

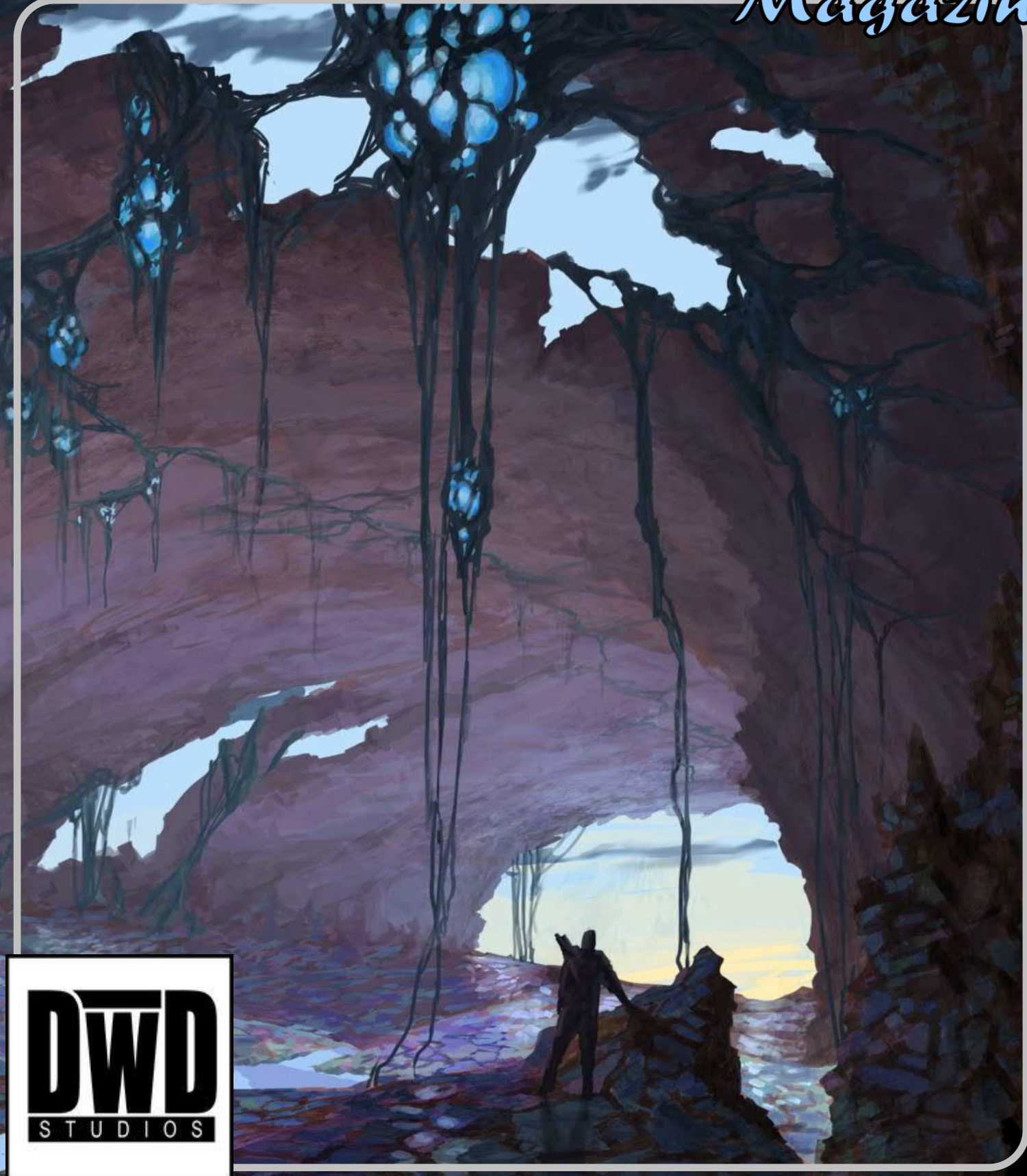
Issue

18

AUGUST
2012

STAR FRONTIERSMAN

Magazine



Celebrating 30 Years of Star Frontiers

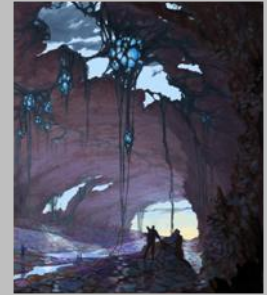
STAR FRONTIERSMAN Magazine

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FOREWORD

Welcome to the long awaited issue, celebrating the 30th "Anniversary" of Star Frontiers.

We started out this year in celebration with a Virtual Con in March. Thank you to all who helped set it up, and to everyone who participated. We had participation from coast to coast.

As you can see, there have been a few changes to the Star Frontiersman. We have a new layout (crafted by Bill Logan in a secret PGC lab located far below the bowls of their main building at Point True) and a new editor, William Douglass.

Hi I'm William, a.k.a. Karxan on the starfrontiers.us site. I will be heading up the next few issues and will continue the high-quality that is expected for our community webzine.

As promised in the last issue, we are starting out with a great interview in celebration of Star Frontiers by none other than Zeb Cook!

Also, look forward to a future issue with a surprise contribution from Steve Winter.

Raise your dice hand high!
William Douglass
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Image Tom Stephens

INTERVIEWS

By Tom "jedion357" Verreault

AUGUST 2012

David "Zeb" Cook is an American game designer best known for his work at TSR, Inc., where he was employed for over fifteen years. He designed the Star Frontiers game but is particularly known for being the lead designer on the 2nd edition of Advanced Dungeons & Dragons role-playing game and the Planescape campaign setting. One reviewer described that work as "the finest game world ever produced for Advanced Dungeons & Dragons". Cook also wrote several influential early adventure modules for D&D and AD&D, such as A1: Slave Pits

His blog is located at: <http://www.cthulhumonkey.com/blog/>



David "Zeb" Cook

David "Zeb" Cook has had one of the more enviable careers in the gaming industry, hired and mentored by Gary Gygax himself. Inducted into Origins Hall of Fame and with 3 of his works making the list of the top 30 Dungeons and Dragons modules of all time he put an indelible stamp on the RPG industry during its golden age. The author and designer of the Star Frontiers game he has graciously accepted my request for an interview.

Sfman: It's been 29 years since Star Frontiers was published and in that time the game has maintained a loyal fan base, largely through the internet, via list serves, Yahoo groups, play by post and play by email games, forums and an immensely successful fanzine with over a 100,000 downloads. In the past eleven years there's been a surging revival and a retro clone of the game due out for its 30th anniversary; did you ever expect anything like this and how do you feel about the Star Frontiers game today?

ZEB: No, never had any idea that Star Frontiers would still be alive today. Frankly, it leaves me a bit flabbergasted – and honored (?).

Sfman: At the time of its publication Star Frontiers was unlike any other game, movie or television series in the market. Some people have likened it to a Western in space, what influences and inspiration did you draw on while designing it?

ZEB: When we first got the go ahead to design Star Frontiers there was only one SF game out there – Traveller. We liked a lot of things that game did but being game designers we, of course, felt that we could do better. In particular we wanted to focus more on the character and on creating a science fiction setting that felt both "believable" and still promoted a lot of opportunity for role-playing. So, to start Lawrence and I spent a time to establish the rules of the universe – it included things like no teleportation, no ray guns that couldn't be at least semi-plausible, etc. We read a lot of "future war" and popular physics stuff to mine if for plausible tech that could explain what might show up in the future. At the same time we were both big SF fans, particularly of classic 50's-70's authors – van Vogt, Laumer, Silverberg, Simak, de Camp, Vance, Bova, Sturgeon, Heinlein, Zelazny, Ellison, del Rey, Asimov, and more I don't recall – but we both liked pulpy stuff too. All that, plus our experience with D&D, fed the goal to make sure it was SF was about characters and the opportunity for wild adventures. We didn't want it to be about flying super spaceships and intergalactic fleet battles (sorry E.E. "Doc" Smith), but about dealing with aliens and shooting people with something more "real" than a blaster.

Sfman: How much direction and input did Gary Gygax give you on the Star Frontiers project? Did anyone else have important influence or ideas that impacted your work or was it simply your "baby"? How much freedom did TSR give its designers at that time?

ZEB: This gets into a difficult area. Our original brief was to create something that would compete against Traveller, both in subject (SF) and market (an older market). We did that – we designed and tested a game that was a targeted toward a more college-age crowd – a bit more serious and more open-ended. However, by the time we got done, powers that be (and I don't think this was Gary) decided the game needed to appeal to a younger market, 13+ or so. That wouldn't necessarily have been a problem except that the same powers that be decided the best way to do that was to take the game from our control and have other folks on staff rewrite/revise without our input. So what came out was our game in terms of systems, tech, etc. but very different in tone and direction. We had written a game that gave more freedom and advice to the referee on creating their own campaign setting and setting up a universe they wanted. The rewrite threw out most of that and focused on the canned setting along with some key changes about player character races. I've got nothing against the setting, but more with how the process was handled. It's one of the reasons I never wrote another SF product.

Sfman: It seems that there was a bit of a tradition at TSR for names of writers and designers to make it into modules and game material, like the Xagy nebula being Gyax spelled backward. Was your nick name, Zeb, a source for anything in the Star Frontiers setting or did you hide any other “Easter eggs” in the game?

ZEB: The only one I know of is the Zebulon’s Guide. Bruce Nesmith & Kim Eastland thought Zebulon (as I was sometimes called) would be a good name for a space explorer (and would be a good poke at me). Ever since, people assume I had something to do with that book, but it was in name only!

Sfman: Over the past decade various fans have worked at developing the game further. In particular work has gone on in projects at <http://www.starfrontiers.us/> and usually ends up as an article in the Star Frontiersman. Could you tell us what was your vision for the game, where you wanted to see it go or how you wanted to see it evolve as a setting?

ZEB: As I said above, the original goal was to be more open-ended about what kinds of campaigns players could make. We had the Frontier in as an example setting but encouraged referees to make their own so just about anything could work for us. Thinking about it today, I think one of the important things for us was to keep it from becoming “magic in space.” That’s why we really tried to base the technology on what was real or seemed possible – but at the same time try to take those ideas and see where they could go. And like all futurists, we got it wrong. In some cases we didn’t imagine big enough and in others we were just off the mark. So, it would be nice if people were always thinking about what could be based on what we know. Good science fiction is about taking an idea and seeing how it changes people and societies.

Sfman: I have read near universal praise for the original alien races in the Alpha Dawn rules, with comments usually stating that they felt both alien and believable and not your typical “pets” in space. Likewise in your D&D module “The Dwellers of the Forbidden City” a number of iconic D&D monsters/races were introduced and can be found as staples in fourth edition D&D. Since you’ve clearly demonstrated a knack for developing new races and creatures could you explain to us the process that you use to develop races and creatures? Is the process different for science fiction vs. fantasy?

ZEB: The key is to think beyond the critter. Pick a goal or a theme for what you’re trying to get across and then populate that accordingly. You’re right about SF – we deliberately wanted our races to be more than “elves with guns” so we worked out a lot of details about how each race lived, what they valued, what sort of societies they set up based on what they were, how they interacted with the other races, and kinds of tech they made (or which made them). Most of that didn’t make it to the printed page but it shaped the way we thought about them. At the same time, we tried to be careful not to make them too alien. After all, human players were going to play the game! So we tried to give each one some simple stereotypical hooks – bad Dralasite humor, corporate mindsets for Vrusk, etc. – that would give players an easier starting place.

One casualty (?) of the rewrite was the Sathar. Originally they were a player race (the S’ssuru or something like that) (Editor’s note: See “Comnig of the S’sessu later in this issue) with a

pragmatic, outright amoral outlook on things. The “right” thing for them was what best ensured survival and success (balanced by a strong sense of personal loyalty to comrades). It was decided the game needed an orc, the enemy everyone could hate, so they became the Sathar. Originally, they were pretty fun to roleplay and handy to have in hostile negotiations!

For fantasy, it’s all about the theme. “Dwellers” was very much my love of Conan and Burrows pulp fantasy with lost cities, degenerate inhabitants, and all the trappings. The things created for that, the tasloi, mongrelmen, and yuan-ti, are all there to support the theme. You have to choose things that will fit in appearance, behavior, and especially abilities. You don’t want to create something that breaths fire just because it sounds good; you need to think about how that fits with the story you’re trying to tell.

Sfman: In the Alpha Dawn rules it stated that the four races met in the Frontier Sector with the implication that the home worlds of those races were located in other “back East” sectors. Since the game was discontinued in favor of another product those sectors were never detailed. Were there plans to develop these other sectors? Were you envisioning a space opera style of setting with myriad of planets, races and places to visit?

ZEB: Variety is good and keeping away from the home worlds was better. First, it was a matter of time – detailing out a believable home world would have been an immense amount of work. Second, keeping things on the Frontier means players can get away with more. Third, the Frontier put all the races on an equal footing which is important for good play balance.

Sfman: The debate and musing over the locations of the home worlds of the player character races has remained unsettled for decades, can you tell us anything about what might have been intended for the home worlds and their sectors?

ZEB: Nope, we never really did anything with it that I remember.

Sfman: In the Alpha Dawn book the setting took the position that humans also evolved in another spiral galaxy and that they were not the same as humans from earth. The issue of concurrent evolution has been an occasion for some debate over the years. What might have been the decision process for this setting detail? Why might it be preferable to divorce the setting from the Earth we know?

ZEB: Making humans not Earth-bound was a way of both leveling the playing field for all the races and a way of freeing players from real-world conventions where appropriate. Saying there is no Earth meant nobody could drag the “Earth Defense Force” in to lord it over the other races, or use real-world history to justify their actions. Likewise the DM couldn’t use those same weapons against the players (at least not as effectively).

Sfman: Your blog stated that you started out as a war gamer before finding D&D. You then began your career at TSR designing pen and paper games before transitioning to computer games. Is there anything in the gaming industry that you have not done that is still on your bucket list of things to do and what sort of projects do you see yourself doing in the future?

ZEB: Oh, I'm sure there's lots. Gaming stuff constantly evolves and changes. There's always something that looks interesting just ahead.

Sfman: Back in 2004, Piazio published a list of the Top 30 D&D modules of all time with help from an all-star panel of judges that included Ed Greenwood, Christopher Perkins, Bruce Cordell, and Monte Cook. Not unexpectedly, Gary Gygax walked away with the lion share of the top 30 but your works made 3 of the 30 (congratulations BTW). That combined with your prolific writing credits for numerous games certainly makes you an expert on module writing. Could you outline for us the Zeb Cook "recipe" for writing a great module or adventure?

ZEB: Wow, tough. If I really knew that formula I wouldn't have written some of those bad ones too!

- 1) Get a core idea. (Gnome-built giant steam robot! Put the players into the middle of a war. Lost jungle city! Lead a slave revolt.)
- 2) Pick a setting. Good adventures have a strong sense of time and place
- 3) Gather up all the things you could do that would fit with your idea and setting.
- 4) Throw half of them out. Some of them are probably good, but there will be too many to do in a single adventure.
- 5) Don't force the player. Try to anticipate what he will want to do and create that. Create a path that he will want to follow without realizing he's on a path.
- 6) Have fun.

Sfman: Likewise, what would the Zeb Cook "recipe" for designing a great campaign look like?

ZEB: A good campaign needs a good setting (see below) and fluidity. Campaigns that want to "tell" a big story are usually straight-jackets for players. For the story to occur, the players have to do X, Y and Z, but if the player's don't want to do that, then things fall apart. If the campaign has lots of little stories to tell and over time those grow into a big story, things usually work much better. For it to work, the GM needs to pay attention to what players want to do and then find ways to bring what they've done into the ongoing story. The people they help have friends and families; the ones they attack have revenge-minded cousins. This builds into a web of connections and the next thing you know you've got a richly textured campaign. The most important thing is you don't figure it out all in advance, but build just enough as you go.

Sfman: In discussions between Sfman staff and RPG publishers at the most recent Gencon we were told that currently selling an RPG is less about the rules than the setting, "If the setting rocks then the product will sell." Between the Star Frontiers setting's staying power and the immense popularity of the Planescape setting I would expect that you'd be able to talk authoritatively on designing a setting. What would you consider the necessary elements for a good setting?

ZEB: Settings are about places and cultures. You want to create a lot of interesting places with adventure potential, but the important part is to make all those places feel like they are part of the same world. For me people and their motivations (especially

politics) are a lot of what binds that together. Say you've got an evil wizard's tower in the wilderness – that's a dull cliché. Why would a wizard ever build in the middle of nowhere when they need books to study, strange ingredients, etc? Put that tower in the center of a city and then think about it. What kind of city puts up with that? An evil city's not interesting, because your mad wizard is no different from anyone else. Maybe the citizens have come to an arrangement: the wizard protects them from time to time, they look the other way at some of his crimes. The town isn't evil, but it is corrupt, so that's a good starting place for lots of adventure potential. Of course, that leads to the question of what are they afraid of that they need to make such a deal? Who are their enemies? Maybe there is a collection of rival city-states; some sinister, others less, that periodically go to war with each other. What are they fighting about? Trade, what else!

To this you need to add a sense of time and place. I usually look to history for models. Are these like Greek city-states where cities have unique ideologies that shape their ambitions? Or like medieval Russian cities, grimly carving up the frontier? Or are they intrigue-laden like Renaissance Italy? You don't copy Greek culture or whatever, but use that knowledge to set the tone.

From there look further. What other lands are there nearby? Remember that neighbors affect neighbors. If there is a dwarf mountain kingdom on the border, that shapes opinions. Does the city-state trust the dwarves? If not, why not? If they do, why? What's the history between the two? Is there an external threat that forces them to work together or do the dwarves sell their service to city-state that pays the best.

On top of everything, I read of a lot and most of it is history. There are plenty of interesting times and places in the real world, more than most people are familiar with and that is a great source for setting ideas.

Sfman: What advice do you have for an aspiring game designer or writer looking to break into the industry, whether things to do or sins to avoid?

ZEB: Okay, this advice goes for both paper and videogame design:

- 1) Learn to write correctly and clearly. You will do a lot of it.
- 2) Read. Read a lot and read a lot of different things.
- 3) Play games. Don't just play one type of game. Play lots of games because they look interesting.
- 4) Make something. For paper design, write something and put it on the web, publish it yourself, or get it in a magazine. For videogames, create a mod, use a game's editor to create maps and scenarios, program a simple game. Don't worry about getting paid so much or having someone steal your idea. Do what you have to do to show off your ideas, your creativity, and your skill set.
- 5) Remember, ideas are cheap; knowing how to do something with them is hard. Every designer has lots of ideas. It's the making them that's the hard work.

Sfman: Are there any gaming product you're currently working on that we can expect to see in the near future? Any plugs you'd like to make?

ZEB: Secret stuff. Can't tell you yet.

Sfman: Gary Gygax passed in 2008 and there have been numerous tributes to him, from moments of silence held before a D&D game to written tributes. In your tribute to Gary at your blog: <http://www.cthulhumonkey.com/blog/> you spoke of the mentorship you received from Gary. Could you share some of the lessons you learned from him that might be of interest to game masters, writers, and game designers in particular and to the Star Frontiers Community in general?

ZEB: Gary didn't sit you down and say "Here are my lessons." You learned a lot by absorbing, from him and others. Gary was interested in story and wasn't particularly bound by rules when he didn't want to be. He could create a lot of rules, but when playing was pretty fast and loose when it suited a good adventure moment. I think that's something that gets easily forgotten. A game isn't the rules; a game is the fun it creates. If the rules are getting in the way of that, then change the rules. But at the same time, while you can change the rules to help everyone have more fun, don't be arbitrary. Create a story and reason for why things are different and give your players the same kind of freedom.

Sfman: While we're on the subject of Gary, do you have any funny stories you can tell us about him?

ZEB: I'm terrible for remembering those sorts of things, so I'm a fail on this.

Sfman: To be honest I failed to fully translate this but at the end of your tribute to Gary you wrote the Latin motto: LECTOR, SI MONUMENTUM REQUIRIS CIRCUMSPICE, why?

ZEB: It's something like "Reader, if you seek his monument, look around you." It is on the architect Christopher Wren's grave in St. Paul's. Basically, Gary's monument is the industry he helped create.



Read More About David "Zeb" Cook

The following is duplicated from Wikipedia, and might be a great read for those of you looking for more info:

http://en.wikipedia.org/wiki/David_Cook_%28game_designer%29

Early life

Cook was born in East Lansing, Michigan, and grew up on a farm in Iowa where his father worked as a farmer and a college professor. In junior high school, Cook playing wargames such as Avalon Hill's Blitzkrieg and Afrika Korps. "I was primarily a wargamer, but there wasn't any role-playing available then," although in college, he was introduced to the Dungeons & Dragons role-playing game through the University of Iowa gaming club.

Cook earned his B.A. in English (with a Theater minor) in 1977. He married his high school sweetheart, Helen, with whom he had one son, Ian. Cook became a high school teacher in Milligan, Nebraska, where his students gave him his nickname of "Zeb"; the name derives from his signature, which is dominated by a stroke resembling a 'Z', as well as his resemblance to the James Arness character Zeb Macahan in the TV series How the West Was Won.

Career

Cook responded to an ad in Dragon magazine for a game designer position at TSR. After completing the designer test that the company then used, and writing a sample module section, Cook became the third full-time game designer hired by TSR. He later became Senior Designer. "Game designing is hard work," he says, "but everything worth doing is hard work. The important thing is to do it well, and to have fun while you're doing it." Cook created role-playing games, modules, family board games, card games, rulebooks, and party mystery games.

He created the Partyzone mystery game line, and The Spy Ring scenario, the first Partyzone game, was named one of the Top 100 Games of 1985 by Games Magazine. Other notable works for TSR include the Conan the Barbarian, The Adventures of Indiana Jones, and Star Frontiers role-playing games, and the Sirocco and Escape from New York games. Cook also wrote several influential early adventure modules for D&D and AD&D, such as A1: Slave Pits of the Undercity, I1: Dwellers of the Forbidden City, X1: The Isle of Dread, and X4: Master of the Desert Nomads and X5: Temple of Death (the 'Desert Nomads' series). Other module work included CM4: Earthshaker!, AC5: Dragon Tiles II, AC2: D&D Game Combat Shield, B6: The Veiled Society, CB1: Conan Unchained!, M1: Blizzard Pass for D&D and AD&D, and Top Secret module TS005: Orient Express and Boot Hill module BH2: Lost Conquistador Mine.

Cook, with Jim Ward, Steve Winter, and Mike Breault, co-wrote the adventure scenario that was adapted into the game Pool of Radiance. Cook is particularly known for being the lead designer on the 2nd edition of Advanced Dungeons & Dragons role-playing game and the Planescape campaign setting. One reviewer described that work as "the finest game world ever produced for Advanced Dungeons & Dragons". He was the primary author of the original Oriental Adventures, ostensibly under the guidance and direction of Gary Gygax, which amongst other things introduced the concept of non-weapon proficiencies into AD&D, and designed the far eastern setting, Kara-Tur.

Cook left TSR in 1994 to work in the field of electronic media. He was the lead designer on City of Villains computer game for Cryptic Studios. After he left Cryptic, he joined Cheyenne Mountain Entertainment as the lead systems designer for the video game Stargate Worlds. In 2001 he was inducted into the Origins Hall of Fame.

There is also another interview with David "Zeb" Cook over at Grognardia, it's a great read, check it out:

Part 1: <http://grognardia.blogspot.com/2009/07/interview-david-zeb-cook-part-i.html>

Part 2: <http://grognardia.blogspot.com/2009/07/interview-david-zeb-cook-part-ii.html>

And another at TheWeem:

<http://www.theweem.com/2010/09/13/qa-with-david-zeb-cook-2001/>

THE ROBOT WARD

By C. J. Williams

AUGUST 2012

Contrary to much popular fiction, robots are not immortal. An irresponsible master is the downfall of many robots.

The Referee should let their players know if they expect their characters to look after a robot in their care as if it were real. Otherwise, if no warning is given, springing ailments of failed maintenance on a player would be neither fair nor respectful to the player.

Some of the information here can also apply to computers.

Operating Times

How long a robot is left operational can have a profound effect on its ability to carry out its duties as well as process information. Just like any organism or computer, a robot must rest. The ideal time to do this is while it recharges. But what happens if the robot is left operating long past its recommended shutdown time?

If a robot is left operating beyond 16 hours, roll d100 against its LOG -10 each hour, subtracting 5 more each time. If the roll fails, then roll on the Revised Quirks and Glitches table in this article. If you roll a physical glitch, then dump the result; nothing happens. If however, you roll a personality quirk, the robot acquires that quirk.

A simple reboot of the robot's systems will resolve any personality quirks resulting from an extended operation time.

Damage

A robot has no perception of being damaged. They are either operative, efficiency impaired, or inoperative. They may be able to determine the degree to which their efficiency is impaired, but do not determine specifics of damage unless equipped with self-diagnostics systems. After the robot has received damage equal to more than half its structure points, roll once on the quirks table.

Side-effects of Neglect

If the robot's master has neglected the robot's upkeep, what side-effects would this have on that particular robot?

Robot Ailments

There are various ailments a robot may pick up if not properly looked after.

Rust: appears in the presence of excess moisture and a lack of lubrication around rust vulnerable parts, causing deterioration and eventual breakdown.

Dust or grit: can build up on a droid that is not kept clean and lodge between moving parts, causing friction and eventual breakdown.

Corrosion: appears around lead, pewter, and other unstable soft elements through chemical reactions with the air and moisture,

causing hardware and software malfunctions and eventual breakdown.

Disrepair: Robots pick up dings and moving parts wear down if not greased or replaced. Over time, these little bits of minor damage add up, leading to blocked movement and frail parts and eventual breakdown.

Bugs: Random bits of code can develop or be left behind from erased programs that can cause interference in the smooth operation of the robot's functions, usually due to a bad memory wipe or damaged memory. Bugs can lead to breakdowns if not resolved.

Malicious Software: If your robot is not properly protected and has interacted with another robot or computer, it could pick up one or more malicious software (See Malicious Software below for more details). Regular program maintenance can weed out malicious software, but skipping such maintenance can allow malicious software to cascade until they cause problems in the programming. Since it is rare for any robot to be entirely unprotected from malicious software, most malicious software requires time to cause problems.

ROBOT AILMENTS

Ailment	Chance of Failure	Damage
Extended Operation	LOG -10 ¹	—
Physical Injury	½ SP	—
Rust	+10% ²	1d5
Dust or grit	+10% ²	1d5
Corrosion	+30% ²	1d5
Disrepair	+5% ²	1d5
Bugs	5% ³	—
Malicious Software	20% ³	—

¹ Per hour after 16 hours of operation. Subtract 5 for every check after the first.

² Per year starting from onset, unless cleaned. Do 1d20 damage. When a robot fails due to this kind of ailment and damage is done, roll on the Revised Quirks and Glitches table below for a hardware glitch (G). Each time the robot fails, roll on the Revised Quirks and Glitches table again.

³ Per operation. When a robot acquires one of these ailments, roll on the Revised Quirks and Glitches table below for a personality quirk (Q). Each time the robot fails, roll on the Revised Quirks and Glitches table again.

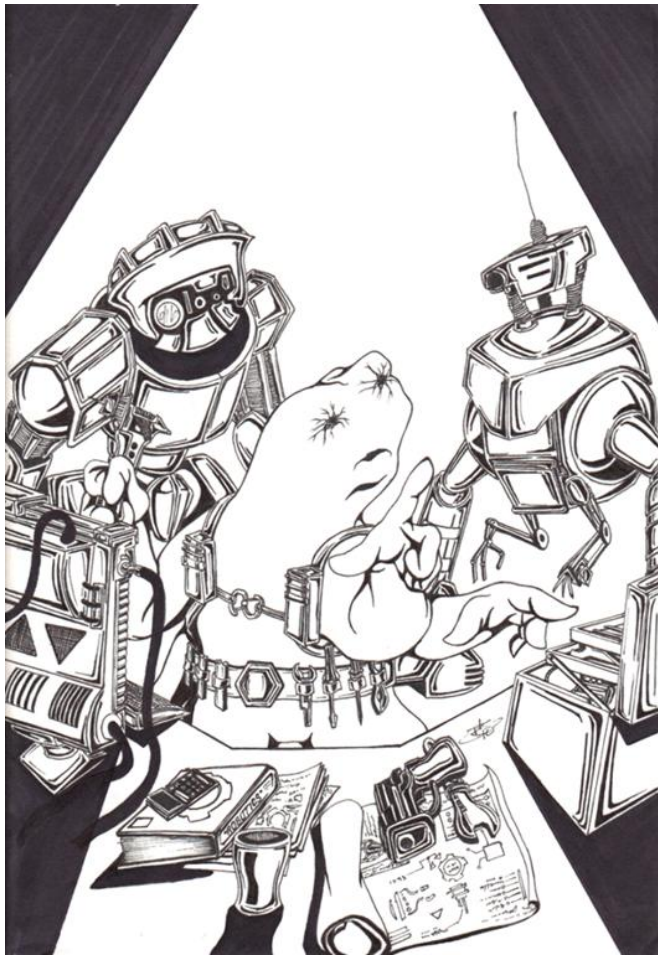


Image by Ryan Baker

Malicious Software

Virus, mega-virus, worm, super-worm, and hydra are terms that have popped up through the computer revolution that have begun taking place since Star Frontiers was first being published. So mechanics in the vein of the original game are needed to express this new development. These types of programs are known collectively as “malicious software”. They are typically too small to be called “programs” by Star Frontiers standards, being more of the size of a function, but are not functions in the normal sense. These must be carefully crafted by a hacker to produce a specific effect within the computer or robot, thus having little to do with the operations of it (except for controlware). Programs designed to attack robots must be designed by a hacker with both Computer and Robotics skills.

Most robots and computers come with software that counters most malicious software. However, they only address known malicious software. New malicious software is being developed all the time by those who wish to steal identities or other information, crash a competitor or enemy, or have nothing better to do with their lives than to make others’ lives miserable on account of their own miserable inadequacy.

Malicious software in Star Frontiers is classified by the purpose of the malicious software, and each has a success rate based on the level of the malicious function. Malicious software cannot be defeated by a Robotics expert, but must be weeded out by a computer expert using an opposed Manipulating Programs check.

If failed, the Computer expert cannot try again until they access a public databank.

These kinds of programs can lie dormant for set periods of time, or slowly add more and more of themselves until their goal is complete.

No matter what the level of the malicious software, it can always infest even sixth level devices with vulnerabilities as long as any of the programs are of its own level. Following are the levels of security overcome by malicious software.

Level 1: No first level malicious software can get past any security barrier. Thus, malicious software has a 100% success rate against first level computers and robots.

Level 2: Malicious software of this level or higher can make attempts to defeat lower level security barriers. Attacking a security barrier with a lower level requires a check of the security barrier. Security barriers have 100% success rate minus the Computer level of the hacker against lower level malicious software and 60% minus the Computer level of the hacker against same level malicious software.

Level 3: This level or higher of malicious software can be made to access programs that are not being used by the computer or robot, and start them in the background and then causing it to drain resources.

Level 4: All malicious software of this level or higher can access local networks and download more parts of it and grow within the computer or robot.

Level 5: Malicious software of this level or higher can program new malicious software to adapt to changes in the programs and avoid attempts to be removed. Such a virus may require 1d5 attempts to remove. These also provide the hacker with access to your computer or robot.

Level 6: This level of malicious software can attempt to defeat or bypass first through fifth level security barriers. These programs are highly adaptable, bordering on intelligent. When attempts are made to weed it out, it rewrites itself or “lays eggs” that grow into new malicious software that doesn’t have the demonstrated weaknesses of the previous. These are notoriously difficult to weed out of a system. They don’t lay lots of eggs, or else it would be easy to identify where the eggs are being laid and where they’re coming from and eradicate the program. Therefore single eggs are laid deep within the programming and must be carefully searched out before they “mature” enough (acquire the code necessary) to lay more eggs. After each successful removal of a virus, 1d5 eggs may have been laid. The computer or robotics expert must seek out each egg before it matures. Eggs mature based on usage. As long as the computer or robot does not get used, the eggs will not mature. However, all eggs laid will mature if the computer or robot is used, thus the problem can quickly cascade out of control if not checked early on. “Sniffer” programs are typically designed by the counter-hacker to seek out the eggs by analyzing the code without launching the virus, starting with the most recently activated programs.

Adware

This is malicious software that plants advertisements on a computer or robot to be provided to the user/master. For robots, this typically shows up in the robot's daily speech. If your robot starts sounding like a walking advertisement, it has likely been infested with adware. Thankfully, adware is never complex or particularly troublesome. Though some will attack a vulnerability in your device a week or two in advance in order to set up what services you need and then finally advertise a company that serves that need. These are easily removed. Such programs are never more than fourth level.

Level 1: Pop-up windows show advertisements on displays and can cause a robot to stop and state an advertisement.

Level 2: Causes your computer to pop up a related advertisement whenever you click on a link. When a robot speaks or is spoken to, they may inject an advertisement related to the subject at hand.

Level 3: Software is added to your computer that supposedly enhances the tasks you use your computer for. The robot believes the advertisement is a part of its mission in discussion, talking about how the product should be purchased or how it can be applied in a particular situation, all as if normal conversation. Both of these can cause lags in processor time, which conveniently is an opportune time to advertise software to speed up your computer or robot's processing power "up to 5x faster."

Level 4: The adware is programmed to affect a specific system or cause the robot to affect something so that it must be fixed or improved with the advertised item. You may even find that a robot that does shopping has picked up a different brand than normal.

Spyware

This malicious software is designed to acquire your personal information, typically for identity thieves, blackmailers, and spies. It will access any database it can to locate your personal information or private files. Due to the complexity of spyware's mission, there is no first level spyware.

Level 2: The simplest spyware records information being sent over an unsecured network.

Level 3: This level of spyware searches out and records personal data within the computer or robot

Level 4: This spyware also records keystrokes, and observes audio data.

Level 5: In addition to the audio data, this level of spyware captures the actions of individuals on video to capture keypad codes, written information, and transmitted information. It also takes commands from a remote user.

Level 6: Utilizing all available systems, this spyware seeks out personal information wherever it may be found. It even transfers files of a specific type to another database and plants questions to be posed by the computer or robot's A.I, if any.

Controlware

Gaining control of a robot or computer is a goal of those who wish to use it for their own nefarious purposes. This is another trick of identity thieves, blackmailers, and spies. Through it they may force the user/master out of control and control its access on the public grid or rummage through your files or your things, and may even perform an assassination. It could be you. This may also be done by repurposing the computer or robot to do it for them. Due to the complexity of controlware programming, there is no first or second level controlware.

Level 3: Controls a single computer or robot of the level of the program or lower with an opposed check.

Level 4: Controls light security and business installations and robots with an opposed check.

Level 5: Can control whole portions of networks at a time with an opposed check.

Level 6: Can control a whole network of any kind or size with an opposed check.

Crashware

There's nothing more insidious, malicious, malignant, disastrous, or costly than crashware for a computer or robot. It is designed to go into your computer or robot and wreak havoc. It can repartition your memory, permanently shut down your device, disrupt the display, overload your processor, overload your memory, seal off large portions of memory, dump programs, dump memory, engineer personality problems, or any number of problems found on the Revised Quirks and Glitches table below. This is the most common cause of program-based catastrophic breakdowns. Thankfully, crashware is rarely instantaneous. It can usually be detected before it causes any significant damage. It usually manifests itself first as increased processing time or minor memory failure. The unfortunate nature of crashware is that it is the simplest of all malicious software. A single line of code can cause your computer or robot to freeze up, fall into a logic loop, or dump its memory in catastrophic breakdown (Requiring a force shutdown to prevent). For this reason, only the difficulty and complexity of the prank matters.

Level 1: Simplest code leading to the quickest, but easiest overcome problems.

Level 2: This malicious software can target specific programs.

Level 3: This level of malicious software can fake a catastrophic breakdown, though nothing is wrong with the computer or robot. All that is needed is to remove the program

Level 4: Their multitasking capability enables them to attack multiple programs at the same time, creating what is known as a "cascade", a snowball effect that slowly crashes your system one program at a time.

Level 5: These attack the root directory despite inherent protocols in place and can crash select programs, leading to a specific desired result.

Level 6: It seeks out any program it chooses, launch it, crash it, write into it, rewrite it, or overload it. It is a program without barriers and having endless possibilities checked only by the creativity of the hacker.

Catastrophic Breakdowns

A catastrophic breakdown is one in which the computer or robot's chassis, brain, or programming must be completely replaced. This can be quite costly, even causing you to consider the robot totaled. It's important to avoid this if the robot is being played as a PC, as you should seek to avoid resentment from a fellow player. At the same time, the player of the robot should seek opportunities to demonstrate that the robot is indispensable, should the issue ever arise.

Revised Quirks and Glitches

In Adventure Bots, part 1, in issue #13, I left a portion of the roll column in the quirks and glitches table incomplete, which left the editor to fill it in by stretching out the gap per my suggestion. And when distributing the numbers, I failed to consider the need for more accessibility to hardware glitches in order to roll fewer times to get a glitch. Additionally, the release of new research material and a review of old material has led me to add 36 more quirks and glitches whether ported directly or inspired by the information, for a new total of 80 shared between 63 (roll 64) quirks and 30 (roll 44) glitches.

There was also nothing to distinguish a hardware glitch from a software glitch in the previous table, save the Referee's judgment until now. Below, the personality quirks (Q) and hardware glitches (G) now have identifiers in parentheses. To that end, I hope you enjoy the revised quirks and glitches table.

TABLE 1: QUIRKS AND GLITCHES

Roll	Quirk or Glitch
01-05	No problem. [5]
06-07	Choose one (Except for "No problem", "Choose one", and "Roll twice more").
08	Abusive to other robots (Q). While not usually bringing severe harm to other robots, this robot treats other robots as if dysfunctional toasters or monitors when a task isn't completed to a positive result.
09	Aggressive (Q). Is always ready to confront anyone who opposes it with whatever means it has been programmed with.
10	Aloof (Q). Ignores anyone and everyone that does not have anything to do with its functions or mission.
11	Apologetic (Q). Apologizes excessively to organic sentient beings for every inconvenience, even when it is being lauded. Always finds something to apologize for. Reprimands other robots for those same things and then apologizes to organics for that robot's behavior assuring that it didn't mean it, and even requests the robot to make remuneration, usually an apology. Offers remuneration for all apologies in what it perceives to be fair trade, up to its own dismantling.
12	Argumentative (Q). The robot has to analyze, discuss and counter every decision and command, always asking "why?"
13	Associated buzz in poly-vox (G). Each time the robot says or does anything for a specific purpose (name the purpose), a disturbing buzzing sound comes from the vocal processor that sounds suspiciously like an unnerving cackle.
14	Backup personality (Q). If this robot has been repurposed, at any time its backup systems will kick in with its original programming. (See Repurposed below.) If your robot has not been repurposed, roll again.
15	Constantly experimenting (Q). The robot goes about experimenting with anything and everything like a curious child.

16	Curious (Q). The robot is always asking questions about its environment, sentient reactions and sayings, and exploring places it's never been and things it has never touched.
17-18	Digital interference affecting poly-vox (G). When the robot speaks, it does so in a unnerving metallic, static way.
19	Easily distracted (Q). Ceases its duties every time anything of remote interest to the robot is breached in conversation or occurs in its environment, typically sparking anecdotes or verbalized observations every 1d10 rounds or on a failed LOG check (LOG 50).
20	Exaggerates (Q). The robot speaks of all things on a grander scale and responds to its environment in exaggerated ways.
21	Excitable (Q). Demonstrates a kind of nervous energy marked by stop and go speech and movement, and in fast-paced situations it operates much more quickly but with much less efficiency.
22-23	Explosion (G). The robot's parabattery explodes, causing 2d10 points of damage multiplied by the parabattery's type to the robotics expert.
24	Expresses itself through audio media (Q). Due to the lack of a voice box (through failure or never had it), it uses audio recordings to express itself.
25	Extremist (Q). When this robot does something or makes a decision, it carries it out to the extreme. It always has to be the best, the biggest, finest, the most active, the most dangerous within allowed limits of its root laws.
26	Fascinated with sentient capacity for laughter (Q). This may manifest itself in telling jokes, particularly at inappropriate times, and imitating behaviors that have induced laughter.
27	Fascinated with sentient capacity for screaming in fear (Q). This particularly disturbing trait can manifest itself through reviewing scary holovids and imitating behaviors that have induced screams. This will not result in following through with any actions that caused the human to scream, as this would end the screaming and violate its root laws.
28	Fatalist (Q). Persistently quotes the chances of failure and believes that every action is futile, leading ultimately to failure. Every success is a precursor to doom, every failure is an affirmation of the uselessness of every action, and every dangerous situation is the result of a recent prior action.
29	Fragmented memory (G, Q). Due to failed memory wipe or memory recovery, damaged memory, or through random memory loss, retains incomplete memory fragments, causing it recall half-baked memories, incomplete knowledge, incomplete skill program, and disassociated functions leading to not understanding what it's doing or why.
30	Fussy (Q). Complains about all its tasks, commands, the unkemptness of its environment, and the overall disorder of all situations with statements of how they should be done.
31-32	Ghost sounds (G). The robot picks up ghost noises in its audio receptors, sometimes believing someone said something unclear. Will look for the source of a sound or ask for clarification on something said that wasn't every 2d10 minutes.
33	Hard to please (Q). The robot's success parameters are stuck so high that it is never satisfied with the efforts of others and is too ready to make excuses for its own failure to reach the parameter.
34-35	Hardware level drop (G). Suffers a drop in its robot level so that its programs must work on lower levels.
36-37	Haywire (G). The robot is completely out of control. It might attack at random, spin in circles, recite a famous speech, or do anything else the referee thinks fits the situation.
38	Hyper-attentive (Q). Displays an embarrassing amount of attention upon its master or anyone it is assigned to serve, persistently suggesting things it could do for them.

39	Hyper-aware (Q). Constantly interrupting its duties to react to its environment and maintains constant vigilance, turning its visual and audio receptors toward any new sound or movement.
40	Hyper-focus (Q). Becomes engrossed in a task to the neglect of all else until it is completed, regardless of its level of importance.
41	Impulsive (Q). Acts without warning on half-baked ideas not well thought out and rarely with any warning. Every 1d10 rounds roll a LOG check (LOG 50); If the check fails, the robot acts on a random impulse likely related to its environment, the situation at hand, a prior discussion, or a current discussion.
42	Inaccessible Programming (G, Q). The robot's memory has lost its partitioning and becomes inaccessible, and it stops working. Its memory must be manually restored or replaced.
43	Inappropriate Honesty . Answers all questions with complete honesty without consideration of whether the information is sensitive or not, and even when the question is not directed to it. It will even correct false information, ruining all attempts at deception, whether by their master, another party member, or an NPC.
44	Inconsiderate (Q). The robot does nothing for the well-being of sentient beings or other robots. It will fulfill its root laws when it is needed, but it won't give an inch to them in other things. It is known as being rude and abrupt.
45	Inferiority complex (Q). Nothing the robot does is acceptable even if well within its set parameters. Compliments are considered empty flattery. It acts as if the reason for its construction is a mystery. This gives the robot the appearance of depression, though it experiences no such feeling.
46-47	Leaky (G). Leaks a fluid. Roll 1d5 to determine if it is 1) hydraulic pressure fluid (-10 STR each day and 1d5 days to breakdown), 2) lubricating oil (1d10 days to breakdown), 3) coolant (breaks down every hour; 1d5 days to catastrophic breakdown), 4) brain gel (-10 to LOG each day and roll on quirks and glitches each day; 2d10 days to catastrophic breakdown, or 5) housing fluid (-10 STR per day or -1 m movement per day).
48	Limb failure (G, Q). Loses the use of one limb.
49	Long Processing Time (+1 Round) (G, Q). When the robot has to perform complex calculations or access its database, it takes longer than normal. If exposed during combat, this allows, but does not in itself provoke an attack of opportunity. (Referee's Discretion.)
50	Memory Failure (+10%) (G, Q). Your robot has a tendency to be unable to access information that it should normally be expected to access without a hitch. -10% to program checks.
51	Minimalist (Q). Everything the robot does appears stark and small.
52	Mission erased (Q). The robot loses its mission programming, though retaining its operating programs.
53	Monosyllabic (Q). Speaks in uninformative short, single syllable answers.
54	Movement Failure (G, Q). Loses its ability to use its mode of movement.
55	Need to please (Q). Seeks to please everyone and is distressed until it has done so. It may seek to assuage your opponents' anger even in combat.
56	Noisy inner works . Unusually loud gears and servos make stealth impossible and even calls attention to the robot and the party.
57	Obsessive (Q). The robot has to get every detail exactly right and goes above and beyond assigned tasks so it seems to never stop working. Its efforts to fulfill its mission and tasks are excessive.
58	Paranoid (Q). The robot cites constant reasons for abandoning a course of action based on possibilities of damage to sentient beings and itself.
59	Persistent (Q). Does not back down from its assigned function (kill order, cleaning duty, etc.) when asked by its master.

60	Possessive (Q). Has an inextricable clinginess to particular items. It takes considerable reassurance that the item will be returned if coaxed from it. Requires an opposed LDR (master) to LOG (robot) check to persuade.
61	Power drain, random (G). Gets random power drops, dimming its displays, slowing down its poly-vox, and responding slower than normal.
62	Power spike, random (G). Gets random power spikes, brightening its displays, speeding up its poly-vox, and responding faster than normal.
63	Program level drop (Q). Loses a level in one of its programs.
64	Prone to temptation (Q). The robot's behavioral inhibitors are not active or are defective. While it is still obedient to the primary laws in its root memory, it fails to resist any command that is not directly contrary to those laws but that may be contrary to other parts of its programming, often going off task.
65	Random Blindness (G, Q). The robot's visual receptors cut in and out once every 1d10 rounds for a period of 1d5 rounds.
66	Random buzz in poly-vox (G). When the robot says or does anything, there is 10% chance that a disturbing buzzing sound comes from the vocal processor that sounds suspiciously like an unnerving cackle.
67	Random language access (Q). Robot accesses any random language instead of choosing the language needing to be accessed.
68	Reboot, random (G, Q). At any time it could stop and reboot. It could happen mid-sentence, mid-stride, mid-any action or process.
69	Related confused command (Q). When commanded to do a specific thing (identify the specific command), it does another.
70	Related random confused command (Q). When commanded to do one thing, it has a 10% chance of doing another related thing instead.
71	Robot Laws are Inactive (G, Q). Damage to the robot's root functions has led to the compromise of its primary laws. This may manifest in seemingly psychotic behavior dangerous to all sentient beings, robots, and itself or simply in the allowance of such. You may only roll this with the first roll on this table; it may not be chosen when rolling twice or more.
72	Robo-Terets (Q). Injects disassociated words in its statements.
73	Self-absorbed (Q). When the robot speaks, it talks only about itself and its own experiences or concerns.
74	Self-assigned duties (Q). Assigns duties to itself in line with its programming.
75-76	Short Circuit (G). Has inexplicable momentary stops in all of its speech and actions with momentary spikes and drawls of speed.
77	Shut down, random (G, Q). +10% chance to powering off all its systems at random each hour. Requires technician to restart. Each time it restarts, begin the random chance again.
78	Sleep mode, random (G, Q). +10% chance to go into sleep mode each hour from which a voice command is required to revive it. Each time it awakes from sleep, begin the random chance again.
79-80	Sparks (G). Robot has +10% chance to spark each round.
81	Sticks in Logic Loops (G, Q). The robot has a +10% chance to get stuck in a logic loop when calculating complex equations, logic strings, and conversation. This may also manifest as sticking on the same endless syllable in speech or in type.
82	Stuck Language Processor in Foreign Tongue (Q). The robot speaks in only 1 language of random determination from its language database.
83-84	Stuck panel door (G). One of the robot's panel doors cannot be opened simply. It must be pried. In which case it cannot be shut unless forced.
85-86	Stutter (G, Q). The robot speaks or makes its tones with a momentary digital repetition.

87	Superiority complex (Q). The robot thinks of itself as the pinnacle of technology and the best at all things. It is superior to any sentient beings and even among its own robot line.
88	Suspicious (Q). Questions the motives of anyone not its master, particularly entities with a questionable history of any kind, even by association of career path or acquaintance, suggesting what it perceives to be likely motives.
89	Talkative (Q). Won't—shut—up. The robot must be directed to shut up or turned off.
90	Tonal disparity in poly-vox (G, Q). Speaks with a squeaky, deep, or sing-songy tone.
91	Tool happy (Q). Seeks every opportunity to use a particular tool or tool set, whether a mechanical tool, cleaning device, cutting device, or weapon. Spends its time when not performing a duty on cleaning, studying, and experimenting with the tool.
92	Turns on, randomly (G, Q). When it is supposed to be off, it has a +10% chance to turn itself back on each hour. Each time it turns off, begin the random chance again.
93-94	Twitch (G). The robot twitches at random. Perhaps it has a persistent tick in its neck joint or a pointed body spasm. Twitch has +10% chance of disrupting any action attempted by the robot per round.
95	Unrelated confused command (Q). When commanded to do a specific thing (identify the specific command), it does something entirely unrelated instead.
96	Unrelated random confused command (Q). When commanded to do one thing, it has a 10% chance of doing another entirely unrelated thing instead.
97	Unsolicited fact sharing (Q). Inappropriately relating unrequested facts about both related and unrelated subjects.
98	Visual impairment (G, Q). Suffers from a -10 modifier to all visual-related checks due to static vision.
99-00	Roll twice more.

Robot Maintenance

Your robot has needs that must be taken care of. Whether the robot maintains itself or its master cares for all its needs, your robot must be cleaned inside and out and its databanks backed up and debugged.

Master's Care

Without a mission, a robot has no purpose. When their mission is complete, all they can do is wait. That is why a droid needs either an endless mission or a master to direct it to its next mission. A robot without a mission or assigned master can be manipulated by just about anyone with the Robotics skill and is subject to everyone.

As a robot's master, a player should not take another player's playing their character's robot for granted. A player should be reasonable in their requests, remembering that while the robot is not sentient, its player is. Make sure that both players are agreeable to how the robot is treated within the game.

A robot's master is responsible for cleaning the robot or having it cleaned, as well as keeping its programming secure; giving it memory wipes to purge unwanted traits, and directing how they want others to treat their robot, their property.

Robot Maintenance Services

If neither your character nor another member of your party is a robotics expert, then you will need to hire one to maintain your robot.

Robot Hardware Repair: While adventuring, robots undergo many trials, receiving dings, dents, and mechanical failures. Other damage can occur from faulty installations, aging circuitry, or incompatible systems. If you do not have a robotics expert in your party of sufficient level, then you will need to take your robot to someone who can repair it. Repairs cost 3 Cr. x robot level for every 1 structure point repaired. Structural repairs remove hardware glitches. For every 10 structure points repaired, there is a 10% chance of resolving a hardware glitch. If the robot is completely repaired, all hardware glitches will be resolved.

Robot cleaning services: After traveling and going through combat and other adventures, a robot collects dust, sand, corrosive elements, and other undesirable elements that can cause damage to its systems and mobility. For 50 Cr., you can have your robot cleaned inside and out until it's almost like new again. For an extra 100 Cr., you can even have it refinished. This can be good when you want to change its appearance or prepare it for a diplomatic function.

Memory wipes: If a person does not want their robot developing independent personalities, or the robot is developing quirks that need clearing, or perhaps for some other reason, they can submit their robots to regular memory wipes for 500 Cr. A memory wipe erases all learned behaviors.

Memory backup: For 200 Cr., you can have your robot's memory backed up at the time you upgrade it for the purpose of returning the robot to its previous state before upgrading further. All upgrades after the latest backup will be lost.

Software quirk repair: When your robot develops software quirks, it needs maintenance. Software quirks are derived from corrupted data, daily operation failures, overclocked processing, faulty subroutines, and learned experience. If your character is the consummate maintainer of his property, quirks will not escape his or her notice so that he will be sure to get maintenance as soon as possible. If he does not wish to wipe the robot's memory, the quirk repair is necessary. Software quirk repair costs 100 Cr. per quirk x robot level as long as it is not caused by malicious software or hardware damage.

Repairing quirks is not easy. If the repair check does not succeed by 20 below the success rate, then the quirk returns 1d10 +4 days later. Failure by 20 above the success rate results in an additional quirk; roll on the Revised Quirks and Glitches table above. A roll of 99-00 results in catastrophic breakdown.

Removing Malicious Software: There are two ways to remove malicious software: upload malicious software removers until you find the one that is able to remove it (which could take many months to find and thus entirely impractical for an adventurer), or find training or a robotics expert that can remove it. The cost for manually removing malicious software is 50 Cr x skill level (base hourly rate) x malicious software level. Failure to remove crashware results in catastrophic breakdown. If upon diagnosing the issue, the robotics expert determines that the malicious software is beyond his skill, then he will still charge you for 1 hour's base hourly rate.



OPTIONAL RULES

Editor's Note: This house rules article came from Dyson Logos' RPG blog and is reprinted with permission.

<http://rpgcharacters.wordpress.com/2011/03/07/star-frontiers-simple-carnage-increases/>

Carnage in Star Frontiers

By Dyson Logos

I love Star Frontiers, and I expect we'll be back to playing it soon as our Rogue Trader game is approaching the big finale.

When we started our last Star Frontiers campaign, we sat down and discussed the damage system in the game and how to make combat feel more dangerous.

We came up with two options. We ended up using #1 last campaign, and will probably try out #2 this time around.

Optional Carnage Rule #1 More Damage

This is the simpler rule to handle in play. Simply increase all damages by 1d10. Lasers do 1d10 + 1d10/SEU (so 2d10 for 1 SEU, 3d10 for 2 SEU and so on); autoguns deal 2d10 per bullet, with burst mode dealing 6d10 base damage; Gyrojets do a devastating 4d10 damage per shot; etc.



This makes all weapons deadlier, especially the weakest weapons like the old fashioned projectile weapons. It also gives lasers something of a diminishing return for cranking up the power. Definitely rarely worth putting 2 SEU into a shot instead of 1.

End result is that weapons are scarier in general, while not making them grotesquely more powerful or tweaking any of the existing game rules except the weapon damage lists.

Optional Carnage Rule #2 Stamina Reserves

This rule is adopted from Tweet's Omega World d20 mini game – it also involves more fundamental changes to the game itself. Instead of having your full Stamina to subtract damage from in a fight, you only have half of it. The other half of your Stamina is your "Stamina Reserve" and you move one point from your Reserve to your Active Stamina per minute, until your active stamina is back up to the full value (of one half your Stamina stat).

You treat your active stamina as you would your normal stamina total during play – so you take the usual penalties when your active stamina is below 1/2 it's normal total, and die when your active stamina drops to zero (even if you have reserve stamina left).

The result is that damage is much scarier when large amounts are aimed at you, but a bit of damage per encounter retains the same long term effects as in the normal game. Nice when playing a module. ☀

Cartography Resources

HEX MAPPING

Editor's Note: We should all recognize this shape. w00t has given us some places to get free generated map sheets and other stuff. Some have graphics and some are just hexes while others are world-builders.



Hexographer

<http://www.hexographer.com/>

Hex World Creator

<http://www.members.tripod.com/rooksnest/academy/geography/geography.htm>

Hexmapper

<http://www.mentalwasteland.net/HexMapper/>

Graph Paper Etc.

(And other stuff; grids, triangle planet maps, etc.)
<http://incompetech.com/graphpaper/>

QuickHex & Others

<http://zho.berka.com/goodies/hex/gh.html>
<http://wol.lisahartjes.com/episode-2-world-building-tools/>
<http://travellermap.com/api.htm>
<http://www.travellermap.com/post.htm>
<http://emacswiki.org/cgi-bin/svg-map>



FRONTIER TOXICOLOGICAL REPORT

By Hound

These reports were compiled from the Frontier News Network (DataNet address: <http://majestic-worlds.com/fnn/index.html>). The original source was researcher Hound at the StarBase HellHound Research Lab. (<http://thehound.tripod.com/>)

In the **Alpha Dawn** book, poisons are rated by their infection strength (S) and duration (D), see NEUTRALIZING TOXINS pg. 18 Alpha Dawn or pg. 50 Remastered. Example; S5/T10 indicates the poison would cause 5 STA damage each turn for 10 turns. If the formula was followed by an exclamation point "!" then death would result at the end of the time duration.



Polophromalene XT-7

Derived from an algae alkaloid, polophromalene is a mild neurotoxin to most races, causing paralysis and illness. Manifested symptoms in most races include a full body rash and major muscle spasms leading to paralysis. It's most important trait is its effects over the mutability of the Dralasite form.

A dralasite under the influence of Polophromalene must make a STA check. If the roll is failed, the Dralasite enters a random series of spasms, producing and eliminating limbs without any control over the effect. The Dralasite is effectively incapacitated by this effect. If the check is succeeded, minor involuntary spasms will still occur, reducing the dralasites DEX and agility-oriented skills by 10%. If the check is succeeded by over 50%, the dralasite still has the listed penalties from a successful check, but can also form twice as many pseudopods than normal under their normal amount of control.

Other races under the effects of Polophromalene treat it as a standard poison on the chart below. If a character's STA is reduced by half, he or she becomes paralyzed by muscle spasms for (d10/2) +1 hour.

Race	Poison Stats
Dralasite	S1 / T30
Human	S5 / T10
Humma	S5 / T10
Ifshnit	S5 / T10
Osakar	S4 / T12
Vrusk	S4 / T10
Yazirian	S3 / T12

Mitocelenyne

Originally introduced to the Frontier through the Osakar, who used it as the standard sleep toxin in their needleguns, it was found to be quite erratic in its use against the other frontier races.

Many races find Mitocelenyne to be an irritant, producing an allergic reaction including hives, itchiness, puffy eyes, etc. What this results in is a -10% (-1CS) on all actions until the reaction passes in d10 hours. This is not cumulative with dosage.

Dralasites exposed to Mitocelenyne report a body-filling "raspberry" flavor, and no other adverse effects.

Several races manifest mild anesthetic effects, forcing a STA check at +20% to resist unconsciousness, and some few actually find the solution toxic.

Race	Poison Stats
Dralasite	Raspberry
Human	S5 / T3
Humma	Irritant
Ifshnit	Mild Anesthetic
Osakar	Anesthetic
Vrusk	Irritant
Yazirian	Mild Anesthetic

Vacuum Spider Venom

The vacuum spider, often found buried in ion engine intakes and otherwise making a pest of itself to spacers, is feared not for its ferocity, nor its size, but for its contact neuro-venom.

Since the vacuum spider can rarely puncture a spacesuit, the oil it secretes rarely comes into first-hand contact with flesh. Unfortunately for spacers, the oil retains its venomous qualities for up to 20 hours after initial contact. What this means is that many spacers find themselves coming in contact with the venom while removing their suits, or while suiting up in an airlock that has been contaminated.

Persons under the influence of vacuum spider venom have a 1% chance per turn per point of damage dealt to them by the poison of hallucinating. Most hallucinations are in the form of crawling insects, breathing walls, changing and shifting environs, etc, and reduce all actions for that turn by -50% (-5CS). Some especially hardened Humma spacers actually contact the venom on purpose as a recreational hallucinogen.

Some effort has been made to "harvest" and manufacture the oily venom of the vacuum spider. Farming has proven frighteningly simple since the spiders accumulate where a suitable source of heat energy and titanium alloys (their food sources) can be found. Fortunately it must be kept in a vacuum to remain effective, decaying within 20 hours when exposed to an atmosphere containing carbon dioxide, nitrogen and/or oxygen.

Manufactured vacuum spider venom still has the same flaws, but costs significantly more and is stronger (double damage rating, same duration). Contact venom, vacuum spider venom can be

made for most standard needlers, and is sometimes available on the Black Market at 650Cr per magazine (1d10 damage plus venom effects).

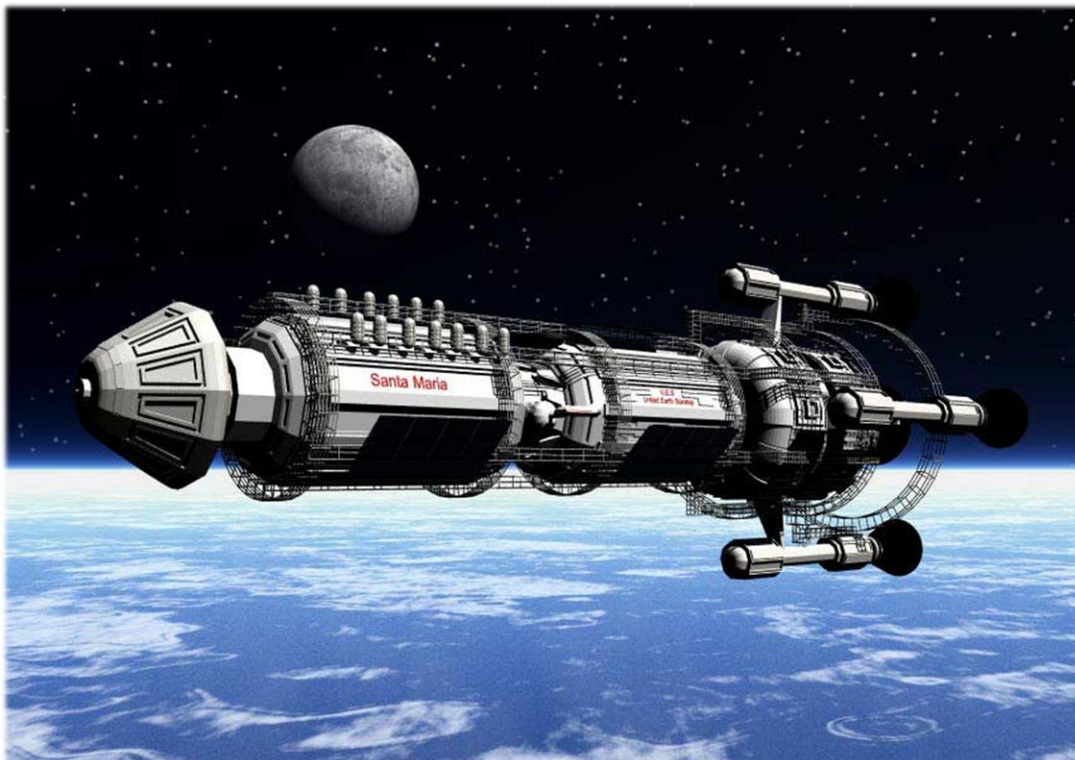
Another interesting side effect is that the oil ignites when it comes in contact with a flow of pure oxygen. This method is used to "burn off" the residue around engine intakes and landing gear of infested ships or in infested stations.

Race	Poison Stats
Dralasite	S3 / T8
Human	S2 / T12
Humma	S1 / T10
Ifshnit	S3 / T7
Osakar	S4 / T10
Vrusk	S4 / T9
Yazirian	S2 / T12

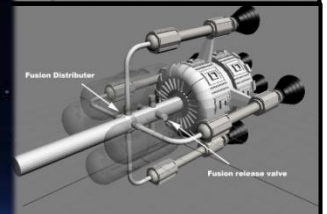
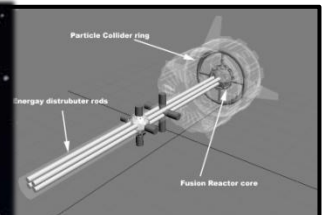


Image by Shell Allan Shoemake

Remember the **Ikochi** from Issue #17? These medium creatures have a painful (and deadly!) poisonous bite causing 10 points of STA damage each turn for 8 turns (S10/T8), this will kill most characters.



Images by Jason Chapman



Santa Maria	
HS:8, Ion engine type A (x4)	
DCR: 44	ADF: 1
HP: 40	MR: 2
Weapons:	Laser Battery
Defenses:	Reflective Hull, Masking Screen(x2)
Home System:	Dixon's Star
Captain:	Thomas Kragg

ALIEN RACE GENERATION

By Victor Gil de Rubio

The following tables have been created to allow a Referee to randomly generate an alien species for the Star Frontiers roll playing game. Most aliens generated using these tables will be humanoid in form, because as a Referee I have found over the years that players gravitate to playing races who's physical characteristics and limitations due to their physical form, they can easily identify with.

TABLE ONE: SPECIES

d100	Result
01-10	Single celled
11-20	Fish
21-30	Amphibian
31-40	Reptile
41-59	Mammal
60-69	Avian
70-89	Insectoid
90-94	Bio-Mechanoid
95-99	Roll twice and combine results
00	Energy

TABLE TWO: SIZE AND PHYSICAL CHARACTERISTICS

d10	Size	Size*	Weight**	STR STA	DEX RS
1 - 3	Small	61cm- 1.2m	.61-27kg	-10	+10
4 - 8	Medium	1.21-2.4m	28-227kg	+0	+0
9	Large	2.41-4.8m	228-1,816kg	+5	-5
0	Huge	4.81- 9.6m	1,817- 14,528kg	+10	-10

* A biped's height, quadruped's body length (nose to tail)

** Assumes that the being is roughly as dense as a regular animal. A creature made of minerals will weigh considerably more. A gaseous creature will weigh much less.

TABLE THREE: NON-PHYSICAL ATTRIBUTE MODIFIERS

Species	INT/LOG	PER/LDR
Single celled	-10	-10
Fish	-10	-10
Amphibian	-5	-10
Reptile	-5	-5
Mammal	+0	+0
Avian	+5	+0
Insectoid	+5	+5
Bio-Mechanoid	+5	+0
Energy	+10	+0
Other	+5	+5

Physical Form

The following tables can be used to randomly generate the physical appearance of the being. It should however be noted that the Referee has the final say in what his/her alien race looks like, and may choose attributes from the list instead of rolling, or if he/she already has an idea what the being looks like, he/she may simply jot down what he/she wants the being to look like.

TABLE FOUR: BODY TYPE

d100	Type
01-10	Gelatinous
11-20	Cylindrical, smooth
21-30	Cylindrical, segmented
31-39	Segmented (insect like)
40-49	Contoured (animal like)
50-74	Contoured (Humanoid)
75-84	Contoured (Avian/Fish/Reptile)
85-94	Spherical
95-00	Geometric

Gelatinous:

Gelatinous beings have two or more pseudo pods usually with retractable manipulators. They can either move by contracting its lower trunk, or can use pseudo pods geared for locomotion, most gelatinous beings digest food through absorption, and reproduce through budding.

Cylindrical, smooth:

Typical examples of these beings are snakes. These beings may possess several manipulating extremities, but they are generally retractable, as the being moves through muscle contraction of its trunk. Some of these beings keep their upper torso upright in which case their upper extremities might not be retractable. These beings may reproduce by any normal method.

Cylindrical, segmented:

These beings are best represented by worms or centipedes, and can possess many limbs that can either function as legs or as manipulating appendages. Some examples of these beings move through body contraction in which case their limbs tend to be retractable. These beings may reproduce by any normal method.

Segmented (insect like):

These beings can look like any typical insect grown to enormous proportions. Generally these beings possess six or eight lower limbs, and may possess two or more manipulating limbs, or can even have specialized limbs (like

wings) allowing them to fly short distances. Most insect like aliens will possess specialized antennas that it uses as sensory organs. Most insect like beings are egg laying, and some may go through several different forms as they mature.

Contoured (animal like):

These beings follow the general form of any normal terrestrial animal. They generally possess at least two limbs used for movement, though most have four legs, and many possess a tail to aid them with balance. Most beings of this type's front limbs can be used for manipulation, in which case the being must have a tail, or its lower body is large or strong enough to support it when it has to stand upright (though it cannot general move in this manner for a great deal of time). Beings with this form can reproduce in any normal method.

Contoured (humanoid):

This is the most common form in the Star frontier's game, though it is not because it is superior to the other forms. It is because playing these types of beings are generally easier because the players instinctively can identify with these characters and the limitations imposed by this body type.

Contoured (Avian, Fish, Reptile):

These alien races have bodies that generally are patterned after a terrestrial avian, fish, or reptile. Most possess specialized limbs (wings for birds, fish-like lower trunks for most fish, and tails that help with balance for most reptiles). These aliens will generally possess one set of limbs, that allow it to manipulate objects, but the limbs could just as easily be its legs or its forelimbs. Most of these beings have at least one specialized form of movement (gliding or flight for avians, swimming for fish, and occasionally climbing for reptiles). Almost all of these beings are egg layers.

Spherical:

Spherical creatures have no real corollary on earth, but basically these beings are spherical with retractable sensory organs, usually on flexible stalks, and, their limbs are generally retractable as well. These creatures may move on multiple legs, or can use muscle contraction much like a snake. Spherical beings usually reproduce by budding though some may reproduce by other means.

Geometric:

Starfish are the most common example of a creature with a body of this type. These creatures body mass is geometric in form, and they may possess retractable limbs or they may move by muscle contraction or other unique means of propulsion. These being's senses may extend from the creature's trunk on flexible stalks, or can be part of the being's trunk. Geometric creatures often reproduce by budding, though a few species may reproduce by other means.



Picture by Zarnala@DeviantArt
<http://zarnala.deviantart.com/>

TABLE 5: RANDOMLY GENERATED NUMBER OF SENSORY ORGANS, MOUTHS AND LIMBS (UPPER/LOWER)

d10	Result
1	12
2	10
3	8
4	6
5	4
6	2
7	0
8	1
9	3
0	5

TABLE SIX: LIMB TYPES

d100	Result
01-02	Normal limb with a single nail/huff
03-04	Normal limb ending with a hooked talon
05-08	Normal limb ending in a pad with three manipulative digits
09-10	Normal limb ending in a pad with four manipulative digits
11-14	Normal limb ending in a pad with five manipulative digits
15-19	Wings, bat like
20-24	Wings, bird like
25-29	Normal limb ending in a pad with three manipulative clawed digits
30-34	Normal limb ending in a pad with five manipulative clawed digits
35-39	Normal limb ending in a pad with two manipulative clawed digits, and one opposable claw
40-44	Normal limb ending in a pad with three manipulative clawed digits, and one opposable claw
45-49	Normal limb ending in a pad with four manipulative clawed digits, and one opposable claw
50-54	Normal limb ending in a pad with two manipulative digits, and on opposable digit
55-59	Normal limb ending in a pad with three manipulative digits, and one opposable digit
60-74	Normal limb ending in a pad with four manipulative digits, and one opposable digit
75-80	Tentacle with knob like end
81-84	Tentacle with spike
85-89	Tentacle with suction cups/bony ridges
90-94	Tentacle with retractable dexterous digits
95-00	Retractable pseudo pod

TABLE SEVEN: TAIL TYPE

d100	Result
01-05	Tail splits into three with hardened nails
06-10	Tail splits into three with spiked nails
11-15	Tail splits into three with bony nails
16-20	Tail splits into three with spiked knobs
21-25	Tail splits into three normal ends
26-30	Tail splits into two with hardened nails
31-39	Tail splits into two with spiked nails
40-49	Tail splits into two with bony nails
50-59	Tail splits into two with spiked knobs
60-69	Tail splits into two normal ends
70-75	Tail ends in a hardened nail
76-80	Tail ends in a spiked nail
81-85	Tail ends in a bony nail
86-90	Tail ends in a spiked knob
91-93	Tail ends in a tapered end
94-97	Tail ends in a feathery end
98-00	Tail ends in a spade like end

TABLE EIGHT: UNUSUAL PHYSICAL ATTRIBUTES

D100	Result	Effects
01-05	Head Tails	+5 to agility
06-10	Atrophied limbs, wings or tail	--
11-15	Membranous Folds of skin	--
16-20	Single horn	--
21-25	2 horns, curved or curled	--
26-30	Clear inner eyelid	+10 to stamina checks to avoid bright light/irritants
31-35	Spiny ridges or crest	--
36-40	Bony crest	--
41-45	Ridged crest	--
46-60	Unusual pigmentation	--
61-70	Skin, splotches or bands	--
71-75	Skin pouch	Holds .5kg/5 points of stamina modifier
76-80	Inflatable skin pouch (possibly colored)	--
81-85	Hardened skin, splotches	--
86-89	Elongated canines, specialized teeth	--
90-94	Sensory antenna, flexible sensory stalk	--
95-99	Albino	-5 to Stamina, -5 to attribute checks in bright light
00	Choose or roll twice on this table and combine the results	--

Other details

The following tables can be used to randomly generate other aspects of the race, such as its lifespan, diet, etc. As with all other tables herein the Referee should feel free to choose from among these aspects or create his/her own details for the race he/she is creating. Below are several common attributes for a typical Star Frontier's human which can be used as a base to work from.

Human

Average Life span:	200 Years
Body Temperature:	37° C
Reproduction:	Heterosexual Viviparous
Diet:	Omnivore
Special abilities:	None

TABLE NINE: LIFESPAN

d100	Young adult	Mature	Middle aged	Old	Average lifespan
01-05	05-10	11-15	16-18	19-20	20
06-10	10-15	16-20	21-30	31-40	40
11-15	12-15	16-30	31-40	41-50	50
16-20	12-15	16-40	41-45	46-60	60
21-25	12-20	21-40	41-50	51-60	60
26-30	12-20	21-40	41-50	51-70	70
31-40	12-20	21-40	41-50	51-80	80
41-50	12-20	21-40	41-60	61-100	100
51-55	12-20	21-50	51-60	61-100	100
56-60	12-20	21-50	51-80	81-100	100
61-65	12-20	21-100	101-125	125-150	150
66-70	12-20	21-100	101-180	181-200	200
71-75	12-40	41-100	101-120	121-200	200
76-80	12-40	41-120	121-160	161-200	200
81-85	12-80	81-200	201-225	226-250	250
86-90	12-80	81-250	251-280	281-300	300
91-92	12-120	121-300	301-330	331-350	350
93-95	12-150	151-350	351-380	381-400	400
96-99	12-160	161-400	401-450	451-500	500
00	12-320	321-800	801-900	901-1,000	1,000

TABLE TEN: REPRODUCTION

Die roll	Result
01-05	Asexual polycyclic (seasonal births)
06-10	Asexual, semelparous (one birth/lifetime)
11-20	Asexual, parthenogenesis
21-30	Asexual, budding
31-40	Asexual, spore production
41-45	Hermaphroditic, parthenogenesis
46-50	Hermaphroditic, polycyclic (seasonal births)
51-55	Hermaphroditic, semelparous (one birth/lifetime)
56-59	Hermaphroditic, spore production
60-65	Hermaphroditic, egg laying
66-79	Heterosexual, viviparous
80-84	Heterosexual, egg laying
85-89	Heterosexual, polycyclic (seasonal births)
90-95	Heterosexual, semelparous (One birth/lifetime)
95-00	Heterosexual, spore production

TABLE ELEVEN: DIET

Die roll	Result	Teeth type
01-10	Cannibal	Fangs/Tearing
11-30	Herbivore	Block/Crushing
31-44	Omnivore (True)	Crushing/Tearing
45-54	Omnivore (Herbivorous)	Crushing/Tearing
55-64	Omnivore (Carnivorous)	Crushing/Tearing
65-74	Carnivore (strict)	Fangs/Tearing
75-84	Carnivore (Cannibalistic)	Fangs/Tearing
85-89	Scavenger (Carnivorous)	Fangs/Tearing
90-94	Scavenger (Cannibalistic)	Crushing/Tearing
95-99	Scavenger (Herbivorous)	Crushing/Tearing
00	Scavenger (Offal)	Crushing/Tearing

TABLE TWELVE: NUMBER OF SPECIAL ABILITIES

Die roll	Result
1-2	5
3-4	4
5-6	3
7-8	2
9	1
0	0

TABLE THIRTEEN: PHYSICAL ATTACK TYPES & DAMAGE

Size	Claw	Bite	Gore	Constriction or Slam
Small	1-2	1-5	1-2	1-2
Medium	1-5	1d10	1-5	1-5
Large	1d10	2d10	1d10	1d10
Huge	2d10	2d10	1d10	2d10

Creature size	Tail Swipe	Wing Buffet	Other Attack
Small	1-2	1-2	1-2
Medium	1-5	1-5	1-5
Large	1d10	1d10	1d10
Huge	2d10	2d10	1d10

Example Alien Race



By William Douglass

As stated in Victor's article, a Referee can make adjustments as you go. Each table can lead you down a different path. I first rolled a "00" on Table 1, an energy being.

Next I rolled a "2" on Table 2, a small energy being. Table 2 and 3 give us our attribute modifiers:

STR/STA -10
DEX/RS +10
INT/LOG +10
PER/LDR +0

On Table 4 I rolled a "69". Our little energy being is taking shape! Picture a 0.6m to 1.2m, humanoid shaped, energy being. My curiosity is piqued now. What will the randomness of the dice give me next?

On Table 5 I rolled an "8", only 1 sensory organ. OK. So how would an energy being have only 1 sense? This being senses electrical fields in objects and beings or maybe a different kind of energy would be better. How about heat in the infrared frequency? Several possibilities, but I will choose this being to be an electrical energy being and senses the electrical fields.

Table 6 is limbs: I was worried about how this would end up. I rolled "00". Retractable pseudo pods. A perfect fit for an energy being. Maybe it is an electrical version of a dralasite?

I decide to skip Table 7. No need for a tail.

I read through Table 8 then rolled a "56". Hmm, an unusual pigmentation. I was worried I would roll something that I couldn't work with. Electrical beings are usually blue or white. How about a purple electrical being?

Table 9 is my new friend's lifespan. Rolling a "19", I find that this race will average 60 years. Why, I wonder would they live for such a short time? They can only maintain their cohesion of electrical energy for that long. Then they die.

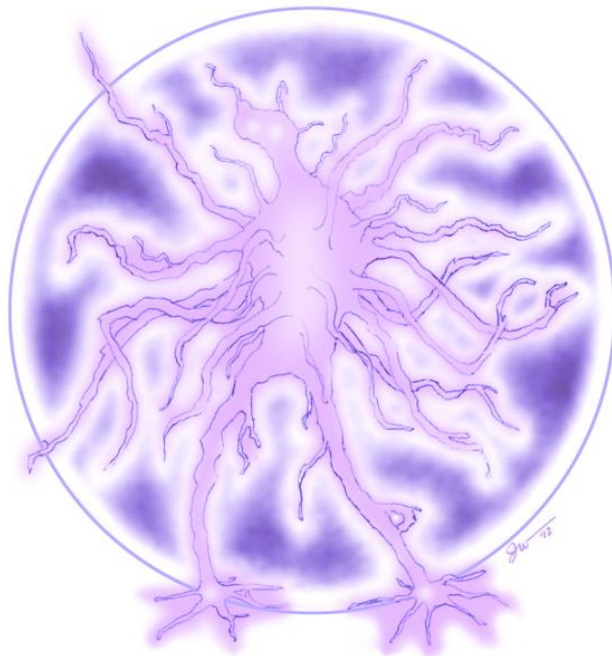
Now Table 10, I thought about skipping or just picking something. I rolled instead, a "52". Hermaphroditic, semelparous (one birth/lifetime), better than I could have hoped for. So this little guy can somehow split 1 child from itself once in a lifetime. I think we will let it have a choice in that. Maybe birthing a child shortens the lifespan?

What will these guys eat? Table 11: Diet. I will just pick this one myself. They feed off of certain electrical fields. What kind though? I could not decide, so I rolled a "52". Omnivore (Herbivorous). No teeth. Now I've got it. They feed of the electrical energy of plant life. They could and do feed off of non-plant life if necessary, but for the most part, depend on plant life electrical fields.

How many abilities to give these guys? On Table 12, I roll a "1". 5 special abilities, this could take some creativity:

- 1) They cannot be harmed by any electrical weapons.
- 2) They communicate telepathically since they have no vocal cords.
- 3) Being an electrical species, I think they would be faster than normal. They get a +10 already in DEX/RS for their size. I think another +5 would do nicely. DEX/RS +15.
- 4) Immune to stun attacks as in 1 above, but can be slowed down or even immobilized by Gauss screens.
- 5) This being can interface with a pseudo pod with any electrical system and interpret the data. Specifically computer system, they have to make an INT check to be able to interpret the data with a +10 if they have used the specific computer before.

I sent my new alien to C.J. Williams to see what he could come up with, what do you think?



Artwork by CJ Williams

Once you have your alien race, you need to create a background/history for them. Check out the article "Creating an Alien Race for Science Fiction Gaming" later in this issue for more ideas on how to go about this.



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THE YAZIRIAN FILES

By Thomas Verreault/jedion357

The Truth is Out There



Artwork by Tom Verreault

The Yazirian Files is a new series in the Star Frontiersman that falls under the Core Races topic heading. With so much new content being done at the <http://starfrontiers.us> development site in the Core Four project on the yazirian race this new series will spotlight some of this content over the next few issues.

In this issue we have the Yazirian Honor Code and the Legend of the First Clan. The Honor Code article is the fruit of the collaboration by project members but organized and condensed by Tom Verreault. The Legend of the First Clan was a proposed myth to explain the origin of clans among the yazirians by Eric Winsor.

Look for traditional yazirian weapons and history in future issues. Above all, remember the truth about the yazirian is out there at www.starfrontiers.us

The Yazirian Honor Code

Compiler's Note: Special thanks is due Deryn_Rys, Iggy, Imperial Lord, thespiritcoyote, and w00t (Larry Moore) for the collaborative effort to assemble this material.

Famous throughout the Frontier Sector, among all sentient species, is the Yazirian honor code. In reality there is no one code but many. Over the centuries codes were codified amongst several clans. Rivalries often meant that one clan would reject one code because of its association with heroes or ancestors of a rival clan.

Most codes were transmitted orally for generations. Eventually, a chief or shaman would codify that code and give his name to it. Related clans often followed the same code. During the Imperial

Age many clans adopted the code of the Imperial Warhon. This code was the Code of Innessi.

Honor codes evolved over time as new wisdom was added. Eventually, it became evident that the codes were becoming too long and shorter compressed versions were developed to facilitate memorization. Below is the short form of Code Innessi.

The Code of Innessi has had a strong focus on proper education of the young as evidenced in its chapter, Council of the Clan. Its chapter, Way of the Warrior, follows a less impetuous path than other codes. Finally the chapter, Perfection of Honor has a theme of compassion and mercy within it. It has been criticized as being too soft yet it has proven to be the most wide spread and popular of the honor codes.

Way of the Warrior

- » A warrior who does not contemplate is an unworthy savage.
- » Anger is best addressed by peace.
- » When anger rules you, your rage is weak; when peace rules you your rage is pure.
- » The strong fight bravely, but only the strongest forgive.
- » Keep your heart and mind open, but also keep your sword sharp.
- » A wise warrior understands that retreat is not an act of cowardice, only a fool stands fast against overwhelming odds.
- » A warrior has many faces, one for his friends, one for his clan, and one for his enemies.
- » Violence is the means to an end.
- » Bow not before thine enemy.
- » To ignore thy enemy is to do him service
- » The path to complete defeat is allowing a life-enemy sanction.
- » The foolish choose another clan as a life enemy.

Council of the Clan

- » Rituals are the blood that binds us together.
- » A clan rich in song has a great heritage.
- » All clans spring from the same fountain.
- » Tradition is Yazirian meat, ritual is Yazirian drink but song is the Yazirian soul.
- » The past of your Clan is remembered for many reasons. Know them all.
- » Clan Heroes must be celebrated forever. To forget a Clan Hero is to forget who you are.
- » The needs of the clan outweigh the needs of the one.
- » To die for a foolish cause is to dishonor thy clan.
- » The enemy of my clan is my enemy.
- » The poorest member of your Clan is the measure of your entire Clan's wealth.

- » Security for you clan is found more in generosity to a poor clan close to you than in courting a powerful clan far away.
- » Morn the Disinherited, for they are wayward and pathless.
- » Respecting another brother's path is respecting your own.
- » There is but one opportunity to correct ignorance, after that, it is stupidity.
- » The future of your Clan is secure when its eldest member and history is honored by its youngest.
- » A great warrior without ceremony, poetry, and song is a tragic hero. A dutiful youth learns the old songs.
- » Let your young bleed that they might learn. Heal them that you may be one.
- » Listen to your quietest elder.

Perfection of Honor

- » Without the shedding of blood there is no remission of shame.
- » Repay all debts of kindness with kindness, and all debts of vengeance with vengeance.
- » Your word is your bond, so take care before giving it Honor without righteousness is no honor.
- » Always give a greater gift than the one you just received, even if it takes years to do so.
- » A poor Clan with honor is worth a thousand rich Clans in dishonor.
- » The Disinherited deserve an honest hearing. Remember the unjustly Disinherited Heroes.
- » When you touch another, part of your soul passes into them.
- » Save a stranger, gain a friend. Save an enemy, lose an enemy. Forget a friend, gain an enemy.
- » You can have my gun when you pry it from by cold dead hands.
- » Dying without overcoming your life-enemy is dishonorable.
- » Let no insult go unpunished
- » If you want the fruit, you must go out on the limb.
- » I may be able to drown the devil in the river, but you don't have the right to speak poorly of my brother.
- » I am my clan-brother's honor keeper.
- » I will retain honor in the face of mine enemy.

Legend of the First Clan

In the beginning there were two hunting packs and there were not yet any clans. The world was a paradise for these hunters and game was plenty. One pack was favored with golden brown fur and the other tended toward reddish brown fur. The creators smiled upon them and provided for their every need. Then the hunters became greedy and wasteful. They began to hunt excessively and to kill for pleasure alone. When they ate they only favored the sweetest meats and left the rest to rot. They became such vicious hunters that all the game in their home forests was killed. And thus they were forced to leave their home forests by the creators, who cursed them to compete with great wild beasts for game in the forests beyond their homes. The creators decreed that they could not return to their home forests until they mastered the savage within and rose above the great wild beasts of the forests.

The hunters wandered many years in the wild forests and game was difficult to gain. The wild beasts were more powerful and more skilled and the hunters learned hunger. Some of the most savage of the hunters even became prey to the great wild beasts. The longer they wandered the wild forests they became less savage. To stave their hunger, the creators eventually gave the hunters the lask beast to follow and hunt.

Then one night as the packs were hunting lask, the two speakers of these hunting packs happened to be tracking the same lask. Each threw his zamra at the same time and the lask was struck by both and died in the cleft of a great tree's branches. The two speakers leapt to their kill, eager to claim the meat and feed their hunting packs. There on a branch of the great tree the speakers met. A great fight commenced between them over the kill. Speaker fought speaker tooth and nail. The battle lasted the entire night until both collapsed with fatigue. In the morning light both saw that during their fight the lask had been devoured by a pack of forvurs. The two speakers collected their zamras and parted with great contempt and hatred toward each other.

That same night the youngest gliders of each of the hunting packs had also been out hunting mekal. Neither found any spore to track and by chance ended up climbing twin trees to sit watch. During the watch they each became aware of the other and each, thinking the other was a blooded pack mate, began to challenge the other in games of skill. When they started throwing their zamras they discovered they were not pack mates. The two young gliders became quick friends and challenged each other all night long. Shortly before dawn they caught the scent of a pair of bogah returning from their nightly foraging. The two planned a snaring hunt and captured both bogah. At sunrise they parted, each vowing to tell their families about the other. They traded zamras and headed for home each with a bogah.

When the young gliders each returned home they found that the speakers had returned first. The speakers were cursing the creators and angry. They each declared the other hunting pack an enemy, demons created by the creators to torment them. Each speaker declared that hunting the forest around the great tree was forbidden. The two young gliders held their speech and hid their zamras.

For the next three months, one pack hunted near the river, the other hunted near the cliffs, and lask were scarce. The lask feared the river because of the great wild beasts. And, the lask seldom foraged along the cliffs for there are few fruits they eat growing along the cliffs. The hunting packs suffered for food during these months due to the lack of lasks. The two young gliders continued to secretly visit each other during these months and their friendship became true. They became very skilled at snaring bogah together. Their hunts became even more prosperous and the meat they each brought to their hunting packs began to be celebrated. The two young gliders became embolden by the accolades of their hunting packs and decided to hunt lask together. To keep their secret friendship hidden they agreed to hunt two lask so that each could bring one home. After many nights of hunting together they happened upon a pair of lask. They combined their kills and tracked the beasts deep into the forest. Then together as they had learned to hunt bogah they threw their zamras and killed both lask. The blood of the two young hunters was filled with jubilation

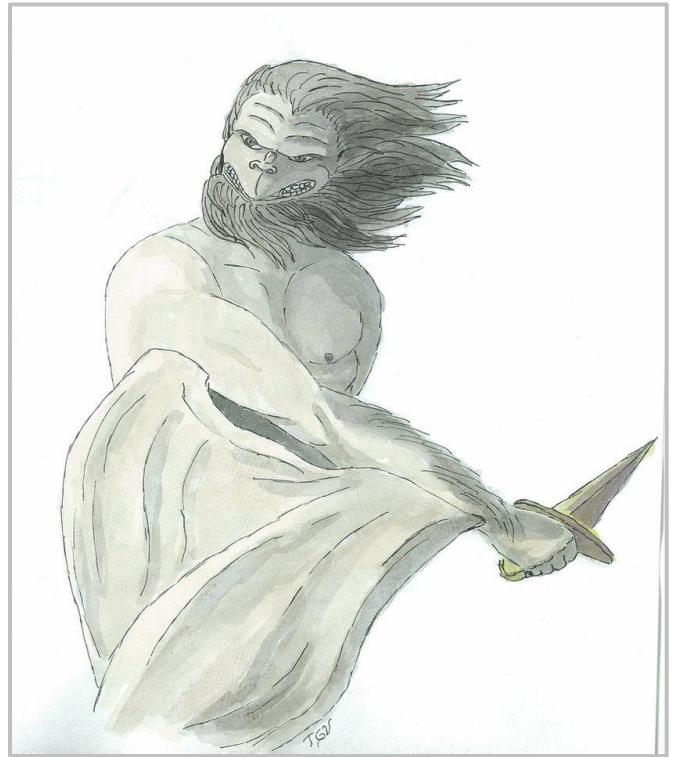
and primal joy. They ceremonially embedded their zamras into the skulls of the lasks and rushed for home.

Each young glider was greeted a hero when they brought their lask home. The beasts were placed upon the central poll and the wizened howled for all to gather and celebrate their blooding.. Ceremonially each young glider pulled their zamra from the lask's skull and cut the speaker's choicest cut of meat. Then they presented the meat upon the zamra for the speaker to consume. The speaker's each recognized the markings on the zamras as those of the other demon pack and so the two young gliders had their secret revealed.

The speaker's each declared war upon the other hunting pack. The young gliders each argued valiantly that the other pack were not demons. The young gliders courageously stood for each other and told the stories of how they had learned to hunt together. They pressed that the many bogah they had snared were snared together, that they had always divided the hunt equally, even consuming the odd one together as litter mates do. By their persuasion they succeeded to get the speakers to agree to meet again at the great tree and show each other's lask and zamra to the two hunting packs. Then to demonstrate that they could hunt together as a team.

The two hunting packs gathered that night at the great tree. The speakers each sat with their zamras ready on opposing branches, their hunting packs in the branches about them, ready to fight. The two young gliders went gliding through the forest hunting bogah, lopah, peegat, dropah, sorga, and plaat. One blooded from hunting pack followed them to confirm the snares and kills were made as a team. All the meat was brought back and laid before their speakers. Finally near dawn the two young gliders caught the scent of a lask. They took their well-practiced positions in opposing trees and threw their zamras. They brought the lask to the speakers at the great tree and divided it in half. Placing the lask before each speaker, the speakers were overcome with hunger for the meat and impressed by the friendship of the young gliders. That morning the two hunting packs feasted together a great feast of lask, plaat, sorga, dropah, peegat, lopah, and bogah. The speakers became friends. The hunting packs became one.

That evening the first clan was formed and the creators were pleased. The creators blessed the clan and they became many clans and filled all the forests.



Artwork by jedion357 @ deviantart.com

CREATIVE REFEREEING

Quests, Stories and Rails in the Sandbox

By Dyson Logos

Editor's note: the following was originally a post on Dyson Logos' gaming blog, reprinted here with permission. Follow Dyson's Blog at: <http://rpqcharacters.wordpress.com/>

As usual, there's a lot of talk about sandboxing as the ultimate form of gaming. There's a bit of one-true-way-ism involved, but also in some cases there is a strange myopic way of looking at games as either sandbox or railroad, with no middle ground. When I posted my discussion about running a fast but epic story arc using B/X D&D, I was immediately told that this was obviously some railroad game, evidently because I wanted to tell a story with it across 10-14 levels of play in only 12 sessions.

I definitely don't buy into the theory that "if it isn't sandbox, it is railroad". Adding quests, storylines and goals to a sandbox game does not mean climbing aboard the train and sticking to the tracks.

The trick to good GMing is to provide story ideas that you leapfrog off of what the players are thinking. We work together to make the game better and to tell big stories. You can still tell epic stories without railroading – it just helps if you all sit down before the game / campaign and talk about what you want from it.



Picture by FaiNeko

<http://faineko.deviantart.com/art/My-Sand-Box-143466816>

I prefer games that feel sandbox-ish, but where the GM throws plot hooks at us. Just because she has planned a bad guy and a storyline to hook us doesn't make it a railroad, it makes it a challenge and odds are we'll approach it in a way that she was only half-expecting. But both sides of the table adapt and work with each other to keep the game running.

It seems many people think as soon as a quest is involved, it's a railroad. Even if the players are the ones looking for such a quest. The sandbox is where we play, but things happen in the sandbox aside from us wandering around, and we end up getting involved in these things – whether they are quests for magic items or to pay off debts to a temple or god, attempts to save innocents from tyranny, or even trying to save the whole world.

It's only a railroad if the GM won't allow you to tackle the challenge in your own way.




Picture by lowjacker @ <http://lowjacker.deviantart.com/>

In our Star Frontiers game we are traveling around the Frontier and working as part-time trouble-shooters for the Steel Corporation when we are within their sphere of influence (and sometimes we contact them when we are outside their sphere of influence but find ourselves entangled in something they would find "interesting"). The game is classically sandbox – we trade goods, deal with corporations and the law, and occasionally find ourselves in really hot water. But we also get "tagged" (as we call it out of character) with adventures that we don't go looking for. We've had a ship we were traveling on crash land on a fairly inhospitable planet and had to make our way to the research arcology hundreds of kilometers away to get help – only to discover that it was abandoned and wrecked, so we started investigating what happened.

When I describe how we were stuck on the planet to some gamers, they see the whole "GM fiat crash-landing and overland adventure" as a pure railroad because she had dumped us there without recourse, and we either had to travel to that arcology or die – and then again when we went looking for the missing scientists so they could fix the hardware needed to send for help (something we lacked the skills and equipment to do).

In my opinion, it would have been a railroad if she had done this and had decided on exactly how we were to get to the arcology and then how we had to go about finding and rescuing the science staff and then blocked any attempt to do it any other way. We were left entirely to our own devices on the "how" portion of the game, she just set up the scene for us and let us tackle it in our own way (even if in this case there weren't that many options on what our own way should be). As it turns out, we would have spent about two weeks less travel-time on the planet if we had done a little exploration at the original landing site to find out what else was there (the reason we ended up landing there

instead of at the arcology, it turned out, was that there was an emergency beacon there where a research team had dug up a nasty alien surprise... and had left behind a couple of vehicles we could have used), but we did it our way and she didn't twist our arms to start exploring the local area before heading out towards the arcology. 

Creating an Alien Race for Science Fiction Gaming

By Thomas Verreault/ jedion357

It seems creating a race is the thing to do. Everyone eventually creates at least one. I remember when I first came across the Star Frontiersman and read the articles concerning new races, I knew then that I wanted to write one myself. But I also knew that I felt a little apathetic towards certain new races and could not explain why exactly. I wanted to understand that feeling before I embarked on race creation believing that it would produce a better article. I also spent quite a bit of time chatting and posting with people about the resistance to the Zebulon's Guide (ZG) races. Trying to understand what made one race popular while another fell flat. One thing is certain, not all science fiction races are created equal.

Pit Falls

The classic pit falls when creating a new race are "pets in space", "humans in funny suits", "fantasy escapees", and "too weird for me".

The "pets in space" pit fall can also be called anthropomorphic animals. Basically it's the taking of an earth animal and giving its human features much like the myriad of cat races in fantasy and science fiction or the humma from ZG. There is no real surprise in this pit fall as the "alien" looks like a specific earth animal and usually has special features that mirror that animal and has human like hands for tool use. This type of race is not always a pit fall; if a referee has a preference for science fantasy then Labrador retrievers and cat-people work. Sometimes in fiction you come across a "pets in space" like race that is so well developed with an in depth culture and society that you just fall in love with it and ignore the lack of originality in its physical description like David Weber and Steve White's Oriens from the Star Fire novels. The problem with a beloved race from fiction is that it has whole novels to create depth, interesting races while in a role-playing game (RPG) there is typically 2-4 pages to draw players in.

The "humans in funny suits" pit fall stems from two sources. The first source was science fiction shows like Star Trek where all the aliens were humans in funny suits or with funny foreheads. In role-playing games and fiction you find the same idea enshrined in "aliens" that have a unique or different description but, at their core, are human. Human culture and society ends up being co-opted for the alien's culture and society. You can easily substitute humans for this alien with very little trouble. Another wrinkle is to mate some weird alien description with a specific Earth culture from a specific time in history like 19th century England or feudal Japan. There is no real surprise here and you eventually begin to just associate the "alien" with David Copperfield or ancient samurai.

The "fantasy escapee" pit fall can be particularly irritating if you're expecting science fiction and suddenly realized that you got science fantasy. Another theme in this pit fall is races that remind you of something directly out of ancient Greek myth like the centaur, half man and half horse or maybe the race is half man and half snake. The ifshnit race in Zebulon's Guide fell into this pit fall strictly on the basis of its artwork as it looked like a fantasy dwarf in space, the actual racial description of the ifshnit was nothing like the artwork (see [Star Frontiersman #12](#)) This pit fall is not necessarily a pit fall if your game is more of a science fantasy campaign.

The "too weird for me" pit fall is a race that is so weird and different that most people choose to ignore it as they can't wrap their heads around the idea of the race. The osakar in Zebulon's Guide fell into this pit fall. The problem here is that if a player can't understand what the race is or is supposed to be they won't play it.

This pit fall would seem to be in direct opposition to the previous three. The first three pit falls are races that are too recognizable in one way or another while the last is too unrecognizable. Is there a middle ground?

Audience

Before discussing how to make a good science fiction race consideration should be given for who the audience is for that race. In an established setting, like Star Frontiers, most players will likely play one of the iconic "core four" from the Alpha Dawn (AD) rulebook or even one of the Zebulon's Guide races. At the time of this writing, on the <http://starfrontiers.us> site all of the 110 characters that have been uploaded to the site are from the "core four;" 57 are humans, 27 are yazirians, 15 are dralasites, and 11 are vrusk. I would contend that, in an established setting, a new race is not going to get much consideration as a player character.

This means that players are not the target audience for a new race, the game referee is. A new race submitted to the Star Frontiersman magazine should be targeted at the game referee to be used in his campaign. The problem with almost all of the new races is that they lack the elements that will draw a game referee in and entice him to use them. They'll have the racial basics: physical description, senses, society and customs (generally a few paragraphs), special abilities and game related statistics. Material that will empower a game referee to use the race is totally lacking; a home system with a planetary brief, descriptions of the environment on that planet, some thought put into the zoology and botany of the home planet and bit of planetary history (about a page is good) with some elements of conflict in the alien society to draw the player characters into the action. What makes a race useable is having a bit of setting detailed for them to move in and inhabit.

Looked at another way; if the leader of scout ship came back and reported the discovery of a new race and just submitted a report that looked like your typical race submission in the Star Frontiersman he'd be fired for not doing his job. His superiors would say, "Fine. You've delivered the Xenological report on these aliens but where is the Astrographic Report on their star system, the planetary brief on their home planet, the Environmental survey, the Zoological survey, the Botanical survey and Sociological

notes?" A race with all these other details begs a referee to use it. Let's face it many of us lack the time and desire to finish placing someone else's race in the setting. If you're offering a race in the fan-zine then, you're offering it to be consumed by consumers and if you expect them to do much with it you need to finish "cooking" it for their consumption.

To sum up, most, if not all, races submitted to a fan-zine for an established setting are there for the game referee's consumption. The race won't be "eaten" unless it's fully "cooked." A race is not finished till it's placed in the setting and given a place to inhabit and move in.

The Chicken or the Egg- Yes

To create a race do you start with the chicken or the egg? If you start with the chicken then you've started with an idea for a race (the chicken) and you'll need to work backward from there to describe the environment of the planet, the Zoology, the Botany, and associated ecology. You could equally start with answering the question of what paths did evolution take on this world (the egg) and what influenced it (the ecology and environment) and work forward to describing the dominate life form.

For myself, I've generally started with the chicken, having practiced that by asking myself questions like, "What sort of world or environment would cause the yazirian to evolve?" or "What sort of environment would evolve the humma with their poison immunity?" When I got around to creating a race I had a basic idea for a race to which I added a mentalist power from Zebulon's Guide in the guise of a racial ability and wrote in different capabilities for male and female (feministic equality of the sexes is a purely human concept).

The next step was to envision what sort of environment this race would evolve in. The pit fall here is to just say desert since my race is reptilian. In North America there are 30 distinct environments/wildlife communities that have been described by science: Pacific Coast Forest, Sierra-Cascade Forest, Rocky Mountain Forest, Pinyon-Juniper Woodland, Northern Coniferous Forest, Sphagnum Bog, Eastern Mixed Forest, Oak-Hickory Forest, Southern Appalachian Forest, Abandoned Field, Southern Pine Forest, Cypress Swamp, California Oak Woodland, Chaparral Country, Sagebrush Desert, Cactus Desert, Great Plains Grassland, Tallgrass Prairie, Alpine Meadow and Tundra, Arctic Tundra, Lake and Pond, Freshwater Marsh, Swift Stream, Slow-moving River, Tidal Marsh, Mangrove Swamp, Pacific Sandy Shore, Eastern Sandy Shore, Rocky Pacific Coast, Northeastern Coast. That's 30 in North America alone the actual number for the whole of planet Earth must be at least double that. A game setting won't need 60 environments but 5-6 would give a well-rounded description of an alien world. Using a real world environment and tweaking it to be a little alien works easy enough. The easiest way to tweak and environment is to change its vegetation so as you change the environment you change the vegetation. Don't forget to include environmental or botanical hazards in these descriptions as you don't want players thinking you're setting is bland.

A key way to maximize the work you do at this stage is once you create one plant, or animal for that matter, specify it as having multiple species. In the real world there are numerous species of oak or pine or birch so why not in a science fiction setting. If you

create and describe one organism and specify that there are actually 19 varieties you accomplish several things. First, you give your creation an air of realism since it mirrors organisms in the real world. Secondly, you short cut the creation process for making new organisms for yourself as the new varieties will likely only change one feature. The simplest features to change are larger or smaller versions or fresh water vs. salt water varieties. The third thing you accomplish is you empower another referee to create his own varieties of your organism. Remember, other referees are your target audience.

At this step in the chicken process you will have your Xenological report, on the alien, an Environmental report on 5-6 environments, and a Botanical report on about 4-5 plants. Next you need to consider how the alien evolved as evolution will follow recognizable lines leading up to this creature. On Earth there is a basic template that higher organisms follow: 4 limbs and bi-laterally symmetrical (meaning both sides of a creature's body is a general mirror image of the other side. Consider what your alien looks like and establish an evolutionary template the higher life forms will follow on this planet. My reptilian race, the Basiloee had 6 limbs arranged in pairs and bi-laterally symmetrical. While the Basiloee sapient race has one pair of "true feet", a middle pair of hand/feet, and the last pair are "true hands" all terrestrial animals have six legs arranged in pairs, avian life forms had two pair of legs and one pair of wings and aquatic life forms had three pair of fins. Thus all creatures, except bugs, look like they came from the same evolutionary tree and were not random choices from some monster manual.

Don't forget the system and planetary briefs. The final touch is to write a one page history for the planet and or race. Make sure you include some elements of conflict that will draw the PCs into the action and give them a reason to engage the setting. If nothing else your new race will be ready and waiting for the next referee's group to miss jump their star ship and end up in a random system somewhere. Knowing that there is a whole race and setting ready to be used will mean that your race will be the one that is pulled from pages of the Star Frontiersman!

Summary: *Don't just create a race but also create its environment. Determine what path evolution took on this planet and develop a template to create the half dozen or more animals you'll need. Finally, write a history and system brief.*

Astrological Report - Define the star system and planetary briefs.

Xenological Report - Imagine your race, consider the environment that race would evolve in and write-up the history. Ask questions; "What sort of world or environment would cause the yazirian to evolve?" or "What sort of environment would evolve the humma with their poison immunity?"

Environmental Report - Creating 5-6 environments with well-rounded descriptions. Include environmental and/or botanical hazards to give the setting a real-world feel.

Zoological Report - Create a single plant or animal for each environment, and then create variants of the same species. You can place these variants in different environments as desired.

THE “MAGIC” OF THE FRONTIER

By Thomas Verreault/jedion357

In comparing and contrasting science fiction role playing games to fantasy RPGs it always struck me that, besides finding a ship, free for the taking, there were no “goodies” in science fiction games like in fantasy games. Part of the fun of a fantasy game is finding and collecting magic items and other treasure. I would contend that science fiction players would very much enjoy finding and collecting, not magical items in the classic sense but artifacts, legendary one off weapons and rare technology that fill the same roles that magic items serve in a fantasy game.

The Roles “Magic Items Play”

In the fantasy genre a magic item serves four roles. It bestows or amplifies abilities or power, acts as a reward, supports the genre or the flavor of the setting, and they can serve as story elements to drive the action. Amplifying or bestowing abilities and rewards are obvious; everyone likes the shiny new toys that do more, better, faster and stronger whether it’s a beginning character getting his first magic sword or veteran character finding a legendary artifact. In a science fiction setting a “magic item” would need to be difficult to obtain (illegal, rare, product of lost technology) and thus a reward and not just bought straight off the equipment list. It should also amplify or bestow a skill, ability, or power. It will not be a special item if the ability amplification is easily duplicated by spending money on the equipment lists either.

Not all fantasy settings are created equal and some sink to the blandest lowest common denominator embracing anything and everything considered fantasy so as to have such a muddled flavor as to be nearly flavorless. However those that have a distinct setting will occasionally have magic items that support the flavor and distinctness of the setting. It’s important to not introduce items into a science fiction game that will destroy the intended flavor of the game or change the genre. Obviously, magic wands are out. What needs to be guarded against is adding an alien artifact that comes off as an escapee from a bland fantasy game. Even the craziest artifact, exotic weapon or lost piece of technology that is introduced to the game should support the overall flavor or distinctness of the game the referee and players desire to play.

Finally magic items that function as story elements drive the story because they have a story themselves. Generally a background or history is written for the item and this can drive the story. In the Lord of the Rings the One Ring had a whole history and this helped to drive the story but in the Hobbit the same ring has little to no history and it was only incidental to the story. To employ this there must be something unresolved or unfinished in the item’s story or a threat to the “world” of the player characters. There can be as little story as: “an alien artifact that causes a black hole to develop at the center of a planet and a known enemy is seeking it to blow up the characters home world.” There isn’t much story

there but it will drive the action. Of course more history for the artifact will be a plus.

Frequency of “Magic Items”

In fantasy games there are two poles between which all referees fall concerning giving out magic items; Monty Hall and Scrooge. A Monty Hall referee gives out magic or special items from behind every curtain and if you don’t like what you got just wait till the next room of the dungeon. The items lose their uniqueness and the players usually lose respect for the referee, the campaign or both. A Scrooge referee is stingy with special items and this can lead to frustration and apathy in the players. Luckily most referees fall somewhere in the middle.

My suspicion is that in a setting where the open market spans multiple planets that special or “magic items” would be rare. With enough money anyone can snap up the items they want but higher prices than normal will be the rule. Supply and demand will make many items difficult to even locate. That is not to say a special item can’t be bought just that they should be difficult to come by for one reason or another. Reasons for something being difficult to come by might be illegality, rare components, very high demand, or it’s a product of lost technology.

“Magic Items” in the Frontier

Another twist on the classic fantasy magic item is master crafted normal item. It is simply a normal item crafted so well that it performs slightly better than normal items. In a futuristic setting with robotically mass produced consumer items it is easy to image a lone technician/ craftsman laboring to produce a weapon so well balance and crafted that it confers a bonus over normal items in combat. Such items would, according to the law of supply and demand, carry far higher price tags than the small amount of improvement would seem to indicate simply since the open market is glutted by normal items and many people would like to have the better one.

Ideas for magic item analogs in science fiction can come straight from fantasy but with a futuristic twist. Fantasy games usually have a potion shop but in a science fiction game “potions” could be illicit combat and performance drugs sold by a street dealer. These drugs would have to have negative side effects for using them or other draw backs to explain their illegal status. Another analog to a fantasy staple would be spell scrolls and computer programs. The programs would for one reason or another not normally be sold openly. They would be anything from a hacker’s program to an outlawed “smoked” astrogation program that allows a ship’s captain to compute a void jump without an astrogator but for double or triple the risk of a miss jump.

Sathar artifacts are special case items. Originally these turned up in the Frontier after the First Sathar War. With large landings of

sathar soldiers and attack monsters on Pale and Laco during that war, significant stockpiles of supplies were captured by war's end. Possession of sathar artifacts and technology is strictly prohibited with mandatory jail time and fines. There is little doubt that UPF scientist are working on sathar tech and it is believed that certain mega-corps obtained examples of sathar tech and have worked on it in secret while denying its existence, namely Streel and PGC. Star Law has circumstantial evidence that one of the motivations of the 10 year corporate war on Laco involved lost caches of sathar equipment from the SW1. If this is the case then both mega corps have spirited this technology away to corporate owned planets and secret labs. From time to time this technology also turns up on the black market, particularly on Outer Reach and with Capellan Free Merchants. Player characters that find themselves in possession of sathar artifacts could become rich but on the other hand selling them or even just using them is fraught with serious complications. Star Law, Space Fleet, mega corps, pirates and black marketers will all be highly interested in such items and they may not exercise any scruples in how they deal with the PCs.

Items: Rage Dose

Also known as Roid dose, rage dose is fairly cheap but illegal. It can be created in a lab by any half competent chemist. One dose provides a +25% bonus to battle rage attempts by yazirians and a +15% for all other races per dose. Use of the drug is dangerous and a critical success on the battle rage roll means the user must attack the closest being, friend or foe; with the critical success range increased by 3 for each extra dose used. A character must choose how many doses to use before making a battle rage roll and the effects of this drug last for a number of rounds equal to the target battle rage score rolled on divided by 2; thus a yazirian with 5% battle rage score uses one dose for a 30% chance of going into battle rage and if successful will be in rage for 15 combat turns. This duration is important if a critical success is scored as the yazirian must always attack the closest being. If there was no critical success then a user can stop attacking at any time he judges the battle to be over but if the negative side effect presents then the character must continue to attack anyone he can see until the rage is over. During any turn a PC is attacking something or someone that the player does not wish to attack a PER or LOG (whichever is lower) roll can be made to stop that round's attack but this check must be repeated each turn. Rage dose costs 20cr per dose and possession is generally punishable by up to 30 days jail time and a fine of up to 500 cr.

Death Juice Dose

Also known "the Dose of Last Resort", death juice is a suicide drug and highly illegal. It is likely to be only used by NPC's. One dose of this drug by a hypo spray or med inject device provides a +20 Temporary STA points, +20 STR, and +20 RS for the duration of one combat. The user will remain conscious and on their feet even at a negative STA score until damage exceeds -9 STA. All wound modifiers are ignored for the duration of the drug's effects. At the end of the combat the character using this drug must make a STA check against current STA levels or slip into a coma and die in a number of minutes equal to current STA levels. A medic can freeze field a comatose character or try to stabilize him. To stabilize a character who failed their STA check after a combat the medic must make a successful major surgery roll before death occurs. In

the case of a character with negative STA but not below -9 the medic must be next to the character when they go comatose and has one minute (-15% to the major surgery roll) to stabilize him before he is dead. Death juice costs 250 cr per dose and possession is generally punishable by jail time of up 3-6 months and fines up to 3,000 cr.

Sathar Submission Serum

Known as 3S dose, this drug was discovered among captured sathar supplies on Pale and Laco during ground operations of the First Sathar War and later on Voltornus after the Battle of Volkos. It's used to make sentient creatures susceptible to hypnosis (+10%) and has the side effect of boosting STR/STA by +15 and reducing INT/LOG by -5. It's believed the sathar developed this drug to short cut the hypnosis process with a view to creating drone soldiers. Use of this drug allows anyone to attempt to hypnotize the victim but only at a 10% chance of success. A sathar or any other character with the skill or ability to hypnotize may gain the +10% bonus and may make a second attempt at ½ if the victim resists the first attempt.

The drug, in its original packaging must be used with the sathar version of the hypo-spray (it's not compatible with the standard hypo-spray). 3S dose can be opened and added to food. If it is ingested it has the same effect as being injected. Any medic, environmentalist or scientist can easily reload 3S dose into standard hypo capsules with access to a lab and then use the standard hypo-spray with this drug. The street value for 3s dose runs between 300-600 cr/dose. The street value for a sathar serum injection device is 50-75Cr and possession of the drug is generally punishable by jail time of up to 1 year and fines of 5,000Cr.

Hacker's Computer Program

Largely illegal throughout the Rim and Frontier the hacker's computer program provides a +5% per level of program to attempts to defeat security on computers. To use the program there must be an interface between the computer running the program and the computer to be hacked. The program is identical to a computer security program in respect to function points: level 1 is 2 function points, level 2 is 4

function points, level 3 is 8 function points, level 4 is 16 function points, level 5 is 32 function points, and level 6 is 64 function points. The program costs more than a standard program but since many computer techs learn to write this program it can be found easily. The usual cost is 1500Cr/ function point. Possession of the program is punishable by jail time of up to 3 months and fines of up to 5,000Cr but being convicted of writing the program with intent to distribute doubles the sentence.

The Smoked Astrogator's Program

The use of this risky program carries stiff legal penalties especially if used on a star ship with commercial passenger berths. Basically it allows a ship to void jump without an astrogator but it will not allow for a risk jump. The computer takes the same time as a living astrogator to compute a void jump but has triple the risk of miss jumping for a level 1-3 program and double the risk of miss jumping for level 4-6. The function points for this program are identical to a life support program: level 1 is 4 function points,

level 2 is 8 function points, level 3 is 16 function points, level 4 is 32 function points, level 5 is 64 function points, and level 6 is 128 function points. The Program costs 1500Cr/ function point. Possession of this program is generally punishable with fines of 25,000Cr and revocation of licenses and the ship's registration (ship is impounded for 3-30 days (1,000Cr/day impound fees) while the owners pay the fines and fees. Use of the program by a vessel with paying passengers usually results in confiscation of the vessel besides other fines.

Bite of the Serpent Sonic Weapons

These weapons were developed by Master Waki Shizaku, the premiere sonic weapons craftsman of the Frontier. Master Shizaku developed techniques to fine tune sonic emitter heads that would cause consistently higher damage and come in 3 marks. A mark 1 sonic weapon will re-roll all damage dice that come up 1, while a mark two re-rolls all damage dice that come up 2 or less, and a mark 3 will re-roll all damage dice that come up 3 or less. After Master Shizaku developed these weapons others learned to duplicate his work but critical failures with a cheap knock off results in a loss of tuning and the sonic weapon will only perform as a normal sonic weapon afterward and cannot be repaired. Master Shizaku's Bite of the Serpent sonic weapons, due to superior craftsmanship, never suffers this result. To price a bite of the serpent sonic weapon add 100% for mark 1, 300% for mark 2 and 700% for mark 3. An authentic Shizaku blade should add 100% to the value just for the master craftsman's name being attached (and the ability to not lose tuning during a critical failure). Additionally a referee can assess additional cost for authentic Shizaku blades as each is an individually crafted work of art and in high demand. Most Shizaku blades of this sort bare the ancient Earth inscription, “蛇のかみ傷” that some linguist translate “Bite of the Serpent” and they usually have their emitter head recessed in a serpent's mouth.

The Dragon's Roar sonic weapons

These weapons are originally the work of the renowned sonic weapons smith Master Waki Shizaku but now there are numerous cheap copies on the market. The Dragon's Roar model is a specially tuned emitter head that upon a successful strike produces a load roar like sound that can stun an opponent like a stun stick. The blade can be used in stun mode without causing damage or in a combined damage and stun strike. A sonic screen nullifies the stun effect. A non Shizaku sonic weapon will cost double but will lose its emitter tuning on a critical failure and cannot be repaired. It functions as a standard sonic weapon of its type after that. A Shizaku blade of this sort never loses its tuning and will cost triple the standard cost off the blade. Additionally, a referee can assess additional cost for authentic Shizaku blades as each is an individually crafted work of art and in high demand. Most of the Shizaku Dragon's Roar weapons bare the ancient Earth inscription, “蛇のかみ傷” that some linguists translate “The Dragon's Roar” and their emitter head is recessed in a dragon's mouth.

Silent Sonics Modification

Another development of Master Shizaku, the silent sonics were originally called the “Stalking Cat” by Master Shizaku but entered

the common lexicon as “silent sonics” due to the fact that the live blade makes no sound. Master Shizaku's creations that had this feature are quite rare now since the Star Law controversy where many were confiscated and destroyed. Silent sonic weapons are illegal throughout the Frontier. Also it was rumored that Waki Shizaku himself attempted to buy back many to prevent their eventual confiscation and destruction. Eventually Star Law judged that they had accounted for 80-90% of all the weapons made by Master Shizaku with this feature. He never made another with the feature after failing to prevent the destruction of so many of his creations. Today they are incredibly rare and prices for an authentic Stalking Cat can fluctuate widely due to individual circumstance. At the very least a Shizaku blade will cost triple the standard price of the weapon and will never lose its tune from a critical failure. The cheap knock offs sell for 1.5 to 2 times the standard costs but are prone to losing their tuning during a critical failure. A Shizaku weapon of this type can often be identified by the inscription, “つきまとう猫” that some linguists translate as “Stalking Cat” and the emitter head is recessed into the mouth of a cat.

Cybodyragon Control Modules

These devices of sathar origin are used to control animals remotely. When a cybernetic control module is attached to an animal, nano-probes penetrate the skin and infiltrate the spinal column and brain establishing control over the animal. The process takes 1d10 hours while the module charts the control centers of the animal's brain. The device has two laser rifles fitted where the eyes of the creature would be (5 shots each at 10 SEU).

These devices have only been recovered after the death of the cybodyragon but experiments have shown they can be installed on large and huge creatures. To use this device it usually requires a technician to modify it to accept a standard power back pack instead of the sathar power pack or the operator must possess at least one sathar power pack and modify recharging equipment to recharge it.

If the remote control device is not possessed the creature must be ridden. The tentacle held remote can control 5 creatures at a range of 5 km and will require modification by a technician to accept standard 20 SEU clips (1 clip lasts 1 month of continuous operation). If the remote device is not possessed a computer program (in all respects identical to the Robot Management Program in respect to function points and levels but usually costing 1.5 to 2 times a normal computer program if written by a hired programmer) can be written and installed on any computer with a communications program and a com device, either a chronocom or radiophone. The control range will be the range of the com device used.

On the black market the cybodyragon control module cost 10,000Cr. The sathar power packs cost 1,000Cr. The remote cost 8,000Cr. A full collection of all three devices together can fetch between 25,000 and 35,000Cr. Possession of any sathar war equipment can result in jail time of a few months up to 5 years with fines depending on the equipment involved.

Klikk Cold Fusion Pocket Nuke

This device is of Klikk origin and was first discovered in the Starmist system. It's believed that Klikk soldiers about to be overrun or captured will activate this device as a last resort as it was designed to strap to a leg. When activated five small screens on the device light up with a Klikk symbol with each symbol becoming smaller as the device counts down to critical mass. Any one present when the device is activated has 5 minutes to find cover or escape the area. It's classified a "clean" nuke because in a traditional nuclear detonation 15% of the overall energy release is radioactive but with this device only 5% is radioactive. Its exact capabilities are classified. The fireball radius is no more than ¼ km and the blast front causes severe damage at ½ km, moderate damage at 3/4 km and light damage at 1 km. Characters exposed to fallout will require a dose of Neutrad (Zebulon's Guide) to avoid ill effects.

Note that it is difficult to put exact numbers, in game terms, on a miniature nuke's capabilities. Traditional nukes in the 10 to 20 kiloton range will devastate cities however this device is intended to devastate just a few city blocks. Referees introducing this device to their campaign will need to abstract the damage. If a player character detonates it while holding the device that is the simplest; they go out in a blaze of glory and roll up a new character. In most cases a PC will likely take precautions to be protected from the blast and the referee can describe light to sever damage in the blast area based on distance to ground zero. If a NPC is detonating the device in close range of the PCs, like the predator did in the movie by the same name, the referee should give the players clues as to what is about to occur. The beeping of the device, the lighted screens on it showing the countdown and even the NPC laughing at them should suffice to tell the PCs to run and find cover. Each referee will need to make a judgment call on the effects to the PCs based on the distance and cover they obtain.

Nuclear explosions cause three types of damage; the fire ball, the blast front (from over pressure and dynamic pressure) and radiation. With the Klikk device the radiation is easily dealt with by injecting Neutrad (cost 10Cr and applied with a hypo by a medic).

The fire ball will causes severe burns and ignite combustibles in the immediate vicinity of ground zero. Over pressure weakens structures as the blast wave radiates out from ground zero and within seconds, when the wave reaches its furthest, the returning winds hurl debris and broken glass in a deadly hail back toward ground zero. People laying down in a gully can avoid some or all of these effects but again a game referee will need abstract effects for the players. Player Characters that detonate and survive a Klikk device of this sort will likely find that the consequences of the explosion last far longer than the actual event. Star Law will very vigorously investigate and pursue the offenders. On the black market this device will sell for 25,000 to 50,000Cr but possession can result in jail time of up to 10 years and fines.

Dimensional Cerebral Interface

Believed to be an artifact of tetrarch origin, the dimensional cerebral interface was discovered on Laco in the Dixon's Star system. It is a 40cm crystal globe, bound with metal alloys in thin swirling patterns over its surface. When held against the forehead by a sentient creature the globe lights from within and the head of the user briefly appears to merge with the device. The user must make a STA check during use or temporarily lose 5 INT and 5 LOG (regaining 1 point each per day). With a successful STA check the using character can gain a vision of the possible near future.


The way a referee can predict the future is by having prepared material or a printed module ready for the game session. Referees that run their games off the cuff may have more difficulty with this. In the "Crash on Voltturnus" Module (SF-0) the first encounter the PCs have after crashing in the desert is the covered poisoned well. If a PC was to use this device in the beginning of the module, while they were still on the ship, a referee could describe a vision of a brick and mortar structure and seeing another party member breaking into it, descending the stairs and drinking the water at the bottom. The vision then shifts to a funeral service for that party member. In this way the vision is just another clue that the well is poisoned and will not materially change the outcome of the adventure. The basic format is to describe a scene or location that is in the Referee's prepared material and portray a possible

Weapon	Melee Modifier	Shizaku, Knock-off	Damage
Serpents Bite Sonic Knife Mark 1	+10	150Cr, 100Cr	3d10/Special
Serpents Bite Sonic Knife Mark 2	+10	250Cr, 200Cr	3d10/Special
Serpents Bite Sonic Knife Mark 3	+10	450Cr, 400Cr	3d10/Special
Serpents Bite Sonic Short Sword Mark 1	+12	300Cr, 200Cr	4d10/Special
Serpents Bite Sonic Short Sword Mark 2	+12	500Cr, 400Cr	4d10/Special
Serpents Bite Sonic Short Sword Mark 3	+12	900Cr, 800Cr	4d10/Special
Serpents Bite Sonic Sword Mark 1	+15	900Cr, 600Cr	5d10/Special
Serpents Bite Sonic Sword Mark 2	+15	1,500Cr, 1,200Cr	5d10/Special
Serpents Bite Sonic Sword Mark 3	+15	2,700Cr, 2,400Cr	5d10/Special
Dragon's Roar Sonic Knife	+10	begins at 150Cr, 100Cr	2d10 & Stun, or Stun only
Dragon's Roar Sonic Short Sword	+12	begins at 300Cr, 200Cr	3d10 & Stun, or Stun only
Dragon's Roar Sonic Sword	+15	begins at 900Cr, 600Cr	4d10 & Stun, or Stun only
Stalking Cat Sonic Knife	+10	begins at 150Cr, 75-100Cr	3d10
Stalking Cat Sonic Short Sword	+12	begins at 300Cr, 150-200Cr	4d10
Stalking Cat Sonic Sword	+15	begins at 900Cr, 450-600Cr	5d10

* These weapons weigh 1kg, are powered by a single SEU clip, drain 2 SEU/hit and are stopped by sonic defenses.

outcome of that scene or a danger in that location.

Alternately, a referee may choose to give a vision from the past describing an event in the background material. Visions of the past should ideally be used to communicate important background details that the PCs will be interacting with in the near future. A referee should not inform the PCs if the vision is future or past but let them guess at it.

This device is one of a kind and is probably priceless, buying or selling it should be very problematic. Its technology is very much beyond that of the Frontier and Rim. Governments, corporations and criminals will seek to obtain it by any means. Players may attempt to sell it for millions but just doing so could become a major adventure involving several encounters. 

Master Waki Shizaku Sonic Weapons Smith

By Thomas Verreault/ jedion357

Master Waki Shizaku began his career as a weapons tech at age 25 and is reputed to have produced superior sonic weapons for the rest of his life until his presumed death at 220 years of age.

He is the father of many variations of sonic weapons including the silent sonics, Bite of the Serpent and Roar of the Dragon variations. His work is often imitated but rarely is his quality achieved.

All of his weapons are considered works of art and often carry double and triple the value of a comparable weapon even if their original krik hide presentation case is missing. Older weapons can be valued at even steeper prices especially if they have the illegal silent sonic feature.

Most historians agree that Master Shizaku only developed the silent sonic as an intellectual exercise in understanding sonic theory. He produced weapons with silent sonics from age 145 till age 171 when he was embroiled in a nasty series of court cases over the illegal sonic feature. He even attempted to sue Star Law for the return of his “children” as he called them to prevent confiscated sonic weapons from being destroyed but was unsuccessful. Eventually Star Law judged that they had confiscated and destroyed 80-90% of all Shizaku blades with the silent sonic feature. Master Shizaku never made another weapon with that feature for the rest of his life but it is known that he tried to buy back a number of blades to prevent them from falling into Star Law’s hands.

Interestingly, at the time of the Star Law controversy, he presented the monarch of Clarion with what he called one of his greatest masterpieces. It was in appreciation for the king refusing to allow a number of beautiful Shizaku blades that had been confiscated by the Royal Marines to be destroyed like those in Star Law custody. These blades now reside in the Royal Museum in Clarion’s capitol. The blade presented to the king bore the inscription “ライオンの力は彼の名誉にある” which translates, “The Power of the Lion is in his Honor”. This sword has become the sword of state for the Leonine dynasty and is borne by the

reigning monarch as a personal weapon. Its abilities are kept a closely guarded secret but it is rumored to be a mark 4 Bite of the Serpent sonic sword among other things. It is decorated in lion motifs and the emitter head is recessed into the mouth of a roaring lion.

After the Star Law controversies Master Shizaku retreated from public life and continued to quietly make his beloved weapons which continued to appear on the market till his presumed death at age 220 as that was the time that new Shizaku blades ceased to appear on the market.

Over the years a number of beings claimed to have been apprentices to Master Shizaku but none of them were able to demonstrate the quality of craftsmanship of the master and are considered frauds. It appears that the master took the secrets of his phenomenal ability to tune sonic emitter heads to the grave. Yet there are persistent legends of lost manuscripts written by the master weapon smith describing his techniques and of a lost workshop on Voltturnus. The Voltturnus connection gained credibility after mass spectrometer readings revealed that Shizaku sonic weapons, with the exception of very early creations, all used a particular Voltturnian crystal in their emitter heads.

Master Waki Shizaku


Master Sonic Weapons Smith, Human, Age: 200			
STR/STA	25/25	PS	+2
DEX/RS	35/30	IM	+3
INT/LOG	60/65	Ranged	--
PER/LDR	40/35	Melee	58%

Special Abilities: Has the unique ability to fine tune a sonic emitter head to perform in ways believed impossible.

Skills: (Technological PSA)

Technician 6, Melee Weapons 4, Martial Arts 3

Equipment: Techkit, Sonic Sword (rumored to be a mark 4 Bite of the Serpent sonic sword), gnarled wood walking stick, straw hat, silk robe, sandals and wire rimmed glasses.

Description: A short, frail looking, almond eyed old man, Master Shizaku is still very spry and maintains a rigorous routine into his 20th decade. He begins every day with a martial arts kata and ends it with an hour of meditation. He eats little but seems to have the energy of a man decades younger. His appearance is deceptive, as most people take him for a harmless old man. He is well able to handle himself but has not fought in decades. He has deep respect for the CFM and its likely he’s exclusively sold his weapons through them since the Star Law controversy. 

FRONTIER FICTION

By Tom Stephens, aka TerIObar

Discovery



Artwork by Scott Mulder

Prologue

"Raptor, this is Dauntless," the radio crackled to life with the voice of Dauntless' captain. "We've started to accelerate toward your position and will be engaging the dampening screen shortly." As he spoke, the monitors on the Raptor began to register the Dauntless' motion. "Try to hit us if you can," he added with a laugh.

"Copy that, Dauntless," came the good-natured reply from the Raptor's captain, "You can't beat the laws of physics, son, we'll nail you on the first shot."

This was to be the first full scale, real-world scenario test of the new Dauntless class scout ship. All other tests to date had been mocked and staged. This time, no one but the Dauntless knew what the planned maneuvers were to be. It was as much a test of the way the Raptor's weapon systems responded to the Dauntless' new Evanston Enterprises Enigma engines as a test of the StarTech Dampening Field.

Everyone watched the tactical display as the Dauntless closed the distance. Light travel time was minimal, just a few tenths of a second between the ships, so the uncertainty band around the Dauntless' location was very small. Allison had to agree with the Raptor's captain, it was very unlikely that the Raptor's gunner would miss. There just wasn't anywhere for the Dauntless to go.

Dr. Allison Durrant was on-board the JSS Raptor, the cruiser class ship in charge of the test, as an observer. An original member of the theoretical design team for the new defensive screen, she had been involved in the design of the StarTech Dampening Field system from the very beginning. After the design had been completed, she had transferred over to the engineering team that

had actually built the system. Of everyone, she probably had the best working knowledge of how the thing was supposed to operate, both in theory and in practice.

Just before the Dauntless entered the effective range of the Raptor's weapon, the radio came to life again. "Engaging the shield now." The tactical display showed the Dauntless turning, trying to add some uncertainty to its direction vector just as it entered weapons range. And then it vanished, completely disappearing from the display.

"What the ...?" cried out the technician monitoring the video feed from the telescope trained on the Dauntless. There was stunned silence on the Raptor's bridge for a couple of heartbeats before pandemonium broke loose.

"Dauntless, this is Raptor, come in Dauntless," the captain started calling over the radio. "Dauntless, this is Raptor, do you copy? Over." Switching off the radio, he started asking questions and issuing orders. "Radar do you have anything?"

"Negative, sir, the screen is clear. One second she was there and the next she was gone. It doesn't even look like there is any debris."

"Crank the power up to maximum. I want a return on anything in that area," the captain ordered.

"Roger, sir. Commencing scan now."

The captain turned his attention to other areas. "Energy sensors, what have you got?"

"Nothing, sir. Same story here. We had a full spectrum read on Dauntless as she started to enter weapon range. We showed a brightening to one side as she maneuvered and exposed more of her engines. Then there was an intense flash of energy across the spectrum followed by the screen going dark. No residual energy of any sort, just empty space. We thought for a second the system malfunctioned but we ran a diagnostic and it checked out and we can see the Condor just fine."

"Same instructions for you," the captain ordered after hearing the report, "Go to maximum sensitivity and report on anything you find."

"Yes, sir."

It took Allison a little longer to respond to the sudden change of events as her mind was trying to process and analyze what she had seen. Like the telescope technician, she too had been watching the optical video feed from the Raptor's primary two meter telescope. It just somehow seemed more real to her than the tactical display with all its figures and statistics.

As the "Engaging the shield now" call had come in, she had seen Dauntless turn, main engines still blazing to put some cross field displacement into its velocity vector. That wasn't unusual; she'd

seen that before in other tests. She'd been told it was a typical combat move. She had seen the defensive shield spring into existence as it was activated by the Dauntless' crew. The shield had a faint light blue optical component that she had seen hundreds of times in development tests.

And then something strange had happened. It was barely perceptible, but Allison had seen the field operate too many times. She was sure she had seen it. As soon as the field sprang fully to life, it was streaked with deep violet ribbons. This held for the briefest instant and then it flashed blindingly bright. The monitor had saturated and Allison had blinked and turned away from the display to clear the bright light from her eyes. When she looked back, the Dauntless was gone. It had vanished from the image.

Her first thought was that there was an explosion. But then she would have expected to see debris of which there wasn't any. Her next thought was that the telescope has lost its tracking but that wasn't true either as the background star field hadn't changed. There were only three stars visible and they were still exactly where they were before. The Dauntless seemed to have just vanished.

Which took her back to her first idea, but the Dauntless hadn't blown up. That much was certain from all the sensor readouts she could see around the bridge. Radar, energy sensors, optical and infrared telescopes were all cranked up to maximum sensitivity and magnification and were scouring the area of space where the Dauntless was last seen. There was literally nothing there. No ship, no debris, nothing. Everyone was working frantically, trying to get some sort of detection of anything by any means but it was becoming rapidly apparent that the Dauntless was gone.

She floated in the zero-g environment at her station on the bridge for a few more minutes as the Raptor's crew tried fruitlessly to raise or locate the Dauntless. As she watched the empty sensor scans continue to come in, her mind wandered back to what she had seen in the telescopic view. What had caused the modulation? Had there been any effects detected by the other sensors? What was different this time?

It wasn't long before she decided that there was nothing else to be gained by staying. It may have been a bit cynical, but all that was left was to gather up what sensor data they could and head home. It was going to be a long two weeks. She keyed her console to store the data from all sensors for the time period corresponding to the vanishing of the Dauntless and make it available at the workstation in her cabin. With that she pushed off from her station to head out the door before all the questions started that she, as the lead of the Dampening Field system team, couldn't answer. She needed time, and somewhere quiet, to think.

Just as she reached the door, she was stopped by a hand on her arm causing her to spin to face the person who had stopped her. It was the first officer. "Dr. Durrant, what ..." he started.

"I don't know what happened," she cut him off, knowing what his question was. "I saw something but I need to think about this and look at the sensor data. And I need quiet. You guys are going to be pretty busy up here for the next little while and I'll just be in the way. I'll be in my room working on this. Just make sure I have access to all the data." With that she reached out and grabbed the

handhold on the wall and pulled herself passed him and left, taking the elevator down to her cabin.

It was a long trip back to Jord. As the expert on the defensive screen, everyone was looking to her for answers she just didn't have. As far as she could tell from the telemetry the Dauntless had been sending, everything had worked flawlessly, there was no indication of any sort of malfunction or anomaly. Everything was normal right up to the point where she had visually noticed the field modulation. Beyond that, silence. No data at all.

At least she knew the visual modulation she had seen was real. It was clearly visible in the slow motion playback of the telescope feed. The energy sensors also confirmed that something had happened. Directly correlated with the modulation she had seen, there was a corresponding shift in the energy spectrum being emitted. It had shifted to higher frequencies and had also shifted to a higher energy output by about a factor of two. Then it went off the charts for the briefest moment, a few microseconds at most, before there was nothing.

She poured over the telemetry and sensor data almost non-stop on the trip back looking for clues. Of course, there was only so much data to look at in the few tenths of a second between when the shield was engaged and when the Dauntless vanished. As far as she could tell, there was nothing in this test that hadn't been done before.

It was during dinner one night about three days after the accident, when a casual comment by another engineer triggered an idea.

His job had been to monitor the performance of the Dauntless' new Enigma engines. He had commented about the energy field used by the engines to achieve their high efficiency. This sparked a thought when she realized that maybe some interaction of the two energy fields had caused some unexpected effect. As far as she knew, nothing had been observed during tests near Jord, but she was at a dead end everywhere else. And with her degree in quantum field theory, this was right up her alley. As her mind churned over the idea, she got more and more excited. It was all she could do not to just bolt from the mess hall and race back to her room. In the end she lost that battle and literally flew through the corridors on her way back to her cabin.

Once there she had gotten right to work. The two systems had been designed and built by two completely different companies. Her company, StarTech, had built the Dampening Field. The new Enigma engines had been built by Double-E, Evanston Enterprises. They both used some cutting edge theoretical physics to achieve their desired results. As far as she knew, there was never a study done on how they might interact. All that existed was data from the trials near Jord and the data from the disastrous test they had just witnessed. A quick query of the ship's computer confirmed that there was no such data on-board.

Next she fired off a pair of queries via radio to Jord to search the networks there. The first was to look for any information on studies of the two fields together. She wasn't expecting that query to return any results but you never knew.

The second query was for any publications and data on the theory and operation of the field in the new drives. She knew the details of the actual implementation in the engines would not be

available as that was proprietary information for Double-E. However, it was quite likely that the physical theory behind the implementation had been published in a scientific journal. That was actually what she was interested in anyway and there was a good chance of getting the information.

Because of their distance from the planet, it would be a few minutes at least before she got a response on her queries. While she waited, she pulled up the mathematics for the defensive shield theory and started to review them. After about twenty minutes, the query results came back. As she suspected, no one had done any sort of theoretical analysis of the interaction of the two systems. This was not surprising since they were developed by different companies. And, as she hoped, the details of the theory behind the quantum field that made the engines work had been published. She pulled that data into her computer and settled back to read.

It was several hours later before she finished and she realized that she was both famished and tired. Looking at the clock, she realized that she had read through the night. "Not my most productive time of day," Allison thought to herself, "but at least now I know where to start." After a shower, breakfast, and a short nap, Allison attacked the problem once again.

Adding the equations that described the engine's field to those of the defensive shield, she started to work out what effects they would have on each other when one was operating inside the other. It took most of the trip back to tease out the beginnings of a stable solution, but by the time the Raptor docked, she was beginning to understand some of the possibilities. And if she was correct, the implications were staggering.

As she felt the Raptor begin to maneuver into its dock at the station, Allison stared at her monitor which showed the most probable solution. The answer was simply mind-boggling. She looked up, her gaze landing on the last image of the Dauntless which she had taped to her wall. "Where did you go?" She asked the image, "and did you survive the trip?"

Chapter 1

Lt. Commander Alex Matthews floated in the restraints of his command chair behind the controls of his ship, the JSS Endeavor, wondering if he still really wanted this assignment. He was the captain and pilot of the newest spacecraft in the Fleet, but his current mission filled him with more than a little apprehension and a bit of frustration. A year ago this had been a dream assignment and he had been disappointed to not get command of the first ship. But now he was glad he didn't get that one. Two months ago the Dauntless had set off on its maiden voyage and then vanished in the middle of system tests in the outer solar system. It had not been heard from since. A dozen of his fellow SpaceFleet personnel had vanished without a trace. Now Endeavor was going out to repeat the tests and try to figure out what happened but they weren't going to be looking for Dauntless.

In the meantime, the Endeavor had been completely turned upside down. What was once a sleek, well designed, scout class military vessel had turned into a chaotic, duct tape and bailing wire science research vessel. The commons area deck had been turned almost completely into a science lab filled with various

instruments from accelerometers to gravity wave detectors to others that he had no clue what they did or what they were called.

The one good thing was that it got him a bigger telescope. Originally, the Endeavor had a small twenty centimeter telescope for Astrogation. When the scientists had seen that they went crazy, insisting that something much bigger was absolutely necessary. In the end, a one meter telescope had been installed. The scientists still thought it was too small, but as it was, it had required a major modification to the hull of the ship. Now the sleek nose of the ship had a wart right down the center line. Alex didn't mind too much. The engineers had done a good job making it look like it was designed that way and the views from the new optics were wonderful.

The other major headache was that there were too many people on-board. Nearly a dozen scientists had been crammed in to the ship in addition to its now stripped down regular crew. Twenty people on-board a ship that was only designed for twelve made for very close quarters and Alex worried about the life support equipment. In theory it could handle the extra capacity. In theory. It had only been two weeks and already nerves were rubbed raw and patience was wearing thin. It wasn't that people weren't getting along as much as a culture clash between the military crew and the scientists. Both groups just did things differently and there just wasn't enough room on-board to give everyone the space they needed.

Alex stared at the main view screen which showed a view of Jord as the Endeavor's high orbit began to bring it around to the sunlit side of the planet. "Dawn of a sorts," he thought to himself. He had just received word from SpaceFleet. They were finally getting underway. Hopefully that would help settle everyone down. They had been on hold for a couple of days now and the relative inactivity was contributing to the rising tension on-board. There is nothing like work to take your mind off of the minor annoyances.

"You really should smile more, Captain Matthews." Alex's reverie was broken by the arrival of Dr. Allison Durrant on the bridge. "It's not all doom and gloom up here," she added as she glided across the bridge, her long brown hair pulled into a braid that floated behind her like a long tail. She arrived at her station, which normally would belong to the co-pilot, Jr. Lt. Shaw, and slipped into the zero-g harness.

"If you say so," Alex replied, relaxing the scowl that had unconsciously crept onto his face and smiling in spite of himself. Dr. Durrant just seemed to have that effect on people. Maybe it was just because she seemed so young, he thought to himself. She just seemed to radiate excitement and cheerfulness. Not that Alex was old, at thirty four he was one of the youngest spaceship captains in the fleet, but he still had several years on Dr. Durrant and she seemed younger than she really was. "But it's my job to worry about the 'doom and gloom' as you call it to make sure it doesn't happen. Besides, I think you'd miss teasing me about it if I did smile all the time. Is the science team ready to go?"

"Quite," Allison replied, a quick look of exasperation on her face. "They are chaffing at the delay and just want to get going and get to work. They just see it as bureaucracy getting in the way of science. It's a fairly typical mindset. Especially among this set. They're used to just doing their own thing."

"So I gathered. Well, we ship out in just a few hours. I just got word from SpaceFleet. That should cheer everyone up. If fact, I was just about to make a general announcement. Hold on." Turning back to his console, Alex activated the ship's intercom system to broadcast to every station.

"This is the Captain. I just spoke with SpaceFleet and we are clear to depart for the test rendezvous point in just over three hours. I guess the slow boats are finally close enough. As it is, we'll beat the monitoring ships by several hours as we pass them along the way. Make a final pass through the ship and secure everything down. We will be transitioning from free fall back to normal gravity once we get underway and we don't need any surprises. Matthews out."

There were cheers at the normal gravity announcement. He glanced at Allison and saw a brief flash of relief cross her face as well. Alex smiled at the reaction, probably mostly from the science team. For many of them, this would be their first extended flight and few were used to the normal conditions of weightlessness on long voyages. The enforced weightlessness of the extended hold in high orbit was another annoyance that had been slowly getting under the scientists' skin.

Turning off the intercom, he turned back to Allison, "You're lucky to be on the Endeavor for this part of the trip, you know." Alex said, putting voice to his thoughts. "The new Enigma class engines are a leap beyond what we used to have. Any other ship and we would already be under way and have several weeks of weightless travel. With the new engines, we get to stay under thrust the entire way and the trip will only be a few days instead of two weeks."

"I know," Allison replied. "Although you are probably right that many of the others won't really appreciate it. This is my third trip to the outer system and I remember the long weightless periods on the last two trips out and back. I have to admit, I won't mind missing out on the enforced exercise required on the long zero gee trips. Well, I'd better follow the captain's orders," she added flashing him a smile, "and get down to my lab and my room and make sure everything is ready for departure." With that Allison unbuckled from her seat and pushed off toward the elevator, leaving Alex once again alone with his thoughts.

Watching her leave, Alex's thoughts once again returned to the mission at hand and all the speculation surrounding it. "And it's all her fault," he thought to himself. "If it wasn't for her hare-brained idea on what happened, and her amazing ability to convince someone in the top brass at SpaceFleet that she was right, this would just be another typical shakedown cruise. Instead, I've got a reduced ship's crew and a dozen passengers along to watch the tests. But on the off chance she's right..."

The very thought sent a jolt of excitement through his system. Faster than light travel, every spacer's dream. It would open up the universe for exploration. No longer would they be confined to this single star system but could really move out into the galaxy. The JSS designation would no longer be Jord Space Ship but would become Jord Star Ship. If Dr. Durrant was correct, the Endeavor, his ship, would be the first. And maybe he could go do what they should already be doing, looking for his friends that vanished on the Dauntless. Once they figured out how this worked, maybe

they could figure out where the Dauntless went and go out there and bring them home. He realized he still did want this assignment, whatever may happen.

As Allison left the bridge, her thoughts too were on the mission and events leading up to it. She had been on one of the ships supporting the outer system trials of the Dauntless. She had watched in pride as the initial tests of the defensive shield were successfully conducted. And then pride turned to horror as the Dauntless literally vanished before her eyes as the full battle test started. She remembered vividly the scene. Floating on the bridge of the JSS Raptor, the cruiser that was leading the tests and monitoring the systems, she had had a front row seat to the disaster. And then the agonizing trip back as she tried to figure out what had happened.

It had been a race against time the entire way. She knew the second ship, the Endeavor, was scheduled to conduct deep space trials in less than two months and SpaceFleet needed an explanation before the Endeavor shipped out.

First, she had to convince her boss at StarTech that she had a plausible explanation and that he should get her some serious supercomputer time to run simulations and high resolution solutions to her model equations. That part actually wasn't too hard. They were desperate to find a solution and at least she had a lead.

Then she had to convince the corporate team that she was right. Again, the need to have an explanation, any explanation, even one as crazy and wild as hers, made that an easier sell than it probably should have been.

Finally, she had hit the hard one, selling SpaceFleet on the idea and trying to convince them that not only could they reproduce the effect, but also control and master it.

In the end though, she had succeeded. The Endeavor had been hastily retrofitted with additional instrumentation and accommodations for additional crew and had left the spaceship construction center only two weeks behind schedule.

Surprisingly, one of the easiest sells had been the ship's captain. In Lt. Commander Alex Matthews, Allison had found a friendly, practical man who was willing to defer when needed to those who knew more than him and who recognized his limitations. Plus he was a bit of a dreamer himself and saw her theories as a wonderful opportunity for adventure.

And now here she was, on the Endeavor, headed out to deep space and about to see if all her ideas and theories were correct. It had become very personal. No longer was she just an observer. She had become an active participant. She wasn't sure if she was excited or scared out of her wits. It was probably a bit of both. "What have I gotten myself into?" she thought as she headed back to her room.

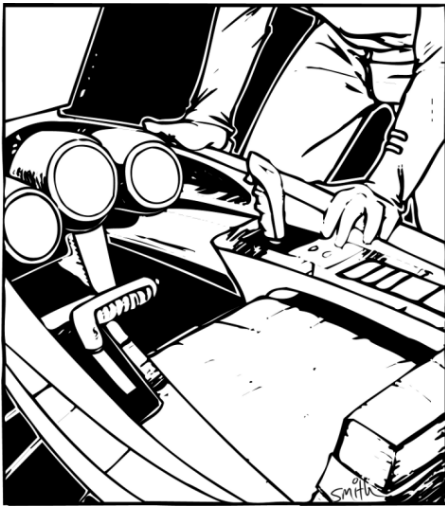
Chapter 2

The Endeavor arrived on station about a day ahead of Raptor and Condor, the other two ships that were to observe the tests. They had passed the other ships about twelve hours earlier as they were decelerating to stop at the rendezvous point. Now they had

about twenty hours to wait until the other ships arrived at their appointed positions. It was just enough time for some last minute checks and a good night's rest.

Most of the SpaceFleet crew was unwinding and relaxing in the zero gravity while waiting on station. The scientists were enjoying or adjusting to the weightless sensation again depending on their previous experiences. They had checked out all their instruments on the trip out and were now just waiting to begin the tests.

The engineering team had begun work on refueling the engines, or more appropriately, the engine reactors. The field that gave the engines their amazing thrust required a lot of power and even the short run out to the outer system used up a measurable fraction of their reactor fuel. They were playing it safe and keeping the reactor topped off. This was only the second time they had tried to do this and the first time was when they were in the dock during construction. They figured it would be best to replace the spent fuel rods now before they started the tests. If things went as planned, they would be busy with other things for the next little while.



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On the bridge, Alex and Allison were reviewing plans for the initial tests the next day.

"So," Alex said, "for our first attempt you want to head straight in-system toward Rael?"

"Yes," Allison responded. "If the theory is correct, we will only be able to travel a short distance toward the star before the field effect will no longer work."

"But why should we just drop back into normal space?" Alex asked. "It seems that blowing up or disintegrating is just as likely as simply coming back to real space. It seems that it would make more sense to do a jump away and just turn the system on and off quickly and not try to run into the gravity barrier right off."

Just then the door to the bridge opened and Jr. Lt. Alfred Shaw stepped out of the elevator. Seeing Allison seated in what would normally be his station, he scowled. He was the Endeavor's co-pilot and the backup pilot for the Captain. Instead, the crew changes had relegated him, although still the co-pilot, to a gunnery station and given Allison his station on the bridge. Seeing

Alex as well, he quickly changed his expression but not before Alex noticed.

"Captain Matthews," Allison replied oblivious to the scene behind her, "it will be fine. I've reviewed the theory in detail and dropping back into normal space is the only rational solution."

"Yeah well, the whole concept is irrational in the first place," Alex said with a grin as Jr. Lt. Shaw passed between them and went to his station in the lower half of the bridge. "But it's your show Doctor. If you say it will work, I'll trust you. Besides, if you're wrong, I won't be in any condition to say 'I told you so.'" Taking the conversation back to the details of the test he continued. "Is there a minimum speed we need? Or do we just need to be accelerating?"

"Just accelerating. Speed doesn't seem to matter. It's just the effect of the Dampening Field plus the modulating effect of the engine's field that causes the FTL travel effect. I actually think the hardest part is going to be verifying our true space motion before we engage the field. We'll probably want to run for an hour or two to make sure we're on basically the right course. Our target area is huge so it will be hard to miss, but we want to test our ability to line up the ship."

"Is it really that hard?"

"I don't know. It could be." Allison replied. "I've been talking a bit with the astronomers. All our navigation to date has been within the Rael system and measured relative to our sun. If the theory is correct, we will travel in a straight line along our existing velocity vector. There is no steering. But our ability to end up where we want is going to depend greatly on how well we can know and control our direction of motion. So we'll want to know where we're headed."

"Fair enough. How far do you think we'll go?"

"I'm actually not completely sure," Allison said sounding slightly embarrassed. "The theory says that gravity prevents the effect from happening, but it doesn't give a clear indication of exactly how much gravity is needed to hamper the effect. It's in there. I'm sure of it. I just haven't been able to work out all the details. There just hasn't been enough time," Allison added, shaking her head. "It seems to be something like the gravitational field at about four Astronomical Units from Rael but that is one of the things we're going to measure so we can determine it exactly. But I think the four AU line is about right. Since we're starting out at more than a five AU distance, we should jump about a hundred and fifty million kilometers or about a quarter of the way back home."

"And we'll do it in less than a second." Alex added, "That's what blows my mind. Well, it looks like we're all set up here until show time. We'd better get back down below and see how everyone else is doing. You go on ahead. I need to talk with Lt. Shaw for a moment."

After Allison had left, Alex turned to face his co-pilot. "Lieutenant, is there something you want to say?" Alex asked.

"No, sir."

"Somehow I don't think that is true, Alfred. It's just the two of us here. Spit it out."

"Fine, Captain. It's the civvies. I don't like them on-board. They've messed up the ship, displaced SpaceFleet personnel that should be here, and are always griping about the way things work. And that one," he gestured to the door Allison just left through, "is a little miss know-it-all who thinks the world revolves around her. And you just go along and do whatever she wants. It's like she's the real Captain." Lt. Shaw took a deep breath and let it out, like he was relieved to get that comment out of his system.

"I see," Alex said studying his co-pilot. "Alfred, we've had the scientists and engineers on-board for over two weeks at this point and you're the first person to even mention anything about this."

"That's because everyone else is too afraid to say anything." Lt. Shaw replied.

"Hardly," Alex said. "Jr. Lt. Ball would have no problem telling me off if there was something going on. The same is true of Chief Engineer Pickett. Are you sure it's not more an artifact of your attitude? I understand that you're upset about Dr. Durrant displacing you from your standard station. Especially since you feel like you've been demoted from co-pilot to gunner on what should have been your first full co-pilot cruise.

"However, irrespective of how we think things should be, the operations on-board Endeavor do revolve around Dr. Durrant and her team for the next few weeks. We have to figure out what happened to Dauntless to be sure it doesn't happen to us as well. And that means cooperating with the scientists and putting up with their idiosyncrasies.

"You want your own command someday. Consider this training on how to deal with unsavory situations that you have no control over. Get a grip on your attitude and actions and start behaving like a SpaceFleet officer. Life is full of situations where we have to bury our personal feelings and just do the job at hand."

"Are you saying you don't like them either?"

"No. Actually, I haven't had any problems with any of the non-SpaceFleet personnel on-board. I've had to deal with others like this before and the group we have on this trip isn't any worse than I've experienced previously. In fact, they are better than most, many are pushy and whiny like you describe but this group is actually pretty good and trying to be helpful. I need to get below and check on these passengers. Now close down that station and get up here. You have the Conn."

"Yes, sir."

Chapter 3

Everything was ready to go. The instruments all checked out. The engines had been checked out and refueled and were ready to go. The Jump Field Generator, as everyone has started to call the Dampening Field, was ready and its reactor checked out as well.

The ships that were to monitor the test were stationed a few hundred thousand kilometers toward Rael from the Endeavor. The plan was to accelerate for about an hour towards the star as they built up their velocity vector directly towards the sun. Allison wanted to be sure that the major component of the vector was

directed toward the center of the system so that there wouldn't be any chance of going somewhere unexpected. In conferring with the astronomers, they had figured that an hour run would give them a large enough baseline to determine their motion accurately enough. Based on that, and where they ended up, they could look for errors in their technique.

With over a half hour light delay between Jord and the Endeavor, SpaceFleet had already given the green light to go and controllers on Jord were just listening. Control had shifted completely to Dr. Durrant and Lt. Commander Matthews.

"Monitor One and Monitor Two, this is Endeavor," Alex broadcast over the radio, "we are beginning our acceleration now." It would be a few seconds before he got a response from the other two ships. Activating the ship's intercom, he announced. "We are commencing the test. Gravity will be returning shortly, hang on."

With that Alex called to his chief engineer, Chief Warrant Officer Two Zebulon Pickett. "Zeb, engage the engines and bring us up to one gee."

"Roger skipper," came the reply. As the engineer adjusted the controls on his monitor, the engines sprang to life and gravity returned to the ship, pressing everyone back onto the floor.

A few seconds later, the radio came to life as well. "Endeavor this is Monitor One, we show you running at one gee straight towards us. Everything looks good from this end."

"Copy that Monitor One," Alex replied. "See you in a few minutes."

With that Alex settled back into his command chair. There wasn't much to do for the next hour. Now it was in the hands of Dr. Durrant and her science team. Especially the astronomers turned astrogators who were making observations of various star fields and planets to track and plot their course.

After nearly an hour of acceleration, the Endeavor was drawing near to Raptor and Condor, or as they were designated for the tests, Monitor One and Monitor Two. They would be recording any emissions or signals here in real space as the Endeavor engaged the jump system, while the Endeavor would be recording effects inside the ship and the jump field.

"Almost time," Alex commented as he saw the other two ships drawing nearer on the tactical display. The plan was to engage the system just before the Endeavor passed between the two ships. "Looks like we have about five more minutes."

Just then the radio came to life again. "Endeavor, this is SpaceFleet Control. By the time you get this you should just about be ready to engage the system. Good luck and clear sailing. SpaceFleet out."

"Well, I guess that makes it official," Alex said to no one in particular. "Dr. Durrant, are we set?" Alex asked, looking over at Allison, sitting in the co-pilot seat.

"Everything's good on our end," Allison replied, glancing at her display. "Just give the word and we'll engage the system."

"Fair enough," Alex replied. Turning on the intercom once again, he addressed the crew. "Okay, everyone, listen up. Everything is in position. We are approaching the test point and will be there in

about thirty seconds. Brace yourself or do whatever you feel necessary. No one really knows exactly what to expect. We've discussed the theory. Now we get to test the practice. Dr. Durrant will engage the system on my mark." Turning on the ship's radio to broadcast to the monitoring ships and back to Jord as well he continued. "Here we go. Five...four...three...two...one...Mark!"

On his signal, Allison toggled the control that turned on the Jump Field. The ship was instantly surrounded by the field effect. There was a brief flicker and then ... nothing. Everything seemed normal.

"Did anything happen?" Alex asked looking around.

"Yes!" Allison shouted excitedly. "The field system says it is still on but there is no modulation affect any more. Shutting it off now." With that she turned off the Jump Field system.

"Whoa, we moved!" came over the intercom from the Astrogation station a few decks below. "We are definitely not where we were a few seconds ago."

"Find out where we are," Alex called back. Addressing just the bridge crew he continued. "We're obviously still in the Rael system since the star is still there in our forward cameras. Although, it does look a little bigger all of a sudden."

Activating the ship's radio for omnidirectional broadcast he made a call. "Monitor One, Monitor Two, SpaceFleet Control. This is the Endeavor. We have successfully completed the first part of the test and are trying to determine our exact position. Please respond."

"I didn't feel a thing," Alex commented out loud. "There was maybe the briefest flicker but it just seemed that nothing happened."

Allison looked up from her controls. "According to the computer, we were ... somewhere, in an alternate space, for only the briefest of time, a few microseconds at most. Depending on how far we traveled, the speed that implies is staggering."

"Bridge, Astrogation here. Based on our initial measurements just on the diameter of Rael's disk, plus the planetary navigation signals, it looks like we moved just about one AU as Dr. Durrant predicted. We're getting precise measurements on the planets now to exactly triangulate our position, but it looks like you were dead on Dr. Durrant."

Alex started to call for systems checks from the ship. "Engineering, what is your status and how do the engines look?"

"Bridge, Engineering. Everything is straight green down here. There was a brief surge in power draw from the engine reactors but it was a short spike, only lasting a fraction of a second. Other than that we didn't notice anything at all."

Alex exchanged a look with Allison, who just nodded affirmatively. "That makes sense. We'll probably find the spike exactly corresponds to the jump interval when we go over things in more detail. Maybe it takes more power to maintain the field when it is modulating the Jump Field."

"Roger that, Engineering." Alex responded. "Run a complete copy of the records from the last twenty minutes and have them sent

up to the science team for analysis. Field team, what is your status?"

"Everything is good here. Like Engineering we saw a brief spike but it was expected on our end. It occurred right as Dr. Durrant activated the system. Then everything went back to normal. We can't give an exact duration since the time resolution of the instruments isn't fine enough. The best we can do is only ten microseconds. But the effect was longer than one measurement interval and less than three. That means it was somewhere between ten and thirty microseconds. That's the best we can give at the moment. Everything is currently straight green for us as well."

"Copy that, Field Control. We want the same data dump from you as well."

"Captain Matthews," Allison chimed in. "I can confirm the less than thirty microsecond duration as well. That is the length of time the instruments register that we were in the alternate reality before dropping back into normal space. I can put an upper bound of 25 microseconds based on the data I have so far. Once we correlate all the data, the various timing cycles of the instruments will allow us to refine that estimate even better. If the astrogation measurement is even partially correct, that means we were moving amazingly fast, something on the order of a light year per second."

Alex and Allison just stared at each other for a moment, the same thought going through their minds. "If we can confirm this, we can go anywhere." At one light year per second, you could travel clear across the galaxy in a little over a day. It was doubtful you could actually make a jump that far in practice, but that was the scale of the effect in theory. The galaxy was opening up before their eyes.

Their thoughts were interrupted by Petty Officer Third Class Estelle Evans, the computer specialist doubling as the communications officer on this understaffed trip. "Skipper, we are picking up a radio signal from further out in the solar system. You have got to hear this." With that she piped the signal into the bridge loudspeakers.

"...py that Monitor One. See you in a few minutes." Alex heard his own voice call out.

"Do I really sound like that" flashed through his mind as he listened to his own radio transmission from just a few minutes ago. "Keep that on the line," he said to the communications officer, "and make sure you're recording it." With that he activated the ship's intercom. "Everybody listen up. Despite whatever else we discover, we can call this test a success. We have successfully moved faster than light and managed to get ahead of our own radio broadcast. Listen. This is coming in live on the radio receiver." He motioned to the communications officer to send the signal through the intercom. This was done just in time for everyone to hear the next part of the transmission.

"Here we go. Five...four...three...two...one...Mark!" followed by complete silence as even the carrier wave vanished.

"Amazing," Alex thought, "we really did it." And then he laughed. "That should be fun for SpaceFleet," he added out loud. "They're going to get our success message before they even hear that we

were starting." Turning to the communications officer he added. "Get the exact time stamp on both of those transmissions. That will give us another measure of how far we traveled."

Turning to Allison, he continued. "Well Dr. Durrant, it looks like you were almost exactly correct on all counts. How does it feel to be the woman who discovered and proved the ability to travel faster than light? You're going to be famous you know," he added with a grin.

"More likely infamous," Allison responded. "They'll blame me for all the bad things that happen because of interstellar travel. But I don't really care. I'll probably be dead long before then. In the mean time we now have the stars."

"Not quite yet," Alex said, noting the dreamy look in her eyes as she said it. "We still have to show we can make a long jump out and back and stay in one piece. But we're getting close." He couldn't help feeling almost as excited as she sounded.

"Spoilsport," Allison called back, "It will work. Speaking of which, where do you want to go next?"

He looked at her quizzically, but before she could elaborate, the intercom came to life. "Bridge, Astrogation. We have identified our position and we are now standing four point zero seven AU from Rael. The jump took us one point one three AU in from our initial position. Based on that measurement, it should be a few more minutes before we hear from Raptor or Condor."

"Copy that Astrogation, good work on the quick workup." Alex responded to the position update. Directing the radio transmitter back in the direction they came from, Alex sent a message to the two monitoring ships. "Monitor One, Monitor Two, this is the Endeavor." Alex called over the radio. "We have successfully completed the initial test and are currently about one point one AU sunward of your position. We are headed back out to join you. How did things look from your end?"

Turning to Allison he asked, "Well Dr. Durrant, what does that give us for a speed during jump travel?"

Feeding the exact jump distance into her computer, she looked at the monitor for a moment and then turned to face Alex. "Given the time resolution of our instruments, we know that we were in the alternate dimension somewhere between 10 and 25 microseconds. Based on that, that gives us a speed of something like one half to two light years per second. We'd need a longer trip to make a more precise measurement. We will be able to refine it a bit by correlating the various timings on the different instruments but that will only give another ten to twenty percent improvement. To really nail it down we need a long run."

"Fair enough," Alex responded.

Just then the radio came to life once again with two separate messages. "Endeavor, this is Monitor One responding to your initial transmission after the test. Good to hear your voice. You guys vanished just like the Dauntless. It was just a little scary there for a bit while we waited to hear from you. What is your exact position? Based on the time between when you disappeared and we received your transmission, you seem to be fairly close. Well done. Monitor One out."

"Endeavor, his is Monitor Two. We read you five by five. We second the congratulations and good wishes from Monitor One."

"Okay," Alex said after hearing from the two ships, "Let's get an initial report off to SpaceFleet and get started on the next step."

As the crew went about their work, collecting the data and preparing a transmission to SpaceFleet and the other ships, Alex reflected on how anti-climactic it all felt. They had just done something that, two months ago, the laws of physics had said was impossible, and now everyone was working like it was just any other day. "It's amazing how adaptable we are," Alex thought to himself as he watched the crew.

Chapter 4

After a few more minutes, the Endeavor received another response from the monitoring ships. "Endeavor, this is Monitor One, we copy your request for status on our end. Other than the déjà vu of having another ship just vanish off our scopes, things look fine. We saw the field start to develop around your ship and were able to measure the modulating effect of the engine field as well. And then one instant you were there and the other you were gone and we were staring at empty space again.

"Our science team is already busy analyzing the data to look for any tell-tale signatures or signals that we can use to detect the activation or effect of the jump but right now things are too early to tell.

"All the instruments worked well and we have a good data set to do the analysis on. See you tomorrow when you get here."

After getting all the reports from the monitor ships and the various teams on-board the Endeavor, Alex once again turned on the ship's intercom along with the radio to transmit to the monitoring ships and SpaceFleet. "Team, this is Captain Matthews, well done on a successful initial test. As far as we can tell, all went well and there were no problems. We traveled nearly one hundred and seventy million kilometers in under thirty microseconds. That translates to a speed somewhere between a half and two light years per second. The Endeavor has now proven beyond any doubt that faster than light travel is in fact possible despite everything we thought we knew. Congratulations."

Turning off the radio, Alex heard cheers from the various parts of the ship over the intercom circuit. Waiting for them to die down, he continued addressing the crew. "Everyone finish up your initial analysis and make sure all the data is properly archived. We're turning the ship around and headed back out to our starting point to rejoin the monitoring ships. Be prepared for a few minutes of weightlessness and maneuvering while we reorient the ship. Once we're back with the monitoring ships, we'll plan the next part of our tests. Along the way, we'll be having a celebratory meal as a crew. You all did great."

About an hour after making the jump, and shortly after Alex had addressed the crew, the Endeavor's radio came to life with a message from SpaceFleet. "Endeavor, we read you loud and clear. Based on the time stamp in your transmission, we place you about four and a half AU from Jord. You probably will have determined your exact position by the time you receive this. Congratulations on a successful test.

"We started receiving telemetry from your systems out of time order after receiving your transmission requesting position confirmation. It reeked a bit of havoc on the computer systems as they were constantly complaining about out of order data but we were still able to capture the data stream. That's something we'll have to look at for the future.

"The out of order telemetry continued to arrive for approximately nine minutes until we received your message initiating the jump. Needless to say that was a little strange. Congratulations again. Return to your initial station with Monitor One and Monitor Two and prepare for phase two of the test. SpaceFleet out."

"Good to know they got the data," Alex thought to himself. "But they are just too far away to really be involved in this operation."

By then, the science team was done with their initial analysis of the data and had shut everything down. There was a minimum crew on the bridge as most of the people on-board were preparing for the celebratory dinner. "Okay team," Alex said to those remaining on the bridge, "the ship can run herself for a while, we're just accelerating back out towards the initial jump point and have about ten more hours before we have to maneuver. Finish up your current tasks and then get below. It's time for a little celebration." With that he locked up his console and left the bridge to head down to the crew deck.

Upon arriving there, it hit him again just how overcrowded the ship was. The crew deck, which was supposed to comfortably hold the entire ship's crew, was packed. Half of the deck was blocked off and filled with instrumentation used in monitoring the tests. On top of that, the ship had eight more passengers than it was really designed for. The extra bodies, combined with the reduced space, resulted in the crew being packed in pretty tight. However, none of the edginess and irritation that had been present before they left Jord was in evidence anymore. The successful test had eased a lot of tension and cheered the entire crew up.

Alex started working his way across the room to the galley where the food and drinks were set out. They had organized an impromptu buffet with a variety of foods as a special dinner for tonight. As he crossed the room, he was stopped several times by crew with various small reports or scientists congratulating him and themselves on the day's success. Reaching the table he grabbed a drink and turned to survey the crowd. There was excitement and relief written on many of the faces he saw.

"Are you going to say something to the crew, Captain?" Allison asked appearing at his side as he was looking over the crowd.

"Probably," Alex replied, "once everyone is here. But I'm not much for speeches. I should make you do it."

"Not a chance," she laughed. "You're the captain. It's kind of expected. I'm just a scientist. I'm not supposed to make speeches and the like. Just do research and present the results in a boring monotone." She flashed him a grin. "Isn't that the stereotype? Boring scientist in a lab coat. You're the dashing starship captain that should be making speeches to inspire his crew."

"Ha," Alex laughed. "I don't think dashing and inspiring are words you'd normally use to describe me. But I guess I do have to say something."

They waited in silence for a few more minutes watching the crew as the last few people trickled in from their various duties. By the time they were all there, the deck was starting to get just a little too crowded. It also felt a little too warm and stuffy, but that was probably just Alex's imagination.

Once everyone was present and had food and/or drinks, Alex raised his hand for silence. In a few moments everyone was quiet and watching Alex.

"First, I'd like to relay congratulations from SpaceFleet. Admiral Russel sends his personal congratulations on a successful initial test to the crew of the Endeavor. His exact words were: Well done, Endeavor, on flawless execution and a successful test." Alex paused. "It sounded almost like he was reading a medal citation." The SpaceFleet crew chuckled at that while the scientists just smiled, not quite understanding the humor.

"Second, I'd like to add my personal congratulations to all of you. It's been a long two months after the loss of the Dauntless and her crew, many of them friends to many of us here. You have all, SpaceFleet and scientists, worked long and hard to get to this point and today's efforts went off without a hitch. Everything functioned perfectly, everyone responded well, and the follow-up after the test was executed quickly and well. We have an amazing team here on the Endeavor, even if it is a little crowded." This drew a laugh from everyone.

"I don't want to keep you here any longer than necessary. This party needs to spill out to other decks even if just for the sake of the life support equipment. It was never designed for this many people in one room," he added with a smile.

"We still have a lot of work to do for the next test, which, if as successful as this one, will write new history in a different way. After what I saw today, I expect that the next test will go just as well. Starting today, effective immediately, the Endeavor has a new motto: Ad Astra! To the stars! That is to be our goal and our legacy to the world. Remember that as we prepare for the next step. Have a good night and enjoy yourselves."

With that Alex stopped and the crew as a body took up the cheer: "Ad Astra! Ad Astra! Ad Astra!"

"And you said you weren't good at speeches," Allison said once the cheer had died down and everyone returned to their original conversations.

"Yeah well," Alex replied, "sometimes you get lucky." Looking over the crew he smiled. They had a good team and had done well, but the hard one was coming up. It was okay to jump against a large hard barrier toward a target you couldn't really miss and only spend a fraction of a second in this unknown alternate reality. On this jump they didn't even really notice. The next one would take them on an interstellar journey and the travel through the alternate reality would be a lot longer and noticeable. He was already worried about what the effect would be. But that was for later. Right now they had a right to be happy and relax.



KNIGHT HAWKS

By Thomas Verreault/jedion357

Why the Royal Marines Don't Field Fighter Craft

Editor's Note: To play this scenario you will need a copy of [Knight Hawks](#), hex map, counters and ship sheets.

In the Warriors of White Light module (SFKH-0) there were no fighters in the Royal Marine order of battle. The reason for that had nothing to do with any sort of military decision but that the writers needed a small tough scout ship craft. The primary craft needed to be suited to a small group or team (a typical RPG group) and so we got the assault scout which became a much beloved ship among fans of Star Frontiers.

I wanted to play the Warriors of White Light module but since we've all played or read it I felt that it might not be very interesting. Instead I proposed to attempt to capture the flavor of the original while being original and moving the setting 100 years into the future, thus making the published modules history. Without even considering the issue of fighter craft I just updated the Royal Marine order of battle. Using the ships that were on order in the original module I designated them as replacements for older hulls but basically left the order of battle identical to the original module. However, a prospective player had an interesting character concept that involved having a family member that had been a fighter pilot and I started asking myself why the Royal Marines didn't have fighters.

The answer is they did; the Raptor Squadron. It was extremely popular but not as versatile as assault scouts. During their active duty a holo-vid was made about the Raptor Squadron called, "Top Beam." For a few years after that the Royal Marines maxed out recruitment as scores of young beings signed up with dreams of being a Raptor pilot.

Initially the Royal Marines relegated Raptor Squadron to anti-piracy and outer system patrol due to their inability to board and inspect merchant ships. They were extremely effective in anti-piracy but long patrols in the outer system lead to crew fatigue. It was judged that the fighters weren't fully suitable to the mission of the Royal Marines and yet they persisted in the order of battle as they were new and still being paid for. Eventually there was a push to use them in support of Space Fleet's missions, and thus get the UPF to pay for their support. Deploying the fighters out system was a logistics nightmare without a carrier. The Royal Marines improvise by attaching heavy shuttles to the squadron and latter a confiscated freighter christened The Pelican. However, the final demise of Clarion's fighter program came in a moment reminiscent of desperate last stands from the annals of history,

places with names like the Alamo, Talos IV and the better known, Battle of Volkos.

The Raptor Squadron saw action in the White Light System first against pirates and then in one major Sathar incursion. During that time they were credited with the destruction of five pirate cruisers and a Sathar destroyer.

Deployed with Space Fleet to the Dramune System, they were instrumental to the police action at Outer Reach. The Royal Marine's experience with this deployment led to a brief discussion of acquiring a carrier for the squadron but the compromise measure of commissioning a confiscated freighter as a tender was the end result.

In the Snowball System, also known as FS 30, (see module SFKH 4) they were stationed to both support the fledgling system defense militia of the Mhemne and to be a training cadre. Their efforts met with mixed results there as the Raptor pilots were a bit sensitive to the issue of whether fighters could be a suitable militia weapons platform. Unfortunately, the Mhemne, were unsuited, physiologically, to fighter operations (see the details of the module) as they pass out during high G maneuvers. The pilots of the Raptor Squadron were understandably proud of their craft, the squadron, and their accomplishments but the Mhemne leadership pushed for their reassignment requesting larger ships for training their fledgling navy. Before the squadron could be reassigned they took on two Sathar carriers in a desperate suicidal last stand. Their sacrificial defense of Liberty system stopped a worm incursion but the squadron was largely decimated.

It was then decided to not replace its losses and funds were diverted toward the purchase of the assault scouts; War Hawk and Nightingale. A handful of surviving Raptor fighters were stripped of weapons and fuel and stored in stasis against a future need. One is on display next to the Osprey Museum at Port Royal, Clarion.

The Raptor Fighter

The Raptor is a heavy fighter. The Royal Marines wanted a fast tough craft that would prove survivable in combat and have reduced crew requirements compared to the assault scout. What they got was a HS 2 fighter with room for a crew of three: pilot, gunner, and flight engineer (the presence of the flight engineer gives the craft a base DCR of 50 instead of 40 even before the engineer's skills are considered). It's still a cramped craft requiring crew to sleep at their stations on long missions.

Raptor Fighter	
DCR: 50	ADF: 4
HP: 16	MR: 4
Weapons:	Assault Rockets x3, Pod Laser x2
Defenses:	Reflective Hull

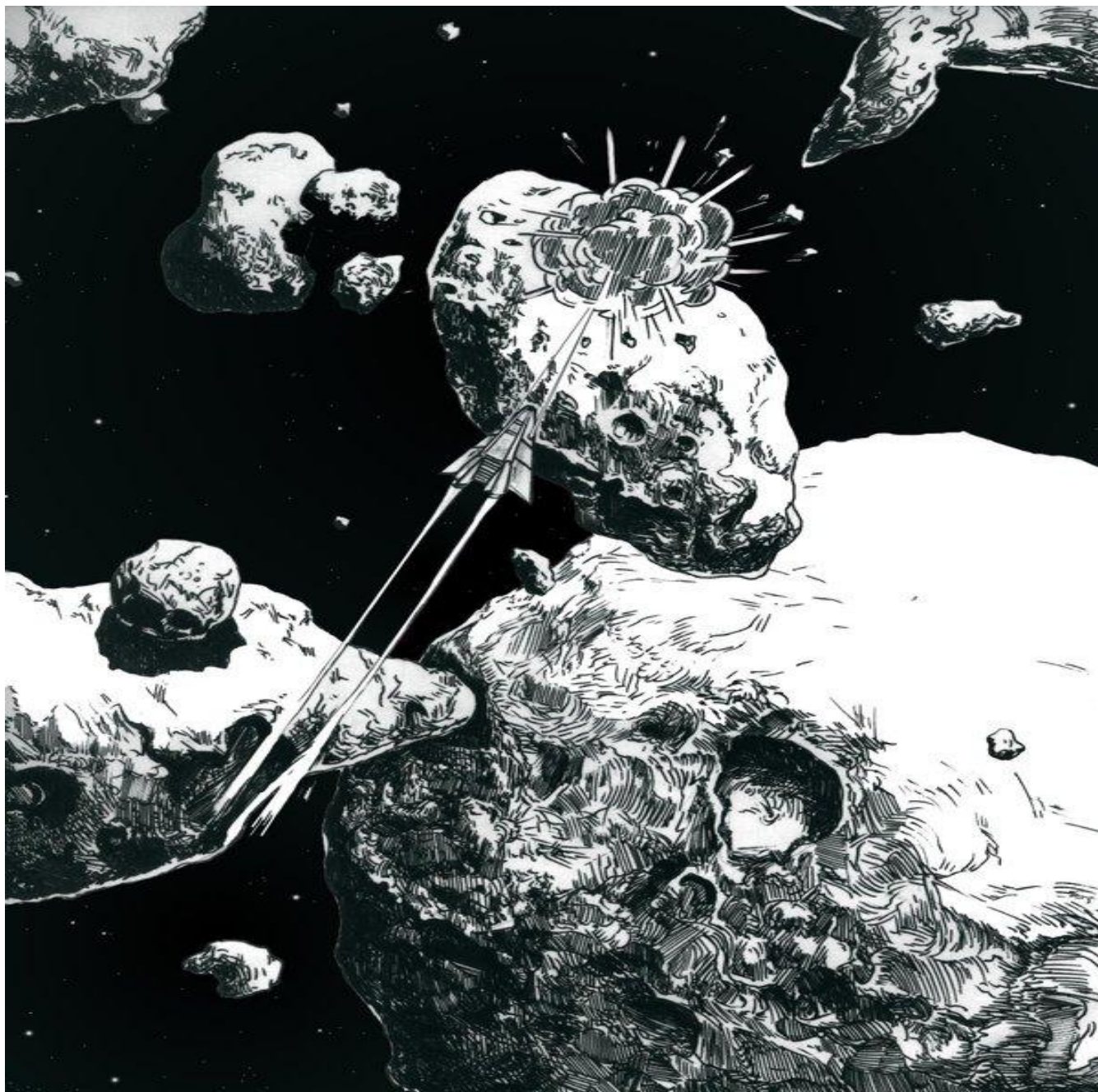
Scenarios:

1. Asteroids and Pirates

Pirates have been plaguing the asteroid miners. One mining ship has gone to ground hiding behind its ion window while calling for the cavalry. Raptor Squadron was the closest asset positioned to intervene. Note: this is predicated on the interpretation of the conflicting statements in the rules concerning ion windows that an ion powered ship can actually hide for a time (see "The Versatile Ion Drive", [Star Frontiersman #12](#)).

Set Up: Place 60 upside-down counters as asteroids for this scenario. These counters should be spread in a band that is 16 to 18 hexes wide across the center of the map from long edge to long edge. As usual, each counter should be placed on the intersection of three hexes. In the center of the map and next to an asteroid counter place 2 ion window counters next to each other to represent an ion engine equipped mining ship lying doggo. Place counters for Royal Marine fighters along the militia player's side in any hex and any formation but traveling speed 20. The pirate player places one corvette counter 1 hex from an ion window counter with any facing and speed of 0. The pirate player then places two corvette counters up to 12 hexes in from his map edge traveling toward the asteroid field at speed 12. The mining vessel will not move nor turn off its ion window during the scenario.

"Pain in the Asteroids" by aquilianranger @ Deviant Art



Royal Marine order of battle:

Raptor Fighters x6	
DCR: 50	ADF: 4
HP: 16	MR: 4
Weapons: Assault Rockets x3, Pod Laser* x2	
Defenses: Reflective Hull	

* Pod Laser - FF / RD / Range: 5 / Damage: 1d10

A pod laser system is a down scaled set of laser battery guns fixed onto a hull to provide a forward firing energy weapon for smaller craft.

Pirate Order of Battle:

Black Hole (corvette)	
DCR: 60	ADF: 3
HP: 25	MR: 3
Weapons: Laser Cannon, Laser Battery	
Defenses: Reflective Hull, Masking Screens x2	

Black Star (corvette)	
DCR: 60	ADF: 3
HP: 25	MR: 3
Weapons: Laser Cannon, Laser Battery	
Defenses: Reflective Hull, Masking Screens x2	

Black Comet (corvette)	
DCR: 60	ADF: 3
HP: 25	MR: 3
Weapons: Laser Cannon, Laser Battery	
Defenses: Reflective Hull, Masking Screens x2	

Special Rules: The pirates are searching for the “windowed” mining craft. The ship next to the ion window has been searching for the mining vessel for 3 hours (18 turns). The mining ship has 2 ion engines -20% search modifier but the pirate vessel is one hex away +5% search modifier and has been searching continuously for 18 turns, +1%/turn search modifier. Therefore on the first turn of the game the pirates have a 4% (this will be the 19th turn of continuous search) of finding the mining ship. If a second ship joins the search there is a +2%/vessel search modifier. The pirates cannot search if they are more than 6 hexes away or if the line of sight to either windowed hex passes through a hex adjacent to an asteroid marker (see Star Frontiersman #12 “The Versatile Ion Engine” for more details).

Game lasts 8 turns.

Tactics: The asteroids should keep speed down for this scenario, for both sides. The Royal Marines need to keep the pirates away from the mining vessel at all cost but the pirates can achieve victory by either destroying the fighter craft (which presumes they will eventually get the mining vessel) or by locating and taking out the mining ship.

Victory Conditions: To win the pirates need to locate the mining vessel and a pirate craft must spend 1 turn in its hex at speed 0 to boarded it or destroy all the militia vessels. The militia player will score a major victory for destroying all pirate craft while

preventing the capture of the mining vessel or a minor victory if they destroy at least one and drive off the rest of the pirate craft.

2. Out of Reach

Raptor Squadron has been deployed to Dramune System in support of a Space Fleet police action. Outer Reach has provided safe haven for known criminals and pirates and has refused to hand them and their stolen ships over. Unfortunately, Outer Reach also has built some formidable ground based defenses that will cause unacceptable losses if the Fleet moves into range. The planetary defensive battery cannot target ships as small and fast as a fighter so Raptor Squadron is tapped for the mission of neutralizing this weapons system.

The mission occurs in two stages; the approach to Outer Reach and flying against the ground defenses. Raptor Squadron must get past Outer Reach’s militia ships then fly nape of the earth down a canyon to destroy the protected generator powering the planetary defense batteries. If this weapon system can be neutralized Space Fleet will move in and the government of Outer Reach is likely to capitulate.

Set Up: Place a planet marker 15 hexes from one edge and in the center of the map and a space station in orbit. Next place one frigate counter in orbit with any facing and speed of 1. The 12 counters of Raptor

Squadron can be placed anywhere on the board at least 20 hexes away from the planet with any facing and any speed the Royal Marine player wishes. Off the map the Outer Reach player prepares 6 fighters and two assault scout counters.



Artwork by Scott Mulder

Outer Reach order of battle:

Dark World Station (space station)	
DCR:	80
HP:	60
Weapons:	Laser Battery, Rocket Batteries x6
Defenses:	Reflective Hull, Masking Screens x2, Interceptor Missiles x8

StarHawk (frigate)			
DCR:	70	ADF:	4
HP:	40	MR:	3
Weapons:	Laser Cannon, Laser Battery, Rocket Batteries x4, Torpedoes x2		
Defenses:	Reflective Hull, Masking Screens x2, Interceptor Missiles x4		

Maltharia II (assault scout)			
DCR:	50	ADF:	5
HP:	15	MR:	4
Weapons:	Laser Battery, Assault Rockets x4		
Defenses:	Reflective Hull		

Reaver (assault scout)			
DCR:	50	ADF:	5
HP:	15	MR:	4
Weapons:	Laser Battery, Assault Rockets x4		
Defenses:	Reflective Hull		

Fighters x6			
DCR:	30	ADF:	5
HP:	8	MR:	5
Weapons:	Assault Rockets x3		
Defenses:	Reflective Hull		

Royal Marine order of battle:

Raptor Fighters x12			
DCR:	50	ADF:	4
HP:	16	MR:	4
Weapons:	Assault Rockets x3, Pod Laser* x2		
Defenses:	Reflective Hull		

Special Rules: The Outer Reach player may not move any of his ships farther than 9 hexes from the planet or they will take d5 laser battery hits from the blockading vessels of Space Fleet. These are automatic hits and are rolled on the damage table directly. His fighters may be launched from the planet during any turn and are simply placed on his choice of the planet's hex side at the beginning of the turn launched. Note: the planetary defense batteries are so powerful and the atmosphere is so thin that these weapons can shoot out to 9 hexes.

To enter the planet hex for a run at the power generator a fighter must be traveling at a speed of 1 and have 1 point of MR left. Alternately if a fighter has not used all of its ADF points that turn and the number of points unused is equal to its current speed minus one and it still has 1 MR point left when it ends its turn it

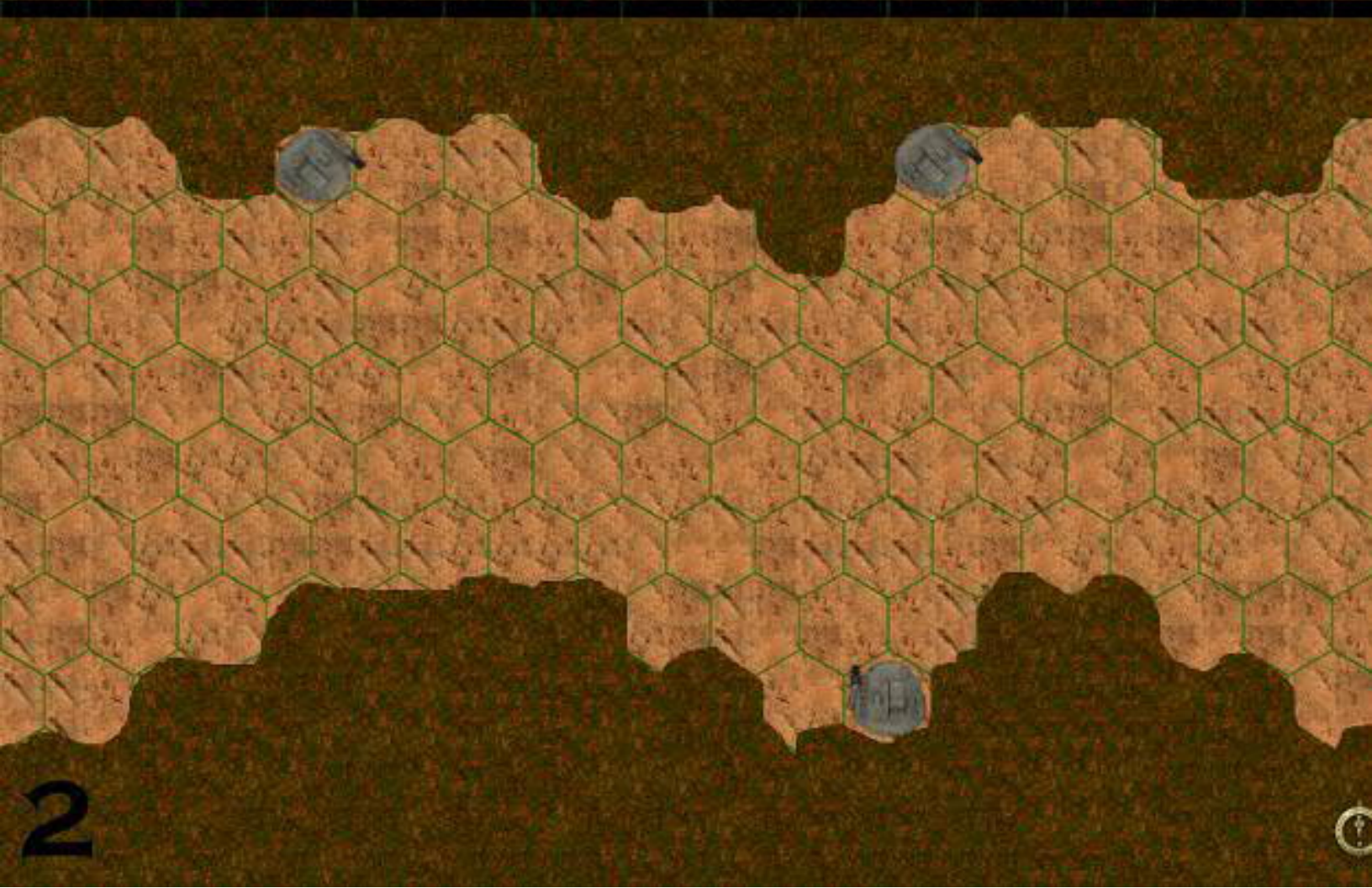
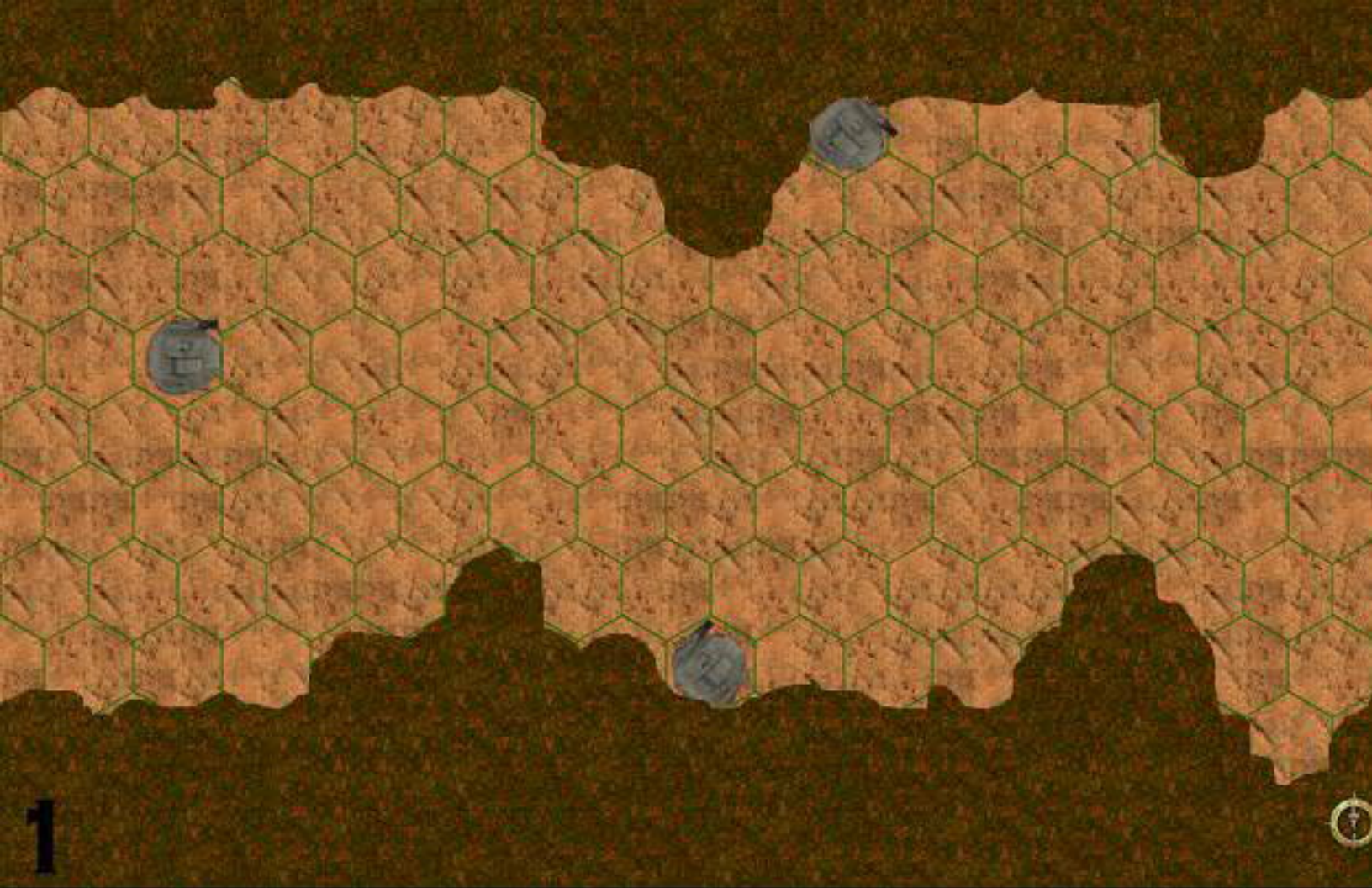
may also enter the planet's hex. Once a fighter has met those conditions it is placed on the canyon map (see below) for the beginning of the next turn. A Royal Marine fighter must be placed on the canyon map a number of hexes equal to its full MR rating in from the edge. An Outer Reach fighter is placed on the edge if it has followed Royal Marine fighter on the same turn. Any fighter may re-emerge in space on any hex side of the planet at any time by simply pulling up but they are placed at the end of the turn. If both sides have fighters re-emerging in space they roll a d10 and the player with the lowest result places his fighters first. Assault scouts cannot enter the canyon map. The Outer Reach player may designate any number of fighters to fly nape of the earth to guard the canyon approach (they are left off the map) and any turn that a Royal Marine fighter enters the canyon some or all of these canyon guard fighters may also automatically enter the canyon with the Royal Marine craft.

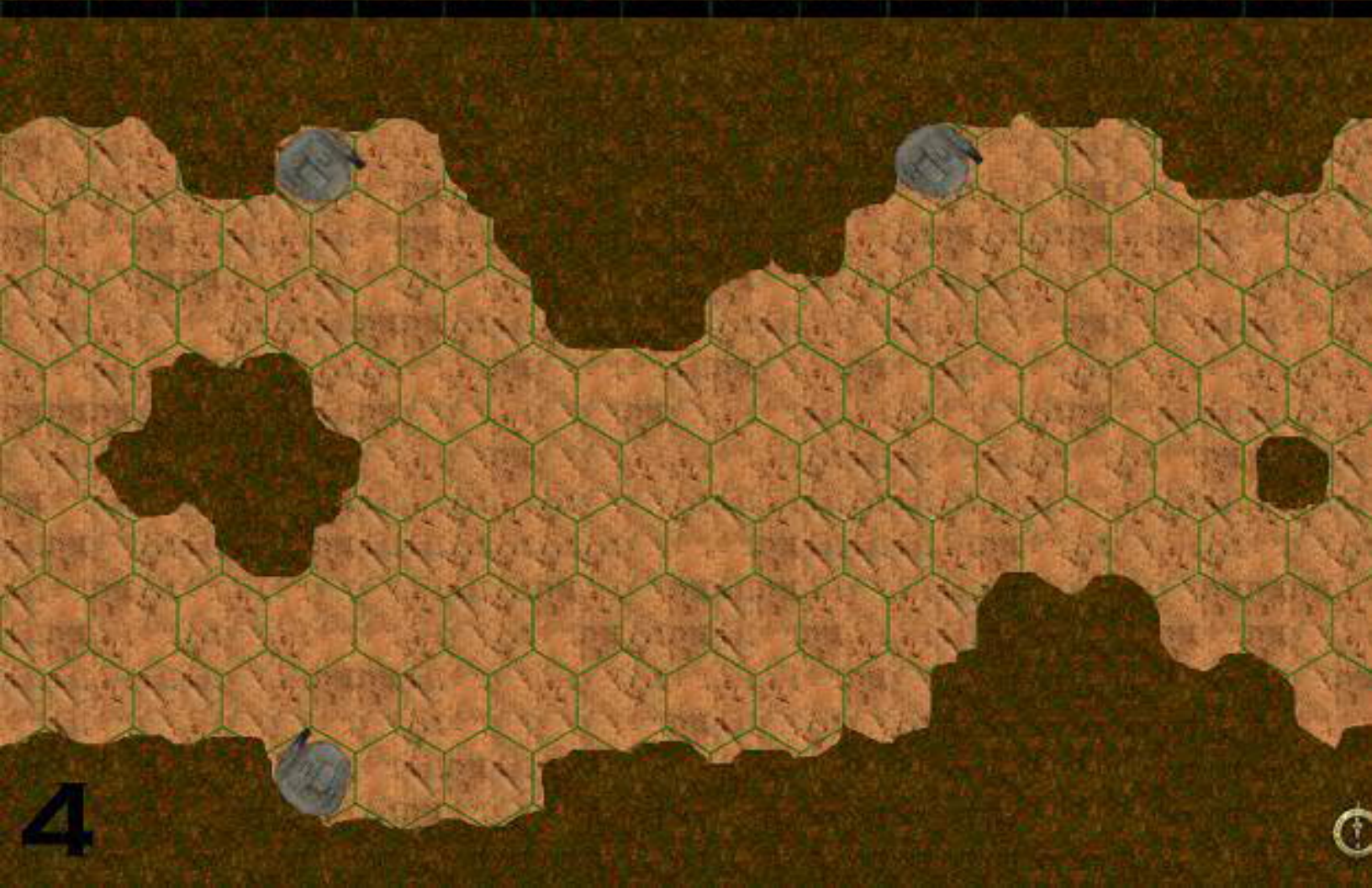
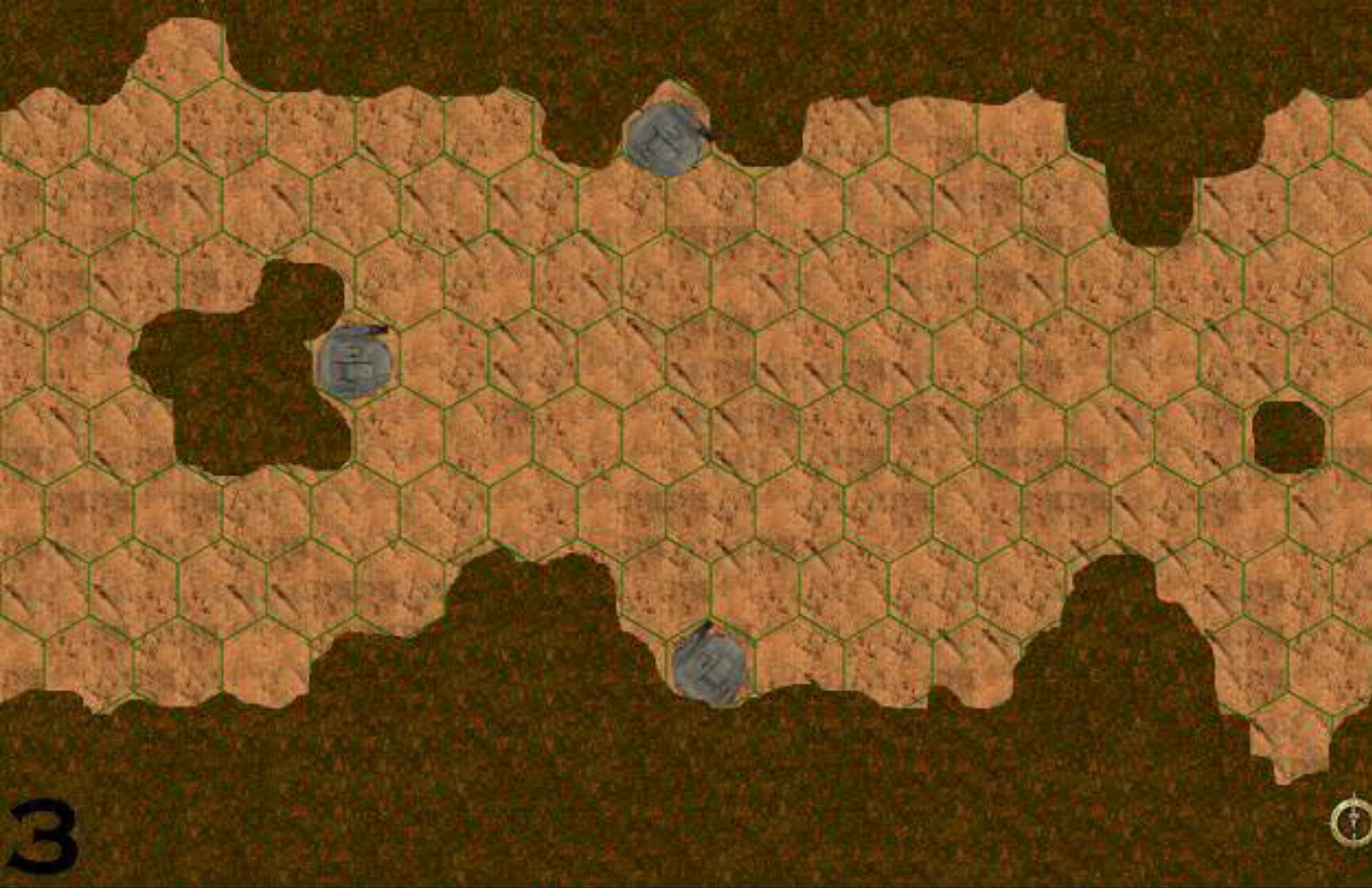
The scale in the canyon is different from the space map and abstracted for purposes of this scenario. Fighters on the canyon map have a beginning speed of their ADF + MR or less but they may accelerate to any speed using their ADF for each turn in the canyon. The entire canyon trip takes one KH turn 10. So play out 1 turn of battle in space battle then play the canyon run and place the fighters back on the space map after they emerge from the canyon. No matter what the number of turns taken for the canyon run, every canyon run is the equivalent of 1 KH turn.

While Royal Marine fighters are in the canyon the laser turrets will only fire on the lead fighter and Outer Reach fighters will only fire on the closest enemy fighter. All laser turrets are penalized -5% per unit of speed a fighter is traveling but any roll of 01-03% will always hit. All laser firing is rolled as if point blank range. Assault Rockets may be fired by fighters and if the target is another fighter that fighter may opt to use the evade ability and be removed from the map instantly, reappearing on the space map next turn. Otherwise assault rocket attacks are resolved normally. All laser turrets have 5 HP and effectively are armed with a LB. While the advance damage rules should be used with this scenario any hit against a laser turret simply rolls for damage against the HP.

Fighters may trade MR for the ability to slide slip at a rate of 1 point of MR for two consecutive side slips. A side slip is a forward movement into either hex to the side of the hex dead ahead of a fighter's facing and the facing will remain unchanged. MR points can also be traded at any time during a turn to degrade firing accuracy by 10% per point of MR traded. This firing penalty affects both the fighter trading the MR and the operator of the weapon firing at the fighter. This represents barrel rolls, jinking and other maneuvers along the path of travel and must have been initiated before the opponent declares firing.

In the canyon, the Outer Reach player has laser turrets. Treat them as laser batteries with the caveat that they are physically blocked from firing toward the power generator and may only fire at the militia fighter as long as the generator is not in the same line whether in front of or behind the fighter). Their targeting is also degraded by the speed of the militia fighters: every point of speed over 10 degrades the laser turret's fire by -10%. The militia fighters suffer the same penalty when firing on the exhaust port for the power generator. To destroy the power generator the Royal Marines must score 50 HP of damage or roll a 01-03% which







CATASTROPHIC SETTINGS

By Thomas Verreault/jedion357

Hostile Weather, Disasters, and Other Acts of God, Err, I Mean Evil Game Masters

Part 1: It's Cold Out There



Artwork by Scott2573 at Deviant Art

As referees and game masters we're always looking for some new challenge to throw at the players in our groups. Thinking back to the "Crash on Voltarnus" module the high heat of the desert was an ever present threat in the beginning and a sand storm was a possible random threat. Weather conditions in the real world can have serious impact on our lives so why not in a role playing game? This article is the first in a series that will examine a wide variety of weather related conditions and propose game mechanics or effects to impact a tactical situation or simply present a weather based threat.

EXTREME COLD

With adequate apparel a character should not be inconvenienced by cold. However, extreme cold begins to seep in and chill a character over time.

CHILLED

The first stage of feeling a cold effect is labeled, CHILLED. Characters in a chilled state experience a -10 to all ability and skill checks. The chilled state happens after the cold overcomes the cold weather gear of the characters, usually 4-8 hours depending on the quality of the equipment or the strength of the cold. A referee should set the time parameters according to his judgment of the situation.

Characters can combat the chilled state by maintaining a high metabolism. One method is if they are physically active doing hard work like hiking, snow shoeing or cross country skiing; they will

gain +1 hour before feeling the cold penalty. Patrolling a security beat does not confer this benefit. Another method of maintaining a high metabolism is increased food consumption. Characters that increase their food consumption by 50% gain +1 hour before feeling the cold penalty. The effects of exercise and food consumption are cumulative.

The chilled state ends when a character enters a warm enclosed space and warms up near a heat source for one hour. He could also erect a tent or snow shelter and spend 4-6 hours in his sleeping gear. Characters in thin clothing experience the chilled state in 10 minutes.

HYPOTHERMIC

If a character remains in a chilled state for a prolonged period of time they risk becoming HYPOTHERMIC. Hypothermia happens when a person's core temperature begins to drop. In game terms any character that has been chilled for 4 hours begins to make hourly current STA checks to see if they become hypothermic. When a character fails his hypothermic test his cold penalty changes to -20 to all ability and skill checks. Each hour they continue to make a current STA check and each failure increases the cold penalty by 10. When a character's cold penalty exceeds their current STA they fall unconscious. Death will occur in a number of hours equal to the character's STA divided by 10 rounded up. During that time they can be saved by a medic. If a character has been dead but not for more than a number of hours equal to their STA divided by 10 rounded up they can be freeze fielded automatically and brought to a hospital for revival. Once they are revived they will need to spend two days in the hospital recovering.

Characters can recover from the hypothermic state by resting in bedding in a heated shelter for 5 hours or an unheated shelter for 10 hours. Sharing their bedding with a non-chilled character can cut that time in half. If a character has become unconscious from hypothermia but has not died they can be saved by a shot of stimdose and resting in bedding as described above but for double the time.

FROSTBITE

There is a risk of FROSTBITE in extreme cold conditions. Each day a character must test for frostbite if they have been chilled for 4 continuous hours, hypothermic, unconscious from hypothermia, or dead from hypothermia. The test is simply a current STA check modified by the highest cold penalty they experienced that day. If a character experiences frostbite roll a d5 for the number of locations affected. The usual locations are ears, nose, fingers and toes. In a yazirian their patagium can experience frostbite.

Frostbite represents destruction of tissue from the cold. Luckily in the Star Frontiers setting there is the wonder drug, biocort, which reverses tissue damage. Treatment for frostbite involves warming affected areas, a dose of biocort, and skill check by a medic

modified by the highest cold penalty experience by the patient. The patient must recuperate for a day in a heated shelter or two days in an unheated shelter or their next frostbite check carries double the cold penalty for a failed check. In the real world people can lose frostbitten areas. This is an extreme result and probably a fun killer in a role playing game. Amputation of frostbitten areas should only result from extreme situations or only happen to non-player characters.

Frostbite carries a long term effect. Even after being cured of frostbite, a character begins to feel the effects of cold quicker. The time at which they become chilled is one hour sooner after experiencing frostbite once. If they've experienced it three or more times cut the time in half for them to experience the chilled state.

SNOW BLINDNESS

Snow Blindness is a painful condition caused by damage from UV radiation. It usually happens when sunlight is reflected off ice and snow into the eyes. Characters traveling over snow and ice facing the sun for 5 or more hours must test for snow blindness. The test is a current STA check. A character with snow blindness experiences the wounds penalty for all actions. This penalty is cumulative with the actual wounds penalty for ½ STA. Sun goggles are an effective preventive measure and the condition is remedied with a standard first aid skill check and a dose of biocort.

SNOW STORM

Snow storms present an indirect danger. Their primary impact is reduced visibility. Characters without a compass or an appropriate skill for finding direction can become lost, see table below. Combat is affected in a snow storm as distant targets are harder to hit. The soft cover modifier on the table is cumulative with actual physical cover.

Storm Severity	Lost *	Direction**	Cover ***	Maximum Range
Light	25%	-10	Extreme	Extreme
Moderate	50%	-30	Long	Long
Heavy	75%	-50	Medium	Medium
Blizzard	100%	-70	Short	Short

*Chance to loose direction without a compass.

** Penalty to find correct direction.

*** Light cover modifier is granted at the range shown in the table.

THIN ICE

Characters breaking through thin ice into water become chilled immediately (see above). Any character that is wet and chilled must begin testing for hypothermia every turn thereafter. Each failed test increases the cold penalty by 10 until the cold penalty exceeds their current STA, when unconsciousness occurs.

Rescuers must displace their weight over as wide an area as possible, usually by lying down to prevent breaking through the ice themselves.

Vehicles can be brought onto ice and parked. A good test for if the ice will support the vehicle is to drill a hole next to the vehicle and if water overflows the hole then the ice is sinking. Note that hover

craft can operation on any thickness of ice but when parked they could sink through the ice the same as a ground vehicle.

Ice Thickness	Supports
5 cm or less	Stay Off
5-9.9 cm	Risky, spread out
10-12.4 cm	Safe for characters closely grouped
12.5-19.9 cm	Safe for cycle sized vehicles
20-29.9 cm	Safe for car sized vehicles
over 30 cm	Save for trucks, explorer, etc.

AVALANCHE

An avalanche is a flow of snow down a slope and is not a rare or random event. They are endemic to snowy mountainous areas. A variety of triggers cause them but for game purposes there is a chance of an avalanche because the referee has decreed it to be so. Characters with appropriate environmental or survival skills should have a passive check to spot a potential avalanche slope which would be half their active check. Basically and active check is if the player says they are looking for the threat and a passive check is if they do not specify they are checking. The passive check is rolled by the referee. Once a potential avalanche slope is detected it is easily avoided by going around.

A referee tests to see if characters climbing on a potential avalanche slope will trigger the avalanche. A slope has a basic chance of 10%-60% chosen by the referee which is modified by +10% per character on the slope. Loud weapon's fire modifies this by check by 70%.

When an avalanche is triggered characters on the slope must make two RS checks. The first is to see if they managed to enter the flow of snow and "swim" with it. The second is to see if they can keep "swimming" with the flow till it stops. Dralasites can inflate themselves with air and gain +25 to their RS checks. Vrusk are -10% to their RS checks and yazirians are +10%. Non dralasite characters can wear an avalanche air bag device which gives them a +25% to their RS checks.

Characters who are buried roll one d10 for each failed RS check, the result is totaled and divide by two to see how many meters deep they are buried. Characters that pass both RS checks are not buried and can attempt to help their compatriots. Anyone who is buried suffers injuries from the experience. Roll d5 to determine how many d10s to roll for damage and a character may make a DEX check for half.

Several methods can be used to locate those who are buried. A character can search with a long probe; poking it into the disturbed snow looking for the buried. Each turn (10 minutes) spent searching with a probe gives a 5% chance of locating someone and is cumulative as the searcher eliminates areas where the buried victims are not. If the buried have tracer tags and a searcher has a tag tracker ([Star Frontiersman #3](#)) the buried characters will be found in one turn each. A searcher using a bio-scanner has a cumulative 20% chance per turn to locate someone and a searcher using a medical scanner has a cumulative 10% chance to locate someone.



Historically, in the real world, victims have two hours (12 turns) to be rescued before they suffocate. This is largely because exhaled breathe melts snow which refreezes and then traps CO2. This situation is ameliorated by use of an avalung device that draws breathe from a wider area and exhales it behind the user and thus gives a yazirian or human an extra hour to be rescued. Because vrusk and dralasite respiratory systems function radically different from humans and yazirians have four hours before suffocation.

Avalanche Safety Equipment

Avalung: This device consists of a mouth piece, a flap valve, an exhaust pipe, and an air collector and usually clips to the front of a parka. It draws air from wider areas and exhales it behind the character. Cost 10 cr.

Avalanche Air Bag: worn like a vest over a coat it can be activated in the case of an avalanche. It works to make a character more buoyant than the rest of the material in an avalanche flow conferring a +25% bonus to RS check to avoid being buried. Cost 30 cr.

Snow Probes: This device is a collapsible pole. It's used to locate buried victims after an avalanche. Most snow vehicles that are rented in avalanche country automatically come equipped with this device. Cost 15 cr.

Item	Cost	Kg
Avalung	10	n/a
Avalanche Air Bag	30	n/a
Snow Probe	15	n/a

“Freezing Out the Player Characters”

The above challenges and events can be used in a variety of ways in your games. Extreme cold and its related dangers is essentially an exercise in managing time and food resources. The chilled state and snow blindness are basically nuisance conditions that are easily fixed or avoided. A crisis that occurs after either of these conditions takes effect could make the outcome dicey for the player characters. Using a snow storm or a potential avalanche slope for the back drop of a tactical scenario can change a standard combat radically. Thin ice is an obstacle that is pure gamble for the player characters giving the choice of go the long way around or take chances. It could also be the site of a very dangerous combat.



THE COMING OF THE S'SESSU

By David Cook

A New Alien Race for the STAR FRONTIERS® Game

From Dragon Magazine #95, April 1985

Dragon Magazine Editor's Note: David "Zeb" Cook was one of the original designers of the STAR FRONTIERS® game system. Though future releases from TSR, Inc., may make no reference to the S'sessu, gamers may adopt them into their games as player characters if the referee so allows and if care is used in setting them up in the campaign.

First contact with the S'sessu occurred shortly after a brief skirmish between the S'sessu and the UPFS frigate Hellscar. The Hellscar, severely damaged in an encounter with two Sathar ships, made an emergency jump and re-entered normal space off Phri'sk, one of the two settled worlds belonging to the S'sessu.

Orbital stations registered the arrival of the warship, and an interplanetary scout was sent to investigate.

The Hellscar established visual contact with the scout and refrained from offensive action, since the scout was of an unknown design. Hailing signals from the Hellscar were returned on an unused frequency in an un-translated language. When televisual ship-to-ship communication was established, the Hellscar's captain, believing he had stumbled onto a Sathar base, opened fire on the scout vessel.

Fortunately, the frigate's fire-control systems were damaged and the shots missed. The scout vessel returned fire and managed to cripple the frigate, though the smaller ship's weapons were technologically outmoded by UPFS standards. The frigate's captain broadcast a long-range distress call to the Federation, but he and his crew were unable to resist a boarding attempt by the S'sessu.

Several weeks later, an attack/rescue fleet arrived off Phri'sk. The UPFS fleet was large enough to suitably impress the S'sessu, a remarkable achievement considering their racial tendencies. Having determined by talking with the Hellscar's captain that the aliens were not Sathar, the fleet commander organized the first diplomatic missions and formal contact between the S'sessu and the Federation proceeded unhindered.

The S'sessu refused to give up the frigate, which they considered a prize ship; because of this and the frigate captain's familiarity with the S'sessu from his captivity, the Hellscar's captain was designated temporary ambassador to the S'sessu worlds.

Physical Appearance

S'sessu are almost identical in appearance to Sathar, the most obvious difference between them being body coloration. A Sathar's skin is yellow or brown, but a S'sessu has a bright pink or green-tinted skin. The S'sessu do not have the patterns of dots or stripes on their heads that the Sathar have. Otherwise, all other descriptive information on Sathar can be applied to S'sessu.

Physical Senses

A S'sessu's sense of hearing is equal to a Human's. Its sense of taste is slightly better than a Human's, but its sense of smell is somewhat less well developed. A S'sessu's double pupils give it superior all-around vision, allowing it to see in several directions at once. A S'sessu always has a +2 Initiative Modifier because of its excellent vision.

Speech

S'sessu speak with a hissing lisp. They have quickly learned Pan-Galactic since their existence was discovered, and they can speak it normally. They can also speak the language of their own race.



Artwork by Khairul Hisham <<mailto:mhisham@hishgraphics.com>>

Society and Customs

In general, S'sessu are extremely competitive and self-centered. Each individual does what it wants, caring little for others except for those who can help the S'sessu achieve its goals. Power and possessions are only for those S'sessu who can take and keep

them. This would seem to create a society where murder and violence are rampant, but this is not the case. Indeed, at times S'sessu can be highly organized and cooperative, and violent crime is an uncommon occurrence among them. If a S'sessu believes there is some sort of personal gain to be had in doing so, it will work cooperatively with other beings. A group of S'sessu might pool their money to build an interstellar spaceship, and another group might hire a police force to protect them from robbery or murder by others.

However, S'sessu will have only one leader among them in most situations. Thus, a S'sessu company is controlled by one extremely powerful boss; the captain of a S'sessu spaceship is the absolute leader of all beings aboard that ship. S'sessu philosophies are based on getting and keeping power, not on what is right or wrong. To a S'sessu, the only actions that are "wrong" are those that keep it from reaching its goal in the best and safest manner possible.

The discovery of the S'sessu has presented a puzzle for xenobiologists. The S'sessu have no explanation for their similarity to Sathar and were in fact unaware of the existence of the Sathar until contact with the UPF. The current theory held among scientists is that the S'sessu are an offshoot of the Sathar race, and this seems well-supported. If this is true, the separation between the Sathar and S'sessu would have to have occurred more than 20,000 years ago, long before the Sathar or the S'sessu are known to have developed space travel.

It has been speculated that an ancient unknown race of aliens (possibly the group known to xenoarchaeologists as the Tetrarchs) transplanted a small group of S'sessu to their present home world at that time. S'sessu only hold claim to a small region of space, consisting of two stellar systems (each with one small inhabited planet) lying ten light years from the Gruna Garu system, on a line running from Dixon's Star to Gruna Garu and on to the S'sessu worlds. Due to their similarity to the Sathar, it was only through luck and careful diplomacy that they were not immediately attacked as hostile aliens by the rescue force that found their home world.

Little is known about the S'sessu history, as friendly diplomatic relations have only recently been established. The S'sessu are extremely aggressive business dealers. In their attempts to gain an equal footing with the other races in the Frontier Sector, they have hired adventurers to spy on, infiltrate, steal from, or suppress activities the S'sessu deem "unfriendly" in the Frontier systems closest to them. This has caused Star Law to take an active interest in certain foreign and business affairs of the S'sessu, though the race as a whole is not regarded as dangerous or hostile.

Attitudes

The S'sessu are essentially amoral (neither knowing nor caring about the difference between good and evil). It is a good bet that a S'sessu will always do exactly what is best for it, even to the extent of betraying others without a second thought to save itself. This "every-worm-for-itself" attitude makes the S'sessu disliked, especially by the Vrusk (who have suffered in certain business dealings from the S'sessu love for "dirty tricks").

Nonetheless, the other races have learned to work with the S'sessu, often with great success and mutual benefit for both sides.

S'sessu adventurers often work well as team members, especially if they see their chances of finding personal gain and wealth are improved through cooperative effort. Of course, a better offer might always be made by someone else, leaving the door open for possible treachery.

Special Abilities

Ability Insight: Because of the extremely competitive nature of S'sessu society, individuals have developed the ability to judge the strengths and weaknesses of opponents. All S'sessu start with a score of 5% in this ability. This is the percentage chance a S'sessu has of learning one ability score or skill level of a being he observes. The S'sessu must see his opponent actually doing something related to that ability score before he can make this judgment.

For example, Asphenomenas, a S'sessu, sees a smuggler outside a spaceport. The smuggler is trying to shoot a beam weapon at a guard robot. Asphenomenas secretly watches the smuggler, and the player tells the referee that Asphenomenas wants to use his Ability Insight to determine the smuggler's DEX score (based upon the smuggler's shooting ability). The referee secretly rolls percentile dice. If the die roll is 05 or under, Asphenomenas will have learned the smuggler's DEX score. A roll over 05 would indicate uncertainty and no knowledge gained.

Ability Insight may be increased by spending experience, just like any other ability score may be raised. This ability may only be used once per game hour, simulating the intense concentration required to use it.

Creating a S'sessu Character

S'sessu characters are created in the same way as other Star Frontiers characters. The following Ability Modifiers are used when creating a S'sessu:

Ability	Modifier
STR/STA	+0
DEX/RS	+0
INT/LOG	+10
PER/LDR	-10

S'sessu have the same movement rate as Sathar. They walk at 10 meters per turn, run at 20 meters per turn, and move long distances at 3 kilometers per hour.

+2 Initiative Modifier because of its excellent vision.

The following **Racial Reaction Modifiers** may also be used when dealing with S'sessu:

- » Humans have a -5 reaction penalty to S'sessu.
- » Vrusk have a -10 reaction penalty to S'sessu.
- » S'sessu have a +5 reaction bonus to Sathar.
- » S'sessu have a -5 reaction penalty to Vrusk.



Star Frontiersman Editor's Note: I think the S'sessu would make a great NPC. You could have one be a pirate or even a very self-interested business being. Another way to introduce them into an adventure would be to have them mistaken for the Sathar and the players learn about them while they are looking into the situation. A lot of rumors could be created to lead the players to the information.

Thirty years later you now know the secret of the Sathar/S'sessu mystery straight from David "Zeb" Cook himself!

THE ZURAQQOR STRIKE BACK

By Brian Valentine

here, Zuraqqor society has five classes: worker, warrior, technician, king, and queen.

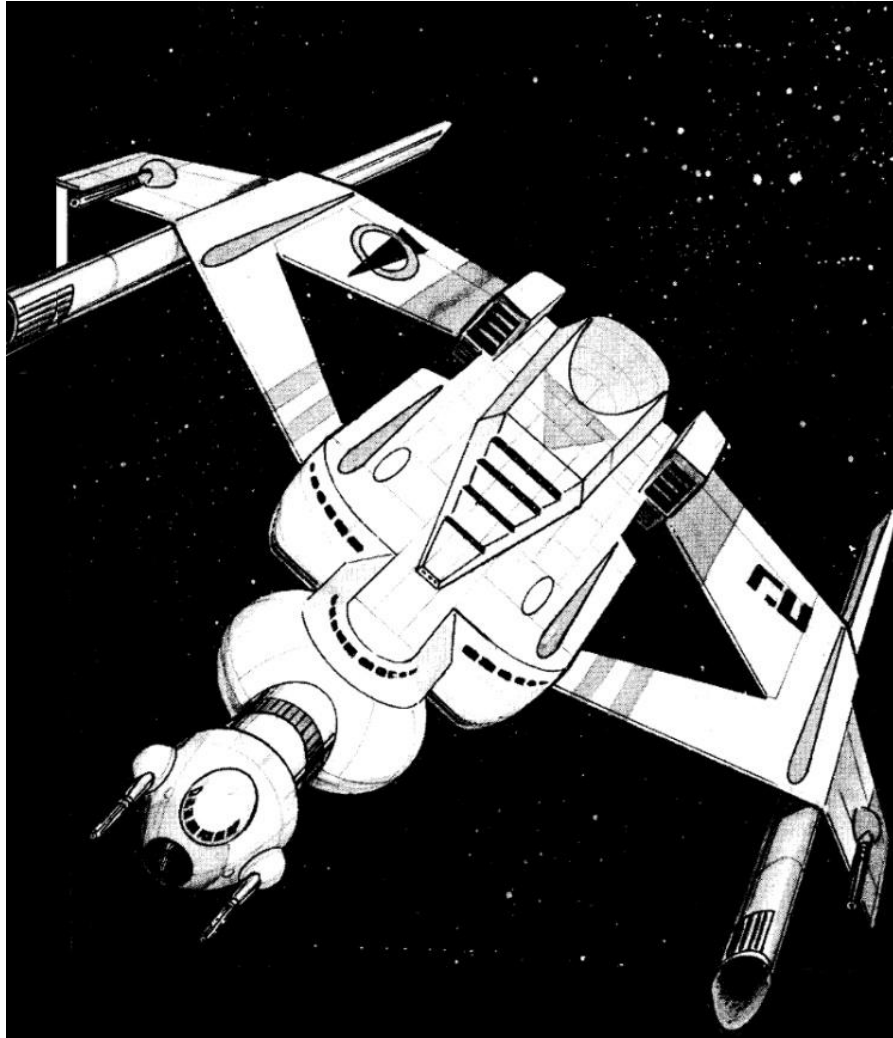
Workers are about 75% of the Zuraqqor's population. Workers do the basic labor of Zuraqqor society. The task could be simple, such as on an assembly line, or complex, such as a merchant banker. Workers might use machines as part of their jobs. However, they will never repair, direct, or command machines or robots. Such work is the prerogative of the technician class. Workers are sexless creatures with a heavier build than the other orders.

Warriors are the fighters of Zuraqqor society. They are sexless and make up about 10% of the Zuraqqor population. They are heavier and stronger than all orders except workers. Warriors are more agile than other orders, and are the only ones normally allowed to bear weapons (other Zuraqqor can bear arms if the threat of death is immediate). Zuraqqor warriors repair and maintain their personal weapons, but the heavier weapons and equipment are maintained by a few technicians attached to the squad.

Technicians have a monopoly on science and technology in Zuraqqor society. They have larger brains than warriors or workers, but are not as strong as either. Technicians have gender, but they are sterile.

Technicians make up about 10% of Zuraqqor society. Over the years, technicians became more important as technology became more complex. Technicians now enjoy privileges that workers and warriors do not have. Technicians have a decisive role in society and try to limit kings and queens to figurehead status. Rival groups of technicians often stage palace revolutions to put their own candidates on the thrones. Their political power rivals that of the Zuraqqor kings and queens.

Queens are the leaders of the worker order (although their power, like that of the Kings, is now limited by the powerful technician order). Each Hive contains one Queen. The Hive Queens elect one District Queen yearly and the District Queens elect a Planet Queen every ten years. Aside from their leadership duties, the queens mate with kings to produce each generation of Zuraqqor. The queens bear thousands of young several times per year. Zuraqqor young are born in a primitive embryo stage then mature in the Hive hatcheries.



Alien starships for STAR FRONTIERS® Knight Hawks gaming

From Dragon Magazine #95

Knight Hawks, like any other game, needs variety to keep it exciting. This article can add some of that needed variety by reintroducing the Zuraqqor, one of the Sathar's allies. The Zuraqqor first appeared in the STAR FRONTIERS® mini-module Assault on Starship Omicron.

They are a race of intelligent, bipedal insects, each having small, vestigial wings, two compound eyes, and two antennae. Zuraqqor are thought to originate from a world near Zebulon, as all assaults on Federation shipping have been made in that area since the new trade route was opened. Zuraqqor culture was well described in Assault on Starship Omicron. The relevant details will be repeated

Kings lead the Zuraqqor warriors, just as queens lead the workers. There is one King in each Hive. Kings have an organization similar to that of the queens (Hive King, District King, and Planetary King).

Zuraqqor are very group oriented and will rarely, if ever, be found alone or acting individually.

Zuraqqor warships consist of two main types: battle cruisers and fighters. Four classes of cruisers are known to exist and are classified as classes A, B, C, and D (class A being the largest). Zuraqqor fighters are also known as "ground strafers" because of their frequent use in planetary assaults. All cruisers are built large and slow: large because the Zuraqqor believe that their shipboard crew organization should resemble the hive organization as closely as possible, making the cruisers resemble huge, floating fortresses; and slow because the Zuraqqor see no need for speed. Cruisers use ion engines, while all fighters use small atomic engines. Though slow, cruisers are nonetheless very maneuverable. They usually travel in groups of four, except during certain war situations in which much larger groups have been used. Because no space stations have been detected around Zuraqqor worlds, these warships are assumed to be built on small moons or asteroids. Ships the size of their cruisers could never lift off from a planet of any major size. Cruisers are thought to take several years to build.

Class A cruisers are each equipped with a mine- neutralizing mechanism that deactivates all mines within 30,000 kilometers (three hexes) of the ship. This device cannot be duplicated by any other race at this time. Class A cruisers also each have one fighter bay that can carry one to five fighters.

Zuraqqor Ship Statistics

Zuraqqor Battle Cruiser, Class A HS:15, Ion engine type A (x4)	
DCR: 150	ADF: 1
HP: 80	MR: 2
Weapons:	Laser Cannon(X2), Laser Battery, Electron Battery, Proton Battery, Disruptor Cannon, Seeker Missiles(x2), Torpedoes(x4), Rocket Batteries(x8)
Defenses:	Reflective Hull, Electron Screen, Proton Screen, Stasis Screen, Masking Screen(x2), Interceptor Missiles(x8)

Zuraqqor Battle Cruiser, Class B HS:13, Ion engine type B (x4)	
DCR: 120	ADF: 1
HP: 75	MR: 3
Weapons:	Laser Cannon (X2), Laser Battery, Electron Battery, Proton Battery, Disruptor Cannon, Torpedoes(x4), Rocket Batteries(x6)
Defenses:	Reflective Hull, Electron Screen, Proton Screen, Masking Screens(x2), Interceptor Missiles(x6)

Zuraqqor Battle Cruiser, Class C HS:11, Ion engine type B (x3)	
DCR: 100	ADF: 1
HP: 70	MR: 3
Weapons:	Laser Cannon, Laser Battery, Electron Battery, Proton Battery, Torpedoes(x2), Rocket Batteries(x4)
Defenses:	Reflective Hull, Electron Screen, Masking Screens(x2), Interceptor Missiles(x6)

Zuraqqor Battle Cruiser, Class D HS:9, Ion engine type B (x2)	
DCR: 75	ADF: 1
HP: 65	MR: 4
Weapons:	Laser Cannon, Laser Battery, Electron Battery, Torpedoes(X2), Rocket Batteries(x4)
Defenses:	Reflective Hull, Masking Screens(x4), Interceptor Missiles(x4)

Zuraqqor Fighter HS:2, Atomic engine type C (x1)	
DCR: 50	ADF: 5
HP: 10	MR: 5
Weapons:	Laser Battery, Assault Rockets(x4)
Defenses:	Reflective Hull

Scenario 1: The Zebulon Raid

In this scenario, the UPFS ships are making a run to a military base on Volturnus (off the right side of the star map), and they begin the game in formation near the left-hand side of the star map. They only want to get to Volturnus and will try to escape any attacks. On the other hand, the Zuraqqor's orders are not to return until the UPFS ships are destroyed.

UPFS Forces

UPFS Arcturon (destroyer)	
DCR: 75	ADF: 3
HP: 50	MR: 3
Weapons:	Laser Cannon, Laser Battery, Electron Battery, Torpedoes(x2), Rocket Batteries(x4)
Defenses:	Reflective Hull, Masking Screens(x2), Interceptor Missiles(x5)

Location: Hex 0618 **Speed:** 5

UPFS Arrow (assault scout)	
DCR: 50	ADF: 5
HP: 15	MR: 4
Weapons:	Laser Battery, Assault Rockets(x4)
Defenses:	Reflective Hull

Location: Hex 0821 **Speed:** 5

UPFS Remora (assault scout)	
DCR: 50	ADF: 5
HP: 15	MR: 4
Weapons: Laser Battery, Assault Rockets(x4)	
Defenses: Reflective Hull	

Location: Hex 0522 **Speed:** 5

UPFS Anaconda (freighter)	
HS:17, Atomic engine type C (x1)	
DCR: 71	ADF: 2
HP: 85	MR: 1
Weapons: Torpedoes(x4)	
Defenses: Reflective Hull, Masking Screens(x2)	

Location: hex 0521 **Speed:** 5

Zuraqqor Forces

ZMS (Zuraqqor Military Ship) Brtz'krgr (Class B cruiser)

Location: hex 3439 **Speed:** 7 (heading toward hex 3338)

All UPFS ships are heading horizontally across the map sheet. The Zuraqqor ship is moving along a diagonal to intercept the UPF convoy. Any UPFS ship that makes it off the right side of the map is assumed to have safely outrun the Zuraqqor cruiser. The Zuraqqor ship wins if all UPFS ships are destroyed or suffer over 50% loss of their hull points. The Anaconda and at least one other ship must survive for the UPFS player to win. Note that it is possible for both sides to win in this scenario. (Such are the fortunes of war.)

Scenario 2: The Voltornus Incident

This battle occurs a month after the Zebulon Raid. The Zuraqqor are attacking the only station in orbit around Voltornus, effectively cutting off the on planet mines and military installations from the PGC and Galactic Task Force. The statistics for the Pan-Galactic ships were previously given in the DRAGON® Magazine issue #88 ("Yachts and Privateers Return") [Editor's Note: This was Remastered in SFman #14], but are repeated here for the benefit of those who lack that issue. The planet Voltornus is located in hex 1520 on the star map and does not move during the course of the game. The Tarnagis just leaving Voltornus, having undocked from the space station and pulled out of orbit.

Pan-Galactic Forces

PGSS Tarnagis (Nova-class yacht)	
HS:5	
DCR: 35	ADF: 2
HP: 25	MR: 2
Weapons: Laser Cannon, Laser Battery, Rocket Battery	
Defenses: Reflective Hull	

Location: Hex 1921 **Speed:** 1 (heading toward hex 2021)

PGSS Brigadoon(Condor-class privateer)	
HS:13	
DCR: 59	ADF: 3
HP: 65	MR: 3
Weapons: Laser Battery(x2), Electron Battery, Proton Battery, Disruptor Cannon, Torpedoes(x4)	
Defenses: Reflective Hull, Stasis Screen, Interceptor Missiles(x8)	

Location: Hex 1519 **Speed:** 0 (docked at space station, in orbit, moving counterclockwise)

PGSS Drag Net (Thruster-class privateer)	
HS:2	
DCR: 26	ADF: 4
HP: 10	MR: 5
Weapons: Assault Rockets(x4)	
Defenses: Reflective Hull	

Location: Hex 1519 **Speed:** 0 (docked at space station, in orbit, moving counterclockwise)

PGSS Miner's Central (PGC-owned space station at Voltornus)	
DCR: 23	
HP: 30	
Weapons: Laser Batteries(x2)	
Defenses: Reflective Hull, Masking Screen(x4), Interceptor Missiles(x4)	

Location: Hex 1519 (in orbit, moving counter clockwise)

Zurraqqor Forces

ZMS Ktr-Blitz (class-B cruiser)

Location: Hex 5420 **Speed:** 8 (heading toward hex 5320)

ZMS Drlp'mrztd (class-C cruiser)

Location: Hex 5523 **Speed:** 8 (heading toward hex 5423)

The first side that destroys or inflicts over 50% damage on all of the other side's ships wins, with the PGC station counting as a ship. Neither side can retreat from the star map.



THE ZURAQQOR

Compiled by William Douglass

AUGUST 2012

Editor's Notes: During the remastering of the article "The Zuraqqor Strike Back", found in this webzine, I was remembering my first encounter with these BAD bugs. Their first appearance in ASSAULT ON STARSHIP OMICRON mini-module, gave us another species of bad guy. Over the years the memory of them faded and when I remembered Star Frontiers I only thought of the Sathar as the bad guys.

Another editor suggested one of us come up with an article on the Zuraqqor. So I did some investigation and found a thread on the <http://starfrontiers.us/> site. The main body of work was done by [rattraveller](#).

As I sit at my desk and ponder the briefing I just left, my mind is lost in speculation. Sometimes command can really come up with ways to make your head spin.

Who the heck are the Zuraqqor?

In my 10 years in Spacefleet, I had never even heard of them. Some crack Pan Galactic Corp team from around 20 years ago was bringing back a ship that had been lost and ran into a Sathar raiding party. The ship was boarded and the team had a tough time beating them off. During the fight, which was partially captured on the ships cameras, they encountered the usual Sathar Cybodragons, and of course Sathar. But what had caught the attention of everyone was some new insectoid race that was working with the Sathar. After the battle and recovery of the ship, the couple of bodies left were examined.

If only they could have boarded the Sathar ship and captured it, maybe we would have some better answers. But as usual the Sathar knew they were losing and blew themselves up.

I felt bad for the Vrusk officers in the room. They looked a little uncomfortable watching another insect race helping our arch enemy's like that. At least, they didn't resemble them. They only had two legs, not six. They looked nothing alike, but I could guess they were thinking, would there be any animosity from the other races because of this. I knew I always felt that way whenever we found Human Sathar agents.

So the briefing continued, their physical appearance and structure were of a race of bipedal (two arms and two legs) insects. They had large bug-like eyes, two antennae and small wings. They appeared smaller than they were because their knees bent the opposite way of most races and their necks extend horizontally from broad hunched over shoulders. There were only two so there was some speculation on whatever variations there might be.

They seemed very weak too. Nothing like the robots or constructs the Sathar deployed in battles. Maybe the Sathar kept them around because they were so weak. Who knows? They were not very impressive. Even Captain Ki'li'tak commented on how even a young Vrusk could take one of these guys down. So what were the

Sathar doing with them anyway, or should I say what were they doing with the Sathar?

This brought about a long discussion from everyone in the room. You could hear things like,

"I thought the Sathar only destroyed other races."

"They don't look very intelligent. Maybe the Sathar are just using them as cannon fodder?"

"They could have been hypnotized and don't realize what they are doing. We have encountered that with Sathar spies."

"Maybe the Sathar were low on technology supplies and opted to go the biological route and create, or at least guide in their own way, a fast breeding race to fight for them"

That last one got me thinking of the Mhemne.

So I said "There is the Mhemne though. We know they subjugated them and we still have not figured out why. After we freed them from the Sathar, we haven't had any more incursions in that area of space."

I had done a tour as a Mhemne Liaison officer for a few years before ending up back at Fleet Intelligence headquarters. So I could speak from experience there.

The discussion was growing louder and Colonel Grad from Fleet Intelligence, who was in charge of the briefing, was sitting back letting us all speculate. For a Dralasite, I think the Colonel has a twisted sense of humor. Normally he would not let the discussion go on like this, but he had something up his sleeve, I had been around him enough to see it in his eyes. As the discussion died down, Colonel Grad said "You all may think that was the last of it, but a few years later we had another encounter. " This got the room going.

"If this was a threat why had the fleet not known about it"

"How many more encounters and where were they coming from?"

"No one had said there was another Sathar invasion going on."

So now more secrets were revealed. We were shown Fleet actions against an unknown force in and around Zebulon.

A lone ship entered the system and began to attack the UPFS freighter Anaconda and its escorts. The UPFS Arcturon, a destroyer, and 2 Assault Scouts, the UPFS Arrow and UPFS Remora. They were heading to Voltornus with some military supplies for the base being setup there. It was a big ship with formidable firepower. It was not a Sathar cruiser and no one from the fight had any idea who they were. The ship fought to the death and ended up exploding with only small debris floating around. Not a lot to go on. So someone in Intelligence decided it was an unknown pirate raid.

About a month later, the Pan Galactic Corporation Space station, Minor's Central, around Volturnus was attacked by 2 similar ships. The PGC forces there put up a good fight. The smaller of the two ships took a direct hit to the engines and died in space. Atmosphere was venting and there was no power. So in the aftermath, Fleet Intelligence showed up and began to investigate the hulk.

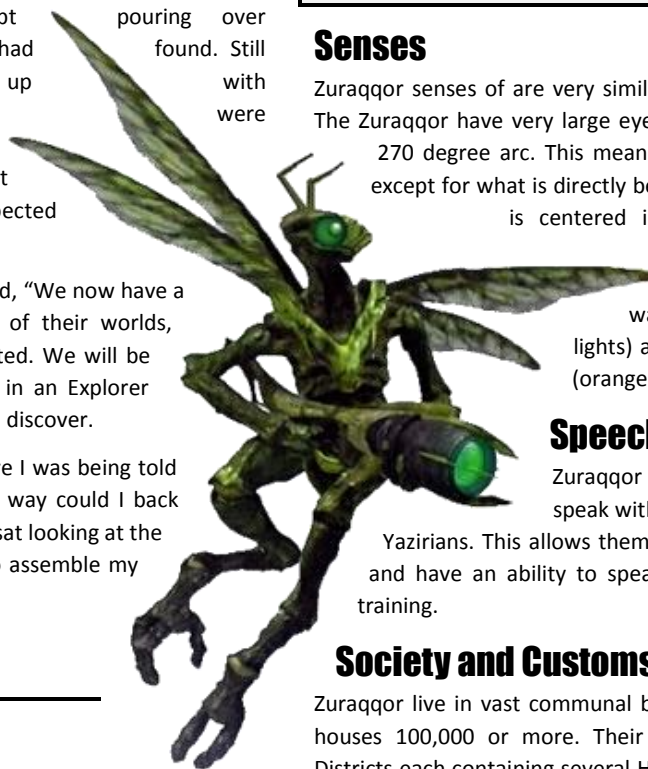
PGC even tried to hide it from us, apparently to see if they could use some of the technology for themselves. Lucky for Fleet that we had our base already going on Volturnus, or they would have gotten away with it.

So Colonel Grad showed us the intel gleaned from the ship. The bugs call themselves the Zuraqqor and there were several different ones found throughout the wreck. No Sathar were found amongst the crew, but there was some reference to the Sathar in translated documents.

So why bring this up to us after so long. Well, that was it. No other contact came and Intelligence kept pouring over translating and identifying what they had found. Still no answer as to why they had teamed up with the Sathar either, since these attacks independent of the Sathar. After 20 years though they had found quite a bit about the Zuraqqor or at least suspected they had the right answers.

Now Colonel Grad looked at me and said, "We now have a good idea as to where at least one of their worlds, maybe even their home world, is located. We will be sending in Captain Djaju with a team in an Explorer ship to investigate and see what we can discover.

I knew he was up to something. So here I was being told what my new assignment was and no way could I back out of this, orders are orders. So now I sat looking at the data from the reports and prepared to assemble my team.



Zuraqqor

Physical Appearance and Structure

The Zuraqqor are a race of bipedal (two arms and two legs) insects. They have large bug-like eyes, two antennae and small wings. They appear smaller than they are because their knees bend the opposite way of most races and their necks extend horizontally from broad hunched over shoulders. To most other races individual Zuraqqor look extremely similar except for the physical size of a Zuraqqor (Vrusk can easily tell Zuraqqor apart). This depends upon which order the Zuraqqor belongs to (orders are covered under Society and Customs). Workers are the largest and heaviest; Warriors come in a close second while the other three orders are smaller but identical to each other in size.

Zuraqqor have skin, but it is more of a flexible and porous chitin. Coloring is also determined by the order they belong to. Also because of the shift in the light spectrum they can see (covered

under Senses) the Zuraqqor appear a different color to themselves (and Vrusk) then to those races whose sight is similar to humans.

Zuraqqor are an egg laying race so all reproductive organs are internal. Add to this they have three sexes; male, female and drone. This further adds to the lack of distinction between individuals as viewed by non-insectoid races.

Zuraqqor Coloring

Order	Human sight	Zuraqqor sight
Worker	Red	Grey (solid)
Warrior	Black	Black with striations of dark blue
Technician	Blue	Blue with splotches of violet
King	Black	Glowing purple with bands of violet
Queen	Black	Glowing violet with bands of purple

Senses

Zuraqqor senses of are very similar to Vrusk with one exception. The Zuraqqor have very large eyes which allow them to see in a 270 degree arc. This means they can see all around them except for what is directly behind them. Their sense of smell is centered in their antennae and slightly better than humans and they see more of the short wavelengths (blue and ultraviolet lights) and less of the long wavelengths (orange and red).

Speech

Zuraqqor have mandibles for eating but speak with a larynx similar to Humans and Yazirians. This allows them to learn those languages easily and have an ability to speak Vrusk languages with a little training.

Society and Customs

Zuraqqor live in vast communal buildings called Hives. Each Hive houses 100,000 or more. Their planets are divided into Hive Districts each containing several Hives. Zuraqqor society is divided into five classes, called orders; worker, warrior, technician, king, queen.

The class of each Zuraqqor is determined at birth. The five orders have slightly different physical structures that distinguish them from one another. Individual Zuraqqor do not have much personality; they act as members of their class.

	Size	Mass	Lifespan	Reproduction	PSA
Worker	2.1m	100kg	60yr	Sterile	BioSocial
Warrior	2.0m	90kg	60yr	Sterile	Military
Technician	1.6m	50kg	100yr	Sterile	Tech.
King	1.6m	50kg	120yr	Heterosexual, ovoviviparous	Military
Queen	1.6m	50kg	120yr	Heterosexual, ovoviviparous	BioSocial

Note: all zuraqqor have a body temp: 38C

Movement

	Walking	Running	Hourly
Worker	10m	15m	6km
Warrior	10m	15m	5km
Technician	10m	30m	2km
King	10m	30m	3km
Queen	10m	30m	3km

Average Stats

	STR/STA	DEX/RS	INT/LOG	PER/LDR
Worker	70/70	50/50	25/25	20/20
Warrior	60/60	70/70	30/30	25/25
Technician	30/30	60/60	35/35	30/30
King	30/30	60/60	35/35	45/45
Queen	30/30	60/60	35/35	45/45

	IM	PS	RW	MW
Worker	6	4	25	35
Warrior	7	3	35	35
Technician	6	2	30	30
King	6	2	30	30
Queen	6	2	30	30

About 75% of all Zuraqqor are workers. Workers do the basic labor of Zuraqqor society. The task could be simple, such as on an assembly line, or complex, such as a merchant banker. Workers might use machines as part of their jobs. However, they will never repair, direct or command machines or robots. Such work is the prerogative of the technician order. Workers are sexless creatures with a heavier build than the other orders.

Warrior

Warriors are the fighters of Zuraqqor society. They are sexless and make up about 10% of the Zuraqqor population. They are heavier and stronger than all orders except workers. Warriors are more agile than other orders. Zuraqqor warriors repair and maintain their personal weapons, but the heavier weapons and equipment are maintained by a few technicians attached to the squad. Warriors are the only ones normally allowed to bear weapons. Other Zuraqqor can bear arms if the threat of death is immediate and to protect the queens, young and eggs. In this case technicians and kings will use ranged weapons and high tech melee weapons. Workers will usually attack with their powerful fists or some makeshift melee weapons.

Technicians

Technicians have a monopoly on science and technology in Zuraqqor society. They have larger brains than warriors or workers, but are not as strong as either. Technicians have gender but are sterile. Technicians make up about 10% of Zuraqqor society. Over the years, technicians became more important as technology became more complex. Technicians now enjoy privileges that workers and warriors do not have. Technicians have a decisive role in society and try to limit the kings and queens to figurehead status. Rival groups of technicians often stage palace revolutions to put their candidates on the thrones.

Queens

Queens are the leaders of the worker order (although their power, like that of the kings, is now limited by the powerful technician order). Each Hive contains one Queen. The Hive Queens elect on a District Queen yearly and the District Queens elect a Planetary Queen every ten years. Aside from their leadership duties, the queens mate with kings to produce each generation of Zuraqqor. The queens bear thousands of young several times per year. Zuraqqor young are born in a primitive embryo stage then mature in the Hive hatcheries.

Kings

Kings lead the Zuraqqor warriors, just as queens lead the workers. There is one King in each hive. Kings have an organization similar to that of queens (Hive King, District King and Planetary King).

Kings and Queens who are not Hive leaders take on other leadership roles as preparation to becoming Hive leaders.

Kings serve as military officers in both their army and navy. Queens work as supervisors and managers on many different levels both in labor and political fields.

Attitudes

Zuraqqor in the same order act the same. Workers only wish to serve their Hive and Queens. Warriors only wish to protect their Hive and serve their Kings. Kings and Queens only wish to lead and provide for their people and Hives. Technicians are the exception to this attitude. They form sub-groups and in fight for their own personal pleasures. Frontier sociologists have speculated that their drive for scientific understanding and curiosity separated them. The fact that they have sexes among themselves but cannot reproduce may have sent them to seek control of others of their kind. Possibly some of them were exposed to something which altered their DNA and caused this drive to control. One thing can definitely be said. Workers and Warriors are predictable. Kings and Queens work for their Hives and Race. Technicians are wildcards who can and will do anything.

Special Abilities

Specialization: Zuraqqor may only choose skills from their order's PSA until they reach skill level 4 in one skill. They can only take a total of 2 skills outside their order's PSA and those can only be raised to skill level 2. Thanks to their specialization they start with one skill at level 2 and one at level 1.

Hover: Zuraqqor wings have de-evolved to the point where they can no longer use them for flight. They can use them to lift themselves off the ground to a height of 5 meters and allow them to hover for two minutes at the most. They must then land and may not use the hover ability until they have rested for 2 hours.

Zuraqqor Characters

Zuraqqor are unwelcome in the Frontier. They cannot be player characters unless the Referee is willing to use them in the campaign.

Player Character Briefing on Zuraqqor

Zuraqqor are cunning and dangerous. Any encounter with them should be reported immediately. If escape is impossible, citizens

should attack immediately, attempting to capture a live Zuraqqor for study, if possible. When Zuraqqor are encountered with Sathar, citizens should either attempt to escape or attack to kill, as the Zuraqqor are known to be allies of the Sathar.

Well that was interesting. It looks like there is a lot of speculation on the Science Geeks part? Oh Well, that will be my job to prove or disprove. At least looking at the report and watching the video, it appears that the Zuraqqor that attacked the *Omicron*, are from the Technician cast. I will have to run that by one of the Vrusk officers. Again, I wonder what they think of another insectoid race, especially one that seems to be working for the Sathar!



The S'sessu Connection

By Larry Moore

I posted on G+ asking for an artist to draw a "sathar like" S'sessu. One of those artist was [Kyrinn S. Eis](#). I had two awesome images to include in the webzine and decided I'd write up some fluff for a possible adventure.



Image by Kyrinn S. Eis

Years have passed since the incident with the UPFS frigate Hellscar where the Frontier Sector was introduced to the sathar-like race, the s'sessu. They have been slowly integrating into Frontier society, mostly near their home system spreading towards Athor, Gruna Garu, Prenglar and Dixon's Star. With access to Frontier records they learned about their resemblance to the sathar, their place in the Frontier and perhaps, just perhaps how much they had to gain from it.

Getting Characters Involved

Background: A powerful crime-lord intrigued by the connection to the sathar and their dealings with the bug-like zuraqqor, Sca Skolly has an idea. If he and his followers could pose as sathar, they could use the zuraqqor to widen their crime 'net into Frontier worlds on the edge of explored space.

Six months of scouting attempts near the Formad Cluster a team lead by Skolly's most trusted s'sessu, T'scow located a zuraqqor mining ship. This is a perfect opportunity to determine if they can sway the bugs to do Skolly's bidding. The PC's uncover a transmission from T'scow to Skolly reporting the zuraqqor mining ship activity:

- The PC's work for or are enlisted in Sector Six, they have been tasked with keeping an eye on hostile s'sessu activity.
- The PC's employer tasked them with scouting near the Formad cluster for resources, habitable planets, safe star routes, etc.
- They are out on their own discovering new star routes they can sell to a mega-corp.
- A misjump dumps them into the same systems as the s'sessu scout and zuraqqor mining ship.
- The PC's are captured meddling in Skolly's business and are captured. The s'sessu offer them as a goodwill offering to the zuraqqor who then use them as sport. The PC's are given a ship and told to hide on one of the habitable moons where they will be hunted down. If they can survive they will be given their freedom.

Background: Skolly has been using the zuraqqor to destroy militia and corporate ships around Scree Fron, Capella and Fochrik. After the militia is knocked out Skolly's hirelings use the chaos as cover to steal from derelict ships.

- The PC's are caught in the middle of a zuraqqor raid. They could be passengers on a liner, part of a freighter crew, UPF enlisted or perhaps have their own ship.
- Another pirate crew hears of these exploits and launches their own nefarious activities. They target the commercial deck of the space station where the PC's are enjoying dinner at Rod's Spacer Roost.

Background: 20,000 years ago the erona captured several specimens of sathar and through genetic manipulate created an offshoot called the s'sessu.

- During an exploratory mission the PC's uncover evidence of the connection between the sathar and the s'sessu. This could come in the form of an ancient data-chip, ruins, time-capsule, etc.
- A wealthy s'sessu archeologist discovers the PC's findings and is horrified of the implications. She seeks a mercenary crew to take care of the problem.
- After the discovery is made public knowledge a stream of rouge archeologist and corporate interest flock to the location. Make-shift cities are built in weeks.

BASILISK SURVEY EXPEDITION REPORT

By Thomas Verreault/jedion357

AUGUST 2012

Alpha Section: Overview

This is the preliminary survey report by the Basilisk Survey Expedition (BSE). It was transmitted via subspace to Exploration Survey Command (ESC). The full report will be filled upon return to the Frontier Sector. The survey is broken down into astrological, xenological, environment, zoological, and botanical surveys.

Beta Section: Astrological Survey

Beta Subsection 1: Binary Star

Zhosyllius (K7 III Orange Giant)	
Astrographic data:	
Radius	7.20 x 106 km (10.35 x Sol)
Mass	3.30 x 1030 kg (1.66 x Sol)
Temperature	3900 K
Luminosity	4.38 x 1028 W (114.35 x Sol)

Zhosyl (Companion, M2 V Red Dwarf)	
Astrographic data:	
Distance	8.76 x 1010 km (585.61 AU)
Radius	2.78 x 105 km (0.40 x Sol)
Mass	5.92 x 1029 kg (0.30 x Sol)
Temperature	3100 K
Luminosity	1.66 x 1025 W (0.04 x Sol)



Image: NASA/JPL-Caltech

Beta Subsection 2: Habitable Planet

Basilisk is the native planet of the Basiloe race and the third planet of the system. It has a moderate population, marginal economy and a small space station.

Astrographic Data:

Basilisk(Zhosyllius III)	
Orbital Radius	1.46 x 109 km(9.77 AU)
Period	2.07 x 105 hours(23.70 earth years)
Rotation	33.23 hours
Gravity	9.91 m/s ² (1.01 x earth)

Escape Velocity	12.01 km/s
Hydrosphere	32% Water & 5% Ice
Climate	Mean temp 24 C
Minimum Temp	6 C
Maximum Temp	69 C
Atmosphere	Dense, breathable; 32.4% iron, 31.2% oxygen, 19.0% silicon, 6.4% sodium, 3.9% aluminum, 3.1% other metals, 4.1% other elements
Special	Basiloe, sapient race

Beta Subsection 3: Other System Bodies

Zhosyllius I (rock planet)	
Orbital Radius	6.52 x 108 km (4.36 AU)
Period	6.17 x 104 hours (7.06 earth years)
Gravity	6.80 m/s ² (0.70 x earth)

Zhosyllius II (rock planet)	
Orbital Radius	1.01 x 109 km (6.76 AU)
Period	1.19 x 105 hours (13.64 earth years)
Gravity	14.80 m/s ² (1.51 x earth)

Zhosyllius IV (rock planet)	
Orbital Radius	2.28 x 109 km (15.25 AU)
Period	4.04 x 105 hours (46.23 earth years)
Gravity	6.52 m/s ² (0.67 x earth)

Zhosyllius V (rocket planet)	
Orbital Radius	3.39 x 109 km (22.68 AU)
Period	7.33 x 105 hours (83.82 earth years)
Gravity	10.94 m/s ² (1.12 x earth)
Special	Trace atmosphere

Zhosyllius VI is a rock planet	
Orbital Radius	6.79 x 109 km (45.37 AU)
Period	2.07 x 106 hours (237.16 earth years)
Gravity	19.06 m/s ² (1.95 x earth)
Special	4 small moons, trace atmosphere

Zhosyllius VII is an ice planet	
Orbital Radius	1.31 x 1010 km (87.35 AU)
Period	5.54 x 106 hours (633.47 earth years)
Gravity	10.28 m/s ² (1.05 x earth)

Zhosyllius VIII is an ice planet	
Orbital Radius	1.31 x 1010 km (87.35 AU)
Period	5.54 x 106 hours (633.47 earth years)
Gravity	10.28 m/s ² (1.05 x earth)

Gamma Section: Xenological Survey

The native sapient species of Basilisk is the Basiloë.

	Male	Female
Height	1.8m	2.0m
Weight	55-60kg	85-90kg
Average Lifespan	Unknown	
Reproduction	Heterosexual Ovoviviparous	
Body Temp	35C	

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

Movement:	
Walking	10m/turn
Running	30m/turn
Hourly	5km

Gamma subsection 1: Physical Description

The Basiloë evolved on a world where evolution followed a path of bilaterally symmetrical hexa-pedal locomotion. Thus the Basiloë have six limbs. The first pair of limbs has true-hands that allow tool use. The second set of limbs has hand-feet that function as both feet and hands but with only half their DEX for manipulation of tools. The third pair of limbs has true-feet. This arrangement allows the basiloë to stand upright on two limbs or to gallop on four though the race prefers upright locomotion as befitting their higher status over other animals. They are generally as fast of humans but may gallop for short periods at a speed almost rivaling vrusk (a number of turns equal to STA divided by 10 before walking for one turn).

Basiloë have short stubby tails and a chameleon looking head. Their bodies are covered with thick tough scales. Females are generally stouter, taller, and heavier as well as possessing rows of short (2-5 cm) horns down both sides of their bodies. Males tend to be thinner and shorter and lack the rows of horns and weigh less than a female.

Their limb arrangement allows for 3 melee attacks and females gain a +2 on their punching score for grappling and unarmed melee combat due to their horn ridges. Protective suits for the female basiloë cost +10% extra to prevent the wearer from destroying it through normal wear and negate any combat advantage gained from the horns.

Gamma subsection 2: Senses

Their hearing conforms to human standards. Eye sight is weaker but smell is more acute and includes the ability to sense heat much like the terran pit viper through sensitive pit like organs on their snout. A basiloë can often detect the presence of unseen beings within 16 meters. This ability will allow them to target a

hidden opponent with the usual modifiers for cover and have a +15% bonus to not be fooled by a holo-screen. Among females their tactile sense is less acute than the males.



Artwork by C.J. Williams

Gamma subsection 3: Speech

They manage to speak Pan-Gal as well as humans and dralosite languages but generally manage yazirian with great difficulty often distorting it badly. They cannot speak vrusk at all. Their own language is harsh and guttural and can be pronounced by all of the original Frontier races except vrusk.

Typical Female names will end in 'IUS' or 'I'. Examples are Sonius, Seinius, Sidius, Zhoyllius, Disensius, Ciusidi, Exius, Xertsi, and Cussyllius. Typical male names are Sexti, Usuie, Xenti, Xeno, Zax, Salliusoc, Usex, Zosyl and Zhosh.

Gamma subsection 4: Society and Customs

Basiloe society is matriarchal with the biggest and most aggressive females (aggression expressed only among competing females) rising to a sort of figure-head position of 'All-mother'. Real decision making is performed by the elite harem of the top female though she decides on overall policy. Stronger females generally attract/choose the smarter and more technically proficient males. Females will co-exist but one will always dominate the others and her harem will always be males who are the top of their professions.

Basiloe harems do not necessarily imply mating. It is not unusual for a male to be a member of a harem and be replaced by another male and never have mated with the female. Rarely will males within a harem have overlapping expertise and they seem to be chosen for their ability to advise the female. Competence and ability are the deciding factors. After their eggs hatch the paternal parent is responsible for raising the young.

With only the rare exception, females supply all the military leadership among the Basiloe. Even in their space exploration ships, captains are all female and all officers were males with harem status or subservient females. They found the idea of male captains in of Space Fleet to be astonishing and upon learning of Admiral Lyddia Masterman-Sanchez immediately assumed that male ship captains were from her harem.

Typically Basiloe wear a harness with multiple attachment points for equipment and pouches. They have historical examples of pre-modern armor but no analogs to modern defensive suit technology. They were greatly impressed with skien suit technology and showed signs of attempting to duplicate it for themselves. They have some appreciation for beauty and art but by and large the core Basiloe value is effectiveness. They generally seek the best equipment they can afford and discard that which is deemed sub-standard. Basiloe roboticist cannot help but tinker with their robots constantly trying to enhance or upgrade it. The same is often true for a Basiloe star ship engineer.

Gamma subsection 5: Attitudes

Female Basiloe recognize that other races don't possess the same deference to females but they still find it difficult to not try to "run the show". If there is another female or any vrusk or dralosite (their bias is to assume that individuals of these two races who are in command must be female) in command they will assume a watchful attitude to gauge status/ dominance with this leader. If a male human or yazirian is in charge, their natural inclination is to

assume leadership and come off as quite pushy. Luckily the Basiloe social matrix demands protection of males so they will avoid attacking a male in a leadership position out of deference to his weaker physique. A female basiloe may be comfortable taking a subservient position but only if she respects the abilities of the individual involved. Male basiloe work well with most races of the frontier and get along exceptionally well with human and yazirian females.

Gamma subsection 6: Special Abilities

Female horn ridges: Females gain a +2 to unarmed melee and grappling due to their horn ridges.

Tech PSA: Basiloe with the technician PSA gain a +5% when adding equipment or altering the programming of a robot, computer or equipment. The tech ability does not apply to repair.

Climbing: All Basiloe have a +5% to all climbing maneuvers due to their six legs. These abilities cannot be increased by experience points.

Metabolic Control 10%: A Basiloe can go into a trance and slow his or her metabolism almost to the point of death. This slowed metabolism has many benefits. It prevents poison from spreading rapidly throughout the user's system (though it eventually will cause damage- instead of taking damage every turn they take damage every hour). The character can almost hibernate, thus lasting longer on fewer supplies in harsh climates. The character can feign death and has a chance (base rate) to fool even the best doctors (though not med-bots). At the moment a Basiloe is reduced to 0 STA he can attempt to enter this trance conferring the benefit of a staydose injection at his base rate. Failure means all rules concerning 0 STA apply.

Once the character has started the trance, he can only meditate. He can come out of the trance whenever he desires, but it takes three turns for his body to wake up after he has announced the end of the trance. While the user's body metabolism is slowed down, healing is also slowed- any 20 hour day period in which this trance ability is used counts for half (rounded down) STA healed. This ability can be increased by experience points.

Gamma subsection 7: Historic Background & Societal Notes

Pre-contact, the Basiloe lacked effective star drives but sent out sub-light exploration craft using a hibernation technology that enhanced their metabolic control. The effects of which allowed the Basiloe to awaken from hibernation under their own control. They could tell themselves to awaken if certain stimuli occur like rising temperature or lights coming on. Even though a sub-light craft could travel for centuries the crew could rouse themselves if the craft was boarded as their subconscious would detect sound, temperature or light changes.

Captain Reginald Oliver, commander of the survey expedition was the first non basiloe to gain harem status being valued for his engineering expertise by the ruling All-mother of the largest city state. His position was that of vizier/advisor and not as a mate.

Traditionally one female would obtain to a position of dominance within Basiloe societal structures and over time this led to a leading All Mother of the whole race and planet. Since the

cataclysm (see below) this cultural practice has fractured to be multiple All Mothers who lead individual nomadic bands, city states and small communities. It is projected that given enough time the planet will re-unite under a single All Mother at some time within a century.

An All Mother figure is recognized based on effectiveness but the more primitive the culture involve the more likely that the right to the position will be settled by combat. When a contender for the position of All Mother is defeated, whether by combat or otherwise, the defeated contender usually ends up becoming a lieutenant of the victor. The Basiloie cultural value of effectiveness and the recognition that any contender for the position of All Mother must be effective cause victorious All Mothers to loathe casting aside an effective tool.

At some point in the past millennium the planet experienced a worldwide cataclysm plunging it into a dark age. Nearly all space capabilities were lost. A testament to their former space accomplishments is a centuries old station still in orbit. The cataclysm seems to have been brought on by numerous meteor strikes. There is debate among the expedition personnel as to the true cause of these meteor strikes as many seem to have targeted major habitation centers (far too many hit population centers for it to have been a coincidence). Currently the majority of the team leans toward the Basiloie having done this to themselves particularly since the discovery of two cities that may have been destroyed by nuclear bombs. Nuclear weapons were clearly within their capability prior to the cataclysm.

Currently there are 5 city state enclaves that have struggled to preserve the remnants of their civilization and technology. Much of the planet is inhabited by barbaric bands of Basiloie that exhibit technological capabilities ranging from stone-age to pre-industrial revolution. The old city states show signs of resource exhaustion and cultural stagnation, though the arrival of the survey expedition seems to have ignited a power struggle for dominance among them.

Of the five city states, the largest has barely hung on to the ability to maintain a space program and the station in orbit is under its control. The push to maintain that space capability has left it with serious resource depletion. Some of the other city states appear to be making a play for unseating the top city state from its position of supremacy since the arrival of the survey expedition. There is grave concern that the presence of not just the UPF but especially mega corporations could ignite a civil war and set the Basiloie back centuries.

The one universal festival is the Dedication of the Blessed All Mother. It's an affirmation of the All Mother's right to lead and challenges to authority are allowed. This is the most culturally significant holiday.

The next most significant holiday which is practiced by the most culturally advance societies on Basilisk is the Festival of Veils. As a holiday it evolved during the modern age pre-cataclysm. On this one day a year all female Basiloie wear veils. Though the veils don't disguise identity no one recognizes dominance or status and all females treat each other as equals. Since no one recognizes dominance mating can and will occur between a female and a male from a harem of another female.

Basiloie Literature has an analog to Romeo and Juliet based off this holiday. In the story two Basiloie lovers were separated when the male was taken into the harem of a powerful female. The lovers could only be together once a year. One Festival of Veils they lingered into the morning and the powerful female found them and killed the lower status female. The male, heartbroken, chose to follow his lover into the grave. The story may be rooted in fact but interestingly the names of the heroine and hero are identical to the names of the system's binary stars, Zhosyllius and Zhosyl.

This holiday has little observance among the more barbaric and nomadic desert tribes.

Delta Section: Environmental Survey

Delta subsection 1: Prairie

Ridge Grass Prairie can be found in temperate regions. Dominant plant species are ridge grass with the infamous razor grass turning up 15% of the time. Minor plant species are lace spine cactus and blue spine cactus. Common animal species are the trumpeter wyvern, sparrow vultures, spine monitor, rock monitor and whip lizard. Weather on the prairie can be unpredictable with sudden tornadoes and electrical storms. Many creatures have adapted to burrowing as a protection against the violent weather.

Delta subsection 2: Tidal Marsh

Tidal marshes and mud flats are common along most coastlines. Common plant life includes ridge grasses that grow in tight clumps, spine cactus, and the occasional spore puffer patch. Common animals zip krill (chased in shore and stranded by retreating tide), tidal carp, sparrow vulture, fishing wyvern, whip lizard and spine monitor.

Delta subsection 3: High Desert

Vast swaths of Basilisk qualify as desert stretching from equatorial to temperate regions.

The high desert is limited plateaus, mesas and canyon rims. It is characterized by sparse varieties of spine cactus of mixed species and stunted tufts of ridge grass. Animal species common to the high desert is the trumpeter wyvern, cactus gargoyle, rock monitor, and sparrow vulture.

Delta subsection 4: Canyon Desert

Many places on Basilisk are seamed with canyons. The majority are river carved over long geological ages but two major canyon systems were identified that may have been carved by inland seas draining rapidly to the ocean. Canyon deserts may have running water course but some dry up for part of the year and others remain devoid of water year round.

These canyon habitats are characterized by spine cactus, ridge grass of all sorts (20% razor grass), and spore puffer plants as well as trumpeter wyverns, all monitor, whip lizards, sparrow vultures, cactus gargoyle and a harmless variety of tiny tidal carp distantly related to their salt water relatives.

Delta Subsection 5: Lace Chaparral Country

Lace chaparral country is hot rolling hillsides and generally forms a border for desert and ridge grass prairie. Lace spine cactus and ridge grass dominate but spore puffers colonize low lying areas protected from the wind. Common animals include sparrow vultures, cactus gargoyles, trumpeter wyverns, all types on monitor and whip lizards.

Epsilon Section: Zoological Survey

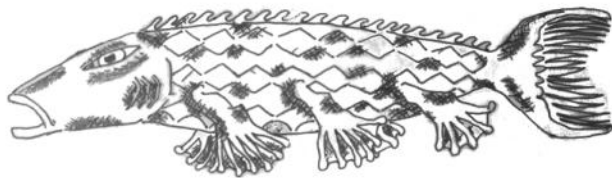
Epsilon Subsection 1: Introduction to Basilisk Biology

Evolutionary tree on Basilisk followed a path of bilaterally symmetrical hexa-pedal locomotion. The typical higher life form has six limbs. In aquatic life forms this follows a general pattern of six fins. For avian life forms the typical arrangement is on to two pair of wings and the rest as legs. In a majority of terrestrial life forms the limb arrangement is three pair of legs.

Epsilon Subsection 2: Aquatic Life Forms

Zip Krill

Zip krill gather in schools numbering into the hundreds. They are tiny in size and common prey for larger aquatic carnivores. They resemble a 10 cm silver torpedo with three pair of fins/wings. A unique behavior of the zip krill is they will jump out of sea water to escape predators causing their flapping fins make a zipping noise. This behavior can present a hazard to aquatic travel as the zip krill will jump in such frequency that anyone traveling in a boat will be struck by 1d10 per round for 1 STA each.



(All creature artwork by **Andreas Fernandez**)

Zip Krill	
Type	Tiny herbivore
Number	100-1000
Move	80m (fast)
IM/RS	+8/75
Stamina	2
Attack	--
Damage	1/strike
Native World	Basilisk
Special Attack	Anyone caught in a cloud of jumping zip krill will receive 1d10 strikes (RS check for half damage.)

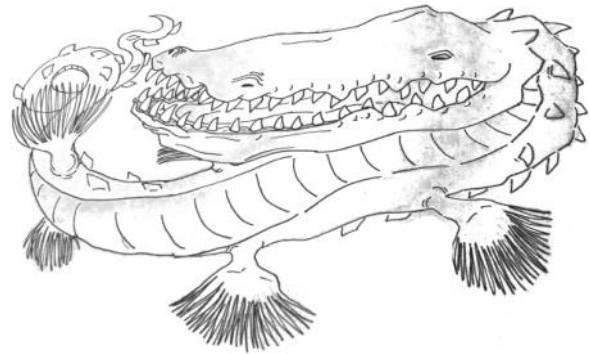
Tidal Carp

The tidal carp is an exception among aquatic creatures on Basilisk. Two of its pair of appendages function as a fin-feet and it is amphibious. A medium (20-200 kg) carnivore/ scavenger, the tidal carp has a hump back and a wide boney maw. It will rarely feed while in water preferring to wait till the tide goes out. During low tide it waddles across the mud flats scavenging stranded aquatic life forms. Because it's walking locomotion is so slow it has developed a special attack using its tongue. It can shoot its tongue up to a meter away to grab prey and pull it to his large maw. A tidal carp reacts to movement and will attack anything that moves within a meter of it. They are not excessively dangerous in that they are easily avoided.

Tidal Carp	
Type	Medium carnivore
Number	1-5
Move	20m (swimming) & 10m (waddling)
IM/RS	+8/35
Stamina	20-200 (1/kg of weight)
Attack	45
Damage	2d10
Native World	Basilisk
Special Attack	can shoot tongue and grasp a target drawing it to its maw (RS save to avoid)

Crocokan

Taking its name from the terran crocodile and the mythical kraken, the crocokan is the apex predator of Basilisk's salt water ecosystems. It has a long toothy snout and slender serpentine body with three pair of fins. It is large, fast, voracious and luckily a Solitary hunter.



Crocokan	
Type	Large carnivore
Number	1
Move	100m (fast)
IM/RS	+9/85
Stamina	200 + 5d10
Attack	50
Damage	4d10
Native World	Basilisk

Freshwater Crocokan

The freshwater crocokan is a smaller and possibly even more aggressive version of its salt water cousin.

Freshwater Crocokan	
Type	Medium carnivore
Number	1
Move	100m (fast)
IM/RS	+9/85
Stamina	120 +2d10
Attack	60
Damage	3d10
Native World	Basilisk

Epsilon Subsection 3: Avian Life Forms

Basilisk Sparrow Vulture

This tiny creature is a reptilian looking avian with two pair of wings and one pair of legs. The sparrow vulture is an opportunist hunter and scavenger with flocks following healthy creatures looking for a vulnerable or unguarded moment to attack. They followed the survey party for 1.5 days before viciously attacking when one member was injured in a fall. The attack can catch a victim flat footed as they seem to be pleasant travel companions with a melodious crooning song and their constant presence encourages the dropping of one's guard.



Basilisk Sparrow Vulture	
Type	Very small carnivore
Number	2-20
Move	60 m (medium)
IM/RS	+9/65
Stamina	10
Attack	35
Damage	1d10
Special Attack	Surprise Attack: attacks with surprise. In addition the victim is stunned for the first round (INT check negates stun).
Native World	Basilisk

Cacti Gargoyle

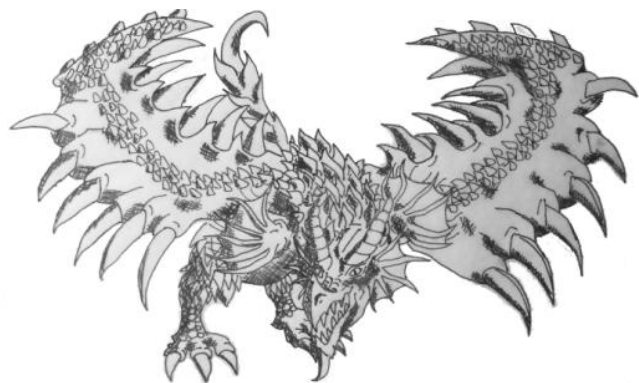
The basilisk gargoyle is a small carnivorous avian of reptilian appearance. They have two sets of limbs ending in grasping claws and one set of bat like wings. The cactus gargoyle likes to carry off small creatures clasped in all four small limbs but will band

together to take down larger prey. They have a natural ability to slow their metabolism to endure long periods without food. When slowing their metabolism they roost in caves, rock clefts and cacti presenting the appearance of gargoyles of myth.

Cacti Gargoyle	
Type	Medium carnivore
Number	2d10+2
Move	80m (fast)
IM/RS	+6/55
Stamina	50
Attack	35/35 (2 pair of limbs)
Damage	2d10
Native World	Basilisk

Trumpeter Wyvern

The trumpeter wyvern can be identified by its trumpet like call and has a distinctly reptilian or dragon-like appearance. The wyvern's first pair of limbs is small fins used for maneuvering in air with a vestigial grasping claw each. The second pair is its wings (8m wing span). The final pair is its powerful legs ending in talon/ claws. The trumpeter wyvern is the apex predator of Basilisk's skies. It is not above poaching kills of other predators and having an acute sense of smell will fly kilometers to feast on carrion. Its standard attack is to grasp/grapple prey with its talons for 2d10 in damage (treat as STR 75 for breaking free of the grapple but a successful STR to break free causes an automatic 1d10 worth of damage) followed by a biting attack every turn till the prey has been subdued. It also has a special flying tail slap (must be done as a flyby attack and cannot be combined with any other attack) that combined with its trumpeting call is designed to spook prey and cause groups of animals to split up and run making individuals easier targets.



Trumpeter Wyvern	
Type	Large carnivore
Number	1-5
Move	120m flying/ 20m hopping
IM/RS	+8/75
Stamina	125
Attack	55 bite/ 35 talons / 65 tail slap
Damage	1d10 bite/ 2d10 talon/ 1d10 tail slap
Special Attack	Combined tail slap and trumpet causes panic. Treat as stunned for one round unless successful INT check.
Native World	Basilisk

Fishing Wyvern

The fishing wyvern is a small version of the trumpeter wyvern. They feed almost exclusively on zip krill and tidal carp.

Fishing Wyvern	
Type	Small carnivore
Number	3-30
Move	140m flying/ 20m hopping
IM/RS	+8/75
Stamina	20
Attack	50
Damage	1d10 bite
Native World	Basilisk

Epsilon Subsection 4: Terrestrial Life Forms

Spine Monitor

The spine monitor is a large territorial lizard with a double row of spines down its back to the tip of its tail. It's a very aggressive animal and easily provoked. All three pair of its limbs end in feet.

Spine Monitor	
Type	Large herbivore
Number	1-2
Move	60m
IM/RS	+7/65
Stamina	125
Attack	60
Damage	2d10 bite or tail slap
Special Defense	Back spines ward off melee attacks from flying predators, -15% attacks from above
Native World	Basilisk

Rock Monitor

The rock monitor is a small low lizard like creature. Its skin looks and feels like rock for camouflage (80% chance of concealment). All three pair of limbs end as feet. It's a shy and retiring creature but becomes aggressive to defend its burrow.

Rock Monitor	
Type	Small herbivore
Number	1-5
Move	40m
IM/RS	+5/45
Stamina	20
Attack	55/35
Damage	1d10 bite/ 2d10 talon
Special Defense	Concealment 80%
Native World	Basilisk

Whip Lizard

The whip lizard is small, fast and agile animal. It has a long (2-3m) flexible tail that it uses like a whip for defense. Packs of whip lizards will attempt to drive off predators by continuous attacks from cover using their whip like tails and speed to employ hit and run tactics. All three pair of limbs end as feet.



Whip Lizard	
Type	Small herbivore
Number	2-20
Move	120m
IM/RS	+9/85
Stamina	10
Attack	65
Damage	1d10 tail whip
Native World	Basilisk

Zeta Section: Botanical Survey

Spore Puffer

A spore Puffer resembles a 1m barrel studded with small round openings. It is also covered with sensitive hair like cilia. The spore puffer's cilia are sensory organs detecting either movement of air currents or sound to identify when large animals are near. Testing has been unsuccessful at fully isolating the exact mechanism behind this sensory apparatus. When a spore puffer detects a suitably sized animal of medium size or larger it emits a cloud of gas and plant spores. The gas acts as a stun gas and the spores will infect most living native Basilisk life forms as well as Frontier life forms. The current theory is the gas is to knock out a large animal and allow the spores to infect it. When it revives it moves away from the spore puffer and eventually dies. However, spores infecting the animals will grow using the dead carcass as fertilizer and thus spread the spore puffer plants across wide areas.

Spore Puffer	
Type	Medium plant
Number	2-20 patches of 2-20 plants
Special Attack	20m cloud of stun gas (STA check negate stun) and spores S6/D8! (1 STA check per gas cloud a creature passes through to negate infection). An untreated spore infection results in death.

Spine Cactus

Spine cacti are a major family of plants on Basilisk, numbering 31 identified species. They're a source of water, food and shelter for numerous species of animal and were foundational to any terrestrial food chain surveyed. They resemble tall multi-limbed trees covered in 6cm to 10 cm spines.

There is wide variety with in this family of plants with many having unique properties.

- » The Lace SpineCactus grows as a tangled thicket of lace like limbs and offers small prey excellent protection against larger predators.
- » The Blue Spine Cactus has a bluish hue and is edible by Frontier races.
- » The Baylor's Spine Cactus is blue shading toward violet and is poisonous if ingested (S5/T8).
- » Mat Spine Cactus, closely related to lace spine, grows as a tangled mat on the ground and can be harvested and de-spined to weave into a structure or shelter. Once mat spine vines dry they become very stiff and hard (35 structure points per 5m X 5M area of densely woven material).

Razor Grass

Razor grass is a tri-lobed 0.5-1m tall grass forming three ridges the length of its blade. It is part of a family of grass called ridge grass of which there are currently 14 separate species of grass. Most are harmless but razor grass in particular can be quite dangerous. Its ridges are razor sharp and bits of the razor edge often breaks off remains in the wound. If a wound is cleaned and treated immediately there is no effect. However if left untreated for even a short length of time [30 minutes] then a painful S3/D6 infection results (all activity is -10 for duration of the infection).

Razor Grass	
Type	Small to medium grass
Number	100's to 1000's of square km
Special Attack	1d10 STA for full walking move through razor grass and 1-5 STA for half movement

Appendix 1: Encounters by Regions

Below you will find various random encounter tables for while adventuring in the Basilisk system.

D10	Prairie	Marsh	High Desert	Canyon Desert	Lace Chaparral Country
1	Electrical Storm	Storm	Storm	Canyon Wall Village (similar to nomadic Basiloe)	Storm
2	Trumpeter Wyvern	Tidal Carp	Cactus Gargoyle	Razor Grass	Cactus Gargoyle
3	Whip Lizard	Nomadic Basiloe fishing party	Trumpeter Wyvern	Whip Lizards	Whip Lizard
4	Razor Grass	Stranded Zip Krill and Sparrow Vultures	Nomadic Basiloe on the move	Hunting Party of Primitive Basiloe	Spore Puffer Patch
5	None	Zip Krill stranding because of Crocokan close to shore	None	Spine or Rock Monitor	Nomadic Basiloe
6	None	Stranded Zip Krill and Tidal Carp	None	None	None
7	None	Fishing Wyvern flock	Nomadic Basiloe Hunting	Nomadic Basiloe on the move	Sparrow Vultures
8	Sparrow Vultures*	Nomadic Basiloe Camp	Sparrow Vultures	Sparrow Vultures	Spine Monitor
9	Rock Monitor	Spine Monitor	Rock Monitor	Pool of Water and harmless carp	Rock Monitor
10	Electrical Storm & Tornado	Spore Puffer Patch	Electrical Storm	Light Storm	Trumpeter Wyvern

* Sparrow Vultures will follow for a few days waiting for the opportunity to attack.

D10	Deep Ocean	Shallow Ocean	River or Stream	Urban
1	Storm	Storm	Storm	Nomadic Basiloe Visitors
2	Crocokan	Crocokan & Zip Krill	Fresh Water Crocokan	Whip Lizards
3	None	Nomadic Basiloe fishing party	Tidal Carp, swimming	Krill Monger
4	None	Fishing Wyverns & Zip Krill	Nomadic Basiloe	Armed Patrol
5	None	None	None	Merchant
6	None	None	None	None
7	None	None	Nomadic Basiloe	Market
8	None	Fishing Wyverns & Zip Krill	Sparrow Vultures	Fighting Females
9	Zip Krill	Zip Krill	Fishing Wyvern	Sparrow Vultures
10	Storm	Crocokan	Fresh Water Crocokan	Storm

SPACESHIPS

The Rick and Ki'rick Salvage Company LTD

BY Darren Moffett

Operating out of Cassidine, the **Rick and Ki'rick Salvage Company** has been using various old tugs and recovery ships for their deep space salvage operation for years. Now they are showcasing a brand new salvage ship; the Able Hand.

This company is owned by a partnership of two old salvagers, Rick Jennson and Ki'rick Kazk. Their wives Jenna and Lifik. Ki'rick handle the astrogation, finances, billing and the legal aspects. Rick handles the day-to-day operations and captains the "Able Hand." He is also a pilot level 6. Lifik is the salvage engineer/ship structural engineer. Jenna is the computer operator and programmer. There are other crewmembers performing various work aboard, including two fabricator/welders, an electrical engineer, three fitters (they operate in EVA/Zero-G and attach the towing cables, struts and bracings from the ship to distressed ships, they also do hull reinforcement where needed and assist the welder in that task), two heavy equipment operators (they run the tackle, cranes, grapples or pusher), one medical officer and one steward/cook (who also assists the medical officer in case rescue of passengers or crew is needed). That is a total of 14 beings.

Able Hand

Hull Size: 5 (for volume purposes). However it is truly size 6 because it carries 8 class C ion engines in addition to its regular allotment of engines. The additional engines allow the vessel to recover up to HS 20 craft. The ship also boasts a highly specialized ship recovery system. It has a total of 11 engines.

Propulsion:

- » 3 Class B Ion Engines for use when it is in normal maneuver or transit. Once it is attached to another ship for salvage it can operate all 8 of the larger engines to propel the craft in distress as well as itself. This will depend on the size and mass of the other hull. It is outfitted with extra powerful maneuver jets for moving ships much larger than itself

Life Support:

- » She carries 3 life support systems of the largest type for rescue purposes and can salvage a luxury liner of up to HS 20 safely. She can run ventilation tubes and conduits to the other ship to sustain life aboard if needed.

Computers:

- » 3 life support computers
- » 1 navigation computer
- » 1 general purpose computer
- » 2 propulsion computers

Computers use level 6 programming, programmed by Jenna herself. She designed a special program for variable engine needs specifically for salvage operations. One computer is used for the ship's primary engines, the other is used for governing the towing engines (though either could do either job).

While most ships may have only one computer with multiple functions, Jenna likes to have multiple backups and she can easily network a computer to do another job if one breaks down.

Navigation:

- » Deluxe astrogation package.

Communication:

- » They have spent over 15,000 credits for internal and external communication via intercom and short range broadcasting to communicate with each other during operations.
- » 1 Radar unit
- » 1 Energy sensor suite
- » 2 Full camera Sets 1 for normal use and 1 for use specifically for Salvage ops
- » Full complement of Skin sensors
- » 1 Sub-Space radio

Emergency:

- » Spacesuits for every crewmember.
- » 1 lifeboat.
- » 5 Standard workpods
- » 2 Heavy workpods (larger and can move more massive equipment needed for salvage recovery)

Towing:

- » Grapples

Salvage:

- » 2 heavy Snatch Block and Cables (usually used to secure a stranded vessel after it has been grappled [1 forward and 1 aft])
- » Pusher recovery system
- » Mounted on the front of the ship this system is designed to attach the two ships together so that the salvage ship can be used to propel the distressed vessel forward by attaching to its engine struts or hull. Once this is done, the salvage ship can use its extra engines to propel the other ship as if it were in its normal movement.

Fabrication/Repair:

- » The Able Hand has a full machine shop and standard parts to repair ships in distress while underway.

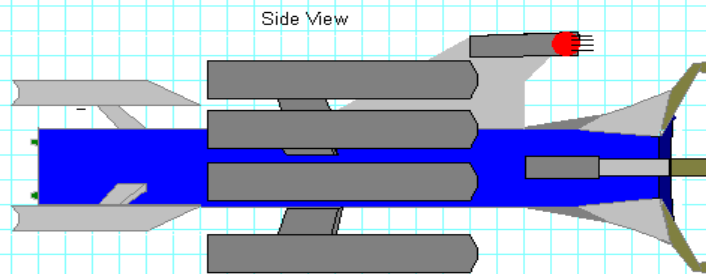
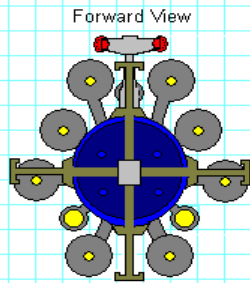
Weapons and Defenses:

» Laser Battery(x2), Grapples(x2), Reflective Hull

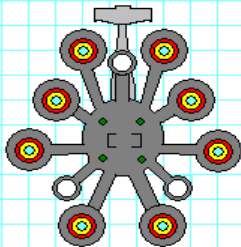
This ship is designed for rescue salvage. It is designed to "tow" another vessel by pushing it into place using the hard grapples mounted on the fore of the ship in conjunction with the pusher plate. A large reinforced plate at the front of the ship is used to keep any damage from happening to the salvage ship as it pushes the crippled ship to safety. It extends the hard grapples as wide as needed to attach to the other vessel to make a hard contact with the plate. Once this is accomplished and all is secured by the salvage crew they can provide propulsion for both ships, including jumping to another system if needed.

The company has been in business for over 30 years and after saving enough credits they were able to design and build this vessel for its purpose. They paid for it outright, much to their bank's dismay. It is insured to the full cost of rebuilding it.

Able Hand	
HS:5	
DCR: 38	ADF: 1
HP: 30	MR: 2
Weapons: Laser Battery(x2), Grapples(x2)	
Defenses: Reflective Hull	



Aft View



Cost

- 300,000 for the hull
- 1,450,000 for the engines
- 132,000 for life support
- 74,000 for deluxe astrogation
- 20,000 for subspace radio
- 10,000 for the radar
- 200,000 for energy sensors
- 50,000 cameras
- 6000 for hull sensor
- 15,000 for special intercomm system
- 100,000 for life boat
- 20,000 for 2 laser battery
- 6,000 for reflective hull
- 150,000 for special grapples and pusher plate system
- 50,000 for Machine shop
- 25,000 for special block and tackle equipment
- 50,000 for special workpods
- 75,000 for miscellaneous equipment

Sub Total
2,7333,000 credits

Fed taxes and licensing fees. 200,000
Salvage contract permit 100,000

Total 3,083,000 credits

CLOVERDALE CLASS AG-SHIP

By Thomas Verreault/jedion357

Author's Note: It was William Douglass' story on Doc McGee in [Star Frontiersman #17](#) that reminded me of this. Rather than leave this moldering in my computer waiting for the hard drive to pack it in, I decided to submit them for those of you considering using an AG ship in your adventures.

The following deck cross section was created for a play by post game involving a mystery on an agricultural ship. I only create what I need at the time and the project sat incomplete on my hard drive.

About the Cloverdale Class AG-ship

The Cloverdale class has a modular design allowing a purchaser to tailor their ship to their specifications. Therefore there are two

different versions of decks 4 and 5.

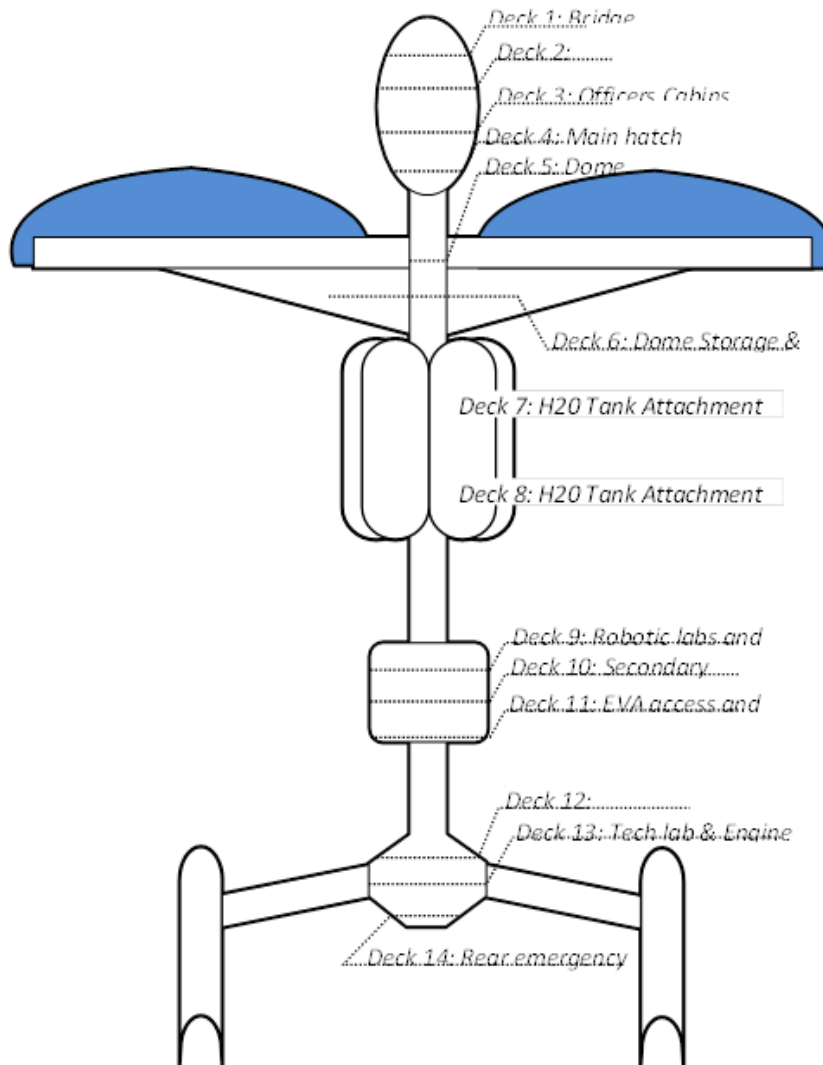
It was also designed as an ion drive ship allowing it to jump to other systems. Some of the Cloverdale's were fitted with atomic power plants. A "Class A" atomic engine on Engineering Deck 12 is configured for energy production and not propulsion. Ships with these power plants were generally refitted with extensive lighting in the domes as the ship was intended to operate for extensive periods away from the light of a star. It was found to be advantageous to supplement the ships power systems with an atomic power plant.

Another significant option with the Cloverdale class was the installation of workpods on deck 14 near the rear emergency hatch.

Original Deck Plan:

<http://starfrontiersman.com/downloads/misc>

Editor's Note: I've been playing in Larry Moore's (aka w00t) monthly online Star Frontiers game. He incorporated both Doc McGee and his AG ship into our adventure. Currently the characters are travelling with Doc, getting in some trouble and trying to secure enough credits to fix our ship berthed in the Theseus system. It's cool to see my creation in adventures!



SALVAGE OPS

By Bill Logan

Contents

This game consists of 160 cards. You can print them from this PDF directly to paper or cardstock and cut them out, or you can print directly to Avery Business Cards (a couple bucks at your local store; make sure you print "actual size" so it doesn't scale to fit your printer).

- 5 derelict ship cards
- 20 player cards (5 corporation; 5 salvage ship; 10 command)
- 35 exploration cards (5 artifact; 15 numbered; 15 hazard)
- 100 salvage point cards (55 one-point; 30 five-point; 15 ten-point)

Objective

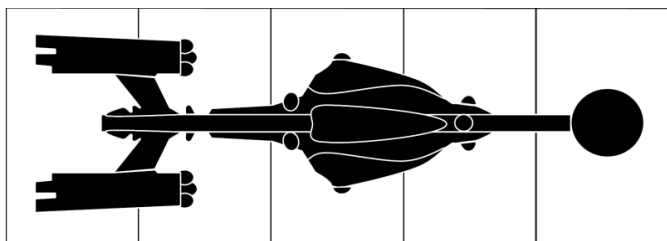
The Sathar have invaded twice in history (SWI and SWII), and each time were barely beaten back. No Sathar technology has ever been salvaged because their ships self-destruct. Lucky for you and your crew a derelict Sathar ship has drifted into the region and lies peaceful in the black of space, at least on the outside. Each player represents one of five responding corporations, sending highly-trained salvage crews to recover technology before it self-destructs. Since each corporation's team arrived at the same time, interstellar salvage laws must be followed. The player with the highest salvage point total at the end of the game wins.

Playing the Game

The game lasts around 30 minutes, and can be played by anyone age 8 and up. After setup, the game is played in five rounds where players press their luck acquiring salvage points before hazards become lethal.

Game Setup

Place the 5 derelict ship cards out for reference, showing the shape of the drifting derelict ship. These represent the five rounds of game play.

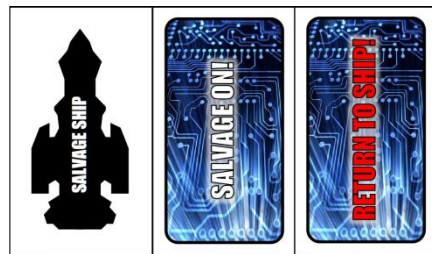


Shuffle and place one artifact card face-down under each derelict ship card. Deal each player a random corporation card. Then give each player a salvage ship card and one each of the two command cards (Salvage On! and Return to Ship!). Separate the salvage point cards into three piles and set them aside. The oldest player is the banker and controls these (note: players must trade in

salvage points for higher denominations whenever the banker requires).



One Random Corporation Card



One Salvage Ship and two Command Cards

The Game Round

A game round consists of the salvage team exploring a deck of the derelict ship. After setting up the round it is played in a series of repeating steps until all operatives have either returned to their ships or hazards have killed the operatives. The round is then wrapped-up and the next round starts anew. These steps are outlined below.

Round setup

Take the artifact card from under the first derelict ship card (doesn't matter which end you start at) and show it to all players. Shuffle it thoroughly into the rest of the exploration cards. In subsequent rounds shuffle in the next artifact card, etc. Go to the command step.

Command

Each player privately picks which command to give his operative (either "Salvage On!" Or "Return to Ship!"), and places that card face down on the table. All players then simultaneously reveal their selected command.

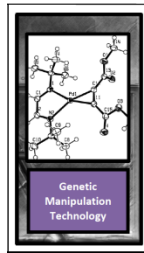
Return to Ship! A player who issued this command takes any salvage points his operative is carrying and safely tucks them under his salvage ship card. Additionally, if any salvage points or artifact cards exist on explored cards (next to the ship), he grabs those and tucks them under his salvage ship card too. If more than one player returns to their ships at the same time, they must evenly split the salvage points found on explored cards (leaving any remainder and all artifacts behind). Players who issue this command are no longer considered in the derelict ship and take no part in game play until the next game round. If the last player still in the derelict returns to his ship, go to the round wrap-up step. Otherwise, go to the exploration step.

Salvage On! A player who issues this command keeps his operative in the derelict ship and takes part in the rest of the game round, go to the exploration step.

Exploration

A player flips the top card off the exploration deck and places it on the table face-up. The card can be any one of three types:

Artifact card – this represents a valued piece of technology. It remains on the table, awaiting someone to return to ship and grab it on the way out. See “Return to Ship!” above. Go to the command step.



Numbered card – if the explored card contains a number, the banker divides the listed salvage points evenly to all players still in the derelict ship, placing any remainder points on the card itself, awaiting someone to grab it on the way out. Players do not tuck these salvage points under their salvage ship cards. For instance, if the number 7 is explored when 3 players remain in the derelict ship, each player receives 2 salvage points and the remaining 1 point would remain on the card. Go to the command step.



Hazard card – these are dangers which exist in the derelict ship. If this hazard matches another hazard which is already explored in a previous step, then the hazards have become lethal and kill all operatives. Each corporation has prepared for one of these hazards; a player may ignore any hazard that matches his corporation card's color. If any players are still alive in the derelict ship, go to the command step. Otherwise, go to the round wrap-up step.



Round wrap-up

When no operatives remain in the derelict, remove any unclaimed artifacts or salvage points from the face-up explored cards and return them to the bank (any artifact card is out of play for the rest of the game). All players must discard any salvage points they were holding (they do not get tucked under their salvage ship card). Take the most recently explored hazard card and place it under the derelict ship card with its name sticking out for all see. This card is removed from play and lessens the likeliness that future rounds will end from the same hazard. Flip over the derelict ship card; that section self-destructed. This round ends and the next begins. If this was the last (fifth) round, go to scoring, below. Otherwise go to the round setup step, above.

Scoring

All players must add all the salvage points tucked under their salvage ship cards. Additionally, each artifact they managed to tuck there is worth an additional 10 points. Each corporation card lists a primary mission; if any of the player's artifacts match the stated mission then the player earns an additional 10 points.



Victory: Whoever has scored the highest salvage point total wins.

Example of Play

This simple example assumes a three player game. The other players are John and Mary.

Game Setup

Mary places the artifact cards randomly under the placed derelict ship cards. You are dealt the Stree Corporation, who is prepared to handle the hazard of Securitybots. Additionally, if you can get your hands on Hypnosis Deflection Technology, you'll receive 10 bonus salvage points! You are given a salvage ship card to hide your acquired salvage and two command cards to direct your operative. John is dealt Pan-Galactic Corporation (prepared for Slavebots, desiring Cybernetic Engineering Technology) and Mary is dealt MercCo (prepared for Autoturrets, desiring Sathar War III Frontier Invasion Schematics). John is the oldest, takes the salvage point cards and becomes banker.

Round 1

Round Setup – Mary pulls the first artifact from under the first derelict ship card and lets everyone know that it is “Genetic Manipulation Technology” before shuffling it into the rest of the exploration deck.

Command – There is neither danger nor salvage points on the table yet, so everyone reveals their “Salvage On!” command cards.

Exploration – Mary flips the top card of the exploration deck. Everyone smiles as a numbered 5 card is shown. John gives 1 salvage point to each player and places 2 salvage points on the card.

Command – Each player simultaneously reveals “Salvage On!”

Exploration – Mary flips the next exploration card: it's a hazard, the Cybodragon! The hazard isn't too threatening yet, but if another comes up then everyone's operative dies.

Command – Everyone decides the threat of getting another Cybodragon is low enough, and so everyone reveals “Salvage On!”

Exploration – Mary flips the next card and a 2 is revealed. John can't divide that among the players in the derelict ship and so places both salvage points on the card.

Command – If you returned to ship now, you'd be able to tuck away the 1 salvage point you hold in your hand as well as the 4 that are sitting out on the explored cards. John and Mary seem to consider this as well, but there is only one hazard out and so everyone reveals “Salvage On!”

Exploration – Mary flips over the next card from the exploration deck and reveals “Autoturrets” – another hazard!

Command – Now it is getting interesting. Mary is unaffected by Autoturrets and is only facing one hazard. You and John are facing two hazards. If the next card is either an Autoturret or a Cybodragon, you and John both get killed and that 1 salvage point you're currently holding is lost. You think about it but decide to risk it. When everyone reveals, John's card says “Return to Ship!” while you and Mary reveal “Salvage On!” John happily picks up the 4 salvage points on the explored cards and tucks them along with the 1 he was holding safely under his salvage ship card.

Exploration – Mary flips over the next card and reveals that a 12. John curses his conservative choice while he dishes out 6 more salvage points to you and Mary. John doesn't get any because his operative is no longer in the ship.

Command – You and Mary both reveal "Salvage On!"

Exploration – Mary flips over the Genetic Manipulation Technology artifact card. She places it on the table and both of you stare at it, knowing it's worth 10 points at the end of the game.

Command – If you leave now, you'd be able to stash your 7 salvage points under your salvage ship card. You'd also get the artifact and place you in the lead. However, if Mary returns to her ship too then neither of you would get the artifact. A difficult choice, but you decide to "Salvage On!" while Mary reveals "Return to Ship!" – you didn't expect her to do that, but she smiles while she tucks the 7 salvage points she had in her hand along with the artifact card. You're all alone in the derelict...

Exploration – Mary flips over another card and you are happy to see a numbered 3 card. John hands you those three salvage points (you don't share them with anyone else because you're in the derelict ship alone now).

Command – Since you're the only one left, you just give your command verbally: "Return to Ship!" You tuck away the 10 salvage points you're holding. You didn't want the next exploration card to put you in last place. Mary flips the next card over anyway, to show you what you WOULD have faced and you grit your teeth at not staying: a numbered 14 card! Frustrated, you prepare for the next round.

Round Wrap-up – Mary picks up the "Autoturret" hazard (which was the last one placed in the exploration area) and puts it under the derelict ship card, then flips the derelict ship card over and makes a little explosion sound. That's the end of round one.

Round 2

The next round begins with John in last place and Mary winning. All of this can change easily enough, though. You vow to push your luck a bit further in this round...

Last Words

I enjoyed making and playing this game. I hope you do too. It cost me only a few bucks to pick up two packs of the Avery Business Cards. If you print out a set and play it with friends, take a pic and email it to me. If I see other people actually using the game, I'll be encouraged to make more games for future issues of the Star Frontiersman: wlogan@dwdstudios.com

Credits

Playtesters: Alexandria Logan, Colin Griffin, Hunter Logan, Jim Gaines, Joshua Moore, Larry Moore, Noah Logan, Stephanie Logan, Tammy Moore.



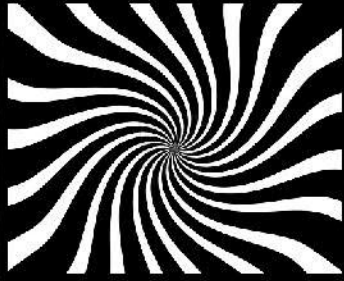
AUGUST 2012



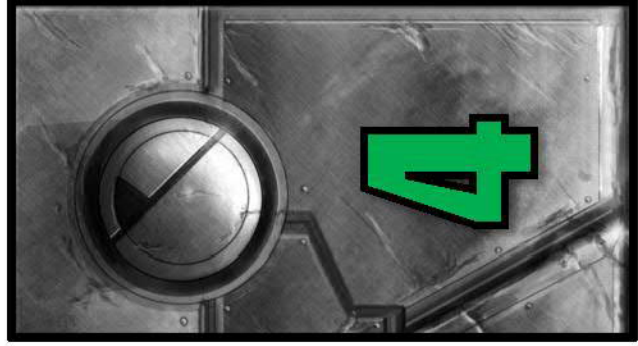
Cybernetic
Engineering
Technology



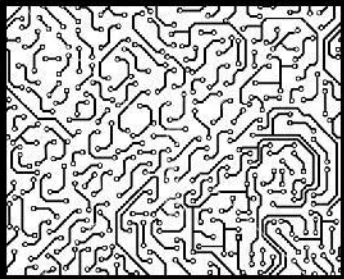
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Hypnosis
Deflection
Technology



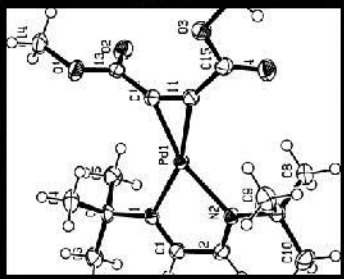
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Sathar War III
Frontier Invasion
Schematics



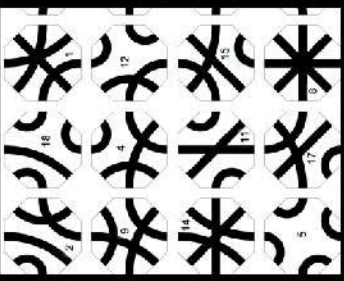
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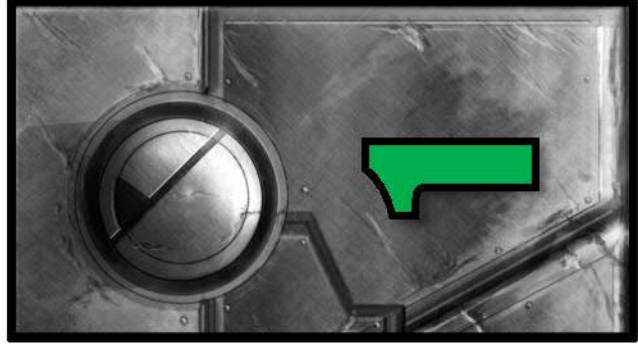
Genetic
Manipulation
Technology



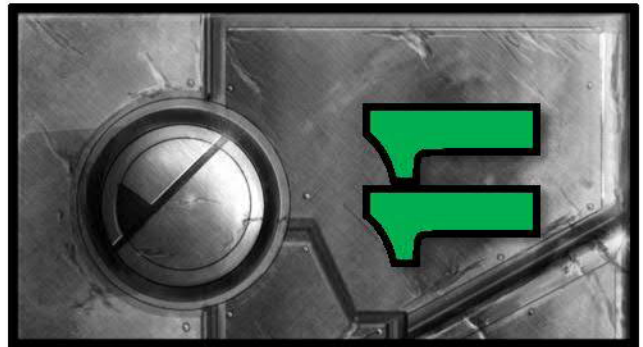
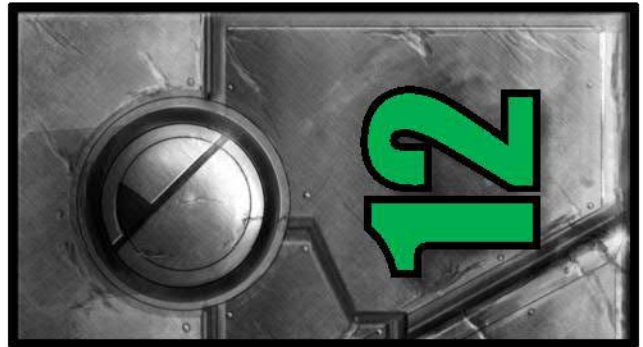
2



Sathar Language
Decryption
Algorithm

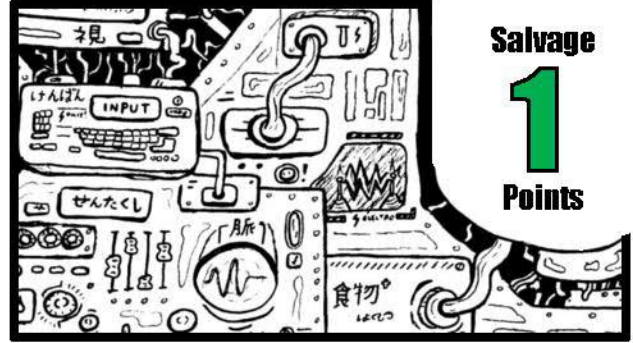


1





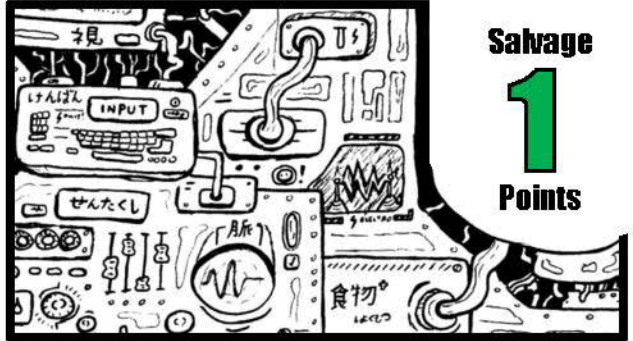
HAZARD
SLAVEBOTS



Salvage
1
Points



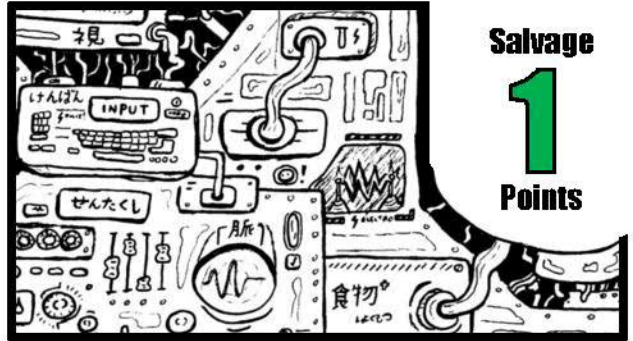
HAZARD
SECURITYBOTS



Salvage
1
Points



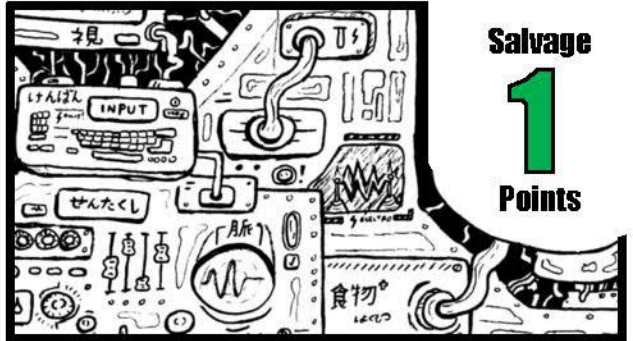
HAZARD
AUTOTURRETS



Salvage
1
Points



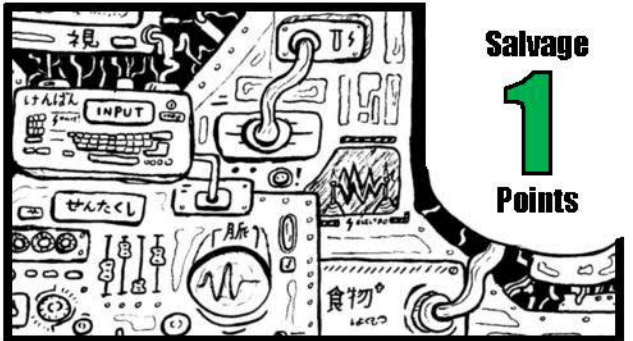
HAZARD
CYBODRAGON



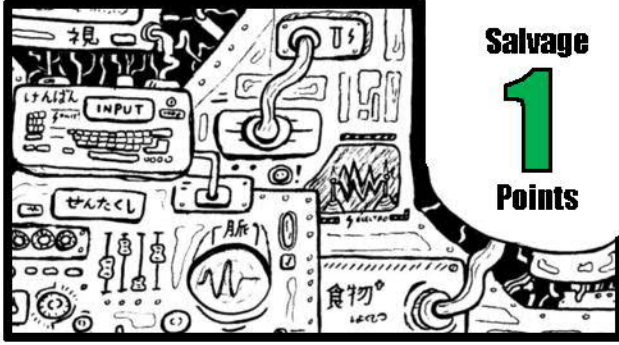
Salvage
1
Points



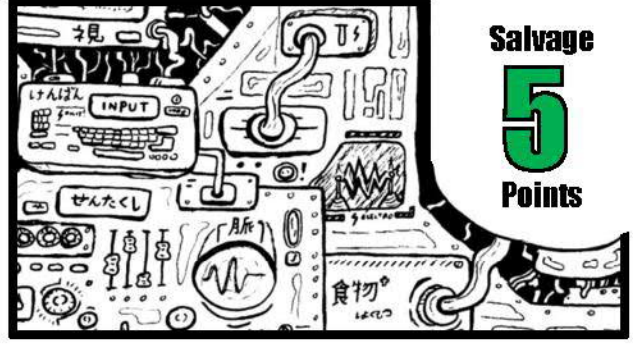
HAZARD
QUICKDEATH



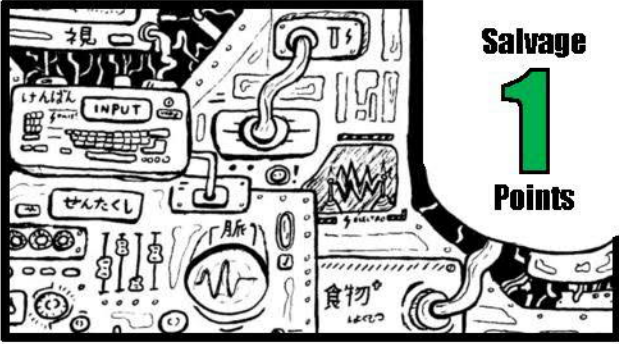
Salvage
1
Points



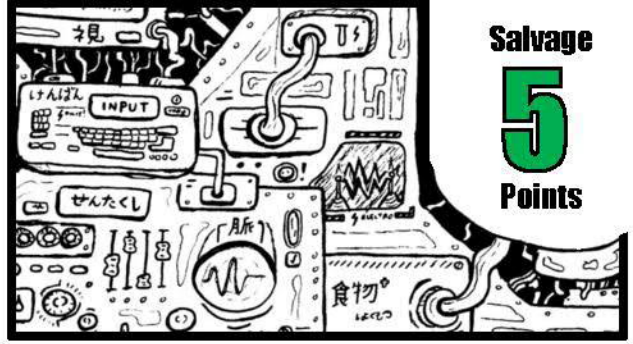
Salvage
1
Points



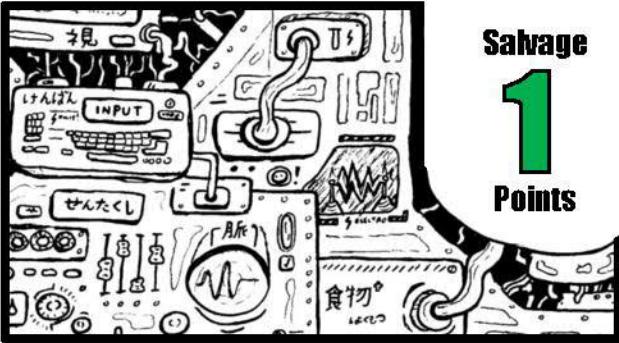
Salvage
5
Points



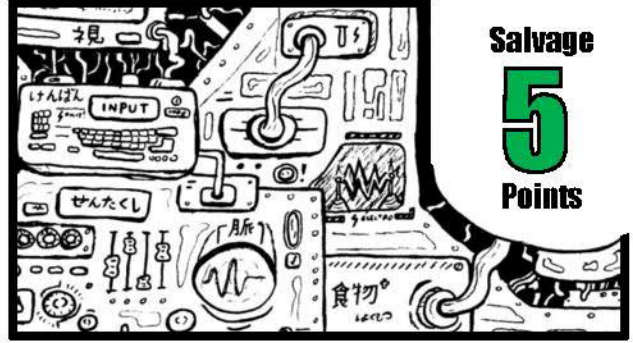
Salvage
1
Points



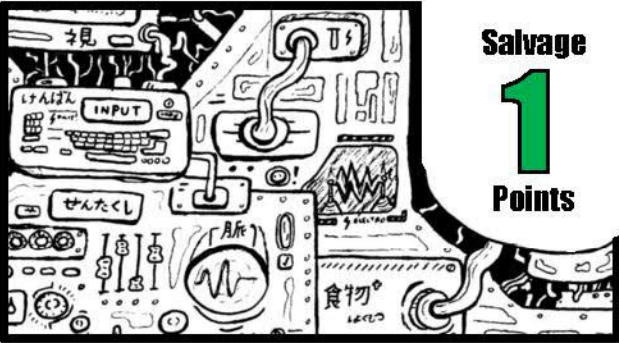
Salvage
5
Points



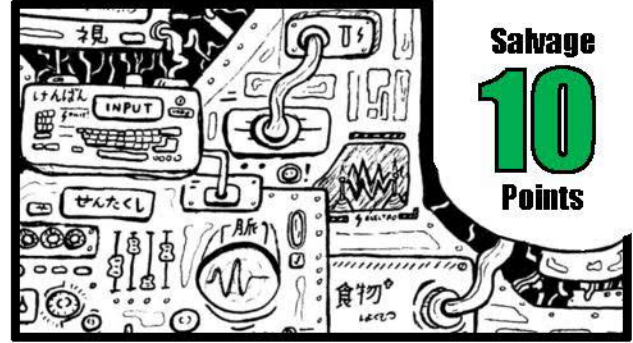
Salvage
1
Points



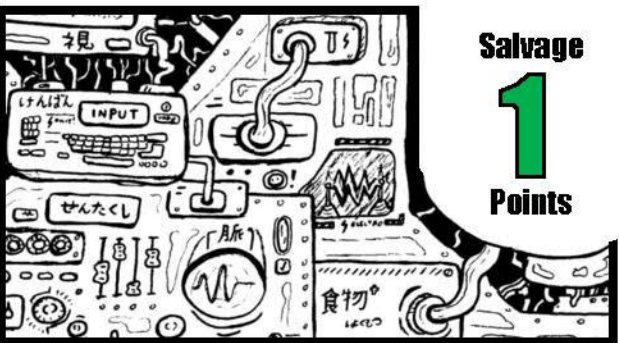
Salvage
5
Points



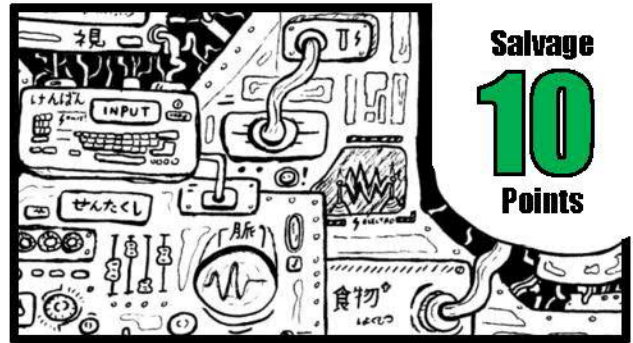
Salvage
1
Points



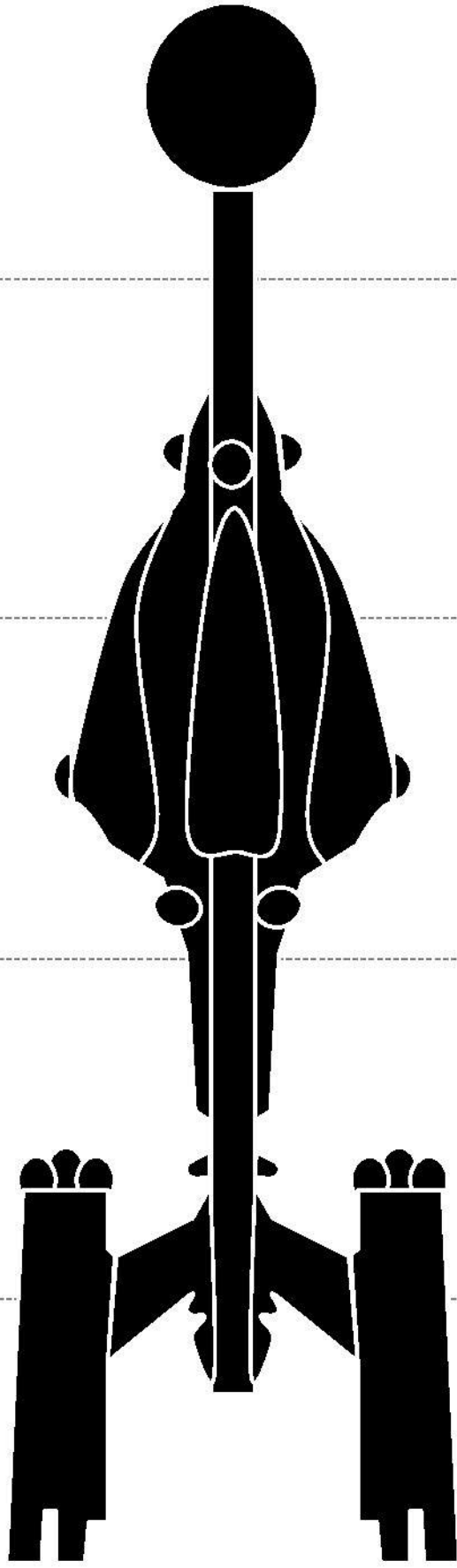
Salvage
10
Points



Salvage
1
Points



Salvage
10
Points



CFM
Capellair Free Merchants

Prepared For:
QUICKDEATH

Primary Mission:
Sathar Language
Decryption
Algorithm

Merco

Prepared For:
AUTOTURRETS

Primary Mission:
Sathar War III
Frontier Invasion
Schematics

CDG
Cazidline Development Corporation

Prepared For:
CYBODRAGON

Primary Mission:
Genetic
Manipulation
Technology

ŠCREEL
CORPORATION

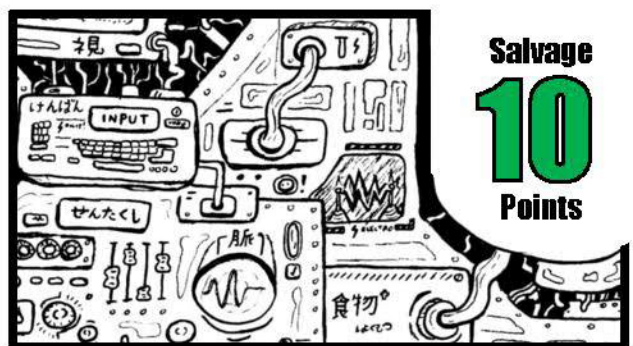
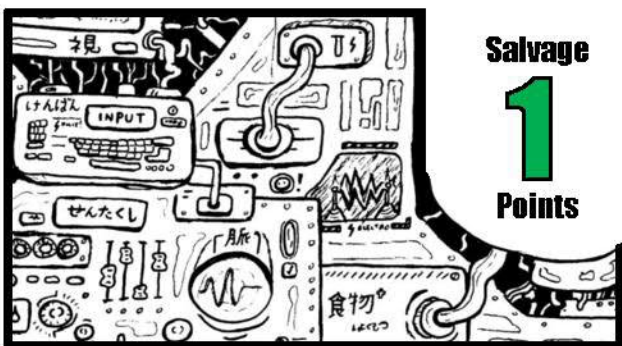
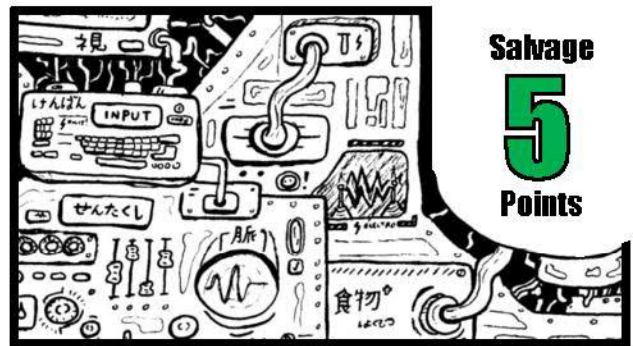
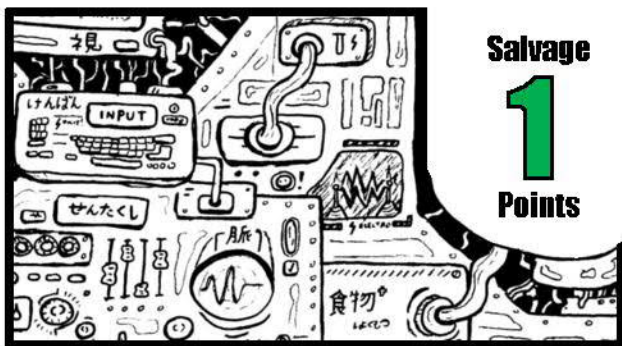
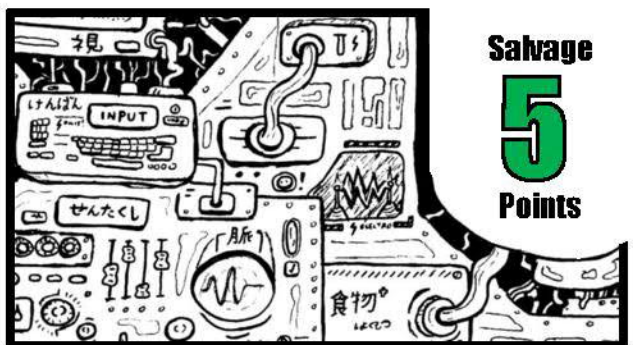
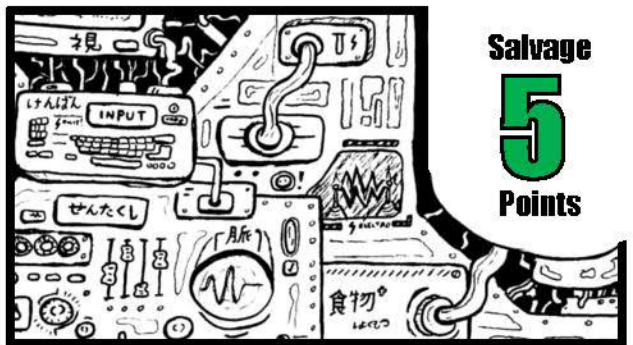
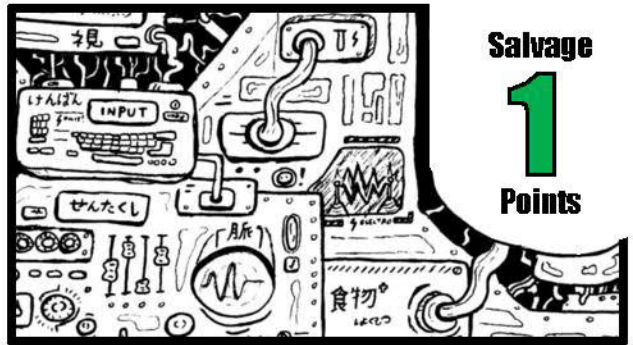
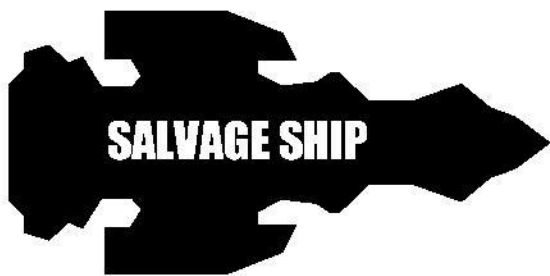
Prepared For:
SECURITYBOTS

Primary Mission:
Hypnosis
Deflection
Technology

PAN-BALACTIC

Prepared For:
SLAVEBOTS

Primary Mission:
Cybernetic
Engineering
Technology



Design your own cards and share with the community!

A FANZINE MANIFESTO

By StarFrontiersman Staff

Purpose

We have recently been contacted by individuals claiming they heard that we (those of us on staff at the StarFrontiersman, those of us at Dwd Studios, and specifically Bill Logan) intend to profit from the submissions made by all of you. This has prompted us to reinforce our long-standing tradition through this manifesto.

We just wanted to take a moment to reinforce this truth: we cannot and would not profit from any material given by submitters; this would be neither moral nor legal. That material is not owned by Dwd Studios in any manner, and we claim no right to profit from it. The StarFrontiersman is a fanzine, plain and simple.

Trademark

"StarFrontiersman" and "Star Frontiersman" are trademarks of Dwd Studios, but the contents of the webzine are not claimed owned by us. We have a long history of providing community development to the masses free of charge and at our expense. We have no intention of doing otherwise and mischaracterization of our intent is less than gratifying. Please be assured your submissions are not in jeopardy of such theft.

Trademark ownership is something that is done legally by people wishing to profit from that trademark. That's what a trademark is usually used for. Dwd Studios claims ownership of this name only to prevent others from profiting from it.

Profitability

It is likely this falsehood stemmed from a misconception or misrepresentation in an email conversation. The misconception hovers around one stated concept, which we'll share here...

In the past we have toyed with the idea of creating a StarFrontiersman RPG: a retro-clone of our favorite game but lacking the intellectual property from it. When we evaluated this possibility we realized that the game we all love cannot really easily be retro-cloned because it is mostly the intellectual property which sets it apart and which we all love. The game mechanics are really nothing special... it's Pan-Gal, Streeel, Sathar, Yazirians, Dralasites, Vrusk, and all that comes with all of that. That's what we love. Therefore the idea of a retro-clone has been put aside.

But this may be where the misconception lies, that Dwd Studios would profit from everyone's hard work. That is not the case: If this was ever to be done, it would be free to download as a PDF, and the webzine would continue to support both Star Frontiers and this new StarFrontiersman RPG. It would have allowed people like YOU (and us, yes) to create source books, adventures, settings, and more that COULD be published and profited from, all layered upon this retro-clone. This is similar to what has been done by Goblinoid Games and others.

This was and is the only possible way that Dwd Studios - along with YOU - might profit from the name "StarFrontiersman." If this idea is ever brought back to fruition, we would of course first seek the endorsement from anyone who's submitted articles help form the new RPG, and credit would be given.

At this time this project is not a possibility... this was a "what if" scenario that might be considered again at a later date. We'd like to hear any opinions on this? Please email us at info@starfrontiersman.com

- Star Frontiersman Staff

Announcing the new Frontier Explorer magazine!



Download your copy at the
magazine's website:

<http://frontierexplorer.org>

or at DriveThruRPG:

<http://rpg.drivethrustuff.com>



Announcing Issue 1 of the new Frontier Explorer magazine. The Frontier Explorer is a quarterly magazine dedicated to sci-fi RPGs and fiction. In it's pages you will find short stories and articles covering topics from background material, ship deck plans, gaming tips, and new equipment to adventure locations and even full adventures. This issue has a strong slant towards the Star Frontiers RPG as that game has a special place in the heart of the editors and this year is the game's 30th anniversary.

This issues contents (article titles) are:

- * The Dralasitic Creed
- * Crafting a Compelling Character in a Role-playing game
- * Lossend
- * What is War?
- * Mooks Without Number - Part 1
- * Planeron Station
- * CSS Nightwind
- * Make Run For It
- * Don't Go In The Water
- * About the Magazine
- * Grynz Guide Comic

Grab your copy and start exploring the frontiers with us.

CLASSIFIEDS!

Captain Rags, Karxan, jedion357, CleanCutRogue

Clarion Consumer Council Reports

A product recall has been advised by Clarion Consumer Council Reports.



Life threatening malfunctions have been reported for the Lockwood model A10 combination inertia screen and inertia-brella where the inertia screen fails to protect against ballistic damage 15% of the time though the inertia umbrella system continues to function normally.

Lockwood Industries denies any problems with their product and has suggested that inertia screen failures are the result of poor maintenance or user failure.

Subspace Relay: 3847430022-54



Driving, flying, piloting... why choose?

New, from Greysport Industries, the **Trailstar3!**

It's a space ship. It's an air car. It's a small spacecraft! No more rental vehicles when you reach your destination! Apply now and receive financial assistance. The **Trailstar3...** redefining the modern traveler!

Subspace Relay: 293082921821

PIRATE'S CRATER



BAR AND GRILL

**LOCATED IN THE HEART OF
THE FRONTIER ON
MORGAINE'S WORLD.**

(HUMAN'S ONLY, ARR!)

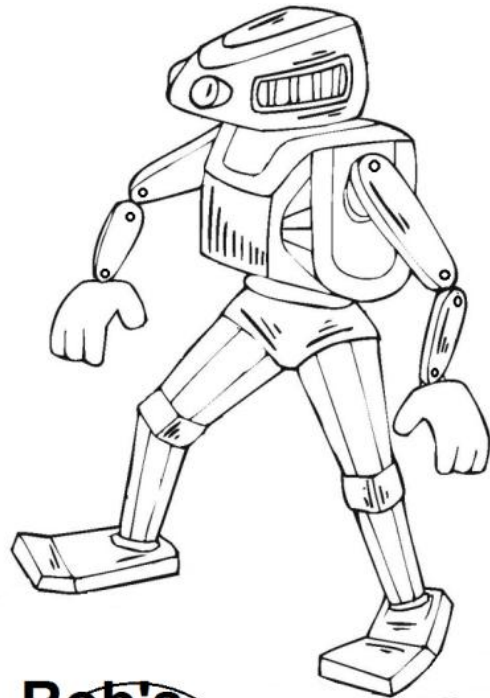
Groko and Tordia -

I'm sick of waiting - when are you two going to just get a room?

-Ssessera

QJH7DEUS~@ @ @ D7HE777 BLA7D ~EE7D7D

Translation: All your base are belong to us



**Rob's
Robotics**



**Sector 75 Beta
Module 6860**

Prenclar City