

Frontier Explorer



Issue 22
Fall 2017

Warriors of White Light
Challenge

Musical Instrument
Smuggling Cases

The Noble Savage

Sabertooth Eel of Hum

Space Station Construction
Guidelines

That's no moon. It's a space station!



FEATURES



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FROM THE EDITORS

Welcome back explorers!

And welcome to the fourth and final issue in Star Frontiers' 35th Anniversary year. This issue has a wide ranging variety of articles including new archetypes, new equipment, station construction rules, and more. This issue also introduces a new back cover comic, The Escape Plan, by our comic artist Scott Mulder. It will be fun to see where this new adventure takes us.

I'll have to admit that I was worried that this issue would not happen or at least not as fully packed as we normally try to provide. When I sat down to start editing it in early September I only had enough content to fill 20 pages. Which would have made it far and away the smallest issue we ever produced. However, once again, our community and authors are amazing and more material poured in to fill this issue up to its usual level.

We also got an absolutely amazing cover image that was produced by artist Chris Walton. He posted this as a work in progress earlier in the spring and said we could use it once it was done. A huge shout out to him for letting us use this amazing art. Check out some of his other work at his web page linked in the Production Credits to the right.

The other thing happening that I feel is a big deal is that the sci-fi RPG FrontierSpace finally launched at the end of September. Bill Logan, the creator of FrontierSpace is a friend and well known in the Star Frontiers community (as CleanCutRogue) for establishing both the Star Frontiers Revival site and the Star Frontiersman Magazine. FrontierSpace was inspired by Star Frontiers and we're excited to see it finally launch. You can read more about it and find links to the game on page 27. Watch for more FrontierSpace related materials in the coming issues.

I'm trying something new in this issue and leading off with a community news section. If you have any Star Frontiers (or FrontierSpace) news, either things that have happened or upcoming events, send them in and we'll try to print them in the coming issues. We'd like to help keep our readers aware of other events going in our community.

Finally, I'd like to put out a call once again for submissions. The Frontier Explorer only exists because our readers have materials that they are willing to share. We can't keep this going without you. If you have any sort of material that you've created for your games, consider sharing them with the community and publishing them here in the Frontier Explorer.

So sit back, start reading, and find the treasures waiting in this issue. And as always, keep exploring.

- Tom Stephens
Senior Editor

PRODUCTION CREDITS



Cover Art: Star Frontiers by [Chris Walton](#). Chris is a concept artist working out of Seattle and is old enough to remember cracking open his first Star Frontiers set with glee as a boy.

Back cover comic: Scott Mulder

Banner Logo Image: NASA

Editors: Tom Stephens, Tom Verreault, Eric Winsor

Layout: Tom Stephens

Full Cover Quote:

"That's no moon, it's a Space Station!"

- Obi-Wan Kenobi, Star Wars, A New Hope

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FRONTIER NEWS

Tom Stephens

I don't think we've ever done one of these before but it's something I'd like to see more of going forward. There have been a number of things related to the Star Frontiers community that have happened in the past few months that I thought would be nice to call attention to. If you have any community news that you would like to share, send it to us at editors@frontierexplorer.org and we'll get it into future issues.

ONLINE COMMUNITIES

It's been a bit of a wild ride the last few months as the [Star Frontiers: Alive & Well Facebook group](#) has exploded in its membership numbers. It has more than doubled membership in the last few months with membership sitting at 1,719 members as I write this. Most notably, one of our recent members is none other than Kimber Eastland, the author of Zebulon's Guide to Frontier Space. So if you're a Facebook user, consider joining the community there.

In addition to the Facebook, community, there is also a [Google Plus Star Frontiers community](#). It's not as large or as active (I seem to be the primary poster lately) but we have nearly 500 members there. If you're on Google Plus consider joining.

ONLINE GAMES

There have been a number of on-line Star Frontiers games started up in the last couple of months. The first is a game being run by DM Bluddworth. It's called "Jet Cans and Creole" and per his description it will be set in the Cassadine System (Triad) and the PC group will be the new "Away Team" crew on the S.S. Zydeco (a modified light frigate) that operates as a deep space salvage ship. The game is played out on Discord and Google Hangouts. You can find updates in the previously mentioned Facebook group. I hope to get some play reports from him in the future.

The second game is one that I've started – "A New Can of Worms". Initially set on Pale, the PC's start as agents of Streel Corporation. The game is set against the backdrop of the Second Sathar War. Our first session was held on Oct. 13th. This game is run on Roll20 and Discord and is streamed live on [Twitch](#) on the StarFrontiersRPG channel. We will be play on the 2nd Friday of each month at 8pm Mountain time for the rest of the year and then switch to the 2nd & 4th Fridays starting in January. In addition to the

live streaming, the videocasts are released on my [YouTube channel under the "A New Can of Worms" playlist](#) and the audio only version is available as an actual play podcast which can be found on the Frontier Explorer website at (<http://frontierexplorer.org/podcasts>). Feel free to watch us live or listen later.

FRONTIERSPACE

While not directly Star Frontiers, October also saw the release of the [Player's Handbook for FrontierSpace](#), a new Sci-Fi RPG that owes at least some of its spiritual roots to Star Frontiers. It's creator is Bill Logan, the original creator of the [Star Frontiersman magazine](#) and the <http://starfrontiers.us> fan site. In fact, if you go look in issue 10 of the Star Frontiersman (an issue I edited back in the day) we talked about the game when a number of the Star Frontiers community members were working on an early concept. It's been nearly a decade and the final game is wholly Bill's creation but several of us were involved in it's original ideas and it is exciting to see it finally be complete. The Referee's Handbook is expected to come out about the same time as this issue of the Frontier Explorer. We hope to start including content for FrontierSpace in future issues of the Frontier Explorer. You can find a bit more information about FrontierSpace on page 27.

STAR FRONTIERS TRADEMARK

Some of you may have seen the flurry of commentary on-line about the recent application by Evil Hat, Inc for the trademark on the name Star Frontiers. There is a lot of speculation as to what is happening.

Trademark applications can take months to years so this is something that may go on for a while. Currently it is under review. At some point, the application will be published for opposition and anyone that thinks it should not be granted has 30 days to submit information related to the case. We'll see what happens when it reaches that point.

I spoke briefly with Fred Hick, owner of Evil Hat and while he didn't say anything relevant to what his plans/intentions were (and I didn't press) or about a potential license from WotC, the one thing he did stress was that they had no intentions of shutting down fan activities. We'll have to wait and see how that plays out if the trademark is granted. For now, we're just waiting. Stay tuned.

Adventures

WARRIORS OF WHITE LIGHT CHALLENGE

Warriors of White Light, which is also known as SFKH 0 or WoWL, was the bundled module that came with the Knight Hawks box set and introduced us to the White Light system militia, the Royal Marines. It used a simple flexible format of short encounters that could be employed individually or strung together to form the basis of a militia campaign. The encounters could be used in any order or just a few of them and not others.

The Warriors of White Light Challenge was inspired by the realization that there is a lot of material out there that supports writing WoWL 2.0 adventure encounters. All the existing material from the module on the Royal Marines greatly facilitates this. The module already details the Royal Marines organization, life in the Royal Marines, their primary base: Clarion station, a White light system brief, and assault scout and freighter deck plans. Additionally, there is also a bonanza of material in the Star Frontiersman and the Frontier Explorer; from new deck plans to new equipment and new system briefs. With such a wealth of material out there, writing a WoWL 2.01 or 2.02 encounter or adventure would be greatly streamlined; only the bare bones of the encounter need be written. All you are going to need is an idea.

So the challenge to all our readers and contributors is to write a WoWL 2.0 encounter. Reference the existing

Editor's Note: Submissions can be made at the Frontier Explorer website (<http://frontierexplorer.org>) by clicking on the big gold "Submit new content" button or by going directly to <http://frontierexplorer.org/Submissions>.

material that is required for the encounter, work up some stats for the ships or NPCs involved and submit it to the magazine. Your submission can be Alpha Dawn or Knight Hawks styled encounters or contain both. The encounter can be a one-off campaign filler or as elaborate as you wish. It can be keyed to setting-specific material like the Royal Marines or presented as a generic militia encounter usable in any system.

There is so much material available this challenge should not even be challenging. Get your creative juices flowing and submit an encounter. Organize your submission into Alpha, Beta, Gamma, Delta, and etc. sections as needed for Background, The Situation, The Encounter, and Aftermath and Experience Points. The magazine staff will handle applying a "2.0" designation to each encounter as each encounter is published. All you need do is include WoWL 2.0 with your encounter name when submitting it.

FE

Warriors of White Light 2.01

ASSAULT SCOUT STANDARD EQUIPMENT

Tom Verreault

With all of the published modules featuring the vaunted Star Frontiers assault scout it is surprising that the question never came up as to just what equipment might be handy or laying around on this starship. The issue was debated on the forums at <http://www.starfrontiers.us/> and a collaborative answer was developed by the participants of those forums.

Special thanks to the many contributors: jedion357, ratttraveller, Putraack, Tchklinxa, iggy, Sargonarhes, TerlObar, Dave the Lost, Shadow Shack, and JCab747. It is quite fitting that the first installment of the WoWL 2.0 challenge series should be a collaboration of the Star Frontiers community.

The general opinion on assault scouts is that mission matters. A SpaceFleet assault scout is likely to be sent into deep space as part of a patrol group of two assault scouts and a frigate and has a higher chance of landing on an uncharted planet than a militia assault scout. The SpaceFleet ship is a naval vessel that boldly goes forth to explore and seek out pirates and alien life while the militia ship is analogous to the Coast Guard, patrolling its home system, inspecting and aiding civilian shipping.

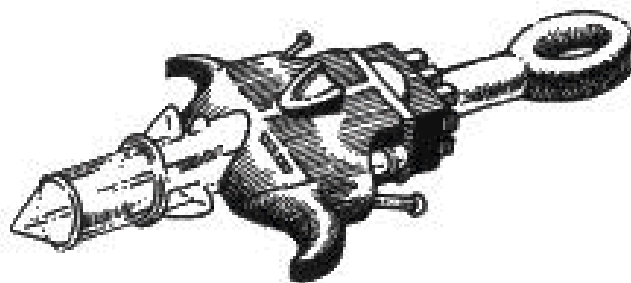
STOCKED EQUIPMENT

DAMAGE CONTROL

Equipment Item	Militia	SpaceFleet
Fire Extinguisher	1/deck	1/deck
Laser Power torch and power pack	1 ea	1 ea
Spare Engineer's tool kit	1	1

EVA

Equipment Item	Militia	SpaceFleet
Rocket Packs	6	6
Rocket Pack fuel	8	12
Extra suit patches	10	20
Mag Boots	6	6
500m rope on powered spool	1	1
"Glad Bag" emergency space suits*	12	6
Suit LS	20	12



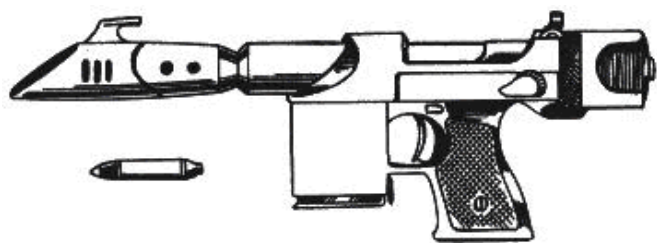
EMERGENCY SUPPLIES

Equipment Item	Militia	SpaceFleet
Gas Mask	6	6
Spare Med Kit	1	1
O ₂ tanks	6	10
Environmental Kit	0	1
Extra Freeze Fields	3	6
AETHOS tube*	1	1
Plastiseal*	2 packages	1 package
Flash lights	6	6

NON-LETHAL WEAPON ARSENAL

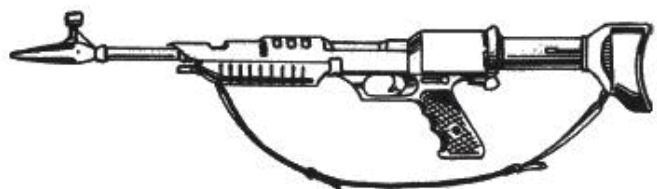
Equipment Item	Militia	SpaceFleet
Sonic Stunner	2	2
Electro Stunner	2	2
Needler rifle w/2 clips	2	2
Doze Grenades	6	10
Stun Sticks	6	6
Smoke Grenades	6	10
Tangler Grenades	6	10
Solva-way capsules	6	6
Electric Sword	6	6





LETHAL WEAPONS ARSENAL

Equipment Item	Militia	SpaceFleet
Grenade Launcher	1	0
Rotary Grenade Launcher	0	1
Frag grenades	2	12
Grenade Bandolier	1	1
Laser Rifle	4	6
Automatic Rifle w/4 clips	2	4
Gyrojet Rifle w/4 clips	4	4
Rocket Launcher w/2 rockets	0	1



POWER SUPPLIES

Equipment Item	Militia	SpaceFleet
20 SEU clip	20	30
Power Belts	2	6
Power Backpack	1	3

DEFENSE SCREENS

Equipment Item	Militia	SpaceFleet
Inertia Screen	4	6
Albedo Screens	2	4

EXPLOSIVES

If a ship has a demolition qualified crewmember (UPF) or if they have a demo expert and the mission calls for it (Militia):

- 3 Kg of TD-19
- 5 variable timers

NEW EQUIPMENT

PLASTISEAL

This item comes from the engineer's toolkit in the Knight Hawks rules. It's the same item used for temporarily

sealing hull breaches but we've provided replacement costs: 1000 Cr for a package of 10.

"GLAD BAG" EMERGENCY SPACE SUITS

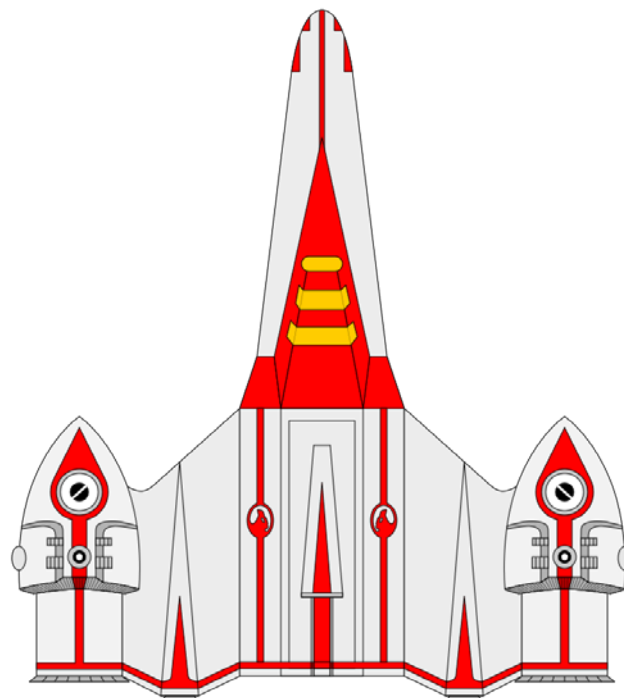
The "glad bag" is so called because when you absolutely need one you are glad you have it. It is a large beach ball shaped "bag" that an individual lacking a vacuum suit can climb into and safely transverse the void between starships in an emergency. It has a 10-meter tether with a clip, a 50-cm diameter window, a strobe light, a radio beacon and a standard LS package for life support. Militia and Space Fleet crews are notorious for stealing the LS package out of these suits, either out of laziness or as a short cut to getting back into space: there is a 50% chance the LS package is missing. These are intended for rescuing victims of damaged ships when a regular space suit is unavailable.

Weight: 2kg **Cost:** 500 Cr

AIRTIGHT EVACUATION TRAUMA OPERATIONS STRETCHER: AETHOS TUBE

The AETHOS tube is a stretcher for space. A victim in serious medical condition can be placed in the AETHOS tube and transported through vacuum. The tube incorporates the 10-meter tether, strobe light, radio beacon, and standard LS package but it also incorporates the med scanner and auto doc from the Medkit. The scanner and the auto doc allow a space suited medic to perform medical procedures on the victim being transported without opening the tube.

Weight: 15 kg **Cost:** 2000 Cr



ABANDONING SHIP

Since the assault scout does not have escape pods or a lifeboat, the ship will be stocked with the MOOSE2 orbit to surface emergency equipment system (see <http://frontierexplorer.org/book/nascom-automated-systems-aerospace>) which is designed to get a spacer from orbit to the surface of a planet safely. In addition to the MOOSE2, and attached to it, is the survival kit from Star Frontiersman #1 but the referee is free to change this for the survival kit found in the Serena Dawn life boats in the Crash on Voltumnus adventure module which are different in that they include some weapons.

Militia ships in systems with water worlds will include the dura-raft from the Star Frontiersman #1

RANDOM EQUIPMENT

(roll 4d10 to find a result on this table)

A militia vessel will roll a number of times on this table equal to 1d2+3 and a Space Fleet vessel will roll a number of times equal to 1d3.

Roll	Item
4	1d5 semi automatic pistols w/2clips each (SFman #1) and uni-being adjustable shoulder holsters
5	dura-raft (SFman #1)
6	3 Envirotents (SFman #1)
7	Subspace radio and type A parabattery (Alpha Dawn)
8	MR-17 Heavy Assault Rifle plus 3 clips (SFman #2)
9	1 clip of Tangler gyrojet ammo (SFman #3)
10	Pump Action Scatter gun and box of 10 shells (SFman #4)
11	2 Motion Trackers (SFman #5)
12	Holo-field scrambler (SFman #6)
13	Laser Auto Rifle 2 clips of ammo (SFman #7)
14	1d5 cans of Photo Votaic Paint (SFman #8)
15	One double barreled shotgun- pistol grip and sawed-off plus a box of 1d10 shells (SFman #9)
16	1d5 Albedo Grenades (SFman #10)
17	Yazirian Triple Barrel Gyrojet rifle and 6 clips of ammo (SFman #12)
18	WarTech's LWS SE-9 laser with attachable stock and 3 clips (SFman #14)
19	SP-4507 Balor Gyro-Mag with box of 2 load outs of ammo (SFman #15)

Roll	Item
20	Assault Rocket ammo, HARM munitions (SFman #17)
21	Confiscated "Smoked Astrogator's" program (SFman #18)
22	Electro Goggles (SFman #19)
23	Case of Dralasite Ool fruit (SFman #22)
24	Heavy Revolver box of 18 rounds (SFman #23)
25	Lunar Rover- packed in shipping crate (SFman #24)
26	Confiscated pair of Doze Daggers fully loaded with doze fluid (FE #2 page 33)
27	WarTech's MUTT mk1 robot (FE #3). Referee's choice on rifle mounted
28	Pair of authentic Morgaine Trekkers w/integral knife sheath and a Morgaine Knife (FE #4 page 41)
29	Replace one class of rifles on the ship with Onisenda made rifles and double the number available see details in FE #5 page 31.
30	1d5 parawings (Alpha Dawn)
31	File computer (Zebulon's Guide) 1d5 total
32	6 Each Ground Fleet surplus web belt, canteen, ammo pouches and trenching tool (FE #8 page 14)
33	1d5 Battle Field Bracers- First Sathar War era (FE #8 page 14)
34	Pale Exploration Service Utility Belt w/non original replacement tools (FE#9 page 22)
35	Box of 10 Hydro-Gel (FE #11 page 8)
36	VITAL Scanner (FE #11 page 9)
37	Confiscated Walking stick/ pole arm (FE #14 page 16)
38	Pair of confiscated laser hold out pistols (FE #15 page 4)
39	Yazirian Disk Grenade bandolier plus 6 disk grenades (referee's choice) and 2 capsules of solvaway (FE #18 page 37)
40	1d5 explorer's vambraces (FE #20 page 25)

Note: Militia and Space Fleet crews will have issued equipment like a space suit, uniforms that are skein suits, a side arm etc. These have not been detailed in this equipment list.

FE

Equipment

MUSICAL INSTRUMENT SMUGGLING CASES

Tom Verreault

Hezred and his Captain strolled through the cathedral like lobby of the headquarters of the Streel Corporation. Hezred as a yazirian towered over his employer, a diminutive ifshnit. They were decked out in fine dress clothes and capes emblazoned with the symbol of the Capellan Free Merchants. Normally, members of the CFM did not like to advertise their membership preferring to keep a low profile and operate through front businesses. However, today's delivery required a certain amount of pomp and ceremony, hence the symbol of their organization embroidered in gold, silver and federanium threads on their capes.

As they approached the scanners at a security check point, a red light began flashing and security robots immediately leveled weapons at the pair. A low level human guard began to berate them about policies forbidding visitors carrying lethal weapons until the Streel EVP head of security stepped forward, flashed his ID and waved them forward through the check point.

Hezred winked at the low level security guard. The scanners had only detected the weapon in the package they were delivering not the various and sundry weapons carefully secreted about his person. After all, the CFM took the safety of its merchant captains very seriously and as the chief enforcer on his ship, it was Hezred's responsibility to protect his captain; Streel policies notwithstanding.

The EVP escorted them via elevator to the upper echelons of the Streel headquarters and showed them to a vacant conference room. The wait was little more than 10 minutes before Hilo Headrow himself entered the room like a whirlwind. Hezred could see why he was reputed to have a forceful personality, even he felt the impact of Hilo's presence.

His captain went through the formalities of documenting their following a lead to a lost colony expedition cargo module in the Tristkar system and locating cultural artifacts from the human home world. Documents were presented from experts at the Triad Institute of Technology signing off on the authenticity of the object. Finally, the little ifshnit motioned to Hezred who opened a hermetically sealed carrying case to produce an oddly shaped and ancient case that was known as a violin case. Gingerly he removed the ancient artifact, opened it, and turned it to the mega-corp executive whose eyes were as big as ool fruit.

With a hushed whisper Hilo said, "By the Galaxy! An actual artifact from the lost home world!"

Within the violin case was what the experts labeled a Thompson machine gun. It did not currently fire but its age, rarity, and artifact status made that of no concern to the negotiation underway. No doubt an avid weapons collector, Hilo Headrow would pay a pretty credit for this one of a kind artifact.

After the successful negotiation and a massive bonus for all the crew, Hezred pondered what he had learned about the artifact – that it came from a time where carrying heavy firepower openly could garner unwanted attention. It was much the same on many heavily populated planets in the Frontier. An idea began to form, why not do something similar with modern weapons? He could purchase several cases for various musical instruments and have them reengineered to incorporate a masking field to block most scanners and fool most weapons detection software. Before leaving Pale he would stop by a music store. After he had proved his concept, he'd bring it to the Captain as the CFM often dealt with those who did not always follow every rule of law and this could be a lucrative item.

MUSICAL INSTRUMENTS SMUGGLING CASES

All music cases are reengineered with state of the art electronics and masking fields from the Capella system. They are powered by a SEU microdisk (10 Cr to replace) that will power the masking field for 1 hour. The field will block most scanners and fool up to level 4 computer software designed to analyze and detect hidden weapons or electronics. Using such a case to smuggle prohibited weapons on a planet such as Clarion can cause extra fines and increased jail time over and above that levied for the



weapons charges. Due to the physics behind the masking field, electronic items being smuggled need to be powered down and their power source pulled. Weapons being smuggled are usually dismantled. This means that to use an item in a case it will take 1d5 combat turns (make a DEX check to halve the time but no less than 1 turn) to assemble, power, or reboot the item. The item can be used the turn after this.

Each description gives rough abstract carrying capacity for each case; a referee will need to make a judgement call for players carrying something not covered by the description.

THE DRALASITE TRI-HARP CASE (SMALL)

The dralasite tri-harp is a string instrument that vaguely resembles a human harp but has tree harps that fold open and sit on a flat surface with the three panels of strings sticking up like a trident. It requires three arms to play.



Entry Level Quality:

Weight: 2kg **Cost:** 45 Cr

The case is small and will accommodate two pistols and up to 4 ammo clips or 10 grenades.

Weight: n/a **Cost:** 500 Cr

THE VIOLIN CASE (MEDIUM)

A classic musical instrument popular with many species in the Frontier, not just humans who developed it.

Entry Level Quality:

Weight: 400 g (treat as 1 kg if carried in a case) **Cost:** 50 Cr

After the discovery of a lost cultural artifact (a Tommy gun in a violin case) this item became the best seller among the smuggling cases. It will hold 1 rifle dismantled and 2 clips.



Weight: .5 Kg **Cost:** 600 Cr

THE VRUSK BAG BASS (LARGE)

The vrusk bag bass has been described as a cross between the human instrument known as the cello and the bagpipes. It has an upright neck that is cylindrical in shape with multiples of 4 strings (4, 8, or 12) with the higher number of strings increasing the instrument's cost and the level of skill required to play it. The strings are spaced equidistant around the cylinder. The lower third of the neck is attached to a box-like reverberation chamber of similar shape to a human cello but containing baffles and bellows. Behind this reverb chamber is a bag. This bag is kept inflated by

bellows attached to it via tubing and operated by a vrusk's front feet. A vrusk playing a bag bass will rock side to side as his feet work the bellows to keep the bag inflated. The bag in turn changes air pressure in the reverberation chamber thus changing the sound of the bag base. Most species beside the vrusk find a bag bass with more than 4 strings too difficult to play due to the anatomy of their hands.

Weight: 1.5 kg

Cost: 200 Cr (4 strings & student quality +50 Cr for each increase in 4 strings)

The case for the vrusk bag base is very spacious. It could hold an assembled rifle and pistol with 4 clips for each, two disassembled rifles and 4 clips each, or a loaded rocket launcher and two reloads.

Weight: 1 Kg **Cost:** 800 Cr.



A NOTE ON INSTRUMENT QUALITY

When I first bought my elementary-aged child a violin, it cost me \$40 with the case. This seemed appropriate due to age and maturity of the child and I assumed this instrument was "student quality" and thus I based the cheapest version of musical instruments for the Frontier on this. However, in researching student quality instruments, it seems that the next grade of quality in the real world is intended for high school and college students and runs \$100-400 and is called student quality. I've developed the following table to be a reference for game masters to assign value for musical instruments based off of quality:

Quality	Cost
Entry Level	40-80 Cr.
Student	100-400 Cr.
Performance	1000-4000 Cr.
Elite Performance	100,000-500,000 Cr.
Artifact	1,000,000 + Cr

For perspective on artifact quality instruments consider, the two most expensive Stradivarius violins. The highest price paid for one of these violins is \$16 million. The highest valued violin is called the Messiah and is considered "new" due to it not having been played much in the 300 years since its manufacture. It resides in a museum and is valued at \$20 million.

Archetypes

THE MYTH OF THE MINIGUN AND THE DRALASITE HEAVY GUNNER

Tom Verreault

Wikipedia calls the hand held M134 minigun "a distinctive invention of fiction". It was used in the "Predator" (1987) and "Terminator 2: Judgement Day" (1991) but the truth is that there never has been a hand held minigun in reality. There are several reasons like weight, a external power source, and the ammunition supply for a weapon that can shoot 3000-6000 rounds per minute. Originally these guns weighed 39 kg but a light-weight mod was developed at 19 kg. In the movies the prop mini guns have their Gatling gun barrels slowed down for the audience to see the rotation. And in the Terminator movie it does not even appear that the ammo belt is feeding into the gun but rather just hangs statically off the weapon. Thus the handheld minigun is purely a myth and the product of Hollywood.

However, we do love our myths. How could we not love it when the Sgt. Blain Cooper (Jesse Ventura) pulls his minigun out and says, "It's payback time." in response to Mac (Bill Duke) saying, "It's time to let Painless out of the bag." Also there is the sci-fi version of the M134 minigun from Aliens (1986), the M56A2 Smartgun Carried by Vasquez which was a fan favorite. A case can be made that every movie portraying an actor wielding a really big gun one or two handed with ammo belts draped over his arm is part of the romance of this myth.

In the Star Frontiers game we had the heavy laser, the machine gun, or the sonic devastator that characters could lug into combat just like Jesse Ventura and Arnold Schwarzenegger. Although the rules explicitly state these weapons must be mounted on a tri-pod or swivel mount to be used. In addition the rules state:

"Heavy lasers, sonic devastators, recoilless rifles, grenade mortars and rocket launchers are heavy weapons. When a character fires a heavy weapon, he must -1 from his skill level with that type of weapon."

Note that the rules left out the machine gun, which also requires a tri-pod like the heavy laser, but I would consider this purely an oversight and that this rule also applies to the

machine gun. Thus by the book you could not have a Sgt. Blain character since a tri-pod or swivel mount must be used.

To change this I would introduce the equipment from the Aliens movie that make the M56 smartgun possible: the combat harness and stabilization arm. The combat harness would be compatible with defensive suits or partial or full polyplate armor but not an exoskeleton. The stabilization arm supporting a heavy weapon would allow the character to ignore the tri-pod or swivel mount requirement and carry such weapons. A combat harness and stabilization arm cost 100 Cr and weighs 1 kg. It also has the effect of reducing the perceived weight of the weapon by 25%. The -1 skill level penalty for using heavy weapons still applies as the stabilization arm does not respond as fast as the character could respond with a lighter weapon and his own arms. A weapon mounted on a stabilization arm will always count as drawn for initiative purposes. Typical weapons for use with a stabilization arm are the heavy laser, machine gun and sonic devastator.

SGT. BAIN, DRALASITE HEAVY GUNNER ARCHETYPE

To create a Bain-type character, the dralasite or human species are the most suitable in Star Frontiers. Dralasites begin with an automatic bonus to their strength score and humans can apply their ability to add 5 points to anyone ability score to their strength score. For our purposes we will go with a dralasite since his racial bonus applies to both strength and stamina which makes him slightly tougher on average even over a human.

You will want to max out the strength score of the character so you'll want to roll 91 or higher for the STR/STA ability pair generating a value of 65 or 70 for the pair. Add in the dralasite racial ability modification and the strength score will be 70 or 75. Next the rules allow for a shift of 10 points within an ability pair so use this to shift 10 points from stamina to strength making the strength score 80 or 85. This much strength allows the character to carry 40 to 42 kg of equipment before his movement is halved.

With a heavy laser or sonic devastator the character will likely carry a power backpack (10kg) allowing for 10 shots with a sonic devastator or 20 with a heavy laser on its minimum setting of 5 SEU. The machine gun uses a



from Terminator 2: Judgment Day by Carolco Pictures

disintegrating ammo belt of 200 bullets that will fire 10 bursts of 20 bullets each but only weighs 4 kg. Thus the machine gun will provide more bang for the weight. So our Bain character chooses Military PSA and projectile weapons skill.

EQUIPMENT

As a starting character our tough as nails Sgt. Bain will be hard pressed to afford a machine gun and extra ammo unless the referee makes allowances. Since most starting characters often get a free defensive suit, weapon, and a tool kit a referee could allow for a starting Bain character to have a skisuit and machine gun free with no tool kit and require the purchase of the combat harness and stabilization arm. This means out of the typical starting pay of 251-350 Cr, Bain will have 151 to 250 Cr for additional equipment. A knife off the Archaic Weapons section of the equipment list is a good choice for a backup melee weapon as it costs 10 Cr and adds no weight. Since free weapons given at character creation are assumed to come with one load out of ammo, Bain will want to buy 1 or 2 more ammo belts at 50 cr and 4 kg of weight a piece.

Bain's Equipment	Weight	Cost
Skisuit	1 kg	free
Machine gun	20kg-5kg=15 kg	free
1 load of ammo in gun	4 kg	free
Harness and Stabilization arm	1 kg	100 Cr
Knife	n/a	10 Cr
2 ammo belts	8 kg	100 Cr
Totals:	29 kg	220 Cr

With the above equipment, Bain could easily move at full movement and has a minimum of 31 more credits to spend on miscellaneous items. As soon as funds allow, he will want to pick up a power belt and defensive screen which will add 3-4 kg to his weight total but since he will be a prime target in any combat, the added defenses will be well worth the weight carried.

DEVELOPMENT

Bain will want to level up his projectile weapons skill as soon as possible due to the penalty for firing a heavy weapon. He has one advantage though, the machine gun always fires as a burst effect in game and this means +20 modifier to hit which more than offsets the -1 skill level penalty. A level or two of melee weapons will stand him in good stead for when his ammo runs out or if he is forced into close quarter fighting where the machine gun is useless at point blank range. His role is strictly to deal out death and destruction so tech and other skill areas should only be considered after building up his weapons skills.

FINAL THOUGHTS

The hard charging, cigar chewing, one liner cliché spewing, military hardcase is in itself an overused cliché. However, it's over used for a reason: the character is a lot of fun. Since a role playing game is about having fun and playing a role I see no reason to not allow this archetype into the game. The only requirement I would make to allow the character would be that he names his weapon something appropriate like Painless or Irene (as in Goodnight Irene).

NEW EQUIPMENT

COMBAT HARNESS & STABILIZATION ARM

This harness mounts a stabilization arm to the character's body and helps support heavy weapons like the heavy laser, machine gun and sonic devastator. It negates the requirement of using a tri-pod or swivel mount with these weapons and reduces the perceived weight of the weapon by 25%.

Weight: 1 kg **Cost:** 100 Cr

LARGE TRI-POD

The original rules neglected to provide for a tri-pod in the equipment list so the item is included here for thoroughness. A large tri-pod is a folding device that can be set up and have a heavy weapon mounted on it in one combat turn. It requires the firer to stand while using it.

Weight: 2 kg **Cost:** 75 Cr

SMALL TRI-POD

A small tri-pod is a folding device that can be set up and have a heavy weapon mounted on it in one combat turn. It requires a firer to sit, kneel, or lie prone while using it.

Weight: 1 kg **Cost:** 50 Cr

MG AMMO BACKPACK

The ammo backpack for the machine gun holds 2 linked ammo belts. These may be attached to the ammo belt already fed into the machine gun which will allow the machine gun user to fire his weapon 30 times before having to reload.

Weight: 8 kg **Cost:** 110 Cr

FE



Archetypes

THE NOBLE SAVAGE

Tom Verreault

*"I am as free as nature first made man,
Ere the base laws of servitude began,
When wild in woods the noble savage ran."*
Dryden's *Conquest of Granada*

One of the earliest uses of the idea of the noble savage was to compare the natives of Canada to French nobility. Hunting game was an activity reserved to nobility but every base savage in the New World could hunt game any time they wished. Later on it would take on romantic idealization in the literature of the 18th & 19th centuries and eventually become a TV trope. The archetype evolved to be that of an idealized primitive man uncorrupted by the influences of civilization. One of the greatest portrayals of this archetype was in 1970's public service announcement commercials starring Iron Eyes



Cody as the Indian witnessing the trash and pollution of 20th century America with a tear rolling down his face:
<https://www.youtube.com/watch?v=8Suu84khNGY>



Ironically, Iron Eyes Cody was an Italian American but he could roll a tear down his cheek on cue and an icon was born.

HALLMARKS

The hallmarks of the archetype are primitive purity, name (or a translation) is alien sounding, superior morality, cultural barriers or differences, warrior ethos, and his most valued possession is his weapon (although if he is a shaman or priest his most valued possession will be a holy symbol or other magical implements).

Primitive purity encompasses a world view that is straightforward and simple that points out the irrationality

Editor's Note: The archetype description uses the masculine pronoun throughout for consistency but there is no reason the noble savage (or any of our archetypes) could not be a female character.

of modern civilization. There should be great scope for this in a setting with greedy mega-corps and unscrupulous criminals, but the player will have to work to bring forth this hallmark. The grittier the setting the easier this will be.

The name of the noble savage is typically a nonsensical name or a translation of his name. A nonsensical name emphasizes his differentness. However, in a role playing game, it might be advantageous to use the translation to present the values that epitomize the character: Savage Monkey, Sojourner, Truth Seeker, Dawn Hunter, etc. A translated name should evoke some of the image the player is trying to convey with the character.

Superior morality is about the noble savage being uncorrupted by the influences of modern civilization. He has an innate moral code and this protects him from corruption. Superior morality can be difficult to portray but having an actual moral code for the character can make this easy. A player can create their own, borrow an existing one, or adapt from the following articles: "Using the Varda in Star Frontiers" (FE #18), "The Dralasite Creed" (FE #1), or "The Family of One" (FE #2). A very simple code to borrow would be St. Exmin's from *Battle Beyond the Stars*: "I am from a warrior race. We exist for battle. Our Creed is to live fast, fight well, and have a beautiful ending."

Cultural barriers or differences serve the purpose of making the noble savage different or alien to the surrounding culture. It does not require more than one or two differences like not engaging in combat on a holy day, praying at certain times in the day, not allowing holographic videoing lest he lose his soul, tattooing or painting the body in specific magical symbols, or something similar. Some barriers might be inability to speak the common language or staunch or extreme opinions concerning a particular gender.

The noble savage usually has a warrior ethos. He is brave and unafraid of taking direct action. Because he has lived a hard physical lifestyle he is physically fit and agile. He knows how to make primitive tools and weapons and is expert with such weapons.

The noble savage usually has a most valued possession. The most common item is a weapon but if he is a shaman or priest it might be a holy symbol or other magical implement. He may or may not allow others to touch or handle this item and its loss brings great shame.

A common theme is that the noble savage is a sidekick. His companion leads and draws him into contact with civilization. The Lone Ranger and Tonto, Chewbacca and Han Solo, and Buck Rogers and Hawk are classic examples of this companion and sidekick theme. In a RPG party it would be easy enough to craft such a relationship between two of the player characters. The usual reason for this relationship, but by no means is it limited to this, is a debt of honor.

POSSIBILITIES IN THE STAR FRONTIERS SETTING

If you are even a casual fan of Star Frontiers the possibilities of a yazirian being a noble savage archetype will have been jumping out at you. Between the canon and fan canon material developed over the decades, the yazirian clearly works as a noble savage although since they are a modern space faring species some adaption will be required to explain their primitiveness.

There are a plethora of primitives available in the setting. The three primitive species from Volturus have detailed background briefs that can be a solid basis for a noble savage player character (consult the Volturus campaign modules). The wypongs of Lossend (see Layover at Lossend in Polyhedron #18) is a primitive tool user and part of the canon material although the material on them is thin. He is perhaps too primitive but a creative player who enjoys a blank canvas would be able to run with the wypong.

The any number of the optional species that have been introduced into the setting could also be used, from Dragon magazine's Saurians to the Star Frontiersmen's Vihm. Alternately, a player may create his own species. The character in question need not be so primitive, as shown by the Hawk character in the Buck Rogers in the 25th Century TV series. He had a space ship and was a pilot but otherwise had the other hallmarks of the noble savage character.

A final strategy for playing a noble savage in an RPG would be the "Last of the Mohicans" theme. The character is the last of his species or at least so he thinks and ends up

joining with members of the larger galactic society as an observer and commentator on that society.

THE PRIMITIVE AND SHAMAN PSAs

PRIMITIVE PSA

The Primitive Primary Skill Area includes: Thrown Weapons (archaic and includes bows), Melee Weapons, and the Environmental skill (excluding the Analyzing Samples and Analyzing Ecosystems subskills). When a noble savage character has this PSA he learns these skills at the Military "in" PSA cost.

Note: the referee can expand this skill area as needed. For example if the noble savage was a kurabanda from Volturus it might be appropriate to include a skill dealing with gliding vehicles. Or if the character was from a

background and society that involved sailing it would certainly be appropriate to include a sailing skill.

SHAMAN PSA

The Shaman Primary Skill Area includes: Primitive Medicine skill (see below), Psych-social skill, and the Environmental skill (excluding the Analyzing Samples and Analyzing Ecosystems subskills). When a noble savage character has this PSA, he learns these skills at the Technological "in" PSA cost. A character with the Primitive PSA may switch to Shaman PSA after undergoing some sort of vision quest or appropriately cathartic type game experience. He may never switch back after becoming a shaman type and throwing and melee weapons skills are now treated as out of PSA for cost purposes. The character should own his new spiritual identity.



PRIMITIVE MEDICINE SKILL

For a skill check the shaman can heal 1d10 points of damage one time per GST day. He may also attempt to control infections, neutralize toxins (native to his normal environment), and with an elaborate ritual may attempt to prevent character's spirit/soul/ka from leaving the body when character death would normally occur (a shaman may not attempt this if he has already tried healing the character for 1d10 points in the last GST day). Note all primitive medicine skill checks are performed with the INT ability score.

Creatures

THE SABERTOOTH EEL OF HUM

Eric Winsor

Hello again friends! The past while Tik, Dwain, and I have been stuck planet-side with responsibilities around the growth of the JHF Wildlife Preserve. All the business stuff was beginning to wear and I was longing to get out into the Frontier again to explore the xenobiological wealth of the universe. I was getting a bit moody and wandered into Dwain's office and complained that I wanted to get off Hakosoar and soon. Dwain spun around in his chair and belted out, "I've been working on just that!" pointing at his display. I glanced at the UPF system brief and about bit his head off. I then rattled off something along these lines.

Hum! That world is not where I want to go. You tell me any humma creature that is pleasant, smells good, tastes good, or is in any way unexpected from the humma norm. And Fochrik is nine jumps away, we'll be traveling for months.

Dwain just pushed a holovid of a sabertooth eel into my face and the pent up rage turned to hungry curiosity followed by a long string of questions.

HUM SEA LIFE

The average Frontiersman and Rim races only know the few creatures that have survived the Humma and their ability to eat everything on their world. Yet, the Humma are not fond of swimming so they have not done much with their seas and oceans. Fishing in fact was introduced to them by the Ifshnit. As a result aquatic life is a novelty food to the Humma and not a staple. Yet under the waters of Hum there is a diverse realm of life that hints at the diversity of the land dwelling creatures of Hum's past.

Hum sports its own parallels to fish, cephalopods, corals, crustacea, and other aquatic life that have developed on other worlds. The Humma have just begun to harvest the cephalopods and crustacea as they find these creatures visually interesting to eat. The rest of the life below the waves remains relatively unstudied and undisturbed. This has drawn a number of marine biologists from the University of Zebulon to set up permanent research on Hum.

There is a threat to this untouched diversity. The coastlines of the major continents have polluted shores that have killed off much of the sea life within a few kilometers from shore. The Humma ignoring the seas have allowed them to become dumping sites. One must take to the seas and venture to the islands that the Humma have also ignored to

find this diverse sea life unspoiled. Thank the Creators that Humma don't like to swim. Out on these islands one might easily forget they are on Hum because Humma are seldom seen there. What few settlements existing are new scientific posts.

BUT ITS NINE JUMPS AWAY!

I was sufficiently intrigued by the plethora of new lifeforms that I was ready to go, then the nine jumps hit my brain again. Nine jumps is a lot of time and a lot of money just to go see some fish. No one ship was going to get us there and we would have to plan several layovers along the way. We would be traveling for months. Dwain just smiled as I brought up my litany of problems fighting with my desire to go. He just sat there patiently letting me struggle enjoying the show I was putting on.

When I was done and sat down ready to give the adventure up I noticed Dwain's ear to ear grin and poked him in the chest. "What are you hiding?" I said.

Dwain began playing with a hologram of the sabertooth eel and said, "There's an Ifshnit merchant in orbit right now with a full load who will be headed straight home next week."

My jaw dropped open as I started to form the questions in my mind. Dwain interrupted with a wonderful question, "He has three births. I just need to know, are you and Tik coming with me?"

"Yes! I'll go ask Tik." I blurted as I ran from the room for Tik's office.

Tik, it turns out, was a hard sell. Nine jumps was a bit long in Tik's analytical mind. Tik ran the numbers in his head and pointed out that if our intrepid captain made no stops and only decelerated at the end that it would be at least thirty-four standard days before we reached Hum. I didn't remind him about the need for engine overhauls. He also brought up all the responsibilities we had at the preserve. Then there are article deadlines and peer reviews that were coming up. Following that he pinned us into a very long discussion about return on investment. We had to extract ourselves from the conversation because Tik had an unlimited supply of points to argue. Dwain and I ended up with days of homework resolving all the points Tik had brought up. In the process of things, Dwain accused Tik of being a kill joy. I looked that up in a book of human idioms and agreed that Tik was in need of getting off world more

than Dwain and I. Tik got a bit concerned with that and didn't talk to us for a couple of days.

We dumped our homework answers on Tik the day before the Ifshnit merchant was scheduled to push out to Belnafaer. Tik sat sternly on his couch opposite of us with his hands resting spread on the conference table. Vrusk have that special gift of always winning a staring contest. Dwain and I took turns answering all of the concerns Tik had previously raised. Tik never moved. When we got done with the last item of Tik's list I was sure we were doomed. Tik remained silent while we held our breath. The moment I dropped my head anticipating defeat Tik turned to a tablet on the table and keyed in several queries. Dwain and I sat intently watching his hands work the display. Then Tik spoke calmly, "Thank you for putting everything in this place in order so we can go. Normally you two leave it to me to get things in order while you run around babbling about everything you're going to do once we get there. My bags are packed. I'm ready to go."

Dwain let out a whoop and I growled satisfactorily. We had a lot of packing to do and only hours to do it. We ran from the room with joy. If vrusk smile, Tik had a grin from antennae to antennae.

AND THEN WE WERE ORBITING HUM

The Ifshnit merchant was waiting at his shuttle the following evening as promised and we rocketed into orbit. Tik and I could not restrain excitement for the adventure ahead. Dwain however seemed a bit nervous for some odd reason. No sooner had we gotten aboard the CFM freighter than we discovered why Dwain was nervous. Ifshnit ships are not built for non-ifshnits. The halls are narrow and the ceilings are low. Then the crew didn't take us to cabins, they took us to the hold. Dwain had booked us storage class passage to Hum. Tik raised immediate objections but in the end Dwain just had to remind him of the storage class passage Tik had booked Dwain and I on from New Pale to Osaka when customs held us up and Tik went ahead. Tik relented but insisted on activating his freeze field himself.

We awoke a twenty five standard days later orbiting Hum. We tried to talk to the Ifshnits and find out how we had gotten to Hum so fast, ten days shorter than our estimations, but everyone was lock jaw silent. Tik checked the logs on the medical monitors of the freeze fields and we had never experienced more than one G of acceleration. We had our hunches but we were not about to challenge the crew. It was time to get planet side and contact Doctor Rachael Holloway, professor of marine xenobiology from the University of Zebulon who had told Dwain he was welcome to show up any time at her field station on Grakfik Island. Just she didn't gamble on us showing up so soon.

Doctor Holloway welcomed us graciously and directed us to have our shuttle drop us to Port Kiifack in the City of

Glockfog where she would be waiting with an air car to pick us up. We boarded the CFM shuttle and dropped to Port Kiifack. Looking back at the CFM ship as we departed, all three of us saw the ugly hull damage running in one long narrow streak from stem to stern. Seems we hit something on our trip from Hakosoar and the shuttle crew was not willing to acknowledge or talk about it. Our short trip felt even more odd. We landed at Port Kiifack and Doctor Holloway was there waiting with an air car as promised.

Doctor Rachael Holloway is a wonderful woman. She insisted immediately that we call her Rachael and, "do away with the Doctor stuff." We crammed all our luggage into the back of her air car and set off toward Grakfik Island. Quickly our conversations turned to sabertooth eels and Rachael produced this impressive image of one in a tank at her field station on Grakfik Island.



Sabertooth Eel – by Tom Verreault

Dwain immediately started talking about catching some in the wild with bait and fishing rods. Rachael smiled and said it sounded like fun and that she would like to join him. Rachael then mentioned that she would have to catch a lot of bait first. That got Tik concerned and Dwain and I excited.

SWARMING SABERTOOTH EEL

The first few days on Grakfik Island were spent with an intern named Kelly who was spending a year working with Rachael before heading back to school on New Pale and a career in her father's investment firm. Rachael was in and out each day showing us interesting creatures. Kelly was

with us all the time. Kelly is a magnificent girl and a credit to her house and family. Rachael was waiting for their station clipper ship to come back from a survey mission so it could take us out to the Gak-Claw reefs where the sabertooth eels congregate.

The third day of our visit Rachael came excitedly into the aquarium lab where Kelly was showing us the Hum equivalent of crabs they were busy classifying. She announced that Captain Tifit had called in and was approaching the harbor. We were told to leave our things and head to the dock because the ISS Feetom is a wonderful sight to see. So we jogged down to the dock and Rachael pointed out a dot on the horizon coming out of the west. Slowly the dot resolved into a true classic sailing ship similar in design to human and yazirian designs. There were four tall masts with three to four sheets hoisted on each. The sails were being gathered in as the ship came into port.

The ship motored smoothly to the dock and two Ifshnit crew members jumped down to tie her off. Then the gangplank was secured to the dock and Captain Tifit strolled down to greet Rachael and Kelly. Happy friendly greetings were shared all around and Rachael knelt down to give a playful hug to the Ifshnit sea captain. We then retired to a nice dinner and Captain Tifit filled a few hours telling us stories of the old sea captains of Homeworld. Nowadays, some Ifshnits who feel a calling to the old sea life of Homeworld without the modern ships of today, have come to Hum to live the old life. Captain Tifit was in love with the sea and the profit of discovering new waters and what were beneath them. He is truly a different kind of Ifshnit from the star captains and traders most of us meet in the Frontier.

The next morning we moved into cabins aboard the Feetom and gathered in the state room to go over our expedition plan. Like our other Ifshnit shipboard experience the ceilings were low so most of us stayed seated and rolled our chairs around a lot. The first day we sailed to a fishing ground to net a large school of bait fish which we dumped in a topside tank on the stern of the ship. Rachael's plan was to sail into the middle of the reef and dump the bait fish into the water where they would hopefully school into a bait-ball as the predators came out to feast on the unlucky castaways. This was all an experiment that she had worked out to accommodate our visit. Dwain and I would put a bunch of the bait fish on hook and line to cast into the feeding frenzy to catch ravenous sabertooth eels. Captain Tifit and his crew turned out to be avid anglers and were joining in the fishing for the sport of it.

Two days after catching our bait fish we arrived at the reef. The crew furled the sails while we motored slowly into the reef expertly following channels charted by Captain Tifit for the occasion. Rachael's plan called for us to sit at anchor in a deep part of the middle of the reef while the marine life acclimated to our presence. When she felt that

the reef life was acclimated to us she would dump the bait fish the following morning and the fishing would begin.

Rachael, Dwain, Tik, and I spent the next couple of days watching the reef life from deck. Slowly the creatures began coming back out into view from their hiding places. Ships and fishing, Rachael reminded us, are still new to Hum's oceans this far out at sea so the creatures have little reason to think of us as a threat once we settled in and remained quiet for a few days. This proved to be true and the crew were the first to spot sabertooth eels darting from their hides to snatch unsuspecting fish swimming through their territory. We even saw a team of sabertooth eels attack and kill a large fish that had wandered into the reef.

The large fish came swimming into the reef from the direction we had come into the reef. Soon the fish found that it was trapped in a deep pool on the reef and began probing the shallows for the way back out. This probing alerted the hiding sabertooth eels. The sabertooth eels began gathering in the shallows beyond the detection of the large fish and shadowed its search along the pool edge. Then at the opportune moment one sabertooth eel darted for the big fish and sunk its' sabers into it locking itself in place. Once the blood was in the water the other sabertooth eels darted in and joined the maelstrom. This was Rachael's sign that the reef was acclimated for releasing the bait the next day.

The next morning at dawn the fishing tackle and gear was readied quickly. Bait fish were hooked live to every pole. Extra bait for the hooks were gathered in buckets at each anglers chosen station. Then the tank was dumped over the stern and the bait fish dispersed. Rachael's cameras were recording everything as she narrated excitedly. First they swam around disoriented and unschooled. They explored their captive location and then the first predator took one of the bait fish. Soon the bait fish had formed into schools and were searching frantically for a safe way back out to the open sea they thrived in.

The schools of bait fish soon became one large school darting from the center of the deep pool to probe the reef edge and retreat to the safety of the deep water. Each probing attempt left the school minus a few of its' members and a few more sabertooth eels lurking out in the open on the edge of the reef. Captain Tifit had positioned the boat to block the channel in the reef that lead through the winding maze of channels back to the open sea.

Everyone was waiting at the rails watching the school of bait fish darting and probing the edges of the reef. We were waiting for the sabertooth eels to begin darting out toward the school and corralling the bait fish for a feeding frenzy. Rachael's theory was that this would happen if enough sabertooth eels were drawn in from the surrounding reef to cause competition among the predators. If her theory was not correct then likely the bait fish would continue probing

for an escape losing their numbers slowly until they found their way to the channel winding out to the open sea.

Like the previous night it was the Ifshnit crew that first started noticing the increased numbers of sabertooth eels collecting along the edge of the reef. Rachael began to narrate her camera recordings with more animation and excitement. Then an unexpected thing happened. Groups of sabertooth eels that were congregating waiting for the school of bait fish to probe in their direction began to fight among themselves.

Rumblings of fights began all around the reef. Sabertooth eels would twist and butt at each other in acts of dominance and then break up. The scattering sabertooth eels would then group up at another location and another fight would erupt. This became a bit of a concern for all of us. Maybe the sabertooth eels would not enter the deep pool away from their hides in the reef. If they would not enter the pool then the experiment was over and we would have to satisfy ourselves with just casting into the reef to catch sabertooth eels and not discover anything new about the hunting capabilities of their species.

Then tussles then began to amplify all along the reef. Sabertooth eels began to leap out of the water while tangling with each other. All the while the bait fish were darting and probing faster and faster among the edges sensing that something ominous was going to happen.

The tangling sabertooth eels turned from separate groups here and there along the reef to a more general churning along the reef edge. The bait fish darted ever quicker toward the edge and away avoiding the turbulent waters full of agitated sabertooth eels. The sabertooth eels were so agitated that they were now driving the bait fish away before they could even catch a few. The churning waters became a rolling ring of tangling fighting agitated sabertooth eels a few meters wide all around the deep pool. Only the exit channel behind us was open now as the sabertooth eels would not enter the deep water. Without our boat anchored where it was the bait fish would find the exit and run the gauntlet of frenzied sabertooth eels to their doom.

Suddenly something happened that made Rachael cry out, “No!” Dwain and I ran over to her and Captain Tifit where she was pointing into the churning ring of frenzied sabertooth eels. The water was red with blood and we could clearly see that the sabertooth eels had begun cannibalizing each other. Rachael stood with her hands over her mouth.

We had elicited a frenzied response entirely unexpected to us but not to any Humma biologists who might have overcome their dislike of the deep sea to investigate with us. We later learned that other Hum creatures on land will cannibalize each other in similar conditions of frenzy.

We were all about to give up hope that the situation was a failure and the sabertooth eels would feed until half their population was decimated when a group of the frenzied cannibalistic feeders spilled into the deep pool. This then rippled along the ring of the reef in both directions like a spontaneous felling of a wall holding prisoners back from their freedom. The entire mass of frenzied sabertooth eels about two to three meters deep rushed from the ring of the reef into the deep pool encircling the school of bait fish driving them into a bait-ball as the sabertooth eels dashed from one side of the bait-ball to the other grabbing and ripping apart any fish they could get and gulping it down. Rachael's theory was suddenly playing out. We all rushed to our poles and cast them into the swirling bait-ball.

Quickly hooks were set and anglers began fighting and reeling in mad sabertooth eels to continue the battles on deck. Subduing and removing a hook from a wild sabertooth eel is nothing to be trifled. I got bit on the arms and legs. Dwain took a fang through his left hand between his thumb and forefinger. Tik fared well with his hard exoskeleton. The Ifshnit crew quickly turned to their sailors experience and clubbed or gaffed their catches. We managed to get three live sabertooth eels into individual tanks for study back at the aquarium lab. Four others were netted and cast into the stern tank for handling after they calmed down.

Everyone was busy baiting hooks, casting and retrieving in our own frenzy when Captain Tifit ordered everyone away from the rails. Quickly the crew began pulling us back as everyone reeled in our last catch. The waters around the boat were churning with frenzied sabertooth eels when a jet of water erupted over our heads on the port side of the ship. Something large and eel-like had launched itself out of the deep pool with its jaws gulping down sabertooth eels several at a time.

The greater eel or eels, there may have been more than one, launched through the frenzied mass about a dozen times gulping down everything. A healthy sense of self-preservation quickly put visions in our minds of one of these greater eels latching onto an arm or leg and dragging you down to drown in the depths below while you were pulled apart and consumed by these beasts.

No sooner than this dozen attacks had started, the majority of sabertooth eels retreated to the safety of the reef. Dwain and I stood stunned by the surge of furry from the unknown below. Tik was firmly holding each of us by an arm as we slowly began pulling from him to edge closer to the rail of the port side. Captain Tifit and Rachael moved slowly in front of us and Rachael softly told us that it was not a good idea to approach the rails for a while.

We busied ourselves with our catch and live specimens while Dwain and I began questioning Rachael and Captain Tifit about the bigger denizens of the Hum deep. Captain Tifit assured us that there were other creatures in the oceans

of Hum that would easily snatch an unwary crew member from the deck. Rachael confirmed this and informed us that this was how Captain Tifit and herself had come to their mutual cooperation as researcher and explorer. Captain Tifit wanted the adventure of hunting and naming these sea monsters and Doctor Rachael Holloway would study them and publish the scientific proof.

The greater eels ended the experiment and fishing and we spent until the following day unsuccessfully searching for the mysterious greater eel with underwater drones before setting back out the channels to the open sea again in the late afternoon.

Sabertooth Eel

TYPE:	Aquatic Carnivore
SIZE:	Medium : 3m
NUMBER:	1-100
MOVE:	Medium, 65 m/turn
IM/RS:	6/57
STAMINA:	50
ATTACK:	70
DAMAGE:	1d10
SPECIAL ATTACK:	Frenzied Swarm
SPECIAL DEFENSE:	50% Have Poisonous Flesh
NATIVE WORLD:	Hum

We caught thirty seven sabertooth eels total. Several dead ones were put on ice for dissection and the crew processed theirs that tested safe for consumption as one of our evening meals. Sabertooth eels are not poisonous but like most Hum life they can tolerate and eat many poisonous and toxic things and carry the compounds in their bodies all their lives. The trip was a success and we enjoyed our trip back to Grakfik Island.

GM NOTES

The Ifshnits have a CFM trade route through Mechan to Scree Fron that is not known to the UPF. Nor is it known to the UPF that a small faction of CFM traders are actively trading with the Mechanons of Mechan. The routes from Mechan to Capella and Scree Fron are treacherous due to the Lesser Morass Nebula.

FE

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.

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

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

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

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

- At the **Frontiersman** Level – Akerraren, Ivan Begley, Erik, David Kester, and Nox SanJuan
- At the **Scout** Level – Andrew Moore, Miska Fredman, and Tevel Drinkwater
- At the **Explorer** Level – Shane Winter, Joe Johnson, and Tom
- At the **Space Ranger** Level – Richard Farris, Scott Holliday, and Kenneth Reising
- At the **Station Master** Level – Pagan & Fred Kauber

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

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

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

Miniatures

TACTICAL BATTLE MATS AND POSTER MAPS

Tom Verreault

Back in the 1980's Star Frontiers was unique among science fiction role playing games in that it came with double sided folded poster maps to facilitate tactical action with die cut counters. This was perhaps a legacy of TSR's roots in war gaming. Despite the proponents of abstract role playing, tactical maps and miniatures (in place of die cut counters) have remained a staple of RPG's for decades.

Recently, I came across a new product by Piazo, the publishers of Pathfinder, who have released the science fiction RPG Starfinder. I'll be reviewing the Starfinder Flip-Mat Basic Terrain latter in this article. As for Starfinder the RPG I have not delved into this and cannot give a valid review but will give two initial assumptions I've made about it. One: it is probably all you would expect from a D20 system and most likely compatible with the rest of the Pathfinder line. Secondly: the presence of an anthropomorphic hamster on the cover posing with the other prospective player characters suggest Piazo is trying to cash in on the recent popularity of the Guardians of the Galaxy (GotG) movie franchise and that the game allows for players to build a genetically engineered and cybernetically enhanced character similar to Rocket from GotG.

Let's review battle mats and tactical mats available for Star Frontiers enthusiasts.

THE PORT LOREN AND CLARION STATION MAPS

Each of these were part of a box set and specifically supported the bundled module that came in each box set. Despite being keyed to a specific module they were



designed with an eye toward versatility and reusability. Die cut counters were provided and many of us enjoyed hours of game play with either the Alpha Dawn or Knight Hawks maps and counters. They were double sided and featured varied terrain and tactical environments. They were, however, folded paper and decades later I found it necessary to have mine laminated at an office supply store to preserve them. Once they were laminated they were then suitable for use with dry erase markers.

VINYL MATS

Eventually, I obtained a vinyl battle map. It came double sided with 1" squares on one side and 1" hexes on the other. It was marketed for fantasy role playing games and touted as suitable with water soluble and dry erase markers. One drawback it did have was that dry erase markers would



Editor's Note: Back in the day I laminated my Port Loren map almost as soon as I got it as a 12 year old. We used to mark up the terrain and sometimes the city map with grease pencils (does anyone remember those). This was long before the advent of dry erase markers. I never laminated the Knight Hawks map but I did have a second map (white not black) with the same hex grid that I did laminate. That one got lost somewhere in the intervening years in my many moves.

If you'd like your own copy of the Port Loren or Clarion station maps, I've digitally recreated them and they can be found in the M Map Gallery on the Star Frontiers Network wiki (<http://starfrontiers.info/wiki/index.php/Maps>).

stain the vinyl if the marks were left on the mat for a period of a few days (a week). Despite this negative feature the mat was immensely useful for all sorts of gaming.

MONSTERPOCALYPSE MAPS

Monsterpocalypse is a miniatures wargame that is a weird fusion of the arcade game Rampage and a table top wargame. It had a double sided fold out map with 1" grid squares. The game came with a random selection of buildings mounted on 2"x2" bases and small war gaming pieces on 1" square bases. My first impression was that the Terran faction vehicles would work well on the Port Loren map from the Alpha Dawn box set. The buildings were intriguing too and I resolved to use Star Frontier's die cut counters with the Monsterpocalypse maps, buildings, and vehicles. The drawbacks were the difference in scales between the 1/2" die cut counters and the 1" grid of the Monsterpocalypse material. Also the Monsterpocalypse bases all had printed information on them that was only relevant to that game. I was always tempted to tear the Monsterpocalypse stuff off their bases and rebase them for Star Frontiers but always worried that I might play Monsterpocalypse again.



WORLD WORKS

World Works is a company producing an extensive line of cut and fold paper models for gaming and RPGs. I made a barren Mars battle mat from their materials by printing the 8"x11" Mars terrain sheet several times and gluing it onto a black foam core board. Having obtained the largest foam core board available I was able to make a very substantial battle mat. Its drawbacks were that it was not foldable or rollable and transportation of the mat was a pain.

DEDICATED TERRAIN PIECES

There was a time that I participated in competitions on a terrain building website. Being a Star Frontiers enthusiast,

I built some pieces for science fiction gaming; for example I have a 28mm scale model of the pirate outpost (not the town) from the Voltturnus, Planet of Mystery module. These terrain pieces, while beautiful and fun are storage problems and not very versatile.

STARFINDER'S FLIP-MAT BASIC TERRAIN

Now this piece I seriously like. It is double sided with 1" grid with station deck plating on one side and barren Mars like terrain on the other and folds out to 24" x 30". The barren Mars like terrain was painted by an artist and is well done. The mat is suitable for use with water soluble, dry erase, **AND** permanent markers. Yes, you can use permanent markers on this and erase the marks. The method is to mark over the permanent marker with dry erase, let it sit a short time, and rub out with a suitable cloth or paper towel. I'm going to simply use dry erase since you need it for erasing permanent marker anyway. Unless I need the Alpha Dawn map or one of my terrain pieces for something specific this mat will be my go to for science fiction gaming. At \$15 it is reasonably priced.



FE

TITAN RISING: 2299

EPIISODE #15.0: "CORPORA"

V2.0

MOMENTS LATER...



YEP, THAT IS
ONE DEAD BRYND
YOU GOT THERE.

...AND HOW DID
HE END UP HERE
ON MY SHIP?

WITH ALL OF
THE XENOPHOBIC
SENTIMENT IN THIS
CONFLICT A BRYND
MERCENARY IS THE
LAST THING THAT
I NEED HERE.

HE MUST HAVE
STOWED AWAY WHILE
WE WERE STILL IN
SPACE DOCK.



BUT HOW DID
HE BYPASS OUR
SECURITY?

HE WOULD
HAVE NEEDED
INSIDE HELP.



WHO WOULD
DO THAT?!

...IT COULD
JEOPARDIZE
THE MISSION.

EVEN IN THE
FLEET THERE ARE A
LOT OF PEOPLE WHO
WOULD LIKE TO
SEE US FAIL.

SOME WANT
INDEPENDANCE
FOR CENTAURUS

...SOME WANT
THE EXPULSION
OF THE XIN.

NONE OF WHICH
IS A MYSTERY...



EXCEPT, WHY
THEY CHOSE TO
TARGET NE'SPIR?

WHILE I AM
RELIEVED THAT
HIS ATTEMPT WAS
UNSUCCESSFUL...

I AM VERY
PERPLEXED BY
IT AS WELL.

MY DEMISE
WOULD ONLY DELAY
THE MISSION UNTIL A
REPLACEMENT
WAS SENT.



A MYSTERY WE
WILL HAVE TO SOLVE
AFTER WE COMPLETE
THE HYPER JUMP TO
CENTAURUS.

MEANWHILE...

IN THE HAB MODULE...

A PLAN IS TAKING SHAPE.

I KNOW THAT
THE CAPTAIN THINKS
IT'S A LOST CAUSE...



BUT REPAIRS
WOULD GO A LOT
FASTER WITH A
SERVICE 'BOT.

LET'S SEE
WHAT WE HAVE
TO WORK WITH?

OUR DAMAGE
CONTROL TEAM FOUND
YOU ON DECK TWELVE.

...WRECKED AND
CONNECTED TO A
POWER CONDUIT.

...'SURE DIDN'T
LEAVE US MUCH
TO SALVAGE.

NO WAY ALL THIS
WAS CAUSED BY A
CONDUIT RUPTURE.

WHAT
A MESS!

IT LOOKS LIKE YOU
WENT TEN ROUNDS
WITH A CAN OPENER.

...AND THE
CAN OPENER
WON.

LUCKY
FOR US...



...CHIEF ENGINEER BEYNARD'S PLAN.

I KNOW A THING
OR TWO ABOUT
ROBOTICS...

AND THOSE
ISOGEN BOYS LEFT
US A SHIP FULL OF
SPARE PARTS.



TO BE CONTINUED...



STAR FRONTIERS®



Character Record Sheet – UPF Personnel Form [7EB-UL-1N 54.2a]

GENERAL DATA

PORTRAIT/SKETCH

PLAYER'S NAME:

RACE:

GM:

CHARACTER'S NAME:

DESCRIPTION:

PROFESSION:

SEX:

HT:

m

WT:

kg

WALKING:

m

RUNNING:

m

SPRINTING:

m

AGE:

HAIR:

EYES:

HANDEDNESS:

HOURLY:

km

CAMPAIGN:

ALLEGIANCES:

HOME WORLD:

PHYSICAL DATA

ABILITIES	NORMAL	DESCRIPTOR	AUGMENTED	MODIFIER
STR/STA:	/		/	DAM:
DEX/RS:	/		/	DEX:
INT/LOG:	/		/	INT:
PER/LDR:	/		/	SOC:
PSY/ESS:	/		/	INIT:

MEDICAL RECORD

CURRENT STA: - STUN:

OTHER INJURIES:

BIOWARE/CYBERWARE:

PERSONAL WEAPONS

RANGED COMBAT	ARMED	RoF	DMG	TO HIT	PB/SH/MD/LG/EX	SEU	AMMO / USED	MASS
					/ / / /			
					/ / / /			
					/ / / /			
					/ / / /			
					/ / / /			
MELEE COMBAT	# Att	DMG	MOD	DEFENSE	POWER	SEU	USED SEU	MASS

DEFENSES

TYPE	PTS	USED SEU / DAMAGE
SUIT:		
SCREEN:		
SCREEN:		
IMPLANT:		
SPECIAL:		

ENERGY RECORD

AVAILABLE

USED

PERSONAL FILE

PROFESSION NOTES:

RACIAL ABILITIES	EXPERIENCE POINTS
	CURRENT:
	LIFE TIME: KARMA:
	STORED:
	CREDITS:
	CREDSTICK
	BANK
REPUTATION	MOD./CS
/	
	PAY/DAY:



TSR first introduced the Brutorz in the 1978 Gamma World 1st edition by James M. Ward and Gary Jaquet.

Standing well over 2 meters high at the shoulder, a Brutorz is powerfully muscled and very broad. These neo-Percherons (Draft Horses) are quite intelligent (with a LOG of 49) and are particularly partial to Pure Strain Human individuals. In addition to their great size, strength, and intelligence, the Brutorz species is remarkably agile for their bulk (1000 kilograms), and all have precognition SL1. In combat, these creatures can deliver stunning kicks – 1 dice of damage (1d10) per forehoof – or a vicious bite for 2 dice (2d10) of damage. Well fed and treated with respect, the Brutorz is quite willing to serve as a mount for humans and humanoids.

These genetically engineered horses were developed originally for use by the royal family of Clarion for parade use. This breed of horse has proven useful for police and military use on human colonies for riot control and patrol. They normally only occur as mounts being used as such.

Editor's Note: This creature was supposed to be part of the Creature Conversions II article that ran back in issue 20 but somehow I overlooked it when putting that article together. So it gets an article all to itself.

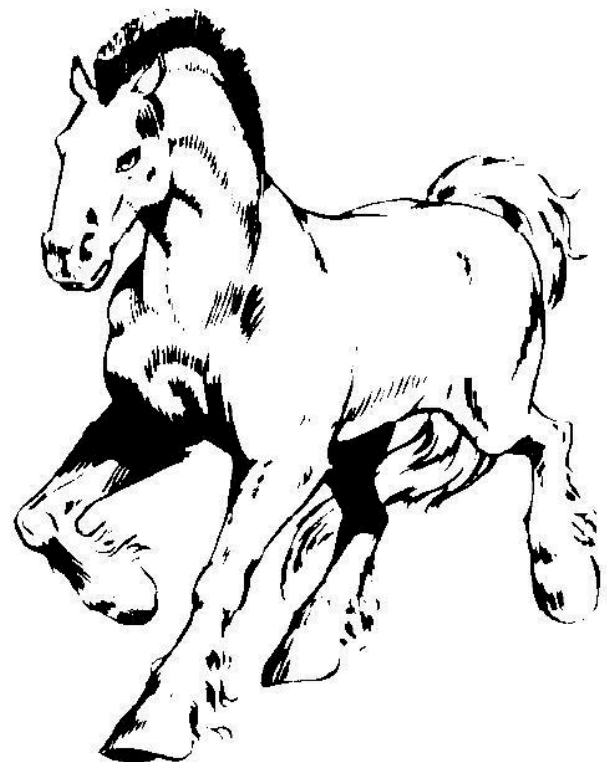
Brutorz	
Type:	Large Herbivore
Numbering Appearing:	1 (2-12 in wild herds)
Movement: Medium:	11 meters/ 55 meters max
STA:	85
IM/RS:	6/55
Attack:	75
Damage:	Kick 1d10, Bite 2d10
Special Attack:	none
Special Defense:	none
Native Planet/Habitat:	Human Colonies, Plains

PRECOGNITION

MENTAL; ACTIVATED, SL

This is the power to sense dangerous situations which will affect, personally, the mutant having the power. It is effective only 3 minutes into the future and requires intense concentration to work. For instance, if the mutant is about to open a door, he may use precognition to see what would happen if he did open the door. It is perfectly legal to change the course of history by acting on such information and not, for example, open the door to receive the ambush waiting on the other side. When a mutant with precognition foresees damage about to be done to his own body, the shock to his nervous system is such that he receives one die (d10) of damage immediately. If the mutant should foresee his own death, he immediately takes two dice (d10) of damage and falls unconscious for 2-10 (2d10) minutes. The number of times a mutant may look into the future per day is determined by their skill level.

FE



Campaign Material

ARTIFACTS ROADSHOW: TRANSPORTATION EDITION

Richard "Shadow Shack" Rose

"Today's episode of The Artifacts Roadshow will be an all transportation themed show. Richard I know that you are very passionate about motorcycles, you must be as excited as I?"

"Yes I am but not only interested in motorcycles, the starships on today's show are very exciting too."

"Well let's get started...."

THE PAN GALACTIC EXPLORER 001

The first starship manufactured by Pan Galactic (pf:230, the year they were founded/well before they rose to megacorp status) is an exploration vessel that has been fully restored, preserved, maintained, and operational. It is kept on display in the PGC Shipyards of Gran Quivera. PGC refuses to sell it despite numerous offers that have passed into the realm of modern dreadnaught warship prices.

THE TT-5150 SERIAL NUMBER 1

Trans Travel's first production vessel, a TT-5150 freighter (HS:5) serial number #1, has changed hands several times during its considerably shorter tenure compared to the PGC exploration ship (what with TT being a post-UPF megacorp) ... most recently at just over 10M credits. Trans Travel, not believing it would fetch as much as it did, lost the last auction but is quite eager to recover their first historical craft. As such they discontinued the model (and resulting supply of original parts) in hopes that the lacking support would force the price back down. Sadly this backfired, prior owners used the ship but the current owner has it on display at an orbital museum so it will remain preserved for quite some time, thus only increasing in value until TT is forced to relaunch the model again, much to the chagrin of numerous other TT-5150 owners & operators in the Frontier.

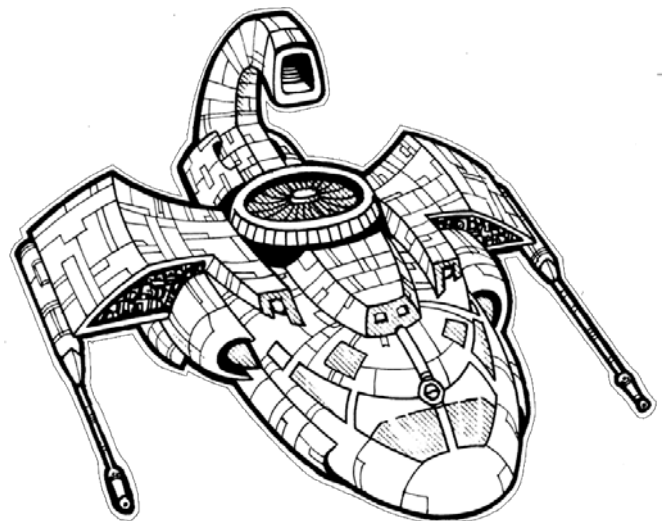
THE MALTAR'S HOVER CHAIR

This heavily reinforced hover chair was recovered from Darkworld Station after the Third Dramune War. It is on display at the Volturian Museum of Organized Crime & Other Historic Menaces. Valued at 15K credits.

Editor's note: This article grew out of a discussion thread about artifact level treasure. Artifacts were designated as one off items with incredible prices or value. One poster provided so much that was transportation related that we asked if we could compile his posts and submit the article in his name. He agreed and the good news is we'll get to do at least two Artifact Roadshow articles! Special thanks to Richard Rose, aka Shadowshack.

SCORPION FIGHTER

Also on display at the Volturian Museum of Organized Crime & Other Historic Menaces is a non-functional Scorpion fighter recovered from the infamous Day of the Juggernaut. Star Law forbids it to be functional so it is just a hollowed out shell but it still expected to fetch over 100,000 credits.



THE SUCCUBUS

The Succubus was a prototype pirate corvette believed to have transported the Star Devil himself to and from Volturnus prior to the Sathar Invasion. Badly damaged from battle, if repaired & restored it could fetch close to 1M credits but it is currently worth little more than salvage value plus another 10-20K Cr for nostalgia. However, it should be noted that Shat-Rat's Salvage orbiting Evergleem is eager to acquire this historic craft so a bid war can be expected. It is currently on display at the Volturian Museum of Organized Crime & Other Historic Menaces.

THE PUPPETMASTER

The gutted remains of "Puppetmaster", the notorious cybernetic hijacker that took control of the PGCS Preglar Doll. It is merely a restored & polished exterior of the bodywork, all of the robotic software and biological hardware have been destroyed by Star Law. It is currently on display at the Volturian Museum of Organized Crime & Other Historic Menaces. Estimated value at auction is 25K credits.

PAN GALACTIXON XV1000 SERIAL NUMBER 0001 (GROUND CYCLE)

Another relic from the pre-megacorp era of PGC, this ground cycle boasts an internal combustion engine that runs on a petroleum based fuel. Its 20 liter tank feeding a pair of half-liter displacement cylinders allows an average range of 400km. Top speed is 200kph and it can cruise comfortably at 120kph (peak range can be achieved as such). It accelerates at 120m/turn, decelerates at 80m/turn, and corners at 80m/turn. The stepped seat accommodates two humanoids (vrusk & dralasite packages were offered later on during initial production).

The XV1000 was a no-frills vehicle with minimalist styling, it was simply basic transportation designed for point A to point B travel, although a massive accessory line was released shortly after production began (circa pf-227) to allow for things like touring seats, windshields, luggage, larger capacity fuel tanks, wider wheels & tires, lowering kits, raked fork modifications, and even a sidecar. As such the most rare Pan Galactixon models are bone stock vehicles. XV1000 #1 --- still in its original condition --- is considered as the holy grail for ground & hover cycle enthusiasts alike, as such the value continues to rise year after year (currently estimated at 650,000Cr).

THE XLCR880 HOVERCYCLE

By pf:100 electric vehicles were the norm across the Frontier and the internal combustion engine was restricted to off road use or in some cases parade duty on public roads at best. Pan Galactixon was last to produce an electric powerplant, and their first foray in that field was their XLCR880 hovercycle.

PGC researched the popular modifications

that were being performed on their former internal combustion ground cycles to offer some nostalgia in their (at the time) modern hover package. Exposed hoverfans front and rear emulated the popular abbreviated fenders that were popular on those IC bikes, with thick rear fans in the back and a narrow large diameter fan leading the way. The control vanes for the front fan were even "raked out" to emulate those parallel mods of yesteryear, controlled by a shoulder height handlebar. Beyond those radical features the XLCR880 was, much like the XV1000, a very bare bones vehicle boasting a single headlight with a single gauge perched above it just fore of the handlebar mounts. A single seat behind a faux tank fed that styling even further.

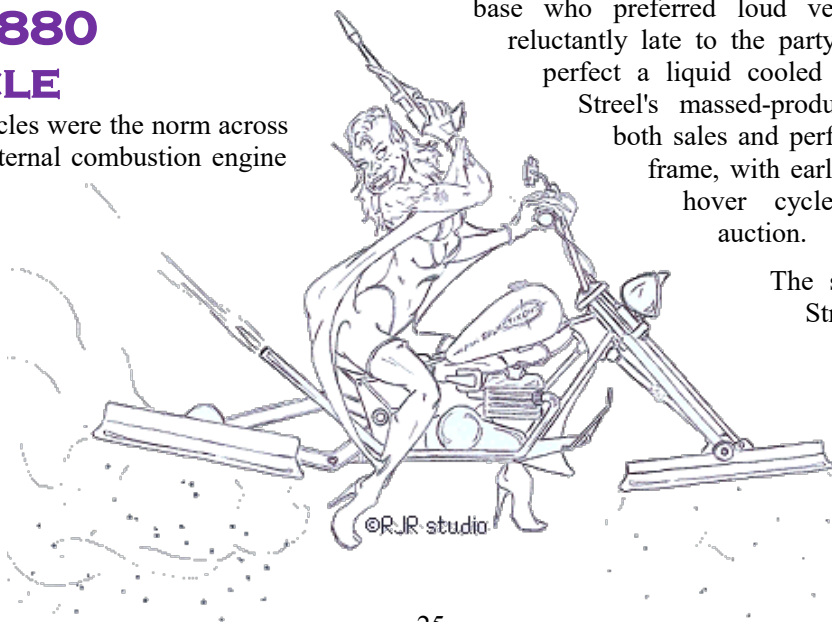
What makes the XLCR "desirable" is the air cooled electric powerplant, a fan shroud on each side of the motor with ventilated covers and "sound routing" tubes running aft of the motor emulated a set of exhaust pipes, this combination produced a loud wailing noise that would be comparable to that of a jet turbine.

The 880 would top out at 120kph with a 90kph cruising speed (which allowed for a max range of 880km), an impressive cornering speed of 100m/turn and equally impressive 120m/turn acceleration & 60m/turn braking. While there are modern liquid cooled/quiet reproductions of the XLCR880 available today, these original models easily fetch 100,000Cr at auction and serial number 0001 sits in a museum with an estimated half-million credit value.

HYONDOW XB750 CROSSBOW HOVERCYCLE

The age of liquid cooled electric motors (starting around pf:20) gave a big boost to Steel's quartet of ground & hovercycle subsidiaries, mostly due to Pan Galactixon's insistence at remaining loyal to their "old guard" customer base who preferred loud vehicles...hence PGC was reluctantly late to the party and took some time to perfect a liquid cooled electric motor. As such Steel's massed-produced vehicles dominated both sales and performance during this time frame, with early renditions of ground & hover cycles netting 50-100K at auction.

The sole exception would be Steel's Hyondow XB750 Crossbow, the hovercycle that set Steel's pattern in motion for decades to come. Early models can still be found in decent condition today and



fetch 50-150K at auction, with the first year models netting as much as 200K. It is rumored that CEO Hilo Hadow keeps serial number 000001 at his private residence and occasionally takes it out for a few laps on his private closed course.

AESMA YURACK'S CUSTOM HOVERCYCLE (CIRCA PF-50)

Aesma claims to be a direct descendant of the Star Devil himself. More importantly, Aesma is credited with the founding and rapid expansion of the Stellar Demons Hovercycle Club across the Frontier, the club is the most widely recognized of the various outlaw hovercycle groups and believed to be responsible for roughly one quarter of the entire planetary crime rate across the UPF worlds. The cycle is modified beyond recognition, only to the trained eye can it be discerned as a Pan Galacticon XLCR model. Estimated value is around 75,000 credits.

SHAMAN SPACECRAFT

Shaman Spacecraft, a subsidiary of Steel prior to the first Sathar War, belted out one of the most elegant planetary/system defense starships ever. Utilizing a class 4 hull that was loosely referred to as a Corvette/Escort boasting a semi-aerodynamic hull, atmospheric capable versions with airfoils were also manufactured. A trio of atomic drives occupied equally elegant nacelles perched on aerodynamic struts occupies the stern while a symmetrically flowing set of lines move forward to the helm.

The ships were typically armed with a precursor to the pod laser system, which is to say the guns from a standard laser battery were fixed in a forward firing array ... while an actual laser battery system was perched on the dorsal position with equally attractive shrouds enveloping it.

Many of the original Shaman C/E vessels were pressed into service by the First and Second Common Musters. However, they were never contracted as a mainline vessel. That role was given to the larger frigate class vessels of that era instead (and still holds true today). Still, the ships proved to be quite effective in both combat theaters and the basic design inspired the Assault Scout five decades later.

Shaman went bankrupt following the First Sathar War and subsequent formation of the UPF, they simply could not compete with the more modern designs that were being introduced afterwards. Pan Galactic, Cassidine Development Corporation, WarTech, and Galactic Task Force all made brief attempts at nostalgic resurrections of the Shaman design, but each redux fell through in short order due to dismal sales.

Steel CEO Hilo Hadow owns Shaman C/E serial number 5, the earliest known example of the original line, but it is

badly damaged as a result of a pre-UPF firefight. He owns three others, two of them original but also in poor condition (being used as parts to salvage/revive the first one) and a fully functional model that was retrofitted with modern parts (the only value to collectors being its original hull...which may ultimately be cannibalized for Number Five if need be). With operational restored/original versions breaking seven figures at auction, once finished Hilo's #5 could easily double the going rate.

It should be noted that fully restored and/or original operational models number fewer than ten in the Frontier today, with an estimated 30 more surviving/non-operational examples as well. While the fully atmospheric craft are equally valuable (due to lower production numbers), the standard models are more sought after as the airfoils ruined the flowing lines. The good news is an increasing number of atmospheric capable "barn find" models that have been surfacing lately, these craft are being discovered in the most unlikely places in various conditions ranging from wrecked to readily restorable. It should be noted that the retro-clones from later reiterations are sought after for little more than name-nostalgia, they tend to not fetch much more than when sold new.

FE

3D PRINTED ASSAULT SCOUT MODELS



Would you like to have your very own Assault Scout sitting on your desk at home? Tom Stephens has finished creating and tested printing a full 3D model based on the Swift Class Assault Scout presented in issue 21. These are available in a range of sizes from 4" to 12.6" as pictured above. They are also available in a variety of colors including white, black, silver-grey, and red. Prices range from \$5 for the smallest one up to \$50 for the largest. If you might be interested in Tom printing one for you, jump on over to <http://starfrontiers.info/AssaultScout.html> to check out the details and place your order.

FRONTIERSPACE™

A ROLEPLAYING GAME OF SCIENCE FICTION ACTION AND ADVENTURE

Among the stars in a distant galaxy there exists a region of densely populated habitable worlds. It is here your story begins, a place commonly called "the frontier" where people dwell and tales unfold.

The Galactic Federation's power now wanes as corporations rise to fill the void left behind by the loss of their protection and authority. Citizens push on against adversity and defy the obviousness of their limitations. They live their lives doing work for the large interstellar corporations and governments. They huddle around spaceports and seek passage to the next system. They fight and they love and they die... but above all else, despite the vastness, despite the isolation, despite the dirt and the dust and the danger... the frontier is alive. And that's what makes it worth fighting for.

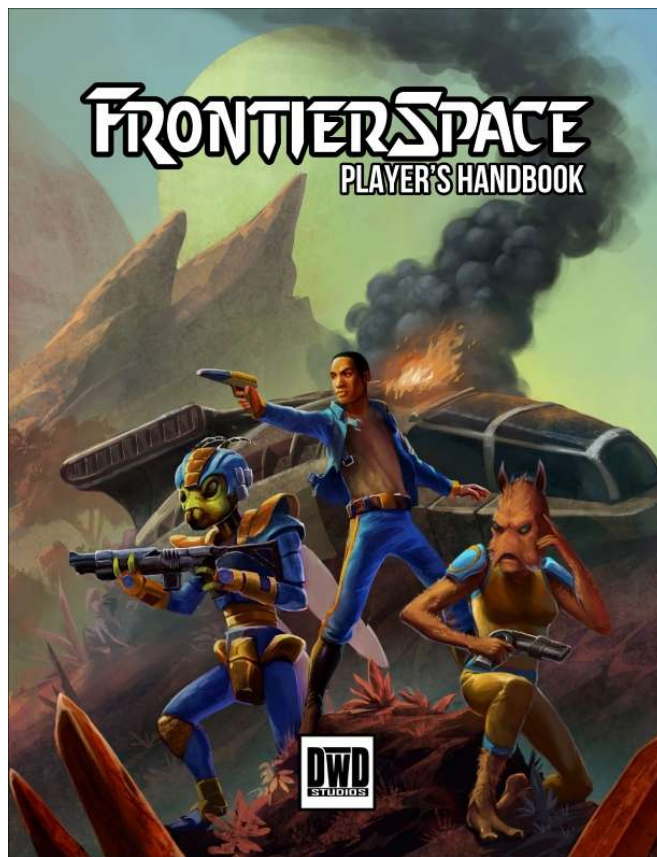
The Player's Handbook is the essential sourcebook for every FrontierSpace role player. Contained in this book you'll find all the rules you need for creating, training, equipping, playing, and developing your character. This is a companion volume to the Referee's Handbook, available soon.

FrontierSpace is built upon the foundation of the d00lite system, the same game engine used to power BareBones Fantasy and Covert Ops roleplaying games. Years of feedback and continued game system development has evolved this product into something that flows at the game table while getting out of the way of a good story.

The FrontierSpace Player's Handbook is now available as a PDF (\$9.99), or as a print on demand softcover (\$17.99) or hardcover (\$22.99) edition. If you'd like to grab a copy, just jump on over to the games product page on RPGNow:

<http://www.rpgnow.com/product/222633/FrontierSpace-Players-Handbook>

The Referee's Handbook will be out in late October/early November so keep an eye out for that as well.



Editor's Note: FrontierSpace is a game inspired by Star Frontiers. It's creator, Bill Logan originally started the <http://starfrontiers.us> site as well as the Star Frontiersman magazine. Many of the Frontier Explorer editors worked with Bill on a very early edition of the game back in the 2007-2008 timeframe. We are excited to see this project finally come to fruition. I did work with Bill to help create the index for the Player's Handbook (and will be indexing the Referee's Handbook as soon as I finish this issue).

The Frontier Explorer intends to support this new game by publishing FrontierSpace related materials in future issues. Don't be surprised if there is a conversion article in the next issue converting the races between the two games. If you have material for the new game that you'd like to share (or for any sci-fi game for that matter) we would love to print it in the magazine. But in the meantime, grab a copy of FrontierSpace and check it out.

No one at the Frontier Explorer receive any compensation for your purchases of FrontierSpace. We just want to see the game succeed.

Starships

SPACE STATION CONSTRUCTION GUIDELINES

Richard "Shadow Shack" Rose

HULLS

Space Station hulls are ring-shaped with a central hub for docking with elevator/spokes attaching the two structures. The various hull sizes are rated in size from I to VI (Roman numerals are utilized to prevent confusion between station and ship hull sizes), with each size appropriating different specifications as per the table below:

Size	Hub/Ring diameters	# of Mooring Bays	Max. Ship hull sizes per bay	Maximum Population	Rotational Time for 1 G
I	50/200	4	6	1000	20.1 sec
II	75/400	6	10	2000	28.4 sec
III	100/600	8	14	3000	34.8 sec
IV	150/800	12	18	5000	40.1 sec
V	200/1000	15	any	7500	44.7 sec
VI	250/1200	20	any	10,000	49.1 sec

CALCULATING DCR & HULL POINTS

The DCR and hull points are calculated based on the type of station. Fortified Stations (FS) and Fortresses (F) follow different formulas due to their higher degree of armor and defense ratings as compared to standard civilian stations. The table below gives the calculation for each station type.

Station Type	DCR	Hull Points
Civilian	HS x 25	HS x 50
Fortified Station	HS x 35	HS x 75
Fortress	HS x 50	HS x 100

Note that multiple linked stations (such as 2-8 linked stations in a Starship Construction Center) will have 50% additional hull points per additional linked section, i.e. a double linked size:II station would have 150 points versus a single size:II station's normal 100 points, while a triple linked size II station would have 200 points. In the event the hub is extended (to permit additional ship docking – see Specialty Rules section below) it would have 25% more

Editor's Note: This article was inspired by a discussion on station sizes on the forums at <http://starfrontiers.us>. It was the result of input from several of the forum members and compiled by Richard.

hull points per hub extension, i.e. a triple hub size:III station would have 225 hull points versus a standard size:III station's 150 points. DCR is similarly modified for linked stations (but not for extended hubs).

HULL CONSTRUCTION COSTS

Unlike starships, space station construction costs are the same because they all require the materials to be transported to the site rather than

having dedicated construction centers orbiting certain worlds. The cost of the hull is simply the materials alone, not taking into account the various operating systems, life support, communication & detection equipment, etc.

Station Type	Hull Cost
Space Station	HS x 1,000,000 credits
Fortified Station	HS x 2,000,000 credits
Fortress	HS X 3,000,000 credits

It should be noted that when constructing a station that one level 6 engineer will be needed for each station size, hence a HS:IV station will require four level 6 engineers.

LIFE SUPPORT

Unlike space ships, a station requires a greater degree of life support equipment. The computer program level coincides with the station's hull size, ergo a size II station would require a level 2 program while a size V station would require a level 5 program. The equipment cost is 100,000 credits per station size. Back-up systems and programs cost the same as the main equipment.

STATION COMPUTERS

Just like a personal computer or a ship's computer, a space station computer can utilize a wealth of the programs listed in both rule books. Unless otherwise noted, the computer program level must coincide with the station's hull size. The following computer programs are mandatory for any space station:

Alarm - Despite not having any drives, this program is still required to monitor any and all systems within the station.

Analysis - Required to perform calculations & computations, this program is utilized by the station's various detection systems as well. All stations must have at least a level 3 Analysis program.

Commerce - Necessary to track any and all business transactions conducted aboard the station.

Communication - Utilized for all forms of communication, be it internal station communication, Frontier News Network and other multi-media broadcasts, internet/ethernet, and the likes.

Damage Control - Required to coordinate the crew & computer's combined efforts at repairing any damage suffered by the structure.

Industry - This program is vital to operating the various machine shops and hydroponics in the station and must be at least level 1, with higher level programs utilized for more industrial applications depending on the station's intended design (i.e. an Agricultural Station would need one level per hull size, a construction center would need a level 6 program regardless of size, etc.).

Life Support - Required to monitor/control the various levels of breathable atmosphere along with heating & cooling, food & water, waste management, and lighting.

Maintenance - Handles routine maintenance patterns, repair, and janitorial service. This program is often utilized alongside the Damage Control program.

Transportation - Utilized for traffic control, specifically for the elevators running between the hub and ring. A level 1 program is more than adequate for this, however some stations incorporating conveyor walkways and internal monorail systems within their residential & commercial centers may incorporate a higher level program.

Note that these are suggested for the station's central computer, other computer terminals within the station may require additional programs (such as a cargo loader station in the hub would require a cargo arm program). Other programs such as Installation Security, Law Enforcement, Robot Management, and the like are optional (although they are more common on Fortified Stations & Fortresses).

COMMUNICATION & DETECTION EQUIPMENT

All of the basic ship equipment listed in the KH Campaign Book can be applicable to space stations.

However, there are a few noteworthy additions. For starters, the Camera System price would be multiplied by the station size. Skin Sensors would cost 10,000Cr x station hull size. Radar and Energy Sensors with extended ranges can be purchased for space stations, a double ranged system could be utilized in a HS:II station at twice the cost, or a sextuple ranged detector can be utilized on a HS:VI station at six times the cost. An intercom network will cost 500 credits per station size, this reflects panels in the key administrative & operational areas along with receiver/microphones in all the public areas.

ARMING SPACE STATIONS

A standard space station can be upgunned at a rate of 40 cubic meters per station size worth of weapons and defenses with no penalties. Fortified Stations may do so at the rate of 60 cubic meters per station size. A Fortress may accommodate up to 50 cubic meters per size worth of weaponry and 100 cubic meters per size worth of defenses. It should be noted that the cost of defensive screens (electron, proton, and stasis) are 20 times the ship allocations, hence a stasis screen would cost 60,000Cr per station size and chew up 200 cubic meters per size of space.

Any allotment exceeding that amount will cause the station to lose a coinciding amount of population and ship docking space. For example, if the weapons & defenses go 10% over it will cost 10% of the population and docking space.

Linked stations can double this capacity. However, it can only be doubled regardless of how many stations are linked. In other words, whether there are two linked stations or eight the structure can only accommodate double the capacity. This reflects how the weapons & defenses are mounted on the hub faces.

STORAGE

The amount of storage depends on the hub's docking facilities, each station can accommodate a number of cargo units equal to the number of docking bays times max hull size of ship the station can provide berths for. In the case of size V & VI stations, "any" would be considered as HS:20 for the multiplier. For example, a size:III station, with 8 mooring bays and a max ship hull size of 14 can store up to $8 \times 14 = 112$ cargo units of materials.

DECK PLANS

Obviously this would be a huge endeavor to undertake, but we can take the basics from the Space Station portion of the KH fold-out map. The central portion of the ring would be the commercial deck(s) where all the businesses & shops

are arranged, picture it as a huge shopping mall in a never ending yet repeating line. "Below" the commercial decks (further into the ring) would be the residential deck(s). The innermost (closest to the elevator spokes) portion of the ring contains the administrative deck(s).

Obviously this would be tailored for different station types, i.e. a Fortress would not have any commercial decks and more administrative decks instead.

SKILLS

While there is no need for a pilot or astrogator aboard a space station, there are still several other key positions that need to be filled.

A Station Administrator is first and foremost. This is the person in charge. They would be the most knowledgeable of the type of station (i.e. a business savvy person in charge of a commercial station, a highly skilled technician or engineer would be entrusted to run an industrial station, and a high ranking military officer would oversee a fortified station or fortress). This person would also have a number of assistants (vice presidents, sub-chiefs, Executive Officers, etc) numbering one per station size.

A chief engineer would be required (level 6) with a number of assistants also totaling the station size (any level for the assistants but typically at least one level per station size). A team of technicians would also serve under the engineers.

If the station is armed there will be two gunners per gunnery position (working ten hour shifts and never straying far from their designated area while on duty).

There are numerous other positions that can be utilized including a business manager, housing manager, security/police, laborers, and anything else suitable for the station in question.

POPULATION QUARTERS

Figure 40% of the occupants will have single cabins, 40% more will have double occupancy cabins, and the remainders will have luxury or family sized accommodations. Standard costs apply for the single and double while the family and luxury would be first class accommodations as per the KH rules.

SPACESUITS & VEHICLES

While there shouldn't be an unlimited number of resources, figure one spacesuit per ten population are stowed onboard (i.e. 100 suits for a size:I station with a 1000 population). Most of the inhabitants will remain on the station, very few are required to venture into the vacuum of space.

There should also be a similar allotment of launches kept in the docking bay, figure one large launch per 100 occupants (while substituting two small launches for one large launch on occasion).

There will be a minimum of two workpods per station size for the engineering & maintenance crews to use. There will also be two lifeboats and ten escape pods per 50 population, all scattered across the various decks of the ring.

SPECIALTY RULES

Perhaps the GM might opt for a "double ring" station, i.e. a size:III station with two rings branching off of a single hub. Or perhaps a station with a single ring but the hub extends out each way for a triple capacity of ship bays. Common sense prevails here, for example the double ring might cost twice as much and use twice as many cabins and life support for the occupants or the triple wide hub/single ring would also cost twice as much but utilize the standard allotment of cabins and life support. If your design includes burrowing into an asteroid, perhaps factor half the cost in construction. Simply follow the guidelines above accordingly and you won't go wrong.

As far as ship-to-hub docking procedures are concerned, there are grapples at each corner of the massive bay entry that launch grapples once a docking ship has matched rotation. The grapples will reel the craft into the bay with a coordinated effort as the pilot allows remote operation via the control tower. Once the ship is near its mooring bay, the grapples are released so the ship's maneuvering thrusters set the vessel down where it can be secured. Take-offs are handled in a similar manner: the ship's docking couplings are released, it maneuvers out of the mooring bay where the grapples can reel it out, and it is guided out of the docking bay via the control tower. In the early days of the Frontier there were no grapples but as enforced safety became an issue these were incorporated.

SUMMARY: STATION DESIGN SEQUENCE

1. Determine what planet the station will be orbiting. Once you begin construction you're committed!
2. Hire the engineering team entrusted with the construction.
3. Buy the hull and determine the base hull points & DCR.
4. Purchase the required cabins and life support equipment.
5. Factor in any optional equipment for the station based on its purpose (weapons, scientific/research equipment, mining equipment, etc.).
6. Purchase & equip the central computer with all necessary programs.
7. Factor in escape vehicles, launches, workpods, & space suits.
8. Equip the station with its respective communication & detection gear.
9. Enjoy your new customized one-off space station!

Starships

STATIONS OF THE FRONTIER

Richard "Shadow Shack" Rose

BONEYARD STATION

Location: Evergleem/Triad/Cassidine

Owner: Shat Rat's Salvage

HS: III (triple extended hub)

HP: 225

Mooring Bays: 24 (HS: 14 max)

Population: 3000max, 1200 regulars

ADF: 0 **MR:** 0 **DCR:** 75

Weapons: none

Defenses: RH, MS(x2), ICM(x6)

Computer: Alarm(3), Analysis(3), Commerce(3), Communication(3), Computer Lockout(5), Computer Security(6), Damage Control(3), Industry(5), Installation Security(3), Interceptor Missile(3), Life Support(3, capacity:3K, two programs), Maintenance(3), Transportation(1)

Communication: Subspace Radio, Videocom, Intercom network

Detection: Radar (3X range), camera system

Misc. Equipment: Backup Life Support Equipment, 500x100meter external cargo net (scrap yard)

Storage: 336 units (mostly salvage parts)

Quarters: 1400 single cabins, 600 double cabins, 200 luxury cabins

Vehicles: 15 launches, 6 small launches, 12 cargo launches, 12 workpods

Emergency Vehicles: 120 lifeboats, 600 escape pods

Vruskan entrepreneur Sha-T'rtl (nick named "Shat Rat") founded the Frontier's premier and largest spaceship salvage yard after having collected a large cache of used parts and hulls. Having run out of viable space to store all of his goods, he constructed Boneyard Station orbiting Triad's moon Evergleem and his business has been booming ever since. The station only has a single entry/exit bay as the opposite side of the triple hub has a large cargo net where all the scrap metal and other non-viable bits can be stored (for use as hull plate patching and fabrication purposes).

The aft third of the hub to which said net is attached houses a variety of salvaged hulls that have been collected over the years, and the bay doors are typically closed unless any large pieces of scrap need to be moved into the hub. Several

Editor's Note: These stations provide both a variety of stations to use in your game and an example of stations created with the Space Station Construction Guidelines presented in this issue.

launch "airlocks" are adjacent to the bay doors for access to the scrap heap.

The middle third of the hub is reserved for customer salvage/construction, patrons may lease berthing space while they work on their resurrection projects. Various hulls can be found berthed here, either hulls purchased from the company or privately owned/claimed wrecks that simply need major work.

The forward third of the hub (adjacent to the entry/exit bay doors) is for docking purposes, ships requiring repairs and Shat Rat's fleet alike can berth safely in this section. If your ship is able to move under its own power, it gets berthed in the forward section ... anything else gets ferried to the mid-section.

Shat Rat maintains a small fleet of freight haulers that scour the Frontier for salvageable goods, mostly HS 5-6 freighters and his HS 18 freighter flagship. The flagship is too large to be berthed inside so when it arrives it will typically park near the station's bay doors while cargo is offloaded and will typically take a berth at neighboring Triad Station until needed again.

Shat Rat's Salvage has been a very lucrative business, and the proprietor is typically quite eager to meet with and advise any potential customers. His motto is "Good business is where you find it, and I am always looking."

CLARION STATION

Location: Clarion, White Light

Owner: Clarion Government

HS: V (double-linked) Commerce Station

HP: 375

Mooring Bays: 30 (HS: 20 max)

Population: 10000max

ADF: 0 **MR:** 0 **DCR:** 188

Weapons: none

Defenses: none

Computer: Alarm(5), Analysis(3), Commerce(6), Communication(5), Computer Lockout(4), Computer Security(6), Damage Control(5), Industry(3), Installation Security(5), Law Enforcement(4), Life Support(5, capacity:5K, 2 programs), Maintenance(5), Robot Management(4), Transportation(1)

Communication: Subspace Radio, Videocom, Intercom network

Detection: Radar (5X range), Camera System

Storage: 600 units

Quarters: 4000 single cabins, 2000 double cabins, 1000 luxury cabins

Vehicles: 80 launches, 20 small launches, 10 cargo launches, 20 workpods

Emergency Vehicles: 400 lifeboats, 2000 escape pods

Wheeling majestically over the surface of Gollywog is Clarion Station, pride of the Royal Government. All of the mega-corporations have offices aboard this station and it is a popular hang-out for independent freight haulers and their crews as well. As such all types of trade can be found within the docking bay and ring alike.

Clarion Station is also home port for the Clarion Royal Marines militia fleet. Those crews and the hundreds of support staff call the administrative decks their home, although while off duty they can be found on the commercial, entertainment, and residential decks as well.

While it is not the largest commercial station in the Frontier, it is certainly the most elegant in design. A significant amount of decorative engineering surrounds the hub along with occasional outcroppings along the spokes and double-rings.

DARKWORLD STATION



Location: Outer Reach, Dramune

Owner: currently under transition (formerly MalCo Enterprises)

HS: III (custom hull)

HP: 150

Mooring Bays: 8 (HS:14 max)

Population: 3000max

ADF: 0 **MR:** 0 **DCR:** 75

Weapons: LB, RB(x6)

Defenses: RH, MS(x2), ICM(x6)

Computer: Alarm(3), Analysis(3), Commerce(3), Communication(3), Computer Lockout(4), Computer Security(6), Damage Control(3), Industry(4), Installation Security(3), Interceptor Missile(3), Laboratory(3), Laser Battery(1), Life Support(3, capacity:3K), Maintenance(3), Robot Management(6), Rocket Battery(2), Transportation(1)

Communication: SubSpace Radio, VideoCom, Intercom network

Detection: Radar (3X range), Energy Sensor (3X range), Camera System

Misc. Equipment: Pharmaceutical Laboratory

Storage: 112 units

Quarters: 1200 single cabins, 600 double cabins, 300 luxury cabins

Vehicles: 24 launches, 12 small launches, 6 workpods

Emergency Vehicles: 120 lifeboats, 600 escape pods

Darkworld Station barely survived the Third Dramune Civil War and is currently under transitional ownership via the government of Outer Reach (with close supervision and interaction from the Inner Reach government). It is unique in the fact that the hub does not rotate with the upper portion of the station, thus remaining in a constant zero-gravity environment.

The upper portion rotates independently of the hub connected by a series of airlocks in the station-to-hub "axle" and typically rotates at a speed sufficient enough to generate between 0.5 and 0.6G, although this drops significantly closer to the center as the upper portion is only marginally wider than the hub.

The hub itself has a single access point, the bay doors are located at the "bottom" and the docking bay comprises roughly 2/3 of the total area. The upper third is a large pharmaceutical lab and production facility, although this is likely to be refurbished for other purposes considering what originally transpired in this area under MalCo's ownership. The station's weapon systems are also unique, being mounted on tracks that encircle the hub so that either battery can acquire targets approaching from any angle relative to the station. Likewise, the interceptor missile launcher is also mounted on a third track system to defend the station accordingly.

FORTRESS GOLLWIN



Location: Morgaine's World, Preglar

Owner: UPF

HS: VI fortress

HP: 600

Mooring Bays: 20 (HS:20 max)

Population: 6000 max

ADF: 0 **MR:** 0 **DCR:** 300

Weapons: LB(x3), EB, PB, RB(x12)

Defenses: RH, MS(x3), SS, ICM(x20)

Computer: Alarm(6), Analysis(6), Bureaucracy(), Commerce(6), Communication(6), Computer Lockout(6), Computer Security(6), Damage Control(6), Electron Beam Battery(2), Industry(6), Installation Security(6), Information Storage(6), Interceptor Missile(3), Language(6), Laser Battery(1)x3, Law Enforcement(6), Life Support(6, capacity:6K, two programs), Maintenance(6), Proton Beam Battery(2), Robot Management(6), Rocket Battery(2), Stasis Screen(3), Transportation(3)

Communication: SubSpace Radio, VideoCom, Intercom network

Detection: Radar (6X range), Energy Sensor(6X range), Skin Sensors, Camera System

Misc. Equipment: Backup Life Support Equipment

Quarters: 2400 single cabins, 1200 double cabins, 600 luxury cabins

Vehicles: 15 launches, 6 small launches, 12 cargo launches, 12 workpods

Emergency Vehicles: 120 lifeboats, 600 escape pods

LACO RESEARCH STATION

Location: Laco, Dixon's Star

Owner: Streel

HS: I Scientific Research Station

HP: 50

Mooring Bays: 4 (HS:6 max per bay)

Population: 1000 max

ADF: 0 **MR:** 0 **DCR:** 25

Weapons: none

Defenses: none

Computer: Alarm(1), Analysis(6), Bureaucracy(3), Commerce(1), Communication(1), Computer Security(5), Damage Control(1), Industry(6), Information Storage(6), Laboratory(3)x12, Language(6), Life Support(1, capacity:1K), Maintenance(1), Remote Probe(2), Robot Management(4), Transportation(1)

Communication: SubSpace Radio, VideoCom, Intercom network

Detection: Radar, Camera System

Misc. Equipment: 12 laboratories, 40 remote probes

Quarters: 400 single cabins, 200 double cabins, 100 luxury cabins

Vehicles: 6 launches, 8 small launches, 2 workpods

Emergency Vehicles: 40 lifeboats, 200 escape pods

Streel was quick to build a research station over the outpost world of Laco. With their homeworld's discovery of Zebulon and the general isolation Truane's Star contends with, it was a natural move to nab some control of their other neighboring outpost system. While Pan Galactic may enjoy an overwhelming presence in the "hub of the Frontier" Streel has this spoke of the wheel that stretches into the Xagyg Dust Nebula all sewn up. Streel also owns & operates the Starport at Point Glass on Laco's surface, so they have a fair say at what comes and goes from this small world.

RED SYN STATION

Location: <uncharted system>

Owner: Crimson Syndicate

HS: IV (incomplete) fortified station

HP: 220

Mooring Bays: 12 (HS:18 max)

Population: 2400 maximum

ADF: 0 **MR:** 0 **DCR:** 120

Weapons: LB(x2), EB, PB

Defenses: RH, MS(x3), ICM(x8)

Computer: Alarm(4), Analysis(3), Bureaucracy(3), Commerce(4), Communication(4), Computer Lockout(6), Computer Security(6), Damage Control(4), Electron Beam Battery (2), Industry(1), Information Storage(2), Installation Security(6), Interceptor Missile(3), Laser

Battery (1) x2, Life Support(4, capacity:3K, two programs), Maintenance(4), Proton Beam Battery(2), Robot Management(6), Transportation(1)

Communication: SubSpace Radio, VideoCom, Intercom network, WNB (deluxe, 4X range)

Detection: Radar (4X range), Energy Sensor(4X range), Skin Sensors, Camera System

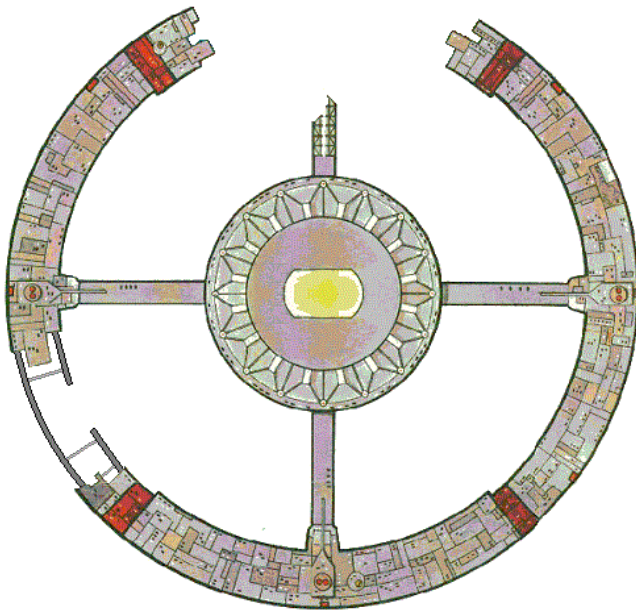
Misc. Equipment: Backup Life Support Equipment

Storage: 216 units

Quarters: 1000 single cabins, 500 double cabins, 200 luxury cabins

Vehicles: 16 launches, 12 small launches, 8 workpods

Emergency Vehicles: 80 lifeboats, 400 escape pods



Red Syn Station was once a UPF early warning center that was never finished, constructed around the fourth planet of this eight planet uncharted system. When the Syndicate discovered this station they immediately got to work on it in order to make it habitable and operational despite its unfinished nature.

Due to the incomplete construction the station is not capable of rotating fast enough to reproduce 1g, however the current 0.6g status has been found acceptable to its inhabitants (particularly the Yazirians who prefer lower gravity worlds anyways).

Through this station the Syndicate has managed to assemble an impressive fleet, more than enough to rival any planetary militia. Despite a rarity in the way of actual warships, the sheer numbers alone ranks their fleet with a SpaceFleet division. However, outside their own established system it is rare to see more than two or three of these vessels operating together on a single venture.

Said fleet consists of a light carrier, an escort cruiser that serves as a flagship, a destroyer, a scout carrier, two

frigates, four corvettes, four assault scouts, numerous fighter craft, and a compliment of support ships (freighters and such).

DAEDALUS SHIPYARDS

Location: Minotaur, Theseus

Owner: PanGalactic & Trans Travel

HS: VI-triple Spaceship Construction Center (Class II)

HP: 600

Mooring Bays: 60 (HS:20 max)

Population: 18000 maximum

ADF: 0 **MR:** 0 **DCR:** 300

Weapons: none

Defenses: RH, MS(x3), ICM(x12)

Computer: Alarm(6), Analysis(6), Bureaucracy(3), Commerce(6), Communication(6), Computer Lockout(4), Computer Security(4), Damage Control(6), Industry(6), Information Storage(3), Installation Security(4), Interceptor Missile(3), Life Support(4, capacity:18K), Maintenance(6), Robot Management(6), Transportation(1)

Communication: SubSpace Radio, VideoCom, Intercom network

Detection: Radar (6X range), Camera System

Storage: 1200 units, mostly parts & materials storage

Quarters: 7200 single cabins, 3600 double cabins, 1200 luxury cabins

Vehicles: 100 launches, 50 cargo launches, 60 small launches, 240 workpods

Emergency Vehicles: 720 lifeboats, 3600 escape pods

The Theseus system stands on the precipice of being the most industrial system in the Frontier. They have the most formidable planetary militia (worthy of being listed as a detachment of Spacefleet) posted at a Fortified Space Station, they have a bustling tourist industry in their capital city Maze (which is also home to Starplay Enterprises), readily available hydrogen fuel processing via the gas giant Ares, and they have a construction center capable of producing any size & type of starship.

Daedalus is unique in the way that its trio of habitable rings is smaller in diameter as you go stem to stern, this allows variances in gravity as the smaller rings have lower gravity thus enabling the production and movement of heavier items for the shipyard. An armored shroud tapers to the egress point of the main hub, ending at the commercial ring where most of the offices and residences are located. The center ring is predominantly administration and smaller production while the smallest ring houses the big construction projects (mostly drives and raw steel for bulkheads & hull plating).

GIFT FROM MY FATHER

Edwin Cintron

I almost missed Morgaine's shuttle; the episode with Alice made me stop to ponder the situation and the possible ramifications. When I boarded I found myself surrounded by a pretty rough crowd, which included two of the pirates that I had tangled with earlier. It became apparent that Morgaine was spreading the crews of the pirate and privateer ships that called Outer Reach their home among the rest of the fleet, starting with his own flagship.

The ride from the space station was rough, and I had to play tough with a few of my nearest ship mates as everyone jostled to find a seat. The two pirates attempted to apologize stating that there were no hard feelings and their actions were due to boredom and not anything personal. Not much of an apology and I made a note that there was still some unsettled business between us.

Morgaine greeted us as we departed the shuttle, and I found myself in shock as he was now wearing the uniform of an admiral of the White Light Militia. I realized that he was "The Morgaine", commander of the First Muster! I grew up with the tales of First Muster and how my grandparents met on the deck of Hatzck Naar's flag ship.

"Gentlemen, let me be the first to greet you into the ranks of the newly formed United Forces Space Fleet. From this moment on your lives will be in my hands, and if you listen and obey the orders of your superiors, I can promise that you will have a chance of surviving the battle ahead of us.

Already the enemy has ravaged the Truane's Star system and there are reports of them attacking Pale. We will attempt to intercept them at Triad and hopefully buy time for the corporations' security forces and the rest of the militias of the Frontier worlds to join us in order to finish off the enemy." As he finished his speech, there were several Spacers handing out jumpers with the logo of the United Forces Space Fleet.



Morgaine started to leave as one of his officers came forward to take command of us new recruits but he paused as he walked past me. "Shimout, I knew that name was familiar. You look like your grandfather, hope you're not half the fool he was, and at least half as brave." He smiled as he patted my shoulder. For a moment he was no longer the withered privateer that I met on Outer Reach, he was the Hero of the First Muster.

The next couple of days were spent under g, with Morgaine and his officers whipping us into shape. Drills were run and we recruits were integrated into the crew. I suspected that Morgaine had his officers scattered through the fleet performing the same with the rest of the ships that joined at Outer Reach.

We were still a day from entering the Void when I was summoned to the radio room. Sitting in front of a subspace set sat the radio operator. She turned when I entered the room, "Shimout?" she asked. I nodded in agreement and she smiled as she handed me a hard copy of a comm message. "Here you go lover boy." She uttered with a grin.

Who could be sending me a communiqué? Who knew that I was with Morgaine?

"My loins ache for you, return to me soon! AH," it said. I stumbled as if I was struck by a micro meteor. What was Alice thinking, sending me such a message? And I almost crashed into Morgaine in the corridor outside the Radio Room.

"Shimout, there you are!" he blared as I straightened up. I shoved the paper containing Alice's messages into my pant pocket. "Message from a sweetie?" he asked. "Don't be a shamed, my own wife sent me a little love note too," he offered as he patted the front pocket of his uniform.

"Here," he handed me a set of ensign bars. "You are now Ensign Shimout. I cannot have a mere recruit piloting my ship into combat." He smiled as I stared at the ensign bars.

It took everything I had not to lose it, the bars burned in my hands as the weight of betrayal tugged at my heart. I could barely mutter a thank you, as I turned to walk away. That night I tossed and turned, my sleep haunted by Alice and Morgaine. It was a blessing when the klaxons sounded, calling us to suit up and go to battle stations.

My space suit and armor were my inheritance from my father, Scot the Meteor Shimout. Bulky and extremely heavy, it and its armor overlay had saved my father from a

score of micro meteor hits and solar flares. Unfortunately for my dad, he wasn't wearing it the day he faced down a gang of hijackers on the gangway of the Dixon's Star station.

The suit was a constant source of comments from my ship mates. Many felt that it was too bulky for me to be able to properly pilot the "Starry Vengeance" in combat. That was quickly dispelled when we hit the Cassidine system and caught the Sathar fleet with their pants down as they battled Triad's militia.

Coming into the system with the Cassidine sun between us and the Sathar fleet, we avoided detection. Then we skimmed close to the sun's corona and appeared in the enemy rear. More than a couple of our ships came a bit too close to the sun, but their loss was a small sacrifice for the destruction of over a third of Sathar fleet. If it wasn't for the Sathar ability to tolerate higher g forces than the races of the Frontier, the war would have ended there, instead they escaped toward the Prenglar system with us in hot pursuit.

When we emerged from the Void, the Sathar fleet was waiting. At Cassidine it wasn't obvious that the Sathar fleet was at least three times our size – the chaos of their retreat made it hard to keep track of their numbers, but Morgaine wasn't one to be put off by numbers. We had whipped the worms once and many of their ships would still be bearing the wounds from their earlier battle with us.

"All ships attack! Mr. Shimout, flank speed," Morgaine uttered over the comm channel and our fleet barreled toward the awaiting Sathar fleet.



As the two fleets came into range, my suit managed to save the life of another Shimout. Newer suits use a polycarbon liner only rated for a type four solar M flare, my suit liner was lead and could survive at least a type two. It was this difference that saved my life when the bridge was hulled by a Sathar particle beam. All around me were the dead and the dying. The accompanying EMP burst had silenced

my suit comm and I was struggling to reset the helmet breaker panel.

As I reset the breaker, I was greeted with a barrage of comm traffic. Confusion reigned supreme as departments all over the ship called in for instructions. As I glanced behind me, Morgaine was slumped over in his acceleration couch. His radiation badge on his suit was a deep red, indicating a lethal dose of protons.

"Bridge this is CDC, is there anyone there?" squawked my helmet comm.

"This is Rodworth. Admiral Morgaine is down," I replied. I began resetting the breaker to my control panel. The tactical monitor came up displaying that both our and the Sathar fleet had merged into a fur ball of dog fighting ships, basically a knife fight with no rhythm or reason.

"Rodworth this is commander Elison, do you have helm control?" I looked at my pilot console and it was rebooting.

"Should be fifteen seconds commander, console in the process of booting." I replied watching as the Sathar flagship came into sight on my monitor. Two cruiser size warships were locked in an exchange of broadsides with it, and it appeared that the commander was about to order us to plot a course to dog pile the enemy flagship.

At this point it was a horse race as the nearest enemy ships were attempting to disengage in order to rush to aid their flagship. It would be close, but my console sprang to life.

"Ensign Shimout, bring ship around one eighty, full thrust," Commander Elison barked.

"But sir that will take us away from the battle," I replied hoping the Commander had erred.

"You heard me Ensign, power is down all over the ship, we have no remaining weapons and there are reports of damage throughout the ship. The day is lost," he replied.

With communication out with the rest of the fleet, the sight of our flag fleeing the battle would start a rout as other ships would join us in flight. Instead, I fired the nuclear impulse engines and hurled the Starry Vengeance toward the enemy flagship and the heart of their fleet.

"Shimout! Are you mad? Turn this ship around, that an....." I turned off my helmet comm and focused on the task at hand. Elison wasn't totally correct about the Starry Vengeance being unarmed. The Vengeance was an old ship, it still used a nuclear pulse rocket as propulsion. Nuclear pulse rockets basically fired small nuclear charges out the rear of ship and when the charge exploded, the blast would strike a combination of a massive shielded kick plates and shock absorbers to propel the craft. The vengeance had thousands of these charges each with a yield of one megaton.

I overrode the trigger control for the charges and as we closed on the enemy flagship, I swung the ship around,

putting the kick plate between me and the enemy and threw open the throttle. A stream of charges flew out the rear of the craft and instead of exploding at their normal preset distance they continue in a straight line toward the enemy flagship.

Locked in combat, the enemy flagship did not detect the charges until one crossed the beam of her firing laser batteries. This set off a chain of explosions and she disappeared in the glare of several atomic blasts. I cut the throttle and used the maneuvering jets to swing the aft of the ship toward a squadron of Sathar ships attempting to rush to the Sathar flagship's assistance.

I fired short bursts, swinging the Vengeance from side to side, the nuclear charges showered the squadron like bullets from a machine gun. The Sathar attempted to intercept the improvised warheads with ICM and lasers batteries, but a few charges made it past their defenses and one scored a direct hit on a heavy cruiser which caused the cruiser to be racked in a series of explosions as her atomic engines overloaded.

For a few moments all of space was lit by a hundred nuclear fires as the remaining charges were either intercepted or auto destructed when their safety timers activated. As darkness returned the sight of the wreckage of the enemy drifted everywhere.

While I cheered, it was apparent that the battle was far from over, a large portion of the enemy remained and our own fleet had taken heavy losses, but the Sathar did not press their advantage. Instead, they surged around the Starry Vengeance and began opening up on her. With her supply of propulsion charges exhausted and weapon batteries out, there would be no saving her, I open my helmet comm and screamed "Abandon ship" before heading to the air lock.



Luckily, the lockers at the airlock contained an EVA unit and as I left the ship I hit full acceleration on the unit. I was several kilometers out when the Vengeance blew. My suit was struck by several fragments, but its autoseal

function plugged the holes. Unfortunately, there was no plugging the holes in me. I was losing blood fast. Just as I was beginning to pass out I watched as our fleet began to pound on the Sathar taking advantage of their focus on the Vengeance. Then all went dark.

I woke aboard the "Lucky Star", a passenger liner converted to a hospital ship. Tubes and wires were sticking out of me and I ached all over. A Vrusk med tech hurried to prevent me from rising. "Lay down human, you are truly fortunate to be alive," his polyvox belched.

"What happen, did we win?" I croaked as my throat was sore.

"It was close, but the Sathar have fled."

"Were there any other survivors from the Starry Vengeance?" I asked

"None," he replied after checking a terminal. With that I slipped back into unconsciousness.

When I finally recovered I was brought in front of a military tribunal. Apparently, the last conversation between commander Elison and myself was picked up by a nearby vessel. The judges listened as I told of the last minutes of the Starry Vengeance. The lead judge Admiral Field stared at me with stone cold eyes and spoke.

"Ensign Shimout, while your actions did result in defeat of the Sathar fleet, disobeying a superior officer in the midst of battle is an offense punishable by death.

But due to fact that the Frontier still faces a threat from the Sathar, and since Morgaine is being praised as a hero by all the people of the Frontier, in the best interest of the newly formed United Planetary Federation, I am going to suspend all charges on the condition you never contradict the official version of the battle.

"It was Morgaine who directed the Starry Vengeance to attack the Sathar flagship. Ensign Shimout never was at the battle of the two fleets, instead you were off loaded at Cassidine due to medical issues.

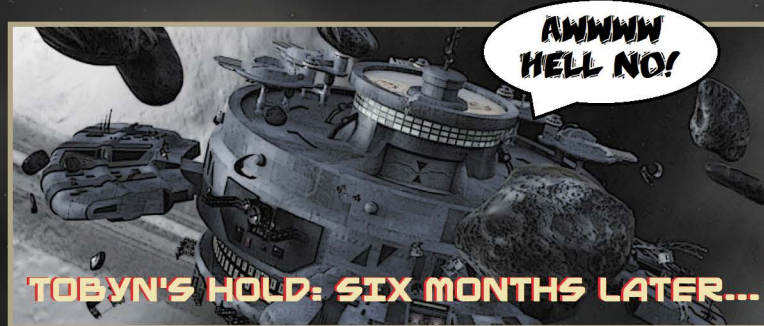
"If you ever contradict this version of the report, I will see that charges will be reinstated and you will be found guilty and executed."

With that I was allowed to resign from the Space Force, and as I made my way to Port Loren spaceport a fancy road car pulled in front of the station. Out of the car emerge Alice Morgaine and Admiral Field. She hung on his arm and they laughed and it was obvious they were very friendly.

"For the good of the Federation, my ass!" I muttered under my breath as I entered the terminal, it seemed that once again Alice, like an alley cat, had managed to land on her feet.

THE ESCAPE PLAN

EPISODE #1



HOW AM I
GONNA GET OUTTA
HERE WITHOUT...



ANYONE
OUT HERE?

