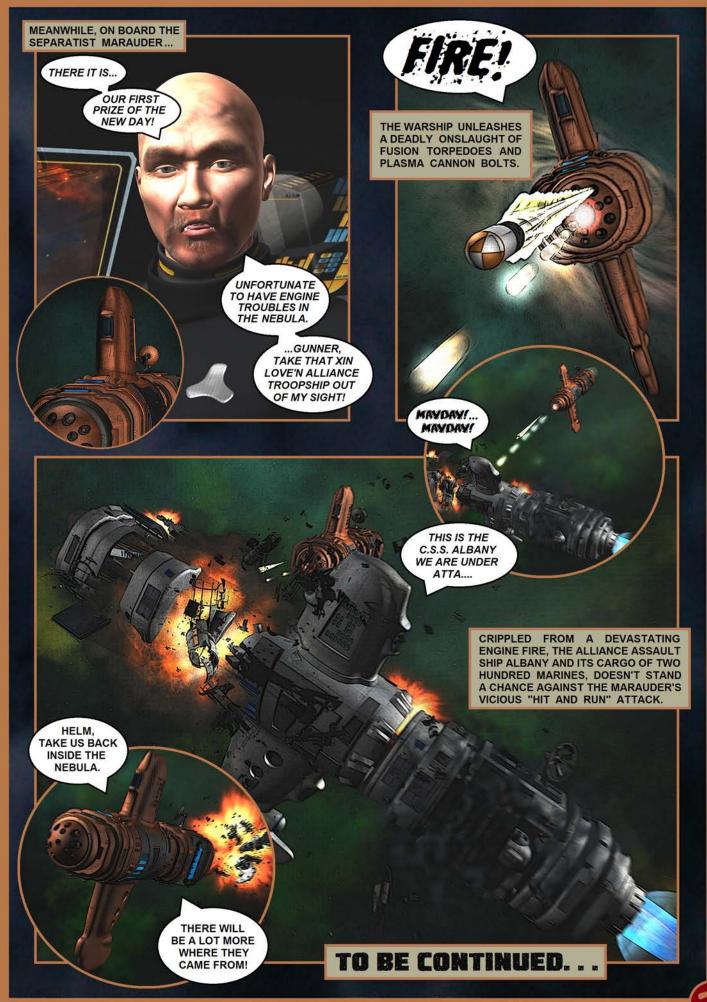
Readers wishing Jurak Hangna to investigate a creature of the frontier need only submit a picture and any details of the creature via FrontierExplorer.org. Submitters must have rights and permission to submit all artwork.

EPISODE #9.0: ENEMY CONTACT





SRM 2016





"Please tell me you have something..." the yazirian director of UPFBI ordered as he strode into the forensic lab to confront the head medical examiner, a dralasite currently in its female phase.

"I do," the dralasite doctor replied breathily, "but you aren't going to like it."

"Three major terrorist incidents in the last ten days means I already don't like it," the director replied. "Talk to me!"

The doctor sighed. "At first, I couldn't figure it out." She gestured at several bodies laid out on examination tables under freeze fields. "Initial examination indicated two perfectly normal humans, three healthy yazirians, and an utterly ordinary vrusk. Then I got the blood screens back from the lab. All six of them have really screwed up hormone balances. Dopamine and seratonin levels or their equivalents are nearly 125 percent of weighted norms. Oxytocin is up too, about 120 percent..."

The director struggled to remember his basic biochemistry. "So, they were really happy to be doing what they were doing?"

"That would be understating it," the doctor replied tiredly. "Levels that high just don't occur naturally. We're talking two to three times the levels expected from a normal pleasure response."

"Drugs then?" the director asked.

"First thing I looked for," the doctor replied, pulling up a set of test results on her computer screen. The yazirian leaned over her shoulder to follow along as she explained. "I tested for all the normal stuff: stims, 'joyjuice', et cetera." The doctor pointed out the appropriate parts of the readout. "Nothing ... until I noticed this." She indicated one result in particular. "Elevated histamine levels."

"Allergies?"

"Almost. I checked for secondary signs of allergic reactions: sinus irritation, and so forth, and came up empty. So I dug deeper. Eventually, I did find foreign proteins, specifically pheromones." She paused to look back at her boss. "When I submitted the results to the database for identification, I got red-flagged. I need a higher authorization code to access the files."

The director nodded and crossed the room to another access terminal. The doctor watched as he submitted to retinal identification, voiceprint check, and entered a pin code into the terminal to release the requested information. She turned back to the terminal, and, if it were possible for her to do so, would have turned pale. As it was, she lost partial control over her body configuration and it started to droop.

"What is it?" the director asked as he came back over. The dralasite gestured at the screen without a word.

The yazirian looked where she was indicating and swore softly, "Void..."

The answer sat there on the screen in black and amber: 99.387 PROBABILITY MATCH. SPECIES: SATHAR.

"I want every note you and your labs have compiled and sealed within the hour," ordered the director. "Tell your people: not one word of this to anyone. Then I want you to prepare a full briefing for the Prime Minister, the Chair of the Council, and the head of Star Law."

The dralasite nodded. She had been with the Bureau long enough to know that if the worms were this organized, they were in trouble...

INTRODUCTION

The Alpha Dawn rules on sathar state that they use hypnotism to control their hidden agents and that anyone could succumb to their will if exposed to their voice and presence. Of course, that was in the 80s when hypnotism was suspected of being much more powerful than it turned out to be. Coming back to Star Frontiers after a very long absence, it struck me how pat the answer was, and I found it unsatisfying, so I set out to tinker with it.

As I see it, the sathar can "hypnotize" with direct personal contact, but I posit that it's a much more involved process than simply speaking to the victim with the intent of controlling them.

THE PROCESS

Sathar needing to hypnotize someone in a hurry, or for a single, simple purpose ("Open this door." "Forget you saw anything wrong here.") can rely on their natural "hypnotic" ability, which is a combination of sub-aural harmonics produced by their vocal apparatus and a naturally emitted pheromone that influences the victim so

as to be more suggestible in the first place. The victim needs to make a check based on the average of their current Stamina and their Personality score (their physical resistance to the pheromonal effect plus their force of will).

When the sathar need a long-term agent capable of more complex actions they have to use stronger methods. Someone chosen to be used as a higher level agent is kidnapped and subjected to extensive conditioning in a controlled environment designed to amplify the natural hypnotizing effect. They will constantly be in the presence of sathar while being bombarded with visual and audio input (think the "conversion" process from the 80s version of "V") while also being exposed to concentrated doses of sathar pheromones. The subject must make a daily check as described above. For each two days of conditioning, the check is at -5%. If after 3 weeks (about 24 days) the subject is still resistant, they will simply be killed. Very few people have either the will or the stamina to resist sathar conditioning for that long.

If/when the subject does succumb to the conditioning, the audio and visual inputs are changed from harsher ones designed to break the will of the subject to more "gentle" (read: more insidious) ones designed to build the loyalty of the subject to his/her new "friends". This process will continue for another week. The end result is an agent who will appear to be/act perfectly normally in all respects, but whose loyalties are to the sathar cause.

Such agents are assigned to a sathar "handler", who will establish a hidden base of operations to which the agent will be required to report on a regular basis. There are several such bases throughout the Frontier (more than the UPF suspects). This ensures exposure to the pheromones continues, and reinforces the conditioning. For each week the agent remains under sathar control, an additional



STA/PER check must be made at a cumulative -3% per week. Failure of this check means that the conditioning has become "set", and any rehabilitation of the agent will require a regimen of deprogramming that takes at least as long as it took to turn the subject in the first place.

IDENTIFYING A SATHAR AGENT

Individuals who have fallen victim to "normal" sathar control sometimes display behavioral cues, such as a distracted, vacant, or overly focused affect while they are carrying out their assigned task. Such cues are not always present, however. Upon release from the control, confusion and agitation are common responses. Given that their exposure to the means of control is short-term, there will be few physiological traces.

A "turned" agent will appear perfectly normal under most circumstances. He/she will laugh, cry, get angry, etc just as any other person would. They may show minor changes in behavior that an observant third party might note, such as a change of handedness, or slight alterations to established habits and interests. Those, along with an unexplained absence lasting more than a few days are the biggest cues that a subject may be turned. The sathar, of course, work to mitigate that by choosing victims who have no close family to miss them, or for whom they are able to manufacture a convincing excuse such as a vacation, business trip, or similar occurrence.

Their conditioning only becomes evident in the event of discovery. A discovered agent will become almost psychotically violent, and will either seek to conceal the discovery by killing the discoverer or, depending on the nature of their mission, will flee and attempt to return to their sathar handler. This extreme reaction means that a captured agent should be treated as a significant threat to both themselves and others. A suicide watch is suggested for the initial portion of incarceration or attempt at deprogramming.

Physiological signs of agent conditioning include severely elevated levels of dopamine, serotonin, and oxytocin in the bloodstream. Also present in "freshly turned" agents are an irritation of the lungs and elevated histamine levels due to the high dosages of pheromone they have been exposed to. The lung tissue irritation and allergic response lessen but do not entirely vanish as their bodies become more acclimated.

THE FUTURE

Captain Janie Andrews would cry if it wouldn't give those Void-spawned worms so much satisfaction. Unfortunately, that meant she couldn't really do anything at all since her body was immobilized by the restraints on the surgical table.

All around her the glistening tubes of sathar appendages moved, performing their tasks with the emotionless efficiency their kind was known for. Their long-snouted faces and blank, dark eyes unnervingly surveyed her. Their gaze made her skin crawl. The liquid hissing of their natural language made her want to gag, but they had apparently administered drugs to suppress most of her physiological responses. The part of her that was a Planetary Survey officer wondered just what it was they were doing.

After some time had passed (how long she really couldn't tell), a tank was rolled over. One of the sathar reached into the tank and pulled out a wriggling thing. It held the slimy object where she could get a better look at it. It was a sathar wormlet, perhaps 20 centimeters long. It had no appendages, but she could clearly see the head. The wormlet's two tiny eyes were just as unnerving as those of the adults. Why was she being shown this?

The table was suddenly inverted. She felt the tug of surgical instruments at the nape of her neck. Understanding flooded in. They meant to put that horror inside her. Why she wasn't sure, but she was positive it wasn't for any good purpose. Now the tears came, and nothing she could do would stop them. The thought of simply killing herself as soon as she could occurred to her, but she swiftly realized they wouldn't go to all this effort just to let her thwart them so easily.

She could hear the whine of the bone saw. They must be cutting into the back of her skull. That was the final piece of the puzzle. She knew in that instant why they weren't worried about a suicide attempt. She wouldn't be able to attempt anything soon. Would there still be anything of her left after this? Would she know the evil deeds her body would commit? In her last moments as a free sentient, she honestly hoped not...

The surgical technicians finished closing the skin over the insertion site and sprayed the area with medicine designed to promote rapid healing. The operating table was rotated back to a face-up position, and the restraints were released. The body of the human female slowly sat up. Cautiously, she flexed her arms and her legs, as if learning how they felt in motion. After a few moments of this, she stood and faced the project's director.

"You have control?" it asked.

"I do," the female replied. "Captain Janie Andrews, reporting for duty, sir."

"Eththellent," replied the director. "You will be returned to a thuitable location clothe to the area you were captured. Make your way back to the thurvey camp. Make thure our prethenthe here ith not dithcovered. Then return with your team and carry out your other objectiveth."

The monster wearing the body of Captain Janie Andrews gave a cross-chested salute. "Hail, Satha!"

As frightening as sathar "hypnotism" already is, even more frightening (if the UPF ever finds out) are recent developments in sathar genetic and bio-organic engineering. The worms are on the cusp of developing a means by which specially developed infant sathar can be biologically integrated into human, yazirian, and vrusk hosts (dralasites are immune due to their distributed neurological networks). The infant sathar would have full control over the host, much as with a slave-bot, but would have access to their memories as well. Removing the infant would require extremely sophisticated neurosurgery that at best would have a small chance (3% for every 10 points of STA) of success without killing the host.

A few sathar scientists are working on an even more sinister program to create sathar hybrids, combining sathar DNA with that of other races to create physical copies of their forms, but with sathar neurology and personalities. This research is being held back by two things: 1) the difficulty of combining vermiform DNA with mammalian, insectoid, and amoeboid, and 2) the distaste for the idea on the part of the majority of sathar, who feel it is demeaning for them to assume the form of "lesser" species.

If either of these programs progresses to the point of viability, the sathar will become a threat to the UPF the likes of which it has never seen.



Tom Verreault



Author's Note: This story is greatly inspired by an original article in Dragon Magazine about an optional Star Frontiers character race called the S'sessu. It also greatly borrows conjectures about Sathar made on the starfrontiers.us website, especially a discussion started by user Tchklinax called "Sathar Biology & Ramifications of It" in 2015. I attempted to contact Tchklinax through the forum site to gain permission to use her musings before submitting this story to Frontier Explorer magazine.

When Star Frontiers was conceived, the game was supposed to have a fifth player race.

That extra "Core Race" had a pragmatic, amoral outlook on life, according to David "Zeb" Cook, one of the game's original designers when interviewed in issue 18 of Star Frontiersman magazine. The "right" thing for this race was whatever best ensured its survival and success while balanced by a strong sense of personal loyalty to comrades.

Instead, the higher ups at TSR, Inc., wanted Star Frontiers to be appealing to 14-year-olds. They decided that the game needed an enemy, so the fifth race became the evil Sathar.

Cook later presented the highly competitive S'sessu, a close relative of the Sathar, as an optional race in issue 95 of Dragon Magazine (April 1985). This "kinder and gentler" worm species gives Star Frontiers a bit of a Vulcan-Romulan dynamic that is found in the Star Trek universe.

The S'sessu are almost identical in appearance to the Sathar, though they have skin pigmentations ranging from being bright pink to being green-tinted. The Sathar are yellow or brown with patterns of dots or stripes on their heads.

A referee should probably assume that there may be other differences that are more than skin deep or based on socio-political matters. The S'sessu, according to Cook, were separated from the Sathar more than 20,000 years – long before either race had developed space travel – and may have been placed transplanted to their homeworld by the mysterious Tetrarch Societies.

The rest of the "canon" material according to Cook is that the S'sessu "only hold claim to a small region of space, consisting of two stellar systems (each with one inhabited planet) lying ten light years from the Gruna Garu system." These systems, including a planet called Phri'sk, are "on a line running from Dixon's Star to Gruna Garu and on to the S'sessu worlds."

The United Planetary Federation first encountered the new race when the frigate UPFS Hellscar misjumped after escaping from two Sathar ships. After the frigate's captain mistook the worms of Phri'sk for a Sathar outpost, he ordered his crew into battle while sending out a distress call. During the ensuing skirmish, a S'sessu scout ship disabled the previously damaged Hellscar. The worms captured the frigate and its surviving crew during a boarding action.

Weeks later, a UPF rescue/attack fleet (we could assume it was Strike Force Nova) arrived in Kashra'sk system. The sheer size of the fleet and its heavy ships suitably impressed the S'sessu and further bloodshed was avoided by both sides through careful diplomatic relations.

It is unclear from Cook's story if Phri'sk was meant to be the name of the S'sessu home world, but for the intents of this article, it will do. What follows are descriptions of the S'sessu star systems – Kaskra'sk and S'seuden – and other potential neighbors (if the game referee choses to use them in a campaign).

Kashra'sk

SYSTEM DATA: KASHRA'SK

Spectral Type: G4 V

Color: Yellow Main Sequence

Habitable Planets: Phri'sk

MAJOR TRADE ROUTES

• S'seuden (New Phri'sk) – Distance: 7 light years

• Gruna Garu – Distance: 10 light years

• Minan (Fringeworthy) – Distance 12 light years

SYSTEM HISTORY

Located on the fringe of the Vast Expanse, Kashra'sk is the home star system of the S'sessu. It has one habitable planet, Phri'sk, plus two rock planets — Kashra'sk I (Aepra'sk) and Kashra'sk II (Za'thora'sk).

Orbiting within 0.44 AU of its star with a period of 0.32 GST years, Aepra'sk is named after the legendary Aepra, the speedy S'sessu who was a messenger of the Great Worm.

The planet is irradiated by Kashra'sk and has heavy metal deposits of uranium and the like. It is home to several S'sessu mining operations that have to contend with the occasional earthquake and solar flares. Atmosphere: None. Gravity: 1.32.

The second world in the Kashra'sk system, Za'thora'sk, is named after the place in S'sessu legends where the great lizard beings that brought them to Phri'sk. It purportedly has an advanced ancient alien artifact and possible Tetrarch ruins. The S'sessu established several outposts and small-sized colonies here, probing the secrets of the alien ruins. Orbital Radius: 0.75 AU, Period: 0.72 GST years, Gravity: 0.53, Atmosphere: Thin, toxic, Biosphere: Prokaryotic microbes.

Phri'sk (Kashra'sk III) is the home world of the S'sessu, a species of giant worms that are related to the Sathar and is detailed separately.

The S'sessu developed Void travel less than 200 years ago. They successfully charted a route to and back from the S'seuden star system with its one habitable planet (New Phri'sk), which they soon colonized.

Before the encounter with the Hellscar, the S'sessu made contact with a colony world of the Peelovans (Star Frontiersman #24) – the planet Fringeworthy in the Minan star system. Given the Peelovans' secretive and wary nature, they've kept their home world's location a secret, but they quickly put the S'sessu in contact with the Skree (Star Frontiersman #9) that live in the Imdali star system. S'sessu traders must go through the Peelovans' system to reach the Skree.

After contact with the UPF, the S'sessu eventually opened a trade route to the Hydrae's home star system, known in Pan-Gal as Gamma Hydrus. This trade route originates from the S'seuden star system. A minor trade route was later opened from Kashra'sk to Rhianna (Alcazzar).

PLANETARY BRIEF - PHRI'SK

PLANET DESCRIPTION

The third planet from its star, Phri'sk is slightly smaller than Earth and offers a variety of climates including rather large polar regions. Phri'sk has many resources with its industries being primarily high technology, education, commerce, and agriculture.

One super powerful nation – S'sotra – dominates nearly a fourth of the planet while a half dozen other nations jockey for position with the others to win favors from the S'sotrans or to oppose them. When the UPF frigate Hellscar misjumped into the Kashra'sk system, it made contact with a S'sotran scout ship. Since acquiring the Hellscar as a prize in battle, the S'sostrans have sought to control negotiations with the UPF while acquiring high technology.

Phri'sk			
Moons:	Four small moons – Seren'as, Pkon'as, Tra'tun'as and Sossla'as		
Atmosphere:	Dense, breathable		
Hydrosphere:	59% water, 18% ice		
Gravity:	0.96		
Orbit Range:	1.14 AU		
Population:	Heavy – S'sessu, approximately 10 billion in FY 50		
Diameter:	11,432 kilometers		
Axis tilt:	11.3 degrees		
Length of Day:	26 hours, 41 minutes GST		
Length of Year:	1.36 GST years		
Average Surface Temp:	22 degrees Celsius; Min24 degrees C; Max. 52 degrees C		
Native Life:	No sentient native life.		
Trade:	High technology, Commerce, Industrial, Agriculture.		

NOTABLE S'SESSU NATIONS

S'sostra is the dominant S'sessu nation. With nearly 3.8 billion citizens, it controls territory from the equatorial zone down to Phri'sk's southern pole. It is ruled by an all-powerful dictator and supported by an oligarchy of regional leaders and major corporations.

Historically the S'sostrans expanded by absorbing allied nations/clans along with conquering territory where required. They were the first to develop interplanetary travel and discovered the Tetrarch ruins on Za'thora'sk, which led to the development of Void travel. The S'sostrans have not absorbed the other nations on Phri'sk because they believe that having rivals allows them to keep their competitive edge.

After making first contact with the United Planetary Federation, the S'sostrans have pursued a closer trade relationship with the Frontier. Although there are fears that the S'sessu could ally with the Sathar, the S'sostran dictator once told the first UPF ambassador, Franco Capone who was the captain of the Hellscar, "Friends trade with each other. Trade can even make rivals friends. Are you going to trade with us?"

Star Law believes that the S'sostrans are worried that the Sathar would try to subjugate and destroy their culture.

Ssar'phesk is the second largest nation on Phri'sk with 1.2 billion citizens and the main rival of S'sostra. While not as powerful as the S'sessu superpower, it was the first to make contact with an alien race – the Peelovans, which also put them into contact with the Skree.

The Ssar'pheskians and the S'sostrans are locked in a Cold War-style rivalry, often involving complex diplomatic and military moves against each other while trying to avoid open warfare.

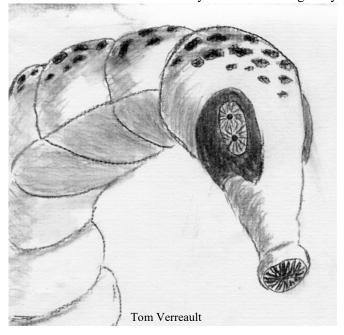
Pho'Trass'Nsk is the third largest nation on Phri'sk with 480 million citizens and aggressively colonized Phri'sk'sree (New Phri'sk) in the S'seuden system. It survives by trying to play the S'sostrans and the Ssar'pheskians off against each other by alternatively allying with one or the other. Its citizens are called Pho'Trassh – which has spawned a number of jokes in the Frontier when it was translated into Pan-Gal. One Dralasite joke, for example, deals with a human taking a S'sessu out "for trash."

The S'sostrans advised the UPF that the Pho'Trassh are untrustworthy and vicious. However, given the species' general manner of one-sidedly changing business and diplomatic deals for a better advantage, many Frontier citizens and corporations have generally ignored this warning.

Usalas'sk is a medium nation of 180 million citizens in Phri'sk's northern hemisphere near the polar regions. It is surrounded by steep, jagged mountains. Notably, its soils are renowned for their healing qualities – for S'sessu – and are in great demand by its trading partners. This has led to the growth of an entire industry for artificially enhanced soils.

PHRI'SK MOONS

Seren'as orbits Phri'sk in 8.6 days. It is an oblong body



believed to be an asteroid that the planet captured in its orbit long ago and features ancient mines, possibly made by the Tetrarch Societies. With little remaining mineral wealth, The S'sostrans turned it into a military base for its hull size 2 scout/bombers. Astronomers believe the moon is slowly spiraling down toward Phri'sk and will break apart within 8 million to 9 million years.

Pkon'as and Tra'tun'as share the same orbit around Phri'sk but are on opposite sides of the planet. Both have a thin atmosphere along with trace elements of water, nitrogen and methane. Pkon'as is red, due to iron oxide in its soil while Tra'tun'as is a muddy brown. Both complete their orbits in 24.3 days and it is believed that they may have been artificially set in place.

Pkon'as has small colonies from several S'sessu nations while Tra'tun'as has been wholly claimed by the S'sostrans.

Sossla'as orbits Phri'sk in 58.3 days and is a small, rocky moon. Ssar'phesk and Pho'Trass'Nsk have established small bases here.

ARTIFICIAL SATELLITES

Phri'sk is orbited by several small research space stations and two armed docking stations – one operated by S'sostra and the other by Ssar'phesk. Both rival nations have shipyards in orbit, though the S'sostrans are in the process of upgrading theirs to the top-of-the-line Frontier standards. They have also stated that they want to build a UPF-style space fortress though many military analysts doubt that they are that technologically advanced.

GOVERNMENT, LAW & CITIZENS' ATTITUDES

Phri'sk does not have a world government, but rather one dominant superpower, two other major powers and dozens of medium- to small-size nations and even areas that are controlled by criminal clans. Laws vary widely, but generally are set to favor those who have power so they can keep their power.

The government of Pho'Trass'Nsk employs a harsh secret police force that interrogates and imprisons any potential agitators. Its young leader has publically executed several family members and former political allies after accusing them of treason.

Many S'sessu leaders remain in power because the worms under them believe that one day, they too can advance in prestige. Popular fiction follow a "rags to riches" — or "slime to riches" — formula that helps support their competitive society.

TECHNOLOGY AND MILITARY FORCES

When they were first contacted, the S'sessu were generally considered to be less technologically advanced than the Frontier societies or the Sathar. Since then, S'sessu governments and companies have aggressively moved to acquire higher technology through various trade deals with mega corporations and smaller firms.

In turn, the Oni-Senate Corporation of Rupert's Hole (Cassidine) – a manufacturer of less fancy, discount priced products (i.e. often cheap knockoffs of sometimes questionable quality) has opened several manufacturing facilities on the S'sessu worlds. The worms are willing customers and distributors of Oni-Senada goods whether or not they are labeled as "Pan-Galaxy" or "Steel & Streal."

The most technologically advanced of the S'sessu nations is S'sostra, but before the Second Sathar War it was incapable of building any craft larger than a destroyer. The S'sostrans had a large number of hull size 2 ships that they called scout/bombers (these vessels are antiquated by Spacefleet standards).

The S'sostrans, the Pho'Trassh and the Ssar'pheskians quickly became buyers of surplus UPF Spacefleet ships and equipment, often retrofitting them to be more comfortable to the worm's physiology.

TETRARCH SOCIETIES RUINS

One Tetrarch Societies pyramid exists on Phri'sk and is found in S'sostran territory near one of its major cities. The ruins on the planet Za'thora'sk are probably that of a small research colony. The artifact there has been referred to as the "Wonder" and is some sort of large automated machine/computer that apparently is partially functioning.

S'sessu Origin Legend

Several S'sessu origin legends exist including one in Usalas'sk that says the inhabitants of that area were "brought up out of the soils" by the Great Worm – the S'sessu's image of God, the creator.

Another story, popular in S'sostra, says that the first S'sessu came to their world in a large bubble after a long sleep in the celestial sea. The giant messengers of the Great Worm set them down to work the soils and lived with them, taking the most beautiful S'sessu for their own. But then came the great lightning where the ground shook and the wind blew hot. The giant messengers and their offspring "gave up their spirits," leaving the S'sessu behind. The legend continued that when they obtain enlightenment, the worms will join others riding to the stars.

One origin legend in particular has caught the attention of Frontier xeno-archaeologists. Coming from an ancient Pho'Trassh clan, it talks about how the Great Worm was displeased with soil bound ways of their First Ones (proto-Sathar) who were too content to play and frolic in an Eden-like world called Kei-Phak.

The Great Worm sent a scourge to the First Ones in the form of great walking lizards that took them to the stars to

fight many enemies including a race of worm eating insects.

One group of zealots – the S'slu Zatt'ar – sought to overthrow their masters, which displeased the Great Worm even more. The Worm split the S'slu Zatt'ar into squabbling factions, but one group was shown favor. The Great Worm gave the S'slu – renamed as the S'sessu – the world of Phri'sk, which was a world of many delights but also dangers that would challenge and confront them to grow. The S'sessu were warned not to conquer Phri'sk's environment but rather to adapt to it, hence they have not tried to greatly alter its climate to be more worm friendly.

The Pho'Trassh legend continues that the Zatt'ar were banished to the darkness of the stars, never to find peace or rest. The Zatt'ar are said to eat their children, but modern-day S'sessu dismiss that story as a myth to scare young wormies.

S'SEUDEN

SYSTEM DATA: S'SEUDEN

Binary Star System

Primary Star Spectral Type: F9 V

Color: Yellow-White Main Sequence

Number of Planets: 3

Asteroid Belts: 1

Habitable Planets: Phri'sk'sree (New Phri'sk)

MAJOR TRADE ROUTES

• Kashra'sk (Phri'sk) – Distance: 7 light years

• Gamma Hydrus (Amaldus) – Distance 12 light years

SYSTEM HISTORY

S'seuden was the third star system discovered by the S'sessu after they developed Void travel and the first one that had a habitable planet – S'seuden III, which they named Phri'sk'sree or "New Phri'sk." The planet was soon colonized by Phri'sk's major powers. New clans and nations also arose in some of New Phri'sk's harsher climates.

S'seuden I is a rock plant that orbits 0.53 AU from the primary star with an orbital period of 0.29 GST years. It is mostly unexplored and considered unremarkable by the S'sessu. Gravity: 1.75.

S'seuden II is another rock planet that orbits 1.03 AU from the primary star with an orbital period of 0.78 GST years. It has a thin, toxic atmosphere and electromagnetic storms that make navigation around it hazardous. It is mostly unexplored and is rumored to have a pirate base or two. Gravity: 1.91

The asteroid belt is at 1.61 AU from the primary star.

Phri'sk'sree (New Phri'sk)			
Moons:	None		
Atmosphere:	Dense, slightly toxic		
Hydrosphere:	86% water, 45% ice		
Gravity:	0.91		
Orbit Range:	1.9 AU		
Population:	FY 50, Light – approximately 80 million S'sessu; FY 111, Medium – approximately 440 million, mostly S'sessu but a scattering of other races		
Radius:	5,619.8 kilometers (0.88 earth)		
Axis tilt:	6.89 degrees		
Length of Day:	26 hours, 41 minutes GST		
Length of Year:	1.36 GST years		
Average Surface Temperature:	Cold, Minimum, -50 degrees Celsius; Average, 4 degrees Celsius; Maximum, 66 degrees Celsius		
Native Life:	No sentient native life; microbes, algae, animals		
Trade:	Mining.		

New Phri'sk is detailed below.

The S'seuden Prime's companion star orbits out at 10.2 AU. It is a K5 V Orange Main Sequence Star with a radius of 0.98 sol, a mass of 1.03 sol and a luminosity of 0.54 sol.

After contact with the UPF, the S'sessu eventually would open up a trade route from S'seuden to the Hydrae's home star system, known in Pan-Gal as Gamma Hydrus.

PLANETARY BRIEF - PHRI'SK'SREE (ALSO CALLED NEW PHRI'SK)

PLANET DESCRIPTION

The third planet in the S'seuden system, New Phri'sk was settled by the S'sessu about 140 years ago mainly by the S'sostrans, the Ssar'pheskians and the Pho'Trassh. These three nations founded mining and penal colonies.

A number of enterprising S'sessu established other settlements and claimed territory, leading to a number of colonial wars. Because the atmosphere is toxic to the worms, they wear special filtering suits when working or traveling outside of their pressurized dome communities.

The planet has one large continent and one smaller continent plus several large islands and archipelagoes. Nearly 86 percent of the planet is covered by water --

including 45 percent by ice during the winter, which lasts for more than half of its year.

Springtime occurs when New Phri'sk's orbit draws closer to S'seuden's companion star (Sholoss'sk). The ice retreats by up to 50 percent during the summer when New Phri'sk orbit brings it in closer alignment with Scholoss'sk and autumn starts as it draws away from the companion star.

The S'sostrans have made abortive plans to start a terraforming operation on New Phri'sk, but at the current rate, the planet may not be "worm friendly" for another two to three centuries. It is rumored they are looking for a partner company from the Frontier. If this project is successful, such a radical change in the planet's atmosphere would likely kill off its native life, but many of them are poisonous to Satharoids.

Except for some small research stations and a few satellites, there are no docking stations in orbit. The major S'sessu nations maintain squadrons of ground-based fighters while the S'sostrans maintain patrols of 2-4 scout/bombers in the system to discourage piracy.

ADDITIONAL NOTES

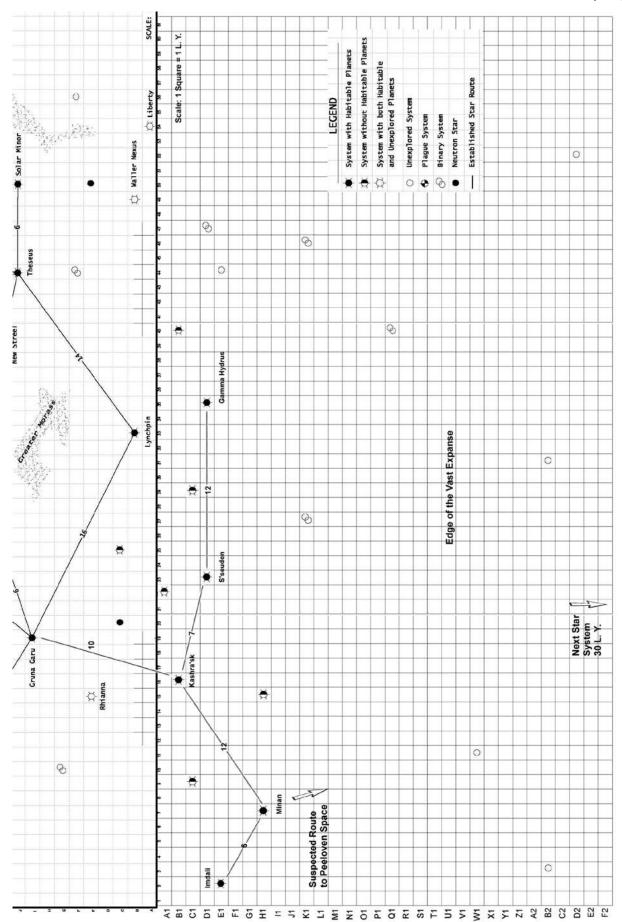
The descriptions for the S'sessu homeworlds were created using conjecture based on David "Zeb" Cook's original article along with his alien planet generation ideas in the story "Home Sweet Home" in Ares Magazine, Special Edition 2, 1984 (which was reprinted in issue 23 of Star Frontiersman). I also made use of the "SciFi World Generator" on the donjon.bin.sh website to help flesh out some of the information about the S'sessu's star systems including a planetary map.

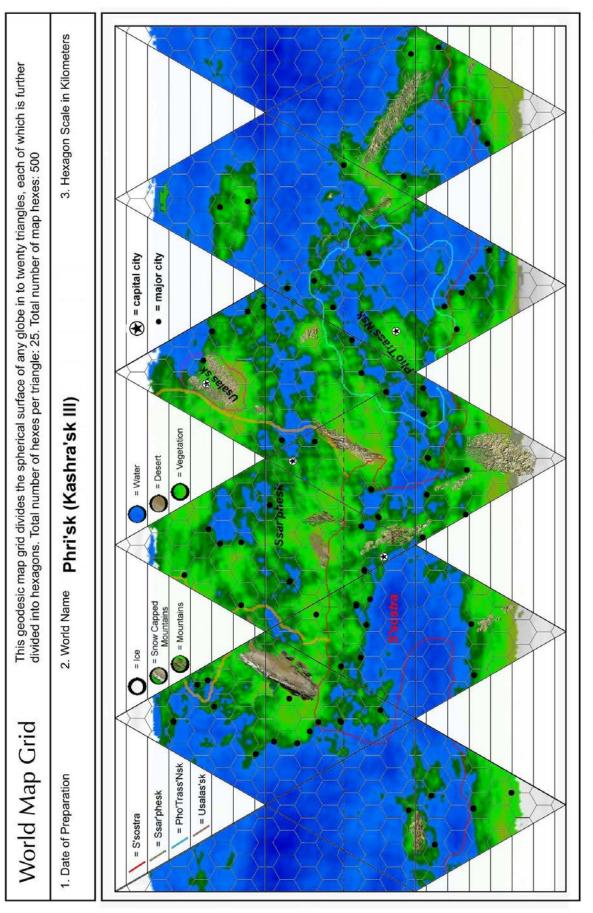
The map of S'sessu space and the area that I call the "Edge of the Vast Expanse" was made using an old copy of ArcSoft Photoimpression software, which allowed me to create a layered image to cut and paste star symbols, text and space routes onto a digital sheet of graph paper. This image was also married to a cropped portion of a black-on-white map of the Frontier that I had discovered online. Unfortunately I have since lost the information on who originated the Frontier map or where it came from. While it may not be as pretty as the colorful Zebulon-inspired maps, it does use a lot less black ink to print.

The star system name of Kaskra'sk originated in a story by Daron Patton in Star Frontiersman #19 that was entitled, "Creatures of the Frontier: An Aliens Best Friend."

MAPS

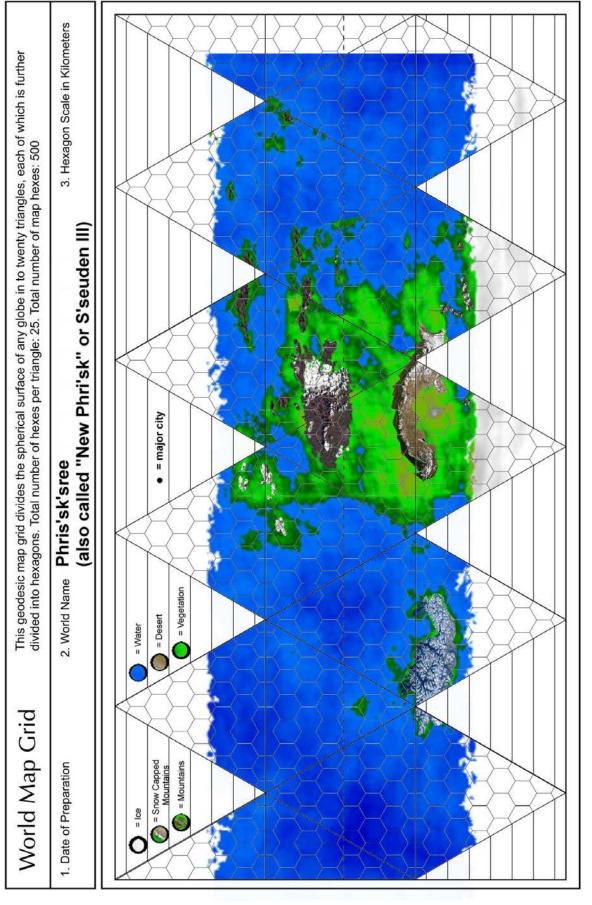
The maps on the following pages show the area beyond the bottom edge of the Frontier containing the S'sessu home worlds as well as planetary maps for the two habitable planets.





IS Map Form 8

IS Map Form 8





Author's Note: The S'sessu were introduced as an optional race by David "Zeb" Cook, one of the original designers of Star Frontiers, in issue 95 of Dragon Magazine (April 1985) and later reprinted in Star Frontiersman. The details about S'sessu biology and thoughts on specific worm-friendly technology are greatly based on the discussion started by user Tchklinax on the starfrontiers.us website called "Sathar Biology & Ramifications of It."

"Ick! What is this stuff all over my keypad?" the engineer demanded, his mandibles clicking while his antennas waved agitatedly above his head.

The Yazarian female came up to the Vrusk, "You think that's bad? Look at what's happened to my seat!" She gestured to the high back chair nearby that glistened with sticky moisture. "I'm ready to rip someone's hearts out."

She was interrupted by a shout as a Human male, arms pin wheeling around slid into scene. "Whoa, whoa, whoa! The floor's slippery," he cried before falling into the Vrusk. The two went down in a jumble of legs and arms.

The view shifted back to the announcer, solemnly staring into the camera with his four bright blue pupils glittering, offsetting his bright pink head. He clasped his upper tentacles clasped together with the two index "fingers" raised in a steeple-like fashion. "Don't let this-s-s happen to you," he said. "While the ray-ssess of the Frontier can be tolerant, you don't want to ups-s-set your companions."

Unclasping his hands, the announcer slipped on a pair of gloves as the camera panned back, showing that he was wearing an outfit that covered his lower tail and bottom tentacles. "When venturing out into alien s-spay-sss. The wise S'sessu wears adventure gear, becaw-zz not everyone appreciates-s s-slime," he explained, his tongue emerging from his circular, teeth ringed mouth as he stressed his "Ss."

"Thanks-s to the Oni-S-s-senada Corporation we now offer a full line of s-stylish garments-s-s that will keep you out of trouble."

The scene suddenly jumped to a nighttime shot. A large, muscular Human male carried a club as he moved furtively in the dark. Beside him walked a three-legged, two-armed amoeba-like creature – a Dralasite. The two were sneaking up on a worm-like creature slithering along

in a garbage-strewn alleyway and seemed oblivious to their presence.

"I think that's one of them," the Dralasite whispered.

"Let's get'em," the man agreed.

"Don't be mis-staken for the enemy," the announcer's voice warned.

The worm-like creature turned its head as the two stalkers approached. Suddenly the back of his outfit light up with words in the Pan-Galactic language that said, "I am not a Sathar."

"Wha-?" the man gasped. "If you're not a Sathar. What in Josaphat's name are you then?"

"I'm a S'sessu," the worm replied.

The man dropped his club and came forward with arms outstretched; the Dralasite followed suit. "Ah, friend. Here, come with us and have a drink."

As the new-found friends moved off, the announcer said, "For an additional 30 Credit charge, a microfiber message panel can be added to your adventure outfit – only 50 Credits-s for panels-s on the front and back. You never know when it will be us-s-seful."

Next a glowing chronocom appeared in the holographic field.

"For only 700 Credits-s you can purchas-se this-s-s Pan-Galaxy ZetCom. Us-sing G-5000 technology, this-s s-smart chronocom comes-s complete with s-some of the mo-s-st us-s-eful body-comp progits-s s-such as Help-Call, Calc-All, Chrono-Calc, Map-Calc and Trans-s-Comp I. Keep in mind that all these features-s would co-s-st you more than 1,000 Credits-s. But wait, if you get your Pan-Galaxy ZetCom today, it will not just be 700 Credits-s. No, we'll slash it to 600 Credits-s. And, if you order it with our adventure gear, you get this high-tech chronocom for only 500 Credits-s."

As the announcer spoke, small words scrolled rapidly across the bottom of the holographic field saying: "Help-Cal, Map-Calc and Trans-Comp service available on most major planets except for the Rim Sector and the following exceptions.

"Only partial coverage on Volturnus and Anker (Zebulon) and Terledrom (Fromeltar). Coverage only available with an additional 30 Credit monthly fee on Hentz (Araks),

Laco (Dixon's Star), Outer Reach (Dramune), Ken'zah-Kit (K'aken-Kar), Zik-Kit (Kizk'-Kar), Kawdl-Kit (K'tsa-Kar), Ringar (Solar Major), Starmist (Sundown), Pale and New Pale (Truane's Star).

"No coverage is available on Snowball (Liberty), Mechano (Mechan), Corpco (New Streel), Exodus and Genesis (Pan-Gal), Alcazzar (Rhianna) or Mahg Mar (Walter Nexus). There is an additional 50 Credit first-time activation fee, except on planets where prohibited by law."

As the commercial ended, the young adventurer, Ash'Yorl the S'sessu thought, *Wow, I better run down to the store and buy some things before I leave.*

INTRODUCTION

A creature's biology, size and shape, nutritional and health needs will determine how everyday items are designed and used.

Dralasites breathe through their skin and wear web-like "clothing" and probably skeinsuits that can allow the easy passage of air, but apparently without negatively impacting their protection. Yazarian clothing needs to take into account their wings. Vrusk need special

seats, more complicated and expensive spacesuits and armor, plus a bit more room to maneuver. Humans are considered to be the game's baseline in regards to technology and clothing.

The optional S'sessu race – a Satharoid – also has different needs.

Since the Frontier contacted the S'sessu, UPF scientists and physicians began to learn more about their biology, which hopefully provides insights on the Sathar.

Some of the biological facts about the S'sessu include that have an average lifespan of 100 years, though it is believed that

contact with the Frontier's more advanced medicines may extend their life; they are cold-blooded; have lungs but can also absorb oxygen through their skin; and can become ill from a build-up of calcium in their bodies.

It was originally theorized that Satharoids were endothermic (warm-blooded), but after contact with the S'sessu, Frontier xenobiologists now know that they are ecotherms (a cold-blooded species) with unique abilities to regulate their temperatures to an average of 28 degrees Celsius.

The worms' olfactory pits near their eyes contain specialized heat-sensing organs that allow them to

regulate their body's response to high and low temperatures. By releasing various hormonal steroids that speed up or slow down their metabolism, they can withstand temperature ranges that are similar to the Core Four Races.

S'sessu, like the Sathar, secrete a protective slime that is essential for breathing. In addition to lungs, the worm can absorb air through their skin, which helps them survive while swimming underwater or slithering in enclosed spaces, such as underground. They can endure low oxygen environments far better than many other races by basically entering a hibernation-like state. When they are like this, Satharoids are unable to defend themselves or conduct other actions.

If for some reason a S'sessu loses its protective slime, its

skin will begin to shrink and crack open in a relative short time while breathing becomes labored (starting with a -10 percent modifier to all ability and skill checks). Developing sores, such an afflicted character is much more susceptible to infection, infestation and disease.

Their clothing – including special garments that they use off world when interacting with other species – helps keep their skin moist while allowing for air circulation.

Satharoids are hermaphroditic, meaning that they have female and male sexual organs. The female pores are located near the upper tentacles at segment nine, while the male pores are near the lower tentacles at segment twelve.

When S'sessu procreate, both worms tend to become pregnant with one to two young. They carry their offspring in a pouch at segment ten for eighteen weeks before birthing the young worm in an individual

cocoon of slime and nutrients that the parent makes in the soil. A young worm matures in the cocoon for another ten weeks before it is time to emerge.

Note, the Sathar do not have this pouch structure; it is theorized by Frontier xenobiologists that they are much more prolific then the S'sessu when they breed.

CALCIUM DISEASE (JJOR'SHLO RAAK)

Although their digestive system is designed to break down and remove calcium from the worm's blood stream,



Satharoids are calcium sensitive with some having severe allergic reactions to calcium build-up in their bodies.

Many traditional S'sessu poisons and weapons were made of animal bone and teeth in the hopes of inflicting a slow death on an enemy. Modern weapons, such as fragmentation grenades, scattergun pellets or needlers might be coated with calcium plus a bonding agent (which provides a negative modifier to any stamina checks) to inflict calcium disease.

Called Jjor'shlo Raak by the S'sessu, calcium disease is similar to hypercalcaemia in Humans. If an attacker using calcium tipped weapon scores an automatic hit (01-05) against a S'sessu – and theoretically Sathar – the target must make a current Stamina check with a +15 percent modifier, otherwise he contracts calcium disease. The referee should consult the chart below.

Elevated levels of calcium in the Satharoid can cause digestive pain, vomiting and fatigue, which negatively impacts ability and skill checks.

At its worst, the disease will lead to death. In fact, if any ability score check drops below zero as a result of the penalty modifiers, death will occur within 1-10 hours.

The effects of the disease are cumulative, so if a character is exposed to harmful levels of calcium again, requiring a roll on the chart, add +10 percent to the result for each exposure.

For example, Ash'Yorl the S'sessu previously had a mild case of calcium disease, but was exposed to harmful levels a second time. When the referee rolled on the chart, the result was 58, meaning that Ash'Yorl would have had a mild reoccurring illness. However, since he had a previous condition, the roll is modified to 68 percent and he now has a severe illness.

At the point at which the UPF contacted the S'sessu, they had not developed a cure for calcium disease, but rather have treatments to mitigate its effects. For example, S'sessu who burrow into a bed of high-quality Usalas'sk loam soil each day for eight hours will trim any negative skill and ability modifiers by 15 percent while medium-quality soils will cut the negative modifiers by 5 percent. Low-quality Usalas'sk soils have no effect. Using Usalas'sk soil will not help a character who has a fatal case of calcium disease.

The worms also have a variety of other treatments that can reduce the longevity and effects of calcium disease.

The most common medicine is Cal-Reduce (the name in Pan-Gal) that will cut the duration of the disease by half for a mild case or by 10 percent for severe cases. It reduces the negative ability and skill check modifier by 10 percent. Additionally, if a Satharoid has a reoccurring condition, it cuts the chance of a relapse to 2 percent per

EFFECTS	OF CAL	CIUM DISE	ASE ON S	<i>Satharoids</i>
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Roll	Level	Effects and Duration
1-25	Light	-10/D5. This result means that the disease will cause the victim to suffer a -10 percent modifier on all ability and skill checks for 50 hours.
26-45	Mild	-10/D10.This result means that the disease will cause the victim to suffer a -10 percent modifier on all ability and skill checks for 100 hours.
46-60	Mild Reoccurring	-10/D10 + 5%/month. Initially, the disease will cause the victim to suffer a - 10% modifier on all ability and skill checks for 100 hours. Thereafter, each month the referee should check to see if the disease reoccurs (a 5% chance per month).
61-75	Severe	-20/D20. A -20% modifier on al ability and skill checks for 200 hours. Movement rates are reduced by one-fourth.
76-85	Severe Reoccurring	-20/D20 + 5%/month. A - 20% modifier on all ability and skill checks for 200 hours. There is a 5% chance the disease will reoccur each month thereafter. Movement rates are reduced by one-fourth.
86-95	Debilitating Long- Term Illness	-40/Indefinite. The victim suffers a -25% modifier on all ability and skill checks for an indefinitely long period of time. Each month, the victim can make a modified Stamina check to see if the disease is knocked down to Severe Reoccurring. Movement rates are reduced by half.
96- 100	Fatal	-40/D20! The victim suffers a -25% modifier on all ability and skill checks but also contracts toxic shock from the calcium disease and will die after 200 hours. Movement rates are reduced by three-fourths.

month. This treatment has no impact on a debilitating or fatal disease. Cost: 400 Credits per treatment.

SevCalc is the medicine for those suffering from a severe case of calcium disease. It will cut the duration by half and reduce the negative ability and skill check modifier by 10 percent. Additionally, if a Satharoid has a reoccurring condition, it cuts the chance of a relapse to 2 percent per month. For those with a debilitating illness, it will also reduce the negative ability and skill check modifier by 10 percent. Cost: 900 Credits per treatment

OTHER UNIQUE S'SESSU ITEMS

PROTECTIVE/ADVENTURE CLOTHING

When S'sessu use technology not developed to withstand their slimy secretions they typically wear some sort of protective clothing, gloves for instance. When traveling amongst other races they are often clothed in special materials, suits, or even cloak like outfits that still allow them to move efficiently, breathe correctly, but does not leave a thin trail of slime that other races find offensive.

For example, when using alien devices, S'sessu often wear specialized tactile gloves that will not be harmed by their normal slimy secretions.

Similar to Dralasites, the S'sessu's clothing acts as an additional protective layer when they are in harsh environments such as desert or arctic conditions or sterilized Frontier starships. These garments keep their skin moist without leaving a slime trail that other beings may find offensive.

Keep in mind that Satharoids move by slithering. They do not use their lower tentacles to walk, but may use them to boost themselves up to eye-level with other species or to crawl if they have injuries to their tails.

Basic tactile gloves are generally prices around 10 Credits, though many S'sessu adventurers are willing to pay for fancier and finer quality gloves. S'sessu traveler's garments — often including a cloak with a hood, tail coverings and gloves and "boots" for the lower tentacles — starting at 100 Credits. A microfiber panel capable of flashing the message, "I am not a Sathar," or other sayings can be purchased for 30 Credits, or a panel for the front and back of a garment can be bought for 50 Credits.

LOAM SOIL OF USALAS'SK

A region of the S'sessu nation-state of Usalas'sk on the planet Phri'sk (Kashra'sk) is known for its medicinal soils that help heal scraps and minor cuts, though it mostly provides the worms with a soothing effect. As a consequence, there is a great demand for Usalas'sk soils —

some of dubious quality – or other earths that have been synthetically enhanced.

A high-quality Usalas'sk soil will enhance a S'sessu's healing abilities, potentially up to an additional 3 stamina points per day above the normal healing rate. Such soils may help mitigate but not cure the effects of radiation sickness, poisoning, cancer, or some other debilitating diseases.

Medium quality soil may enhance a S'sessu's healing rate by 1 to 2 extra stamina points. While average to poor soils would probably only offer a soothing feeling.

The well-to-do S'sessu can purchase certified, high-quality synthetic Usalas'sk soils for 400 Cr (natural soils cost upwards of 800 Cr) per cubic meter. Such soils can be placed in specialized sleeping beds with a caretaker microbot that carefully groom the dirt daily.

The microbot removes debris while making sure the juslum beetles – which feed off of any biological detritus and returns nutrients to the soil – remain healthy and don't overpopulate. For an additional 50 Cr per month, plus a shipping cost of 200 Cr per light year, loam soil farms will provide a replacement cubic meter every month.

Medium quality synthetic soils range from 200 Cr to 350 Cr (400-500 Cr for natural soil) per cubic meter while average to poor soils are 50 Cr to 150 Cr (250-350 Cr for natural soil).

A caretaker microbot costs 200 Cr and can handle one cubic meter of soil. It is considered a level 1 robot, but has proprietary programs that are actually stored and accessed via the robot's control unit. Vandals have been known to hack into the microbots' programming, ordering them to degrade the soils with calcium deposits so it becomes harmful to S'sessu. In one infamous case, an assassin managed to alter a microbot's mission to make the soils toxic enough to kill its owner.

Special traveling beds for Usalas'sk soil are also important for the space-faring S'sessu to help prevent the dirt from being tossed about during Zero-G or high-speed maneuvering conditions. These beds come with a cover to seal them when not in use. As with any such item, prices range from 100 Cr for a Journey Class-style bed with manually installed cover to specialized, luxury beds with automatic covers, temperature and environmental controls or other custom features.

JUSLUM BEETLES

These ten-legged bugs, which grow up to 26 centimeters and up to 5 kilograms, are native to Phri'sk and have been domesticated by the S'sessu for centuries to clean up soils, buildings, etc. Although some view them as a food source, most S'sessu think of them like humans treat dogs. Juslum beetles are small omnivores (Number: 1-6; Move: Slow, 25 m/turn; IM/RS: 5/50; STA 10-20; Attack: 25;

Damage: bite, 1d4; SA: None; SD: None). Cost: 250 Credits

TLOSHA PITCHER PLANT

This carnivorous plant is native to the marshes of Phri'sk's tropical regions though it has since been domesticated to grow in other climates. It has broad leafs with the center having a cup-like structure that secretes a sweet nectar that insects and S'sessu find appetizing.

Note, the plant can consume creatures up to Juslum Beetle size, but only if they fall into the pitcher part of the plant where its digestive juices are.

The S'sessu cultivate the plant for its nectar, which is used as an ingredient for drinks. The tender leaves of young pitcher plants are used to make salads. The mature leaves, however, are poisonous to the worms and most other beings. Treat it as a S2/T20 poison to any characters who consume the mature leaves. The digestive juices are also a S2/T20 poison.

GIZZARD STONES

S'sessu, like smaller worm species, have a gizzard as part of their digestive system and many use gizzard stones as a way to help with the mechanical breakdown of foods. Although normal stones are used, the S'sessu have developed entire industries around making and marketing a variety of gizzard stones, from those that are "properly formed" for "perfect digestion" to ornamental stones made out of highly polished glass to those made from semi-precious to precious stones or gems.

Normal gizzard stones range in price from 5 to 10 Credits. Plastic stones range in price from 1 to 10 Credits depending upon quality. Polished glass stones are 10 to 25 Credits. Gizzard stones made of semi-precious to precious stones or gems vary widely in price, depending upon market conditions, or whether natural or artificial gems or stones are used.

S'sessu warriors, assassins and the like will collect gizzard stones as prizes from those they've killed. In some societies, these trophies are openly worn as jewelry.

FLORA AND FAUNA OF PHRI'SK

MOUNTAIN SHLAAR (TAIL EATER)

The bane of primitive S'sessu, the shlaar are an apex predator that historically killed many an unsuspecting worm over the years by striking from behind and biting off a significant portion of their tails and/or tentacles. Most shlaar subspecies were eventually hunted to extinction, but the mountain shlaars can still be found in Phri'sk's ever-shrinking remote regions.

	Mountain Shlaar
Type:	Large carnivore (average 4.2 meters long, 420 kilograms)
Number:	1-2*
Movement:	Medium, 40 meters/turn, using six legs
IM/RS:	5/50
STA:	90-120
Attack:	65
Damage:	2d10 claws or 4d10+5 bite
Special Attack:	Stealth/ambush attack, characters need to roll an Intuition check with a -10 percent modifier to spot the creature; tail/limb amputation, 50 percent chance if the creature bites its target with an automatic hit
Special Defense:	Thick hide, reduces PGS and non- powered melee weapon damage by one-fourth
Native World:	Phri'sk (Kashra'sk)

*If more than one mountain shalaar is encountered, they are likely to be a mated pair. There is a 50 percent chance that a den will be nearby with 1-4 offspring.

ELPOSHA PHORAD

The Elposha Phorad is a parasitic plant that was first featured in "Creatures of the Frontier: An Aliens Best Friend" by Daron Patton in Star Frontiersman #19. S'sessu society attaches an oddly elevated view of any of its kind who becomes host to this parasitic plant.

The plant constantly drains its host, modifying his stamina by -10 points than when in an uninfected state. However the Elposha Phorad confers its host with heightened insight ability (a +30 percent modifier for success).

Although the plant will infect other character races, except Dralasites, only a successfully infected S'sessu will receive the heightened insight ability.

When encountered, a special roll must be made to determine if the plant will infest a character. If the roll is equal to or less than the character's personality (PER) score, the plant will accept the individual and blithely grow in the neck and shoulder area.

If the plant dies or is excised, the host loses the ability insight modifier, but will recover his lost stamina points.

Re-infestation is possible, though usually it may only occur once a year. Omnimycin is one of the suitable treatments used to remove the parasitic plant.





It is pretty much up to the referee when to introduce the S'sessu into a campaign game. Obviously the S'sessu should be introduced after the First Sathar War.

Some referees may opt to have first contact with the Frontier before the Second Sathar War and that is the basis of these adventure hooks. The ideas here assume that the reader has seen the previous article about the S'sessu's homeworlds (Phri'sk Anyone?).

Most likely the larger S'sessu nations – S'sostra, Ssar'phesk and Pho'Trass'Nsk – would not want to join the UPF, wishing to remain independent. It is conceivable that the smaller S'sessu countries might petition for protectorate or membership status with the Federation. As a whole, the S'sessu would want to trade with other Frontier worlds for the sheer sake of wanting to gain higher technology.

THE ALCAZZAR CONNECTION

The S'sessu explored most of the star systems in the local vicinity of Kashra'sk, but why would they ignore a mineral rich and hospitable planet such as Alcazzar (Rhianna) that is only six light years from their home planet?

UPF diplomats, traders and others would often ask the various S'sessu leaders that question, often meeting stony silence, until at one reception, an intoxicated Ssar'pheskian general got into an argument with a Streel executive. The general revealed that they had attempted to colonize Alcazzar nearly a quarter of a century beforehand, but nearly 300 S'sessu settlers had mysteriously abandoned their dwellings, leaving few clues to what had happened to them.

A second exploration mission to Alcazzar by the S'sostrans also failed when the crew grew sick and died of a mysterious illness.

After the events in the "Mission to Alcazzar" module, when the planet began attracting shiploads of Frontier colonists and miners, the Ssar'pheskians belatedly decided to find out what happened to their colony. They hope that if any survivors are found then the S'sessu can lay a claim to a portion of the world, which the S'sessu call Phes'shask or Great Jungle.

FROM ONE WORM TO ANOTHER

The S'sessu seem to share one thing in common with their Sathar cousins – at least the middle to upper class Sathar – and that's a love of gem-like gizzard stones as a sign of wealth.

When a suspected Sathar spy is killed, his apartment has boxes of high-quality gizzard stones made of Kraatarian glass that were bought by a S'sessu company. Is this a case of smuggling on the side or is there some more sinister plot going on?

HOSTAGE SITUATION

A S'sessu trade official hires the adventurers to supplement his security detail while on a Frontier world. While en route to a meeting, the official is taken hostage while all of his S'sessu security guards are killed. Was the attack by a rival S'sessu nation? The work of the Anti-Satharian League? Or maybe their employer was actually a Sathar spy pretending to be a S'sessu and the PCs set up to take the fall for an act of terror?

AS THE WORMS TURN

After the outbreak of the Second Sathar War, the major S'sessu nations declared their neutrality and strong-armed the other nations on Phri'sk to follow their lead.

All S'sessu were ordered to leave the Frontier and return home or their citizenship rights would be revoked. Most left, but some notable S'sessu remained behind, a few even enlisted in the Landfleet's Special Operations forces and learned to infiltrate the Sathar's forces.

One such operative, codenamed "Agni," was lost behind enemy lines after obtaining sensitive intelligence. The PCs need to find and extract the agent.

TWILIGHT OF PHRI'SK

For nearly a century, the Sk'ky Srung clan controlled the S'sessu nation of Pho'Trassh'Nsk with an iron tentacle and harbored dreams of creating a world empire.

About a decade before the Second Sathar War, the dictator Skky Srung-Ilsh the Loathsome died and was succeeded by his fourth offspring Sk'ky Srung-Ut. Called "Fatty Sk'ky" by the Ssostrans, it was hoped that the

young, overweight Ssessu ruler would be less aggressive than his parent. However, Ut proved to be even more vicious than his forbearers. After a series of sham trials, he executed several close family and clan members – even his lover – by blowing them apart with antiaircraft guns.

Sathar Clan Y infiltrated Ut's advisors and convinced the young dictator that with their help he could win a war against the S'sostrans and the Ssar'phesk to become the supreme ruler of Phri'sk.

Clan Y diverted a taskforce from its attacks against the Frontier for a co-ordinated strike against Phri'sk to destroy all S'sessu space stations and shipbuilding facilities. Pho'Trassh spies sabotaged key defense installations before launching full-scale military assaults against its rivals as they battled the Sathar fleet.

The overwhelming attack force destroyed Phri'sk's defenses. Clan Y followed up the space assault with an orbital bombing campaign against the S'sessu's industrial centers while seeding a bio-engineered blight into the planet's atmosphere to cause crop failures.

Clan Y had invited Fatty Sk'ky up to their command ship to witness the bombardment, but he soon learned that his own nation was targeted too. The Sathar realized that Ut was too unreliable to be an ally, especially if he was willing to betray his own world. It is believed the Sathar harvested Ut's brain for a cyborg machine, however.

The fierce assault and plus crop failures resulted in the deaths of more than two billion S'sessu. Belatedly, a relief force from the Frontier arrived in system, but it was long after Clan Y's fleet left.

Though enraged by the Sathar's attack, the S'sessu nations were unable to lend the Frontier more than token help during the closing year of the Second Sathar War.

The PCs could be caught in the middle of the battle against Phri'sk, but their task would be one of trying to survive. They might even be able to thwart some of the Pho'Trassh's efforts, but the Sathar attack force is too large for the S'sessu to win. Or the PCs might be part of a relief mission to Phri'sk. Or this is background for a later campaign event around FY 111 when someone encounters a Sathar cyborg that uses Fatty Sk'ky's brain.



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- At the *Scout* Level Andrew Moore, Miska Fredman, and Tevel Drinkwater
- At the *Explorer* Level Shane Winter and Joe Johnson
- At the *Space Ranger* Level Richard Farris, Scott Holliday, and Kenneth Reising
- At the **Station Master** Level Pagan

I want to say thanks to our patrons for their contributions.

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Editor's Note: This game summary is from an online game run by the author on the starfrontiers.us site. The original write-up, as well as write-ups of the other sessions, can be found at http://starfrontiers.us/node/1964

Corporals Johann Shmidt (mH), Slade Lockjaw (mH), and Tichat-Ka (mV) head for the CMS Falcon to disembark on yet another day in the space lanes. Midshipman Bluto Goorhud (mD), their boarding party leader, greets them at the Falcon's loading deck where they are introduced to a pair of newcomers: Danyon Fenn (mH) and Gret Korg (mY). Danyon is a transfer from the Clarion Royal Guard, the land based military force under Clarion's monarchy. Gret is a former hovercyclist looking for a new lease on life. Once the introductions are complete, the crew begins to make preparations for launch.

Author's Note: For more information on the CMS Falcon and Clarion Royal Marines, see the Warriors of White Light SF/KH:0 adventure module



The Falcon has been assigned to inspect an incoming Class:XII liner, a job that promises to kill the bulk of this outing. Just as Lt. Shirrah (mH, ship's captain) gets the Falcon's beak pointed in the right direction, Clarion Flight Control orders a Priority Epsilon threat (Epsilon is a nonaggressive threat, but a threat nonetheless). A Class:VI Pacific class freighter has dropped out of the void, hailing from Madderly's Star. Her captain has issued a distress call, informing anyone listening that his drives have malfunctioned and he is unable to get them repaired. The craft is on a direct collision course with Clarion Station. The SS Gullwind, under the helm of Captain Garlus Tylappar, has made many visits to Clarion Station and has berthing dues paid up for the next few months. The fine craft has brought a lot of revenue to Clarion so it is important that the Marines help the crew to not only prevent a collision with the station, but to preserve the craft for future income. As the Falcon nears the malfunctioning craft, Captain Tylappar informs Lt. Shirrah that the drive motivator has been damaged beyond repair, requiring dry-dock facilities to fix. Unfortunately the drive motivator is the primary controlling feature of the engines; without it deceleration is impossible.

Jr. Lieutenant M'kix Ris'z II (mV, chief engineer) reports that the Falcon is currently carrying a spare motivator that might work, and despite the obvious size differences, in theory at least one drive could be restored to operational status with the scout's smaller unit. Shirrah orders M'kix Ris'z to bring the motivator down to the loading deck and have the boarding party meet him there. M'kix Ris'z and Shirrah will be assisting the Gullwind crew with the drive repairs, and the boarding party will oversee the operations as a security measure. Also, the freighter captain reports a small load of parabatteries in the hold and since the craft will be docking at Clarion Station for repairs, the load must be inspected.

The Falcon races to meet the disabled craft, and gets there with time to spare. The ships are soon linked by their airlocks, and the Falcon boarding party is met by the freighter's captain. Once the group is aboard the Gullwind, Garlus seems somewhat absent minded (he is an elder after all) but quickly snaps back, apparently eager to get underway. His five dralasite crew members assist the Falcon crew with repairs and replacement. Tichat-Ka joins M'kix Ris'z and they follow the Gullwind's rubbery engineer into the elevator, lugging the drive motivator

along. The doors close and Bluto nods to the Gullwind's skipper, suggesting that they get on with the inspection of his hold since the disabled ship will be docking at Clarion Station.

Garlus calls the elevator and it arrives a few minutes later, and they all pile in. He takes the car down to the 'Wind's hold, and the group exits. Garlus' manifest lists six crates of parabatteries and a rocket battery weapon system, with no destination. "Personal goods?" Bluto asks. The skipper nods, as he is busy stuffing his worn pipe with some Inner Reach tobacco. Johann takes the elevator position as Bluto joins the rest of the inspection team, and begins making small talk with the elder.

"Stuff will kill you, y'know...of course modern medicine can counter that as well." Garlus looks over at Johann, and points to his chest. "A little late in the game to worry about that. Got the big C, detected it too late. Not sure how much time I have left." He begins with some sporadic coughing, but it ends just as quickly. Meanwhile, Danyon and Slade begin to open the crates as Gret and Johann look over the stored weapon system. Both are in order, nothing raises a suspicion with the inspectors.

Meanwhile, Tichat-Ka begins to install the motivator under the watchful eyes of his vruskan engineer, M'kix Ris'z II. Once it is installed, M'kix gives it a once over and say "You almost got it right, Corporal. But the couplings are reversed. Fix that and it ought to work." Tichat-Ka apologizes, explaining that he's used to smaller scale technical repairs. He switches the couplings and the Gullwind's dralasite engineer waddles over to the engineering station to run a diagnostic check. After a few minutes of data scrolling, he looks up and bellows "I think that'll do it. We're good to go, that should hold us for the trip to Clarion Station!"

M'kix Ris'z and Tichat-Ka head back to the Gullwind's crew deck, calling to Bluto that all is well on the

maintenance deck. The rest of the boarding party meet them there, along with Garlus. Once assembled on the crew deck, Tylappar informs the group about a class:X freighter that was 20-30 hours behind him that he overheard in a spacers dive at Kdikit Station that may be smuggling contraband. Garlus postulates the load is either Ixiol or Streel provided weaponry, likely destined for the Throne City. The rogue freighter is dubbed the SS Nightshade, and Garlus informs the Falcon crew that the dralasite owner is not one to be underestimated.

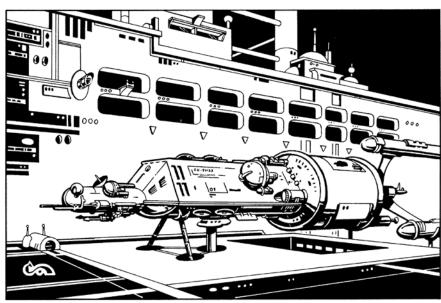
Several of the inspection team members gather additional information on the Nightshade, and they thank them for the tip. Garlus salutes them as they leave, and he closes the 'Wind's outer hull hatch behind them. Soon after the boarding team is buckled in aboard the Falcon, the craft breaks loose and pulls away. The Gullwind's single drive ignites, and her skipper reports that the repair is working well. He thanks Shirrah over the subspace radio and points the Gullwind's nose toward Clarion Station. Lieutenant Shirrah calls in to Clarion Station Flight Control to report the tip, and then proceeds into deep space to meet the incoming vessel.

True to the Gullwind skipper's word, the SS Nightshade drops out of the void 20 hours after the Gullwind is underway. Lt. Shirrah calls it in on the radio and Clarion Flight Control directs the Falcon to intercept and investigate the claims. After all, the Nightshade is registered under MalCo Enterprises --- a company with reputed ties to organized crime --- so any inbound loads will require extra special attention, more so with this intel that was recently gathered...

As the Falcon closes in with the rogue freighter, a lengthy radio conversation ensues. The freighter crew claims they are not stopping at Clarion Station, nor are they carrying any cargo and as such no inspection is required. They insist that they are merely passing through, on their way to Theseus or K'tsa Kar, they haven't decided which. After a lengthy argument the freighter captain finally agrees to an inspection, telling Shirrah that they have nothing to hide.

The Falcon closes in and docks with the Nightshade. The boarding crew is on the loading deck, and Bluto leads them to the Nightshade's outer hull hatch. A rough looking yazirian meets them at the Nightshade's hatch, and opens it to allow them inside. A dralasite with a rich black cloak flowing over what passes for shoulders stands near the yaz. The dralasite bellows out "Well, let's get this dog and pony show on the road, we got things to do!"

The dral hands Bluto a cargo manifest, it simply reads "No cargo obtained for Madderly's Star/White Light



voyage". The yazirian sneers and points to the elevator. "Right this way, folks." Neither seem pleasant about this unnecessary inspection, both seem anxious to get back under way. Bluto and Gret remain on the crew deck to watch the airlock and access to their ship, the rest of the group piles into the elevator car and it descends to the Nightshade's hold. The doors open and the group exits. Danyon, Johann, Slade, and Tichat-Ka look around the vacated hold, its floor occasionally littered with broken crate remains and an occasional mangled piece of plasticard.

"Wow, whaddya know," the dralasite interjects. "Just like the manifest says, empty!" Danyon stoops to retrieve one of the mangled plastisheets and finds it is the remains of an old invoice. He shows it to Slade and Johann, who read the inscription: "FOODSTUFFS - Point of Origin: Inner Reach, Destination: Outer Reach"

The duo both nod and Danyon drops the plasticard to the deck. Tichat-Ka appears to be pacing the hold and tapping the deck with his pistol butts. Once finished the vrusk glances over to Johann and he nods. Johann speaks up, "We'll have to inspect your cabins next." The yazirian looks to the dralasite, who mimics a human expression by rolling its eyespots. "Oooooh-kayyyy," the dral lets out. "Let's go, back into the elevator. A lot of back and forth with you guys today!"

Everyone gets on and the car returns to the Nightshade's crew deck. Johann calls Bluto on the chronocom to report nothing found in the hold and that they are returning to the crew deck to inspect the cabins. The elevator doors open and the group sees Bluto and Gret waiting, and they exit. Johann gives Bluto a whispered update as to what was found in the hold as far as the mangled invoice. Bluto

begins barking orders to the inspection team.

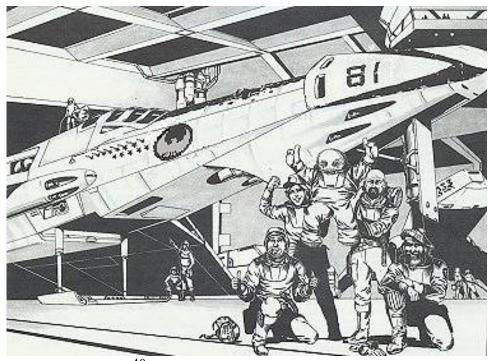
Slade and Johann begin to search the cabins while Tichat-Ka and Danyon head for the galley. The cabins are all vacant and unkempt, with nothing out of the ordinary. Try as they may, they find nothing incriminating. Then Tichat-Ka returns from the galley holding an empty vial and an aqua-pipe, obvious paraphernalia of a narcotic drug. Bluto nods, and Tichat-Ka asks the dral/yaz duo about it. The dralasite shrugs, but the yazirian dips his head down and mutters out "It's mine, personal use and all that." Tichat-Ka gets cross and demands where the drug is, telling them that while the Clarion Royal Marines cannot impound the craft over the items, they can still issue a

fine. The yaz simply answers that he used the last dose a day ago.

Slade begins to ask if they know of a Captain Tylappar while Johann whispers to Bluto, who calls the Falcon C.O. on the chronocom. The dralasite acknowledges Tylappar but knows nothing of his presence in system, simply declaring that like themselves he is an independent hauler making his way through the Frontier. They have crossed paths in the past, and they merely look at him as competition. A heated debate begins as to why Garlus might drop info on "competitors" that may be carrying contraband, but in the end there is nothing gained by this and that the Marines can do little else in detaining this vessel.

Bluto hands the dralasite a plasticard and offers an apology, and that the Nighthsade may enjoy complimentary berthing for up to ten days at Clarion Station as restitution. The group herd themselves back into the Falcon with a feeling of dismay, having garnered nothing and feeling taken for as fools. Lt. Shirrah meets them inside to reassure them, saying that it happens and not to let it get to them. Gret looks back as the Falcon's outer hull hatch is closed and catches a glimpse of the Yazirian in the opposite hatch, who is giving the Falcon crew a nasty look. Gret returns it with an unpleasant gesture of his own, one that Bluto countermands him for. "At ease soldier, we don't get to win all the time."

Tichat-Ka clicks off with "Give us a princess to rescue, we're pretty good at that." The witty repartee brings some welcome relief to the group, and they head back to their stations to buckle in so the Falcon can rush to its next job, a Class:VIII freight hauler that just dropped out of the void.





Mike Kupari is a new author that has co-written 2 novels with established author Larry Correia. "Her Brother's Keeper" is his first solo novel and is a recent release.

It reads like it was intended to help introduce a RPG setting. In addition is has a strong "Frontier" feel that immediately reminded me of Star Frontiers. The setting is much broader than the Star Frontiers and could be described as a Traveler & Star Frontiers fusion or very much akin to the Star's Without Number RPG setting. Many of the planets visited would be easy to drop any science fiction RPG.

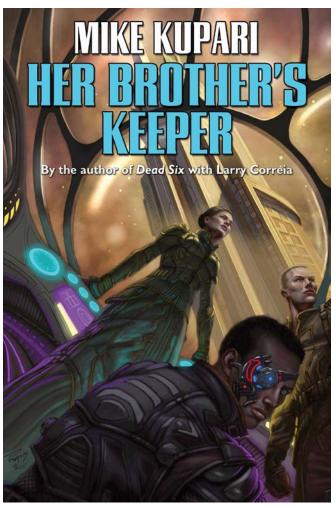
The story itself reads like a RPG module. It is fairly episodic in that a privateer starship captain is contracted to travel across the galaxy and ransom or rescue her brother from a petty warlord on a backwater planet and the crew have three minor adventures in transit to the objective. The climax includes a battle in space as a light cruiser pursues them from the previous star system.

Technology is very close to that of the Star Frontier's setting. There is no artificial gravity and star ships deck alignment is vertical not horizontal to take advantage of simulated gravity. Ships that can land do so tail first. Star ship combat had the flavor of Knight Hawks combat.

Weapon's tech included plasma weapons but most of the weapons read like things straight off the Alpha Dawn equipment list. Hover cycles were also featured in one episode but they conformed to the newly developed real world 2 fan hover cycle.



Characters were interesting and the story never bogged down. Looking forward to Mike Kupari's next novel especially if it is a continuation of the adventures of some of the characters in this novel. If you'd like a fast read that feels like it belongs in the "Frontier" with great potential



to borrow material for your regular game than I recommend "Her Brother's Keeper".

COMING IN THE NEXT ISSUE

We're already looking ahead to the next issue of the Frontier Explorer. Joseph Cabadas has compiled a set of rules for handling robots and we have a variety of resources coming in from Shane Winter related to maps, both AD and KH. Plus the next installment of the adventures of Alex Stone and a few others are already in the queue.

If you have something you'd like to share, we'd love to run your articles as well. Just head on over to the <u>Frontier Explorer website</u> and hit the "Submit New Content" button. We look forward to hearing from you and hope you continue to enjoy the magazine.





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