

Frontier Explorer



Issue 8
Spring 2014

Characters Without Number

UPF Fast Supply Ships

Let's Eat

Titan Rising: 2299

Wonders of the Frontier

Boneyard Station

--- continue pushing back
the frontier ...



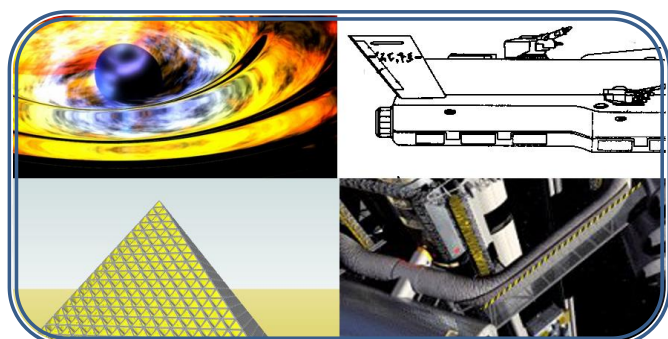
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FROM THE EDITORS

Welcome back explorers!

I'd like to start with a huge Thank You! to everyone who donated to the Frontier Explorer through the "pay what you want" option on the Frontier Explorer Presents special issue of the [Sathar Destroyer Technical Manual](#). The response was much greater than I was anticipating.

If you'd like to see more material like the sathar destroyer deck plans in that special issue, be sure to let us know. I had a lot of fun putting that together and would be happy to do more if there is a demand for it.

Once again, thanks to everyone who donated. The proceeds will be used to keep the website running, acquire art for use in the magazine, and any other projects we dream up to make more great content available.

This issue brings a variety of topics ranging from a new race, to using volcanos in your setting, to new starships. We also introduce a couple of new features that you'll see appearing regularly in future issues of the Frontier Explorer.

One new feature is a comic by Scott Mulder, the creator of the Grymz Guide to Galactic Conquest comic that has graced our back cover from issue 1. The comic, Titan Rising: 2299 is part of his [Titan Rising universe](#). The second is the on-going adventures of Alex Stone as he visits various locations around the Frontier. Alex's first reports appeared in the Star Frontiersman magazine but with the winding down of that publication's production, he has begun to submit reports to the Frontier Explorer.

This issue also includes the second of a series of articles on converting Star Frontiers for use in the Stars Without Number game system. This issue's article covers character creation. Look for conversions of other aspects in future issues.

You may notice that this issue is a little smaller than the previous ones. That is completely my fault. I had planned to have a couple of other articles written but they fell through as my wife and I had a baby boy (our 7th child and 5th son) in March. Needless to say that took up a big chunk of my time right when we were starting to put this issue together. There were other articles we could have possibly dropped into the magazine but I didn't feel they were quite ready to go yet and so I decided to go with a slightly smaller issue.

As always have fun and keep exploring!

- Tom Stephens
Senior Editor

PRODUCTION CREDITS



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Full Cover Quote:

Man has always gone where he has been able to go.
It's that simple.
He will continue pushing back his frontier,
no matter how far it may carry him from his homeland.
- Michael Collins

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A SURVEY OF YAZIRIAN LITERATURE

Tom Verreault

CLASS OBJECTIVES

1. To gain a broad understanding of Yazirian Literature from ancient to modern times.
2. To be able to recognize and describe several broad genres of Yazirian Literature
3. Be able to discuss and critique the works of one major yazirian author.

LECTURE NOTES

Yazirian Literature like Yazirian History can be broken down into major epochs: the Early Clan Epoch, the Clan War Epoch, the Industrial Age Epoch, the Pre Exodus Poetry and Post Exodus Epoch. Many genres of writing overlap more than one age or epoch but are described as being a part of the age or epoch in which the genre is believed to have begun.

EARLY CLAN LITERATURE

Long before the development of writing, honor codes, stories, and songs were transmitted orally by bards that spread them over wide regions. Bards are believed to be the earliest chroniclers compiling stories, songs, and honor codes in written form. These scrolls were circulated and copied but none are believed to have survived to the present. The oldest examples we have are believed to date from 2-5 centuries after the development of writing on Yazira.

Honor codes from this time reflect collected clan wisdom and show a high degree of development compared to modern honor codes. Songs from this period are rhythmic and show strong internal evidence of being written for percussion accompaniment. The stories from this time come in two varieties: the clan epic and the warrior epic.

The clan epic is the history of the clan presented as an episodic story with moral lessons at the heart of each episode. The emphasis is on the clan and its wellbeing. Although individual heroes appear in the narrative, they are never presented as larger than life. The intent is that the clan is the hero because the clan is eternal.

The warrior epics are believed to be adaptations of episodes from clan epics by the travelling bards for use among other clans. Other clans would not connect with a story about a foreign clan being a hero and rival clans would be openly hostile to a rival clan's epic thus the bards obscured details about clan and emphasized details about

individual warriors. Honor and right moral action were often strong themes in these epics and it is believed that over time heroic deeds of multiple warriors and hunters were merged into one epic with the main character taking on legendary and mythical proportions. In time many clans came to claim these legendary and mythical figures as their own even though the same hero cannot possibly be from hundreds of clans. It is possible for the subjects of these warrior epics to be based on historical fact but it is impossible to separate myth from reality at this point in history.

If one genre of literature can be said to be quintessentially yazirian, it is the clan epic. However, the genre of literature that is the birthright of the whole species is the warrior epic. As a genre of literature it lasted into the Industrial Age with new heroes being chosen from the annals of the clan wars and the forging of a world government. These heroes are more solidly based on fact and though their clan of birth is concretely known the emphasis of oneness of the species promulgated by the Imperial Warhon has worked to make them universal heroes to modern yazirians. It's probably only a matter of time before a post Exodus warrior epic emerges with near universal popularity.

THE EPOCH OF THE CLAN WARS

Much of the literature from this age survives and is available in electronic databases while the preserved documents remain in colonial archives on all of the yazirian colonies. The clan epics took on a permanent form because of being committed to writing but warrior epics continued to evolve and change.

The warrior epic reach the height of its development during this age as some of the great warrior bards of the age refined their wording and meter so that their oral recitation could be chanted to the accompaniment of a drum in an effort to whip clan warriors into a battle rage before battle. The warrior epics from this time are the most poetical and sophisticated representations of this whole genre of literature.

Marital songs also developed during this period and are closely linked to the warrior epics. The honor codes developed into their accepted forms and though some have had more modern additions they remain essentially the same from this period on.

THE INDUSTRIAL EPOCH

This age begins in the age of the Imperial Warhon as the industrial revolution was instrumental in ending the clan wars and establishing an imperial world government. It lasts long after the time that historians consider to be the end of the industrial revolution. It covers a vast period of change and urbanization in yazirian society and witnessed the development of a new genre of Yazirian Literature: the “two pups” stories. The changes in yazirian society required that the clans adapt their understanding of what it meant to be a yazirian and warrior in industrialized and modern society. The Two Pups genre consists of formulaic stories illustrating the lives of two pups, often from the same litter thru their coming of age. These stories concerned themselves with moral choices made by the two protagonists with one following an honorable path and the other following a dishonorable path.

Though the plot of the story is predictable the climax is not always – surprise endings are a hallmark of the genre. Typical endings are: the honorable yazirian prospers while the dishonorable one does not, the dishonorable yazirian finds redemption in the end by making a final honorable choice, the honorable yazirian helps his dishonorable littermate find redemption, and the dishonorable yazirian kills his honorable litter mate. Additionally, the story will take on a theme of either the old ways are best and modern change is bad or the adaption of old wisdom to modern change is best with clinging to the old ways as a path to ruin. The story may be crafted such that the surprise ending is a reversal of the overall theme.

The purpose of the “two pups” stories are moral lessons for young yazirians to find their place in harmony with the

overall stance of their clan to the tremendous changes happening in society. Many are fictional though a few are based on true stories.

PRE EXODUS POETRY

With the development of space flight and the discovery of the potential death of the planet from a close pass of a rogue brown dwarf to their home system, Yazira witnessed the development of a new genre of literature known as death song poetry. Fear of the impending destruction of their planet and the old practice of singing a death tribute to a fallen warrior or hunter lead to the development of this literary tradition. Death song poetry was the emotional response to recognizing that their clans may not be eternal. It's been characterized as morbid and nihilistic, but this is only the case for a small percentage of the overall body of this class of literature. In truth the best examples are a celebration of the life of the clan that the poem was written for.

POST EXODUS LITERATURE

This epoch of literature applies to the arrival of the yazirian species in the Frontier until present. Writers during this time have revived all the old styles of literature but generally with post Star Exodus subjects. Death song poetry is a notable and understandable exception to that.

A new genre has emerged called Exiled Literature. In the past, yazirians that were clan less or banished were marginalized on the fringes of yazirian society. In the modern Frontier they often gravitate to non-yazirian colonies where they are not judged on the history of their clan but on their own merits. Also, contact with other species has led to exposure to alien genres of literature. Out of this has sprung a new and lively class of literature and poetry whose one defining rule is that there are no rules. Exile Literature has exploded in popularity among both yazirians and non-yazirians. Typically non-yazirians prefer Exile Literature because it feels less aggressive over other forms of yazirian literature.

ADVENTURE HOOKS

THE PRENGLAR PRIZE WILL BE AWARDED

The committee for the Prenglar Prize has awarded the Prenglar Prize for Literature to a yazirian author from Hentz but the Family of One has ordered him to turn down the prize as well as blocked him from leaving Hentz. The committee has responded that his refusal in no way invalidates their awarding of the prize. The PCs are commissioned to locate a clan relative living outside of the Araks system to stand in his place at the awards ceremony. There are three such members of his clan that have left Hentz but only their general whereabouts are known.



Eric Winsor

This is an investigative adventure where at least one viable candidate must be located. One might be dead, one might be prisoner somewhere, one might require a side quest before he goes along with the PCs; a referee has a lot of leeway in how he runs this adventure.

CALISTRA'S VERSES

A yazirian "Salmon Rushdie" has written an expose of the Family of One and the Fol's Inquisitors (the religions secret police) want him for questioning back on Hentz. The player characters could have been hired to snatch and smuggle him back to Hentz or to protect him from the Inquisitors. If the PCs are involved in a kidnapping, Star Law and Space Fleet may be potential antagonists.

Alternately, the PCs might be tasked with confirming key evidence in the expose or getting rid of that evidence.

THE EXODUS DIARIES

The Exodus Diaries purport to be the diaries of a key figure in clan Anglann that rules the Family of One religion. The contents of the diaries state that clan Anglann hatched a coop to assassinate the Imperial Warhon and his body guards on their space flight from Yazira and take over control of the yazirian colony on Hentz by seizing control of the Family of One religion. The diaries may or may not be a hoax. The PCs would be involved in either authenticating them or protecting them or in destroying them based on who they're hired by.

I AM MARCUS TOOWAIN

A Family of One dissident writes negative critiques of the Family of One and smuggles them off Hentz to be published on Gran Quivera under an assumed name. He uses a secret transmitter to send his documents to a ship in orbit which hands them off to secret cadre members at Prenglar. The PCs may be contracted to pick up the most recent document dump. The Hentz militia or the Inquisitors may be antagonists. The author's identity may have become compromised and the PCs are sent to extract him.

THE LITERARY HOAX

An author has faked his memoir and it came to interstellar acclaim before the hoax was discovered. The PCs may be charged with investigating and confirming or disproving the story or with apprehending the hoaxter. The hoaxter may well have played the sympathy card by claiming to be a survivor of the Free World Rebellion, the First Sathar War, or the Laco's War and told horrific but exaggerated stories of suffering. Literary agents or publishers may want the hoaxter apprehended to recover money paid for the fake story. Though the crime is fraud this individual is not high on the Star Law most wanted list thus the PCs are being employed as bounty hunters.

FE

THE PRENGLAR PRIZE

HISTORY

Allied Gruu of Inner Reach was the extraordinary engineer that developed the first cost effective atomic drive. Latter he was instrumental in reverse engineering the sathar's laser technology. He became fabulously wealthy from his hundreds of patents but his most famous patent was for hand held laser technology. While visiting Triad, Cassidine he read his obituary (mistaken) and was startled by the line: "the merchant of death is dead." Being of advanced aged he spent his remaining years brooding over the significance of his legacy and shortly before his death he famously changed his will. Over 97% of his immense fortune was set aside to fund an interstellar prize to promote peace and interspecies understanding, the Prenglar Prize.

While Triad, Cassidine was the first multispecies colony founded to promote interspecies understanding, Gran Quivera, Prenglar was the first colony so founded with yazirians as charter members. Thus the prize is hosted there.

The Prize is awarded in the fields of engineering, physics, literature, bio-sciences, culture, and peace. The vast majority of prizes handed out for engineering and bio-sciences are for a specific discovery or invention. Nearly all literature prizes are for a specific work of literature not lifetime achievement. Culture prizes tend to be awarded for life-time achievement. The peace prize is awarded about 70% of the time for specific recent accomplishments and 30% for life time achievement.

Interestingly, the prize is specifically barred from being awarded to astronomers and astrogators due to the wording of Allied's will. It's believed that this is linked to a long standing feud and law suit between him and a fellow researcher who was an astronomer over a patent that is alleged to have been stolen from Allied. The award has been awarded to astronomers in a roundabout fashion by giving them the engineering or physics award for a particular invention or discovery.

The Prize is managed by the Prenglar Prize Committee on Gran Quivera. The prizes are awarded yearly and come with a million credit cash award.

SIGNIFICANT AWARD WINNERS

- Toolonn Zhee for development of the multi species quickheal compound, Biocort.
- Quint Logham for negotiating the cease fire in Laco's War.
- Rixx Icktal for developing the federanium alloy.

Rule Conversions

STAR FRONTIERS CHARACTERS WITHOUT NUMBER

Tom Verreault

A RULES CONVERSION

This is a conversion guide for using the Stars Without Number RPG rules in the Star Frontiers game setting. Why adapt Stars Without Number to the Star Frontiers game setting. Firstly, the Stars Without Number rule set is a D20 system. It's one of the better presentations of the D20 game system I've seen. Since Wizards of the Coast's D20 game mechanic remains the 600 lb. gorilla in the RPG gaming room, it only makes sense to not ignore the gorilla and convert Star Frontiers to the D20 mechanic.

I'm not under the illusion that die-hard fans of Star Frontiers will jump ship the minute they lay eyes on this conversion, they wouldn't be die-hards if that was the case. The reality is that there are a lot of people familiar with the D20 mechanic and little else so this conversion is really for them. My involvement in producing Star Frontiers fan magazines clearly outs me as one of the die-hards and yet I rather like the Stars Without Number rules. I can't help but think that if I had introduced my weekly D&D group (which is made up of die-hard D20 fans) to Star Frontiers but with the Stars Without Number conversion we might actually be still playing that campaign.

Stars Without Number is a leveling system retro clone of the classic Basic and Expert Dungeons & Dragons rule set. Its handling of skills is rather elegant and corresponds nicely to the Star Frontiers mechanic for skills. As a bonus the Stars Without Number rule book is available as a free PDF download and it comes with an enviable set of resources and aids for game masters.

WHAT YOU NEED

You will need at least the [free copy of the Stars Without Number rules](#) and the [Alpha Dawn rules for Star Frontiers](#). This article is strictly a conversion guide to aid in creating Stars Without Number characters in the Star Frontiers setting. More articles will follow that deal with other elements of the Stars Without Number rules in the Star Frontiers setting.

CHARACTER CREATION OVERVIEW FOR STARS WITHOUT NUMBER

Being the step-child of the Gygaxian D20 mechanic, Stars Without Number characters generate ability scores by

rolling 3d6 and recording results for Strength, Intelligence, Wisdom, Dexterity, Constitution and Charisma. One of 3 classes is chosen. Then a background and a training package, each of which provide the character with levels in skills. If both the background and the training package have the same skill then the character starts with it at level 1 instead of 0. In this rule set, the classes function like the Star Frontiers PSAs in some ways and all the classic Star Frontiers character types can be generated from the Stars Without Number system.



Tom Verreault

THE CONVERSION CHANGES

Stars Without Number, in its core rulebook, is a “humans only” sci-fi system lacking a step for choosing a race. It's pointless to convert without including the iconic Star Frontiers player character races. For the conversion a

choice of race is added just before choosing a background and training package. As in the Star Frontier rules, choice of race modifies the ability scores and provides the character with racial abilities.

The Stars Without Number rules have three classes and one of them is psychic which translates to the mentalist PSA in Star Frontiers. The mentalist rules have always been optional in Star Frontiers and a psychic character should be created with referee's approval. This leaves the conversion with only two classes if the psychic class is not allowed and it might be perceived as a lack of character differentiation. The truth is that choice of background and training package is what differentiates characters. Choice of class does impact the character on a mechanics level but choice of background and training packages differentiates characters from each other. Even with only two or three classes, Stars Without Number is a very robust system. As part of the conversion, Star Frontiers specific backgrounds and training packages have been added as well as race specific backgrounds.

THE NEW PLAYER CHARACTER CREATION PROCEDURE

Essentially the new procedure is the same except for the step involving choosing a race.

1. Roll Ability Scores
2. Choose a player character species (race)
3. Choose a player character class
4. Choose a background
5. Choose a training package

ROLL ABILITY SCORES

The procedure is to roll 3d6 six times and record the results in order: Strength, Intelligence, Wisdom, Dexterity, Constitution and Charisma. Since ability scores have a low impact on the overall mechanics of the game low scores are not the handicap they might be perceived to be. However, a player may make a prime requisite (for their character's class) ability score a 14 in order to play the class he wishes or a group may opt for rolling 4d6 and dropping the lowest die to generate higher ability scores. Like Star Frontiers, Stars Without Number has rules for the limited transfer of points among ability scores.

CHOOSE A PLAYER CHARACTER SPECIES

The "core four" player character species in Star Frontiers are humans, vrusk, dralasites and yazirians. The Alpha Dawn edition of the Star Frontiers rules has a one page description of each species covering physical structure, customs and society; a digitally remastered version is

available on the [Star Frontiersman site](http://StarFrontiersman.com) or scans of the original can be found on the [StarFrontiers.com site](http://StarFrontiers.com). When choosing a player character species, record the ability score modifiers for that species and any special abilities on the player character sheet. Certain of the racial abilities for the Star Frontier player character races are listed below as racial skills. This means that that ability is treated as a skill within the Stars Without Number system. It is advanced at level advancement in the same way as any other class skill and it tests in the same way as any other skill. Unless stated below racial abilities function exactly as described in the Alpha Dawn rule book.

Humans, according to the Alpha Dawn rules, emphasize training and education more than other species thus they gain two points that may be add to any ability score or split between two abilities.

Vrusk are fast but lack the stamina of humans -1 to Constitution and +1 to Dexterity. They are Ambidextrous (no penalty for using the "off hand" to fire a weapon or perform a skill check) and practiced observers of social interactions. A vrusk begins play with level 0 in Vrusk Comprehension as a racial skill.



Tom Verreault

Dralasites are a highly adaptable shape shifting race known for their strength, +1 Strength and -1 Dexterity. Dralasites can generate multiple limbs to assist them in numerous situations. The actual number is 4 plus 1 per two points their dexterity is over 10 (12= 5 limbs, 14= 6 limbs, and etc). If a dralasite character has generated any number of legs more than two and is required to make an

ability or skill check to avoid falling or similar bad effect while moving over difficult terrain he gains a flat +1 to the check. If a dralasite character is in hand to hand or melee combat and has generated any number of arms more than two he gains a flat +1 to the to hit roll. Note it is important for the player to state what sort of limb his character is generating as it also takes 10 minutes to absorb a limb and or generate a new one. Finally all dralasites start with level 0 Lie Detection as a racial skill.

Yazirians are the clannish warriors of the Frontier but they evolved on a lower gravity world; -2 Strength, +1 Dexterity and +1 Intelligence. They have pataquim skin flaps (like a flying squirrel) that allow them to glide in gravities up to 1g. Yazirians also begin with Battle Rage as a level 0 racial skill. Once per combat they may attempt to Battle Rage and on a successful skill check they gain a +3 to melee combat for the rest of the combat.



CHOOSING A CLASS

Stars Without Number had three classes: Warrior, Psychic, and Expert. The psionic rules have always been optional in Star Frontiers whereas in Stars Without Number they are written into the fabric of the game. The decision to keep them optional in a conversion is purely a nod of the head to the perception of Star Frontiers being

less science fantasy than other rules systems. Additionally the mentalism rules from Zebulon's Guide were rushed into print and lacked play testing that would have revealed some of their inherent flaws. Since the Stars Without Number psychic rules are better integrated into the rule set I recommend keeping them and having fun with them in a slightly different take on the Frontier. The only reason to exclude it would be for "purity of the setting", whatever that means.

As stated before, any character that could have been created in the Star Frontiers rules can be created in Stars Without Number rules despite its seemingly limited number of classes. The true character differentiation comes in the next step.

CHOOSING BACKGROUND AND TRAINING PACKAGES

Background and training packages grant skills to the character. If both grant the same skill then the character begins with it at level 1 instead of 0.

A NOTE ON TECH SKILLS

Because Star Without Number is essentially a different game thematically than Star Frontiers it has some very different tech skills. The following changes are recommended.

Astronautic: no change.

Maltech: Anything that applies to forbidden or outlawed technology. This technology could be of sathar or Klikk origin which means it is outlawed for private use or bio- or nano- warfare technology developed in secret mega-corp labs. Characters that demonstrate great skill in Maltech will undoubtedly have an extensive file with Star Law and be monitored closely.

Medical: no change.

Psitech: with the possibility of playing the Stars Without Number psychic class psitech should be kept unchanged.

Postech and **Pretech** are skills dealing with different kinds of technology that are identified by their relationship in history to the central event of the Stars Without Number timeline, the Scream. Since the Scream does not exist in Star Frontiers the logical thing would be to replace Postech and Pretech with the traditional Star Frontiers tech skills: technician, computers and robotics. I recommend further refinement with technician skill being concerned with machinery including the structural workings of a robot and computers being concerned with programming including the programming of a robot and robotics skill can be deleted.

Anytime training package or background states Pretech or Postech it can be changed to Technician or Computers skill. Computers is a separate skill in Stars Without

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Number but it can be subsumed into the tech skill without breaking the system or the conversion.

BACKGROUNDS

For the most part the Stars Without Number background packages all work for Star Frontiers characters with only slight changes to their descriptions. The following are recommended for exclusion: *Armsman*, *Peasant*, and *Tribesman*. They could be worked into the setting with some modification; for example the Armsman background could be used for a body guard of a noble on Clarion but his skills should be updated to reflect Clarrion's higher tech.

The following backgrounds are for the Frontier specifically and some require the character be of a specific species. It is not required that a player playing one of the non-human species choose one of the following racial backgrounds; they are simply included for flavor.

FAMILY OF ONE ADHERENT (YAZIRIAN ONLY)

The Family of One religion is a dominant power structure in yazirian society, controlling a world, a system militia and a mega corp. All members wear a uniform to show their profession and social position. Most adherents come from Hentz but may come from any world.

Skills: Culture/Hentz, Religion, and any two skills

TRADITIONAL CLAN (YAZIRIAN ONLY)

There has been a strong "back to their roots" current in yazirian society due to the heavy handedness of the Family of One. Many clans have become staunchly traditional and connect deeply with their warrior past. Most carry one or both of the honor weapons; zamra (throwing disk) or kha'dan (sword).

Skills: Culture/World (any except Hentz), Combat/Primitive Weapons, and any two skills

YAZIRIAN PRIEST (YAZIRIAN ONLY)

Yazirians are the most overtly religious of the Frontier's aliens. For the most part a yazirian priest will be from the Family of One but a dissenting priest would be from a clan practicing the old ways.

Skills: Culture/World (Hentz for Family of One or Any except Hentz if a dissenter), Religion, and any two skills

DRALASITE PHILOSOPHER/DEBATOR (DRALASITE ONLY)

Dralasites are renowned for their love of philosophy and debate. Their social schools, stoa, are the incubators of this. It's an accepted practice for dralasites to broaden their education through travel so many leave the stoa for and adventure among the stars.

Skills: Culture/World, Scholar, Persuade, and any one skill.

VRUSK CORPORATE DRONE (VRUSK ONLY)

The vrusk businesses are a society unto themselves and vrusk usually remain loyal to their company for life. Occasionally some leave the company for adventure, due to expulsion, or because the company went under.

Skills: Culture/World, Bureaucracy, Business and any one other skill.



PIRATE

Piracy has surprisingly flourished on the Frontier. Outer Reach has become a haven for pirates and some mega corps have sponsored pirates as deniable/disposable tools in their corporate wars and schemes. The modern space going pirate is a real presence in the Frontier.

Skills: Culture/Spacer or Criminal, Combat/Any (except Psitech), and any two skills.

MEGA CORPORATION EXECUTIVE

The mega corporations are power brokers and movers in the Frontier, influencing worlds, governments and trade. They employ thousands upon thousands of beings making past corporate employment a real possibility for a player character.

Skills: Culture/Corporate, Business, Leadership, and one other skill.

NOBLE

The planet of Clarion is the only overtly human monarchy in the Frontier. However, other planets do have a nobility but these positions are couched in different terms. The planet-bound crime lords of Outer Reach as well as oligarchic families on other worlds are just examples. The immediate families of yazirian clan chiefs could also be viewed as nobility. Adventuring nobility can be viewed as not performing their expected obligations either because they were driven out of their position or are simply living

the adventuring lifestyle for fun and excitement. Nobility from Clarion is most likely human.

Skills: Culture/World, Leadership, Combat/ Any (except Psitech), and any one skill.

TRAINING PACKAGES FOR EXPERTS

Most of the training packages for the Expert class require little to no change. If a package lists both Pretech and Postect then the character gets one level of both of Technician and Computers. If a training package lists either Pretech **OR** Postech then the player may choose a level of either Technician or Computers.

The Preceptor Adept training package does not fit the Star Frontiers setting and thus should be excluded. In its place the following Scholar training package is offered:

SCHOLAR

There are numerous universities in the Frontier with the University of Zebulon, University of Prenglar and the Triad Institute of Technology being the most famous. Dralasite stoas produce exceptional scholars as well.

Skills: Culture/Any, Bureaucracy, Instructor, Perception, and any two from the following: Business, Culture/Any, History, Language, Religion, Science, or Tech/Any.

TRAINING PACKAGES FOR PSYCHICS

Of all the psychic training packages Tribal Shaman is perhaps the least compatible with the Star Frontiers setting. It, however, does fit the setting if used for a tribal shaman from one of the primitive races that exist in the setting but that will require a referee adapting that primitive race to be a player character option.

The only other change I would make would be to Academy Graduate Training package. The wording in the package description makes it sound as if psychic academies are fairly common place and my gut feeling is that in a Star Frontier's setting where psychics do exist, psych academies should be exceedingly uncommon. Otherwise the training package is usable.

TRAINING PACKAGES FOR WARRIORS

Two of the warrior's training packages are problematic. First, the Exchange Enforcer should have its name changed to Corporate Bodyguard.

The Templar training package is a bit trickier. My recommendation is to reserve it for a religious yazirian warrior and have the character be part of the Family of One or be a dissenter.

A NOTE ON LANGUAGES

Pan Gal is the common trade language of the Frontier. All characters are fluent in this language and may be fluent in their native species language: Modern Yazirian, Modern Vrusk, Dralasite or Humanish. There are also ancient varieties of Yazirian, Vrusk and Humanish.

For a character to start play with knowledge of the modern native language the player must roll a d20 modified by the following conditions and get less than the character's Intelligence ability.

- Expert : -1
- Home world is a mixed race colony: -1
- Intelligence of 14 or higher: -1
- Intelligence of 7 or lower: +1

FINAL THOUGHTS

Part of why I am a die-hard Star Frontiers fan is that the Alpha Dawn mechanics are incredibly fast play. However, with a game 30 years out of print it can be a challenge to find players or groups who are open minded enough to try it out. However, one comment I have encountered while playing with traditional D20 groups is that they would like to try something new. Being able to present a science fiction version of the D20 mechanic would be ideal for bringing new Frontiersmen into the Frontier.

FE

TARANTULA NEBULA

The image to the right was used as the cover image for the Stars Without Number Rules. It is the Tarantula Nebula (also known as 30 Doradus, or NGC 2070) and was taken by the Hubble Space Telescope.



The Tarantula Nebula is an H II region in the Large Magellanic Cloud (LMC). It was originally thought to be a star, but in 1751 Nicolas Louis de Lacaille recognized its nebular nature.

The Tarantula Nebula has an apparent magnitude of 8. Considering its distance of about 49 kpc (160,000 light years), this is an extremely luminous non-stellar object. Its luminosity is so great that if it were as close to Earth as the Orion Nebula, the Tarantula Nebula would cast shadows. In fact, it is the most active starburst region known in the Local Group of galaxies. It is also one of the largest such region in the Local Group with an estimated diameter of 200 pc. The nebula resides on the leading edge of the LMC, where ram pressure stripping, and the compression of the interstellar medium likely resulting from this, is at a maximum. At its core lies the compact star cluster R136 (approximate diameter 35 light years) that produces most of the energy that makes the nebula visible. The estimated mass of the cluster is 450,000 solar masses, suggesting it will likely become a globular cluster in the future.

The closest supernova observed since the invention of the telescope, Supernova 1987A, occurred in the outskirts of the Tarantula Nebula. (Source: [Wikipedia](http://en.wikipedia.org))

Spaceships

UPF SUPPLY & FAST COMBAT SUPPORT SHIPS

Jason Combs

The development of the supply ship dates back to water navy warships. With the assistance of supply ships, navies could extend the range of their warships. These craft serve as support to the fleets and strike forces, not engaging directly in the battles but rather assisting damaged vessels in repairs, rearming depleted weapon systems, serving refueling missions and medical assistance to injured ship's crews.

Part of the mission for supply ships is repair. 25% of each crew consists of engineers and technicians. The repair teams can directly access the combat ship via the airlock or launches. Each ship also has a high number of work pods – 1 for each hull size. These may be used to repair armor or breaches in the hull. The engineers are able to bring a combat ship up to mission ready status in hours or days as opposed to days or weeks.

They have minor parts onboard, motherboards, wiring, etc but, they cannot replace an entire laser battery or astrogation system. The computer technicians are able to provide new programs but, not replace a destroyed computer.

These ships have adequate stores onboard to reload most combat ships. They can rearm any ship from a fighter to a heavy cruiser. They also can reload ICM launchers and

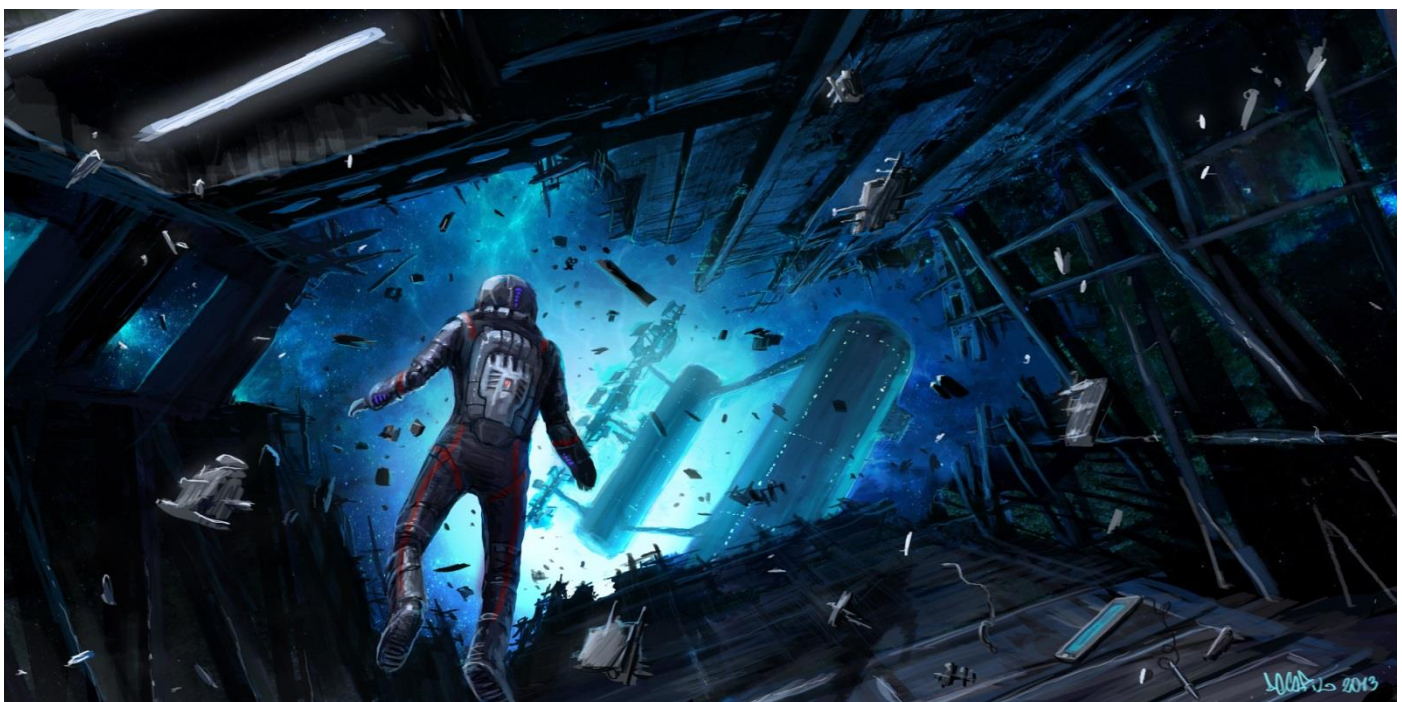
water tanks for Masking Screens. For the later, the crew cross load piping conduit over to the combat ship and fills up the water tank.

Supply ships can cross-load fuel pellets to other combat ships low on fuel. They are equipped with multiple refueling gantries to refuel and resupply multiple ships at a time. The gantries are comparable to assembly lines. The fuel pellets are packed in lead containers and placed on the gantry which pulls it to the receiving ship. The crew unloads it and their engineers can then load the pellets into the engines.

They are also equipped with more extensive medical facilities than smaller ships can provide. The medical staff is able to receive wounded personnel or load into a launch and board the combat ship and treat the wounded there. Those that cannot be helped are placed into freeze fields. Finally, minor dental services can also be provided for those in need.

Furthermore, these ships are designed with hangars. They contain their Workpods, launches and lifeboat (supply ship only).

Because the supply ship is not a combat unit, but rather a support vessel, such ships are lightly armed, with self-defense systems – laser batteries.



The [*fast combat support ship*](#) is the second class of the Supply Ship series. It was developed by the UPF as a logistics support vessel for patrols & task forces. These vessels fulfill the same role as Supply Ships but, are half the size. They are capable of high speed and able keep up with Frigates and Assault Scouts.

SHIP STATISTICS

UPF PROTECTEUR CLASS SUPPLY SHIP

Hull Size: 8

Hull Points: 40

Engines: 2 Atomic B

ADF: 3

MR: 3

DCR: 80

Weapons: 2 laser batteries

Defenses: reflective hull, masking screen, 3 ICMs

Crew: 60 (including additional engineers)

Communication & Sensors: Subspace Radio, Intercom, Radar

Miscellaneous Equipment: 1 lifeboat, 8 escape pods, 8 workpods, 2 launches (10-Man), 2 launches (4-Man)

Reloads: 680 cubic meters* of ammunition

Typical Load: 8 torpedoes (20*), 14 rocket battery salvos (10*), 12 assault rockets (10*), 4 seeker missiles (40*), 10 ICMs (5*), MSx2 (25*)

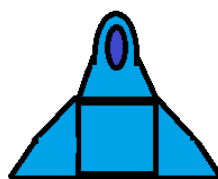
Refueling Capacity: 24 pellets



CREW

- | | |
|-----------------------------------|--------------------------------------|
| • 1 Captain | • 1 Executive Officer |
| • 1 Chief Engineer | • 1 Chief Medical Officer |
| • 2 Pilots | • 2 Astrogators |
| • 2 Gunners | • 15 Engineers |
| • 2 Defensive Systems Specialists | • 2 Communication/Sensor Specialists |
| • 8 Medics | • 3 Cooks |
| • 3 Robotic Technicians | • 3 Computer Technicians |
| • 3 Technicians | • 15 Marines |

UPF SUPPLY CLASS FAST COMBAT SUPPORT SHIP



Hull Size: 4

Hull Points: 20

Engines: 1 Atomic A

ADF: 4

MR: 4

DCR: 60

Weapons: 1 laser battery

Defenses: reflective hull

Crew: 30 (including additional engineers)

Communication & Sensors: Subspace Radio, Intercom, Radar

Miscellaneous Equipment: 4 escape pods, 4 workpods, 1 launch (10-Man), 1 launch (4-Man)

Reloads: 340 cubic meters* of ammunition

Typical Load: 4 torpedoes (20*), 8 rocket battery salvos (10*), 12 assault rockets (10*), 12 ICMs (5*)

Refueling Capacity: 24 pellets

CREW

- | | |
|-----------------------------------|-------------------------------------|
| • 1 Captain | • 1 Executive Officer |
| • 1 Chief Engineer | • 1 Chief Medical Officer |
| • 2 Pilots | • 7 Engineers |
| • 1 Gunners | • 2 Astrogator |
| • 2 Defensive Systems Specialists | • /Communication/Sensor Specialists |
| • 3 Medics | • 1 Cook |
| • 1 Robotic Technician | • 2 Computer Technicians |
| • 2 Technicians | • 5 Marines |

FE

[Ship model](#) by [Jay Thrumen](#).



Vehicles

SNOW CATS

Tom Verreault

A VEHICLE REPORT

The snow cat tracked vehicles for Star Frontiers were designed to handle soft terrain and are ideal for snow and marshy ground. The treads and wheels are often made of rubber or aluminum and the overall construction is geared toward reducing weight. The cabs are sealed against environmental extremes and hazards. Life support and environmental controls are standard.

There are three basic sizes: personal (1-2 occupants), car body (4-6 occupants), and truck body (6-12 occupants). The vehicle descriptions list range, which is an estimation of their range with a full parabattery. Some vehicles are further modified to carry an extra parabattery and the truck body can have a generator added in order to extend their range.

SNOW LYNX

The Snow Lynx is cramped inside but well insulated such that its environmental systems don't drain much energy and reduce its range. The body style is an enclosed cab with one door.

SNOW PUMA

The Snow Puma's environmental systems have an impact on the puma's range. It only travels 900 km with its parabattery. The body style of the puma is 4 passenger doors and a hatch to the cargo compartment.



Tom Verreault

SNOW LION

The Snow Lion's environmental systems have more to regulate as the entire cargo area is usually given over to living and work areas for the crew. If the Snow Lion is just a truck cab and cargo areas where the cargo area is not environmentally regulated then reduce passengers to 3 and extend range to 1800 km. Most Snow Lions come with an open interior with space used for living and working. It will usually have one door on each side of the vehicle and a roof hatch. Occasionally some have a small walled off compartment at the very back with a generator and fuel to recharge the parabattery on extended expeditions.

FE

Snow Lynx	
Cost:	3,000 Cr (rental- 25 Cr plus 25 Cr/day)
Top/Cruise Speed:	90 kph/60 kph
Passengers:	2
Cargo Limit:	20 kg, .5 cubic meter
Range:	500 km round trip

Snow Puma	
Cost:	6,000 Cr (rental- 50 Cr plus 50 Cr/day)
Top/Cruise Speed:	85 kph/60 kph
Passengers:	6
Cargo Limit:	150 kg, 1 cubic meter
Range:	900 km round trip

Snow Lion	
Cost:	17,500 Cr (rental- 75 Cr plus 100 Cr/day)
Top/Cruise Speed:	75 kph/50 kph
Passengers:	6-12
Cargo Limit:	10,000 kg, 30 cubic meters
Range:	1500 km round trip

Campaign Info

LET'S EAT

Unknown

SYNTHETICS CORPORATION ORIENTATION MANUAL

DAY 3

INTRODUCTION TO RACIAL FOODS

Welcome new employee of Synthetic Corporation. You have been selected to take part in the joy of providing tasty and nutritional food to the entire Frontier. As part of your orientation to your wonderful new career with Synthetic Corporation, this two week orientation course will give you a basic understanding of how the entire corporation operates. Today we will present you with a basic understanding of the similarities and differences between the core four races' dietary needs, likes, and dislikes. So grab your eating utensil and let us dive right in with a quick review:

DRALASITES

All of us have seen the credit dreadful holovids of Dralasites accidentally grabbing something; a laser pistol, a wrench, the all-important microchip, their buddies' potato chips. The reality is of course very far from the truth. They are omnivores. They eat by surrounding their food and absorbing it, so they also have no digestive tract or intestines.

What is not well understood by the other races is that the act of eating takes a conscious effort on the part of the Dralasite to open up pores in its limb. This could be considered similar to a Dralasite extending or absorbing a limb. If this was not the case then they would be "eating" the ground with every step they take.

Dralasites cannot eat inorganic matter. Trying to absorb it would be like any of the other core four races putting plastisteel screws in their mouths and trying to eat them. Again the credit dreadful holovids are not accurate in portraying Dralasites as hiding the nuclear core from the Sathar inside themselves and then vomiting it back out to save the day.

The most important sense for a Dralasite is smell. They breathe directly through their skin, and the entire membrane is sensitive to odors. They also only see in black and white. When preparing Dralasite foods appearance can almost be forgotten, it is the scents and texture which are the most important elements. We at

Editor's note: The following document comes from the Synthetics Corporation Orientation Manual for new employees. Synthetics Corporation provides a vast amount of natural and synthetic foods and beverages throughout the frontier. They strive to meet the needs of their customers by providing their customers what they truly desire. This has led them to research racial food preferences and trends extensively. This is reflected in their new hire orientation where they spend a full day sampling and education their employees about food preferences of the Frontier races. *Released with permission of Synthetics Corporation Personnel and Resources Department Release number ZA172399334-2156 for publication by Frontier Explorer.*

Synthetic Corporation have found that Dralasites prefer food which comes in small cubes (1cm cubed) or wafers (diameter of 3cm about 5mm thick).

Color is not important but scent is. While some of our snack lines have one scent, our most popular meal items release various scents as the food is absorbed, varying the experience for the absorber. If you are not a Dralasite or Vimh you will be issued a nasal amplifier. Dralasite olfactory sense is very sharp and only slight amounts of scents are necessary otherwise the dining experience can be ruined.

We have also found that texture-wise, a certain amount of firmness is necessary but cannot be overdone. Unless they are absorbing a liquid, Dralasites seem to prefer their food slightly malleable but not squishy.

Dralasites can consume the widest variety of food items.

HUMANS

Those of you who have dealt with Humans know that nothing can be considered universal with them. They have adapted themselves to their environments so well that food items we make on one world, which are considered an every-meal food, are outlawed under vast financial penalties on other worlds. We have found that Humans prefer "local foods". This is not just planetary but usually foods that are found in a 500 kilometer range from where they were raised.

The Humans senses of taste and smell is not as highly developed as their sight. This being the case, appearance of their food is all important. Some of our worst failures

Frontier Explorer

have come from items which everyone agreed were truly delectable but apparently looked like “rancid Sathar brains”. However some of our failures have been turned into our greatest successes by simply changing the color of the item. Again much of this depends on the planet and region the item is being delivered to. Mistakes in shipping the wrong appearance item can be quite costly. The most important variant in Human tastes are regional. Some are almost totally meat based, others are vegetarian. Most fall in the middle somewhere.

VRUSK

The Vrusk mouth is surrounded by four eating mandibles. The two larger mandibles hold food while the small ones tear it apart and place it in the mouth. They are omnivores but this statement is misleading. Vrusk are apparently descended from a carnivorous semi-social order of insectoid which constructed small nests. At some point as their intelligence increased, additional nutrients were required which they could only get from plant sources. All of this leads to them becoming omnivores but with a preference for meat.

Uniformity is the key to Vrusk society. Their eating habits are the same. At meals every Vrusk is supposed to eat the same food. Since most meals are eaten in their company or trade house, the leader of the company or trade house usually picks the menu.

Synthetic Corporation has taken this challenge up by providing food which is visually identical but actually very different in taste for Vrusk. It started with a line of foods for those who had allergies to some ingredients and could not fully partake in the company or trade house meal. These alternates allowed them to avoid the shame of not eating what everyone else was eating. Soon floods of requests came into Synthetic Corporation suggestion offices. Apparently Vrusk are not as uniform as they present themselves.

Vrusk food comes in many varieties except for soups. The construction of their mouths means liquids are difficult to consume. The norm for Vrusk is to dip breads in broths and juices to allow it to be consumed or to eat high water content foods such as watermelon, pa'-tik-vu', and tomatoes.

YAZIRIAN

Yazirians are also omnivores but seemed to have taken the opposite track of Vrusk. Their ancestral family of beings was almost entirely herbivores. It seems that as they developed intelligence a higher protein intake was required which was met by eating meat.

There is a theory that the Yazirian life enemy may have started with the need to acquire meat. Either the primitive Yazirian warrior/hunter would decide on a life enemy of an animal that thwarted their hunts or choose a life enemy

from a favored but very dangerous game animal. As Yazirians developed society and clans they transferred this life enemy choice to opponents in other clans.

Speaking of clans, similar to Humans, Yazirians also like to have meals which are from their clan traditions. The planet they are on does not stop them from preparing food in the clan tradition. Of course Synthetic Corporation has taken up the challenge of providing traditional clan foods no matter where the Yazirian is located to great success. Also Synthetic Corporation specializes in showing how Yazirians can prepare meals of local foodstuffs in the traditional clan way.

SAMPLE FOODS

POLPOL

A dralasite snack that smells pungent to yazirians, humans, and vrusk and thus comes packaged in a resealable package to contain the odor.



PA'-TIK-VU'

A native vrusk fruit that is prepared by boiling the flesh down into a thick sugary syrup and then immersing the roasted seed into the concentrated solution and

allowing crystals to form upon the seed. Crystallization takes several weeks.

GOLLYBERRIES

A genetic variant of ancient strawberry stock that was adapted and crossed with an unidentified Gollywog plant.



LASK-GA

Seasoned and dried lask meat very popular among all yazirian clans and many humans.

FE

Equipment

LANDFLEET SURPLUS

Tom Verreault

When your character is short on credits or there is not a local Pan Galactic Showroom close at hand, a trip to the local LandFleet Surplus Store may be just the thing you need.

WEB BELT

Web belts come in black, gray, olive drab, khaki, white and many camouflage variants and have been issued by numerous militaries and mercenary outfits the Frontier over. The belt is a customizable design that will support numerous bits of attached equipment like canteens, trenching tools, ammo pouches and etc. The design is old but it has had surprising longevity particularly among planetary militia forces. Color and condition varies.

Cost: 5 Cr.

CANTEEN

Plastic canteens hold 1 liter (1 kg) and generally come in olive drab, khaki or black. They can be found with or without the canvas cover to attach it to a web belt.

New: 2 Cr (3 Cr with cover)

Used: 1 Cr (with cover 2 Cr)

**AMMO POUCHES**

The most popular style is a double pouch designed to hold two ammo clips. However, due to the fact that various ammo clips are different sizes the double pouch can hold 4 bullet clips instead of two power, gyrojet or needler clips. Common colors are black, olive drab, khaki or camouflage.

Cost: 2 Cr.

SURPLUS SKEIN SUITS

These are standard skein suits that may be new or used. Condition varies and to simulate this roll 2d10-5 pts of damage to the suit. When buying a surplus skein suit make an INT check to pick the best available in your size. A passed INT check lowers the damage to the suit by another 5 pts. Despite the poor quality of some of the suits the price is hard to beat.

Cost: 200 Cr

SURPLUS WEAPONS

Not all surplus stores sell weapons depending on the local laws. Those that do have picked up surplus firearms at a discount but the stores are also trying to make a profit. Thus any savings on a surplus weapon is only slight, 5%

but a successful PER check gains a 10% discount. (See referee for availability and prices).

ENTRENCHING TOOL

The “E tool” is a metal and polyplate tri fold tool. When its blade is sharpened it can chop through skin and bone. The E tool saw use as a weapon in close quarters combat during the First Sathar War. The First Sathar War models were single fold and heavier but have turned out to be very collectable by collectors of military memorabilia. Condition varies and many are missing their canvas cover.



Newer tri fold model: 15 Cr (17 Cr with cover) .5 kg,
Older First Sathar War model: 25 Cr (30 Cr with cover) 1 kg. Damage 2d10 (sharpened), 1d10 (blunt).

BATTLE FIELD BRACER

(First Sathar War era) The bracer is made of metal and plastic and straps to either forearm. It has an integral chronocom, compass, toxy rad gauge and a flashlight that shines over the back of the hand. There is also a flip up lid with clips underneath that was designed to hold a plasti-paper map. It became popular to modify the bracer in the field. The two most common modifications were to disable the light on the toxy-rad gauge (to prevent it from giving away the wearer’s position) and to replace the integral flashlight with a knife sheath.

Cost: 135 Cr, **Weight:** .5 kg.

BATTLE FIELD BRACER AND HELMET

(Second Sathar War Era) This bracer is high impact poly plate construction and can be integrated into a suit of polyplate armor but was more commonly worn with a skein suit. The bracer was designed as a specialized battlefield body comp. It’s composed of a specially designed power pack with Audio-Act, Calc-All, Comp-Talk, Dis-Vis, Helm-Link and Map-Calc progit. The progit cannot be changed as they were manufactured into the bracer. These progit allow the body comp and the user to talk back and forth, they put at the user’s disposal a high speed complex calculator and a mapping program and everything is processed through the microphone and monocle of the combat helmet. The helmet comes with an integrated chronocom and magnigoggles. Due to the fact that the body comp can’t be changed or modified the demand for these is low and they are priced accordingly.

Cost: 2,000, **Weight:** 1kg.

FE

TITAN RISING: 2299

EPISODE #1.0: "THE ADVISOR"

EARTH YEAR 2299: UNITED COLONIAL SPACE FLEET CRUISER C.S.S. INTREPID AT THE LANGSTROM SHIPYARD IN HIGH ORBIT ABOVE THE PACIFIC OCEAN.



SHUTTLE SIX TO C.S.S. INTREPID, WE ARE ON FINAL APPROACH FOR DOCKING.

AN URGENT EARLY MORNING SHUTTLE ARRIVAL AT THE SHIPYARD INTERRUPTS THE NORMALLY QUIET ROUTINE OF THE INTREPID'S CREW.

COPY SHUTTLE SIX, PROCEED TO DORSAL AIRLOCK FOR DOCKING MANEUVER.

A SHUTTLE TRANSPORTING THE NEW CENTAURAN ADVISOR...



PERMISSION GRANTED. WELCOME ABOARD THE INTREPID LIEUTENANT FLYNN.

PERMISSION TO COME ABOARD? LIEUTENANT SANDRA FLYNN REPORTING FOR DUTY.

I'M LIEUTENANT DANIEL GOLDMAN, YOUR MISSION LIAISON AND ESCORT HERE ON THE SHIP.

CAPTAIN WYNGATE ASKED US TO JOIN HER ON THE BRIDGE UPON YOUR ARRIVAL.

THANK YOU LIEUTENANT, IT'S GREAT TO FINALLY BE HERE ON THE INTREPID AND MEET CAPTAIN WYNGATE.

IF YOU WOULD
PLEASE FOLLOW ME
I WILL SHOW YOU
THE WAY TO THE
BRIDGE.



...SO, THE CAPTAIN
TELLS ME THAT YOU
ARE AN EXPERT ON
CENTAURUS.

I DON'T KNOW
IF I WOULD CALL
MYSELF AN
EXPERT...



I JUST HAVE A
UNIQUE INSIGHT INTO
THEIR SITUATION AFTER
GROWING UP ON
THE COLONY.

A UNIQUE
INSIGHT?



THAT'S...
INTRIGUING
AND A LITTLE
CRYPTIC.

CAN YOU BE
A LITTLE MORE
SPECIFIC?

SORRY...
IT'S STILL A LITTLE
AWKWARD TO HEAR
MYSELF SAY IT...

BUT THERE'S
SOMETHING VERY
FAMILIAR ABOUT
WHAT'S GOING
ON HERE.



... I THINK THAT MY
SISTER IS SOMEHOW
INVOLVED IN THIS
SEPARTIST UPRISING
ON CENTAURUS.

I SEE



...YOU'RE RIGHT,
THAT IS AWKWARD.

HONESTLY FLYNN,
WITH TEN OF OUR SHIPS
LOST IN THE LAST MONTH,
THE ONLY THING THAT REALLY
MATTERS IS WHAT YOU CAN
DO TO HELP US END
THIS CONFLICT.

I CERTAINLY
HOPE THAT YOU'RE
RIGHT LIEUTENANT
GOLDMAN.



TO BE CONTINUED...

VOLCANOES

Tom Verreault

Volcanoes are massively destructive setting elements available to module writers and referees. The biggest eruptions on Earth have killed tens of thousands, had lava flows stretching over a hundred kilometers, lowered global temperatures by degrees, produced acid rain that burned people, and produced mud slides and pyroclastic flows and covered huge areas with ash and debris. Volcanic eruptions wiped out communities, shifted the populations of major civilizations (Mayans), disrupted trade routes in ancient times, and in modern times have crippled world air travel and negatively impacted the world's economy. There is tremendous scope for using them in any RPG setting.

VOLCANIC ERUPTIONS AS BACKDROPS OR SETTING LOCATIONS



A FISSURE VENT

This type of volcanic event erupts as a long linear fissure and can effectively be a kilometers long curtain of fire. In Iceland they are parallel to the local fault line but in Hawaii they can be radial from a volcano with a traditional caldera. One geological feature associated with narrow fissures is that they can become filled with lava, which hardens and then erosion removes the surrounding material leaving a dyke.

Both the curtains of fire and the lava dyke can be used as blocking terrain. The lava dyke could be a clue or foreshadowing that volcanic activity is possible.



SHIELD VOLCANO

A shield volcano is formed from a low viscosity lava eruption and the lava will flow for great distance creating a volcano with a low broad shield like profile. They are not normally associated with violent eruptions but are typical on islands rather than the continental shelf. Fissure vents can be quite common with this volcano and the typical start of its eruption will be a curtain of fire from a fissure vent.

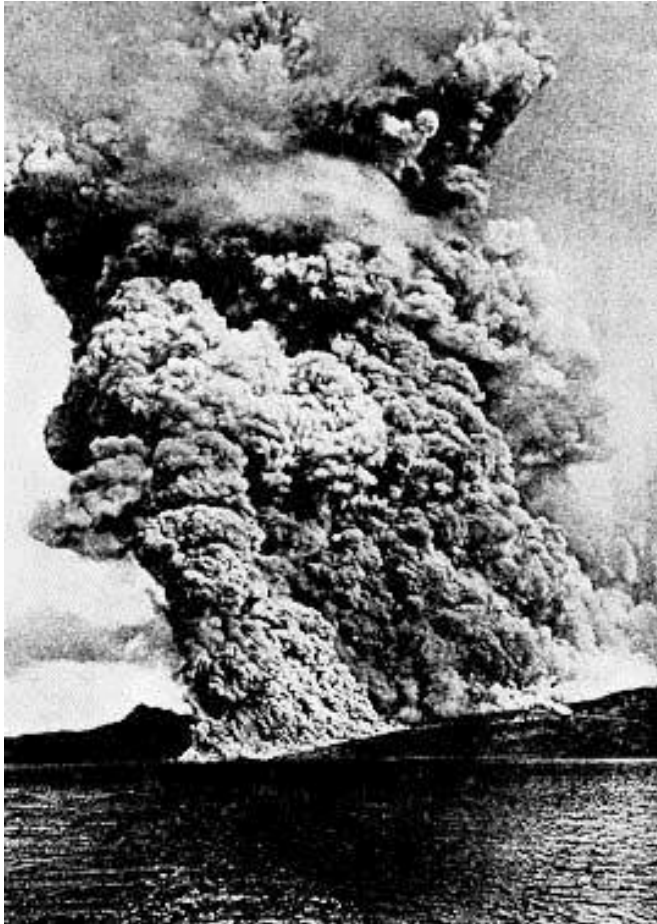
This volcano lacks the violence of an explosion but can complicate the lives of the player characters with steadily advancing flows of lava that could threaten a location or object of value to the player characters. Player characters should be able to evade the advancing lava without any problem but immovable objects or buildings in the lava's path will eventually be destroyed. This will put time pressure on the player characters for accomplishing their mission at a location close to a shield volcano.



LAVA DOME

A lava dome is formed by high viscosity lava that will not flow very far. They are unpredictable and can experience explosive eruptions as rock debris from the dome collapses back into the magma chamber. Pyroclastic flows may be triggered by this volcano.

Increased seismic activity from fluid pressure within the dome as well as sudden or even steady dome growth can be used as clues and foreshadowing that an eruption is imminent. Player characters will need to be some distance from this volcano when it erupts. An associated hazard with this type of eruption is forest fires in any surrounding woodlands.



PYROCLASTIC FLOW

This is a fast moving (up to 700 km/hour) flow of gas and rock experiencing temperatures up to 1000 C. Pyroclastic flows have been demonstrated to flow over water as far as 48 km. Direction of the flow depends largely on the wind.

This effect is a killer if the player characters are too close. They should be tens of kilometers away and have some shelter. A prisoner on Martinique survived the 1902 eruption that killed 23,000 because of his poorly ventilated cavern like accommodations. The devastated landscape after this event becomes part of the challenge the player characters face. Trees and buildings flattened as well as the accumulation of volcanic ash.

CINDER CONE

A cinder cone volcano is what was typically portrayed by Hollywood as a volcano in film. It's made from pyroclastic material and ejected rock and rarely does lava emerge from the summit unless early in the eruption when

the lava fountains from higher gas content. As the eruption progresses the lava loses its gas content and will fill up the cone or burrow out of the base of the cinder cone and flow away from the volcano. When the eruption is done the cinder cone will be in the center of a pad of volcanic rock. Cinder cones are not uncommon on the flanks of a shield volcano.

This is the classic movie eruption though lava flowing out of the top of the cone is pure Hollywood fabrication. Like a shield volcanic eruption, this volcano can threaten an object or location of value to the player characters.

STRATOVOLCANO

This volcano is a composite of alternating layers of lava flow and ejecta. They form steep cones with 30-35 degree slopes. The high viscosity of the lava associated with this volcano means that lava flows rarely travel very far from the volcano and the volcano is prone to pressure build up which can lead to violent eruptions. Associated hazards are mud flows, pyroclastic flows, and volcanic bombs.

The stratovolcano is the most hazardous to a civilization. Ash plumes can impact air travel and cripple a globe spanning economy. A recent eruption from this type of volcano could be used to ground air travel and interrupt launching of vehicles into space allowing a game master to limit player character movement during the time of emergency without it being too heavy handed, especially if the volcanic eruption plays more than a backdrop role in the game. This volcano is a killer and player characters will need to be some distance from it when it erupts violently.

MUD FLOWS

Created by water, rocky debris, and pyroclastic material, a mud flow can flow tens of meters per second, be 140 meters deep, and obliterate structures in its path travelling as far as 300 km. Its viscosity and density is that of concrete when flowing and at rest. It will typically follow a river valley.

This effect is a killer and player characters should not be directly in its path. One use for it might be that the player characters need to try to locate a location or object buried by a mud flow. For example a cargo container (suitable for the transport of goods into space) might have been swept away by a mud flow and its contents are of sufficient value to send adventurers looking for it.

VOLCANIC BOMBS

Volcanic bombs are ejected rock from the eruption of a stratovolcano ranging from the size of a book to that of a ground car. They can travel up to 20 km. They do not actually explode but will strike a structure with such force that it explodes.

This is an excellent effect to have crashing down around the player characters if for no other reason than heightened atmosphere and increased drama. If the player character's vehicle was struck by a small one it would be violently taken out of action or a building they are headed for could be spectacularly destroyed as they approach.

CRYOVOLCANO

Moons made up of ice and water orbiting gas giants will experience tidal interaction from the planet they orbit. Pressure can build and fissures crack the surface ice causing plumes of volatiles like water, ammonia and methane. Radioactive decay is also believed to be a mechanism for producing this effect as well. The plume can be 2.5 to 26 km high.

In game terms it could be ruled to act as a masking screen from the Star Frontiers Knight Hawks game. In Knight Hawks the masking screen is a cloud of water sprayed out of special nozzles on the hull of a star ship and provides a measure of protection against laser weapons. A ship would need to be maneuvered to use a plume as cover from an enemy and would be quite close to the moon from which it originates.

Alternately a ship that landed "down wind" of such a plume would become coated in ice. This could become a mystery for the player characters to investigate; a strange ship encased in ice on the moon's surface begs investigation.

PUMICE RAFT

A pumice raft forms from volcanic activity in the ocean and will float. These islands of rock that float can be as much as 30 km across.

In game terms it is an oddity, rock that floats, but could become a way point for characters in an aquatic adventure. Perhaps if the player character's flying conveyance was brought down by ash in the atmosphere they may survive on the sea by climbing onto it.

HISTORIC CATASTROPHIC ERUPTIONS ON EARTH

VESUVIUS, ITALY 79

Killed 25,000 and buried the city of Pompeii.

UNZEN, JAPAN 1792

The eruption and related tsunami killed 15,000

TAMBORA, INDONESIA 1815

This eruption cancelled summer due to the huge ash cloud blocking out sunlight. Lava and pyroclastic flows killed 10,000 and tsunamis killed another 90,000.

KRAKATOA, INDONESIA 1883

This eruption is estimated to have had the power of 13,000 atomic bombs. It killed 36,000 people and

obliterated most of an island. Its shock wave was registered thousands of miles away.

MT. PELÉE, MARTINIQUE 1902

This eruption killed 29,000 and destroyed the city of St. Pierre. Observers off shore witnessed a mushroom cloud at the time of the eruption.

MOUNT ST HELENS, UNITED STATES 1980

Killed 57 and created a 15 mile high ash plume.

EL CHICHON, MEXICO 1982

Killed 2,000 and lowered global temperatures. Its summit now has a sulfuric acid lake.

MT. KILAUEA, UNITED STATES 1983 TO PRESENT.

Not the most explosive volcano but the most active with an eruption lasting 20 years.

NEVADA DEL-RUIZ, COLUMBIA 1985

Killed 23,000 with a mudslide amplified by the melting glaciers on its slopes.

MT. PINATUBO, PHILIPPINES 1991

Killed 800 and spewed 2.5 cubic miles of material. Its eruption was rated as being in the Krakatoa range.

ADVENTURE SEEDS

SAVE THE ORPHANS

Needy non-player characters are threatened by the imminent volcanic eruption can the player characters get them to safety in time?

MYSTERY OF THE ICE SHIP

A mysterious ship is found encased in ice near a cryovolcano on a moon orbiting a gas giant. Can the player characters unravel its mysteries and recover its treasures?

A HOT TIME IN ALIEN RUINS

Steadily advancing lava flows from a shield volcano or cinder cone threatens an ancient set of alien ruins but the ruins hold the promise of great treasure. Can the player characters locate the treasure and escape before the lava arrives. For added complication include fissure vents producing fountains of fire.

GROUNDING BY THE GOVERNMENT

The local authorities have effectively impounded the player character's starship soon after they land. Local scientists are predicting a major eruption and the government wants to use the player characters' vessel to save the heads of the government. Can the player characters discover the truth and escape before volcano-geddon?

FE

Creatures

SCADS AND SCADS OF SKADS!

Eric Winsor

When we visited Moonworld a while back we had to sign a waiver taking responsibility for any biological contaminants that we might bring back. The UPF is concerned with liability related to the potential release of one of the creatures native to Moonworld. The UPF has great troubles controlling and irradiating infestations of skad in their facilities.

Skad are crustacean like creatures that are equally at home on land or in the sea. Their eggs are as small as a grain of sand and nearly indistinguishable to the grains of sand that they are laid in. Well-fed adults of five years can reach a size of about a meter from pincers to tail. They are prolific and go everywhere.

While we were on Moonworld, we would take an air bath every time we entered a building from outside. These baths are designed to dry and blow off any sand, and potential eggs or hatchling skads that may have gotten on us while outside. The first day we were there the standard military training was given about the environment complete with a holo of skads infesting a command post. The creatures had torn through cables, insulation, fiberboard walls, you name it, in pursuit of food. A skad infestation can quickly become very expensive.

This fear of infestation is driven by the fact that skad reproduction is not linked to size. Hatchling skad reach reproductive maturity in 65 to 70 Moonworld days, about 81 – 88 standard days. Their growth is regulated by their food intake. A skad surviving on bits and scraps may never grow much beyond the hatchling size of a few millimeters. A skad with access to carrion can reach a size of a few centimeters after which it becomes large enough to switch from scavenging to hunting. Their first prey are small fish.

Skad naturally school together with the smaller skad scavenging on the remains of prey from the larger skad in the school. This schooling behavior has made their infestation damage to facilities and equipment much more costly.

The holovid then warned of the dangers of wandering unarmed and alone outside the base parameter. Adult skad gather in packs averaging 6 to 12 and hunt anything that they can find to feed themselves. We were warned that often part of the pack will hide in vegetation or dunes while the others drive the prey to the trap. Their weapons are sharp claws, a mouth full of teeth equipped with powerful pincers to pull prey into the mouth, and an

armored tail with a sharpened claw to bash, stab, and pinch. Armor piercing rounds, explosive shells, and range were the recommended weapons to fight them. Hand-to-hand combat was cautioned against firmly.

When we left Moonworld we were advised to destroy any equipment we found infested by incineration. Dwain was concerned with his scuba gear so he sealed the decontaminated gear in a vacuum rated shipping container just in case.



A Skad from Moonworld – From [Random Creatures 2](#) by [Tysho](#)

DWAIN'S AQUARIUM LAB INFECTED

When we got back from Osak Dwain went to check on the shworms in his aquarium lab. The shworms were fine but he found the door to the compression chamber of the deep pressure aquarium sealed shut. When he gathered the aquarium caretakers together to find out why the compression chamber was sealed we learned that one of the young interns had attempted to take a dive in the pressurized aquarium and had burrowed Dwain's scuba gear. He had taken the shipping container into the compression chamber and opened it to suit up but found the box full of little red bugs that bit him on the hands. The intern sealed the chamber and cycled it to the pressurized environment to keep the creatures confined

but was afraid to tell anyone what had happened. He resigned and left before Dwain, Tik, and I had returned from Osak. In fact, we were still on New Pale when the boy left for his home world.

The staff discovered something was wrong when they went to restock the feeding hoppers of the pressurized aquariums. They loaded the hoppers and casually watched the tanks for a creature or two to swim into the light. What they got was a surprise, a meter long skad crashed into the glass as it grappled with a great deep sea eel from Madderly's Star. Investigations of the recordings from the tank monitors revealed that the skad were feeding on everything in the tank and growing in size. They would soon consume all the specimens Dwain had laboriously collected.

DWAIN'S BATTLE WITH THE SKAD

The monitors revealed that there were six surviving skad. These six were in a stalemate with a giant squid resurrected from a rare DNA sample. The hoppers were supplying food to keep the seven alive. The skad would stalk the squid. The squid would fight back and then retreat. Dwain feared that the chase would eventually end with the skad feasting on the squid.

Dwain noted that in the observed battles the squid appeared near evenly matched with the six skad. He reasoned that if one or two skad were to be removed from the fight the squid would survive and likely kill off the remaining skad. Dwain's solution was to capture two of the skad and hold them in separate tanks. Tik preferred the strategy of just killing the skad. Dwain viewed the capture as a way to compensate for his lost collection.

Dwain and I purchased a large net and a large carcass from a meat packing plant. I dove with Dwain as armed protection. Dwain attached the net to the roof of the tank and spread it out along the bottom. The carcass was placed in the middle of the net. We retreated to the compression chamber and waited for the trap to snare one of the skad. We were rewarded after a short wait of a few hours with a catch. One of the skads took the bait and was pulled to the ceiling with the carcass in the net. The skad seemed content to devour the carcass while caught in the net so Dwain and I reentered the tank to bring in our catch. As we approached the snared skad the other five appeared and tried to jump us. We were compelled to retreat to the decompression chamber again.

The five skad disappeared again back into the shadows. We watched as the snared skad continued to eat the carcass. Our team on the outside of the tank tracked the other five skad by the aquarium cameras and scanners and baited them with food from the hoppers. When they went for the food we reentered the tank to haul in the snared

skad. As we approached it stopped eating and turned to face us. Dwain swam up to the pulley holding the net to the roof and detached it. He then signaled for the wench to start hauling in the net into the decompression chamber. The skad went wild and tore through the net. Its tail lashed toward Dwain and pierced through his right swim fin. Dwain was quickly being pulled to the skad and reacted by jerking the strap to his swim fin loose and swam away as fast as he could.

Back in the decompression chamber we debated the situation and Tik piped in over the intercom that no matter what we needed a stronger snare. Tik observed that the skad had never tried to escape the net while feasting on the carcass. Rather it appeared to Tik that the skad had allowed itself to be captured to lure us in close enough for the attack by the other five. Only when we had approached without the other five available for support did the skad act to escape from the net. We agreed and determined to try another kind of trap.

Dwain and I resolved at length to build a pair of cages and bait them. The final design was modeled after ancient lobster traps. We built the cages in pieces to be assembled completely when in the tank. The fully assembled cage would not fit through the decompression chamber. Tik accompanied us on the dive to assemble the traps. We needed two people to assemble the traps and another to guard. Tik determinably took the position as guard.

The first trap was assembled quickly. We had trouble with the second. During the prolonged assembly of the second trap the skad attacked. Tik had suspected this would happen and came prepared to do more than drive them off. He had brought explosive darts for his spear gun and shot the first attacking skad behind the head. The dart exploded inside the skad and severed its head. The other skad scattered back into the darkness. Dwain was furious and after finishing the trap assembly dashed back to the decompression chamber to have it out with Tik. I baited the traps and joined them as quickly as I could.

I found Dwain running on and on about how they were going to lose the skad. That with only five to go against the squid the balance of power was lost. Dwain was sure that the squid would kill the other skad. Tik insisted that the kill was necessary to save everyone from the pack of skad. I sided with Tik and we convinced Dwain that the pack would have killed us in short order. Dwain eventually agreed but was continually distraught.

Dwain's discomfort was heightened further the next day as we watched on the monitors as the squid and skad battled multiple times. Then the squid took one of the skad with it during its customary retreat. The skad was dismembered in a dark corner of the aquarium. Dwain was mortified and would not speak to Tik. Overnight two more of the skad were attacked by the squid and killed.

Dwain sat in the monitor room glued to the displays tracking the remaining two skad and the lurking squid.

Just before dinner the skad found their way to the traps and began picking at the carcasses through the bars. Dwain became tense with anticipation, pacing the room. Tik disappeared from the room and I took the opportunity to reassure Dwain that the traps would work. Dwain kept shushing me as if silence were necessary to prevent the skad from discovering the danger of the traps.

One of the skad entered a trap and began pulling on the carcass. The door snapped shut and the skad was trapped. It began pinching and bighting at the bars. It wandered the cage searching for an escape. The other skad left its carcass and began probing the trap from the outside as if to help its companion escape. Dwain became very excited and began commenting wildly about their behavior. He repeatedly commanded the computers to take notes of his observations and focus the recorders on this action or that movement of the skad.

Dwain was thoroughly enjoying his skad psychology examinations when the squid unexpectedly attacked. The squid darted for the skad on the outside of the trap and grappled it. The skad inside of the trap responded by pinching tight onto one of the squid's free tentacles and pulling. The squid held tight to its prey and pulled away from its attacker. The skad pinched tighter and the tentacle was severed. The squid withered in pain and the grappled skad jabbed with its tail into the body of the squid. The squid relaxed its grip just enough that the skad wrestled free. The two dueled and parried around the traps for a position of superiority. The skad was clearly loosing. Then the skad darted into the second trap, grabbed the carcass and pulled violently. The trap snapped shut and the skad turned defensive again moving against the actions of the surprised squid.

The squid circled the two cages trying to get at the skad inside. It pulled on the cages trying to separate them. It pulled the cages against the cables attaching to the wenches. Then Tik appeared in the water in an atmospheric diving suit. He advanced directly on the squid and sprayed a colored fluid into the water. The squid turned toward Tik and entered the cloud of color but quickly retreated back. It circled around the cloud but Tik released more repellant to drive the squid away. After several attempts and Tik responding with an ever increasing cloud of repellant, the squid retreated back into the darkness to nurse its severed limb.

Tik started the wenches and hauled the cages back to the decompression chamber. Each cage was pressed in turn up to the chamber door and the skad was released into the decompression chamber. Tik radioed to us to start the decompression and capture of the skad. He did not want to stay in the aquarium any longer than necessary with an angry giant squid. Our original plan had been for a team

of two to press the skad into the chamber with one person erecting a barrier between the skad and the divers.

We carried out the second part of our plan by attaching the exit of the decompression chamber to another cage. This worked out well, but the skad were very violent and we resorted to stun sticks attached to poles to drive them into the cage. Tik continually reminded us about how long the decompression had taken and that the uncooperative skad were not making his wait in the aquarium any more comfortable. When we finally had the compression chamber recompressed Tik was very anxious to get back into the chamber. We learned later that he used up our entire supply of repellant waiting out the compression cycles in the aquarium. Though the monitors confirm that the squid remained in the farthest corner of the tank, Tik swears that it came for him several times.

When Tik got through the compression chamber and Dwain got him out of his suit, Dwain kissed Tik square on the mandibles and thanked him for saving the last two skad.

Skad	
TYPE:	Carnivore
SIZE:	Fry Tiny, Juvenile Small, Adult Medium 1m
NUMBER:	Fry (100+), Juvenile (50), Adult (6-12)
MOVE:	Fast (adult 35m/turn)
IM/RS:	+6/58
STAMINA:	Fry (1-5), Juvenile (10-80), Adult (100-150)
ATTACK:	85
DAMAGE:	3d10
SPECIAL ATTACK:	Pinching/Piercing/Lashing Tail
SPECIAL DEFENSE:	Hard Shell
NATIVE WORLD:	Moonworld, Lynchpin (Oceans, tide waters and inland for adults)

GM NOTES

Adult skad function and act much like a pack of wolves. They are intelligent like wolves and will learn from their experiences. They are wild and cannot be domesticated.

Hatchling skad that get into equipment or the internal systems of ships are not easily removed by hull scrapers. Large numbers of hatchlings have been known to live long enough after ingestion to eat the hull scraper from the inside out.

Races

BOKAR

Tom Verreault

Author's Note: Special thanks are due the Star Frontiers community for the collaborative effort in developing this alien species on the www.starfrontiers.us forums. In particular: bossmoss, Jaxon, Tehklinxa, and Sargonarhes.

PHYSICAL APPEARANCE AND STRUCTURE

Bokar are a hairless humanoid of little more than 1 meter height. Their skin color is yellow to brown. They have long lanky arms, heavy protruding collar bones, and solid black eyes.

SENSES

Most Bokar senses are comparable to human senses. However their sense of smell and hearing are more acute and their eyesight is weaker.

SPEECH

Bokar speak by forcing air from their lungs through a larynx but also employ their nasal passages in making hoots and honks. It's believed that these hoots and honks have distinct functions during communication but experts have not discovered what that might be and the Bokar have declined to explain them. A conversation with a



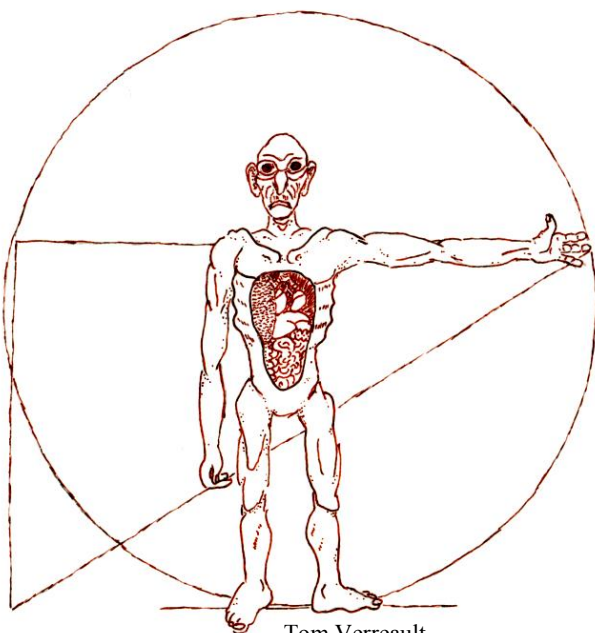
Bokar is frequently punctuated with hoots and honks and the occasional spray of nasal mucus.

SOCIETY AND CUSTOMS

The basic building block of their society is the guild. A ship's crew or a small business enterprise is a guild. Most guilds are all male and divided into two castes. The Ouway caste is made up of pilots, navigators, administration types and handles business outside of the guild. The Jineer caste is made up of technicians and laborers and handles all business within the guild. The head of the Ouway caste is always the ship's captain or business owner and the head of the Jineer caste is always his second in command.

Bokar society is decentralized and each guild educates its members internally through an apprentice system. New members of the guild are bartered for with the all-female brothel/temple guild. The madam/priestess bokar is well schooled in the arts of sexuality and desire and flirts rapaciously with bokar captains and business leaders while rarely indulging them to keep them constantly wanting more. The females are the lore keepers, historians and peacemakers. No bokar captain or leader can defy them without suffering severe consequences like being barred from the brothel/temple or denied replacements for their crew.

There is a chattel caste for slaves of any species and females sold out of the brothel/temple as punishment. Female bokar that are sold to all-male guilds don't live long with most of them taking their lives. The chattel caste is subjected to the worst abuse.



Tom Verreault

Bokar are wholly untrustworthy and willing to double deal with anyone not of their guild. It's rumored that they even deal with the sathar even though it's also rumored that the sathar destroyed their home planet forcing them to scatter among the stars.

ATTITUDES

Due to the strict segregation of their society most low level bokar fantasize, obsess, and dream of a trip to the brothel/temple to worship. They find UPF ships with females on them odd and their obsession with females makes them crude and rude when in contact with Frontier society. More than once a lower level bokar has snuck onto a UPF ship to find the orgy he was sure was going on.

Bokar see everyone as a mark and only respect those with the power to force them. Written contracts mean nothing to them. They are notorious scavengers and see nothing wrong with getting into the workings of a station and taking parts and equipment that looks of use to them.

SPECIAL ABILITIES

IMMUNITY TO HYPNOTISM

Bokar are immune to all forms of hypnotism including that employed by the sathar. They cannot be dominated by the sathar in this manner though the worms can easily appeal to their greed to gain compliance.

DIFFICULT TO SURPRISE

The Bokar's acute sense of smell and hearing make it extremely difficult to surprise them. It's said they can smell danger brewing. All Bokar gain a +1 to their initiative modifier and a +5 bonus to any percentile rolls involving surprise that the referee feels is appropriate.

TWO HEARTS

Their internal structure means that they may not be rendered unconscious at 0 STA. 50% of the time a bokar is reduced to 0 STA may continue to function normally till death occurs at -10 STA.

PHYSICAL NORMS

Average Size: 1.2 m tall

Average Mass: 35 kg

Average Lifespan: 70 years

Reproductive System: hetrosexual, viviparous

Body Temperature: 39 C

ABILITY SCORE MODIFIERS

-5 STR, -5 PER, +5 DEX, +5 RS

Author's Note: The Bokar were inspired by miniatures produced by Hassle Free Miniatures. This means players that use miniatures can obtain them for these characters in the Sci-Fi Aliens line at <http://www.hfminis.co.uk/>



Tom Verreault

STAR LAW PRELIMINARY INVESTIGATION OF BOKAR

- One ship's captain claimed the sathar destroyed their home world, others vehemently deny this and lower level bokar seem ignorant as to the fate of their homeworld. To date no bokar has shared the location of their home system.
- Bokar ships seem old and patch work with the appearance of being maintained for decades if not generations.
- Bokar technology is mostly on par with that of the Frontier at about the time of First Sathar War. They use body armor like skisuits and projectile weapons but have quickly traded for beam weapons and defenses.
- Evidence indicates a willingness to participate in piracy and the slave trade.
- They may have hidden outposts in uncharted systems surrounding the Frontier sector.
- Evidence and rumor suggests that they can and do trade with the sathar.

SUPPLY RUN

Tom Stephens

This month's scenario involves the newly introduced UPF supply and fast combat support ships from page 9 in this issue.

GUARD YOUR WAGONS

Supply and support ships come under attack

BACKGROUND

Supply ships traveling with Strike Force Nova during the Second Sathar War run afoul of a small sathar patrol while the main body of the Strike Force are engaging a small sathar fleet. A distress signal was sent to the main task force but it will be some time before ships can get there. Can they hold out until help arrives?

ORDER OF BATTLE

UPF SHIPS

- 2 Protecteur Class supply ship
- 3 Supply Class fast combat support ships
- 1 Frigate
- 2 Assault Scouts

SATHAR SHIPS

- 2 Destroyers
- 1 Frigate

SETUP

The five UPF supply ships set up first with all five ships located within 5 hexes of the center of the map and an initial speed of no more than 5 hexes per turn.

Once the UPF ships have been set up the Sathar ships are set up on one of the short sides of the map with an initial speed of 10 hexes per turn or less.

The UPF frigate and assault scouts do not start the game on the map, they represent reinforcements sent to help the supply ships and will be placed on the board later.

SPECIAL RULES

ESCAPING THE BATTLE

Any ship that makes it off either of the short edges of the board, with no other ship in weapon's range, or with a higher speed and ADF than any pursuer, is considered to have escaped the battle.

SHIP STATISTICS

Here are the statistics for all the UPF and Sathar ships used in this scenario.

PROTECTEUR CLASS SUPPLY SHIP

HP: 40 ADF: 3 MR: 3 DCR: 80

Weapons: LB, LB

Defenses: RH, MS, ICM(x3)

SUPPLY CLASS FAST COMBAT SUPPORT SHIPS

HP: 20 ADF: 4 MR: 4 DCR: 60

Weapons: LB

Defenses: RH

ASSAULT SCOUT

HP: 15 ADF: 5 MR: 4 DCR: 50

Weapons: LB, AR(x4)

Defenses: RH

FRIGATE

HP: 40 ADF: 4 MR: 3 DCR: 70

Weapons: LC, LB, RB(x4), T(x2)

Defenses: RH, MS(x2), ICM(x4)

DESTROYER

HP: 50 ADF: 3 MR: 3 DCR: 75

Weapons: LC, LB, EB, RB(x4), T(x2)

Defenses: RH, MS(x2), ICM(x5)

UPF REINFORCEMENTS

The supply ships have to survive for six rounds before help can arrive. At the start of turn seven, the UPF player places the frigate and two assault scouts on the short edge of the map opposite where the sathar ships originally appeared. They may have any starting speed up to 20 hexes per turn and can move normally on the UPF player's turn.

VICTORY CONDITIONS

The sathar achieve a victory if all five of the supply vessels are destroyed. They achieve a major victory if the frigate and assault scouts are destroyed as well.

The UPF achieve a victory if at least two supply ships, including one of the Protecteur class ships, survive the battle. If both Protecteur class ships survive it is a major victory. Any UPF ship that escapes the battle is considered to have survived for victory purposes.

FE

THE WONDERS OF THE FRONTIER

Tom Verreault

Author's Note: Special thanks to the community at www.starfrontiers.us for the feedback and aid in developing these lists.

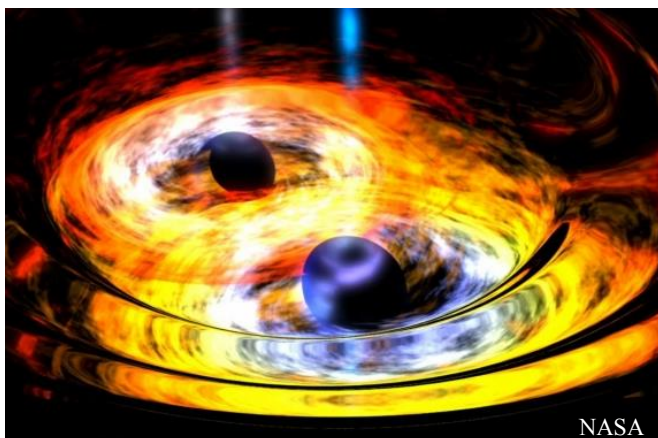
Encyclopedia Galacticana in cooperation with The Ephemeris Almanac and the University of Zebulon are proud to present the Wonders of the Frontier. There are two categories of wonders; natural and sapient being constructed. The wonders in each category are presented in no particular order.

THE NATURAL WONDERS OF THE FRONTIER

The natural wonders of the Frontier are oddities and marvels to science. At any given time there will be a new scientific expedition launched to study any one or more of these phenomena. There is intense competition to be one of the explorers on such a mission as new discoveries are made every year. A referee running a sand box style game may roll a 1d10 to determine the destination of the latest scientific expedition.

THE EBONY EYES BLACK HOLE SYSTEM

Stars are a dime a dozen on the galactic scale of things but the twin black holes of the Ebony Eyes system are truly wondrous. The laws of physics seem to break in close proximity to these black holes causing unique and ill understood phenomena's of light.



MT. SPIRE

The tallest mountain discovered in the Frontier, its peak reaches high enough to require a pressure suit.

THE RIFT VALLEYS OF STARMIST

These unusual and visually stunning rift valleys are like no other place elsewhere in the Frontier. While the normal surface of the planet has no atmosphere the rift valleys are deep enough to hold the remains of the atmosphere.

THE RINGS OF TERLEDROM

The rings of Terledrom are visible from the planet surface. Terledrom's shepherd moons are largely responsible for maintaining their discrete shape.

FIRE FOUNTAINS OF LACO

These fire spewing geysers are ignited by the phosphorus emissions but the Devil's Due geyser erupts by clockwork every 6 hours or 1/10 of Laco's day.

THE BURNING LANDS OF VOLTURNUS

Rugged and dangerous they do possess a natural beauty and wonder all their own and the light show is explosive. The phenomenon is similar to the Fire Fountains of Laco. While individually smaller than the Fire Fountains of Laco the eruptions of the burning lands are spread over a large area of the planet's surface.

THE FUNGAL FOREST OF OSAK

The Fungal Forest of Osak is a sight to behold at night due to the natural bioluminescence of the fungi.

THE DIAMOND PLANET OF TIAMANTTI

Discovered in the binary star system of Demantur (halfway between Dixon's Star and Belnafer) the planet is essentially one giant diamond with rivers of liquid methane and petroleum compounds.

THE FORMAD CLUSTER

this cluster of three binary star systems is mysteriously equi-distance (1 light year) forming a near perfect equilateral triangle from each system's barycenter.

THE ICE VOLCANOES OF THE MOON GIA

Gia, one of the moons of Cygnus Omicron, produces the most spectacular cryo-volcanoes known to sapient life.

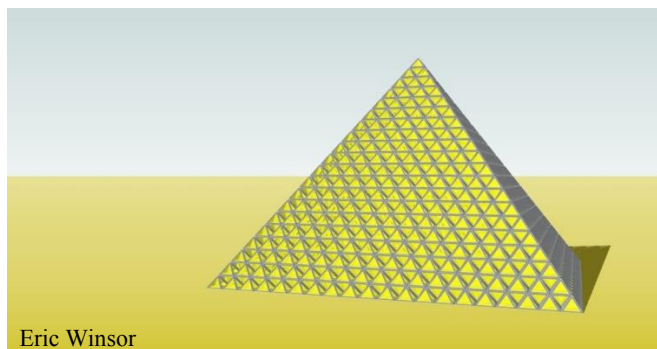
Author's Note: In keeping with the 30 year old mystery of where is the location of Cygnus Omicron, I have intentionally not named its location. Cygnus Omicron was first named in the module bundled with the Alpha Dawn game but was never identified as a specific location within the setting. My own personal view is that it's a gas giant in the Truane's Star system since the military of Pale had to perform a police action at Cygnus Omicron IX.

THE CONSTRUCTED WONDERS OF THE FRONTIER

The sapient constructed wonders are both setting fluff and setting locales for adventure.

TETRARCH PYRAMIDS OF LACO

(Dixon's Star): Dated at 10,000 years old these mysterious and majestic structures were left behind by a civilization dubbed the tetrarchs. The pyramids are constructed of 2.5 meter thick girders. The largest stands 763m tall and is more than a kilometer (1081 meters) along the sides of the base.



ARK OF YAZIRA

The ark is the gene bank that reportedly preserves genetic samples of all forms of life from Yazira. Facing the destruction of their home planet, yazirians determined to save and transplant their civilization and biosphere elsewhere. While it's considered impossible that they actually saved copies over every life form on their planet the gene bank is a massive structure and certainly holds the genetic wealth of Yazira. Located on Hentz (Araks).

PRENGLAR STATION

Orbiting Gran Quivera (Prenglar), Prenglar Station is a massive feat of engineering. The station is a class 6 station made up of no less than 6 rings.

THE FOREST OF YAZIRA

The settlers of Hargut (Guna Garu) carved a massive cliff face to resemble the lost forest of the yazirian home world. This monumental work of art is essentially a mural made in stone representing an idealized vision of a pre-industrial yazirian forest city. The monument is 6 km² and is visited by an estimated 3 million visitors per year.

THE SUBMERGED SAURIAN CITY OF LOSSEND

(Timeon): The saurians, though arriving in the Frontier as refugees, have been very industrious. The city of Ki-fall is a domed underwater city, the first built in the Frontier.

THE GRAND OPERA HOUSE OF OSAK

An architectural wonder, this opera house is perhaps the grandest in the entire star sector. This is not surprising due to the vocal abilities of the Osakar.

THE SPACE ELEVATOR OF FAIRE

(Capella): Pioneered by the Capellan Free Merchants the space elevator of Faire was the first. It remains a marvel of engineering.



THE CITY OF MAZE

The capitol city of Minotaur (Theseus) this city was the first mega-city of the Frontier. It essentially covers most of a continent.

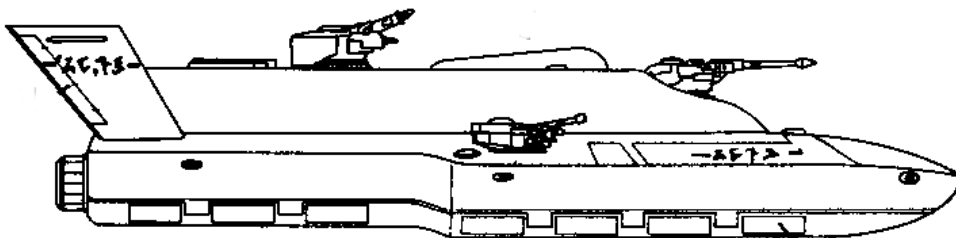
THE ANCIENT DRALASITE GLOBE SHIP

while this ship was dismantled by the dralasites of Inner Reach to rapidly build the new colony, much of it remains to be studied. It was truly a wonder of naval architecture and rated as a hull class 30. Mysteries abound as to how and where it was first built and why the dralasites were found on board in an amnesia-like state.

THE CLIKK TANK ON STARMIST

(Sundown): The giant tank of Klikk origin left on Starmist was a wonder due to its colossal size and the engineering that allowed it to operate for an estimated 700 years. It was unfortunately destroyed during the discovery of a sathar outpost on Starmist.

FE



Locations

BONEYARD STATION

Eric Winsor

Author's Note: *Alex Stone appeared in Star Frontiersman issues 15, 17, and 19. At the time he had just traveled to Boneyard Station seeking a new ship for passage after the ship he had hired passage on broke down upon jumping into Cassidine. This detour in Alex's plans to get to Lossend resulted in Alex not being able to submit articles for publication. However he also ended up having a few extra adventures along the way. We present now Alex's continued series of articles detailing his adventures getting to Lossend and back.*

Starship nirvana, Boneyard Station, they could both have the same entry in the galactic encyclopedia for anyone who really likes custom high performance rocket ships. When I was a kid my father took me to Craig's demolition derby, on Gran Quierva. The derby was on the edge of town back then but Caesar City has grown immensely since then and the old dirt track is gone. It has been replaced by a multimillion credit race track out by the UPF starport. I loved the cars at Craig's and they had a drag race track. My father had a keen interest in high performance machines and the people that pitted them one against the other.

Then the diplomatic corps of the UPF took us away from Caesar City and to a life around starships. Racing of high performance machines goes up a few levels when you get to starships. The ships are very expensive and mega-corps sponsor them. But if you're looking for that old dirt track and drag strip feel you gotta find the spacers who piece together their own racers. To find them you gotta find Boneyard Station.

Boneyard Station is the resting place of many of the Frontier's early vessels. And it is the birth place of some of the fastest hunks of junk in the galaxy. You can see the bone yard of Boneyard Station long before you actually see the station. Ten thousand meters out from Boneyard Station is the bone yard. Hundreds, possibly thousands of ships are moored to geosynchronous anchor buoys and surrounded by a perimeter of sentry satellites.

Between the bone yard and the station a thin line of lighted work pods constantly streams to and from the wrecks. The pods are salvage staff and customers. The salvage crews are carving up the old ship hulls for scrap. The customers are often hot shot starship engineers looking for that perfect part. The *ShatterStar's* launch

brought me into the main dock and along the way I caught a glimpse of a modified assault scout sporting twin Jedgy vector thrust engines on each strut wing. I only caught a glimpse because her pilot lit her up as soon as she detected a clear path. The cursing I heard over the traffic control channel was quite amusing.



Scott Mulder

I boarded the station shortly after local midnight but the activity in the concourse was like noon. The elevator from the zero gee dock opened presenting me with a panoramic view of shops and stalls crowded and people milling about. Beyond the concourse a huge bay window provided a view of the ships coming and going from the docks.

Clustered at the far end was a group of spacers with their proverbial noses pressed up against the alloy glass. These were the people I was looking for if I were to find a ride to get me on my way to Lossend. I pressed through the crowd of stalls and shops, zig-zag-ing my way toward them. The pungently sweet smell of dral eepo pudding wafted over the pantheon of merchants and customers. I'd have to find the source of it right after finding out from the spacers where to seek passage on a fast ship.

The spacers gathered about the window were jabbering on about the ship that had just burned out of the docking facility. She was off in the distance blazing circles in the night showing off. The entire event was being commented by a dralasite pressed flat against the glassalloy whilst talking out of the back of his head. He was really hamming it up, even some of the yazirian spacers were in stitches.

Then another set of burning lights could be seen closing on the ship. Someone put up a magnified display and sure

enough it was two enforcer patrol craft in hot pursuit. A burly human to my side bellowed out and started taking bets on the size of the fine. Seems the pilot had danced off the established vectors from Boneyard and crossed into Triad's jurisdiction. The ship flipped and burned negative gees and the group of spacers started breaking up.

I wandered up to the dral puttied to the window and greeted him in polite dral, "Mol Hygha Mobla (Hello Mol Comedian)". To which he responded, "(Thanks for the esteemed complement friend)" and peeled his head back to look at me and stopped solid. The ridged expression was priceless.

The comedian turned out to be Gropa, a communications officer on a ship named *Ion Revenge*. Gropa and I had an excellent conversation in dral over a couple of bowls of eepo pudding. He filled me in on the ship that had burned out of Boneyard on my way in. Her name is *Arrow of Yazira* and her captain is one Fhag Hurat. He was celebrating the new engines on his ship and bragging that he was going to beat some of the *Void Crusher's* records.

Seems there is a bit of competition between the private courier ships that refit and overhaul at Boneyard Station. The *Void Crusher* had just finished overhauls at the station and was taking on cargo to pull out. Gropa knew the pilot of the *Void Crusher*, a dral named Plicka, and promised to take me down to her after another bowl of eepo. There are benefits to speaking a little dral and appreciating eepo.

Gropa took me up to the zero dock observatory to see the *Void Crusher*. She's a beautiful graceful ship of Vrusk design but modified with Jedggy Elite engines about two sizes too large. Her hull is polished silver with red and gold racing lines and a rear facing laser cannon. She radiates, "I'm fast and don't try following me."

Gropa had explained as we were heading to the zero dock that the *Void Crusher* is a trusted courier ship by many mega-corps and governments because she is very fast and sure to get there. Gropa called over to the *Void Crusher* and introduced me to Plicka. I explained my dilemma with the *FMS Solar Wind* breaking down and my need to get to Lossend. We bantered for a bit in dral trading a few old jokes and I found I liked him so I asked to talk to the Captain.

Plicka transferred the com to Captain V'Thi-Keek and I discussed the terms of passage. V'Thi-Keek informed me that I was in luck because their next trip included a stop at a research installation in the outer system of Timeon where I could catch a daily shuttle to Lossend. We agreed upon a quite decent price with the stipulation that I get a physical at the station medical facility, sign a medical waver, and purchase 5 liters of strawberry syrup. I had a day to get everything done and be aboard the *Void Crusher*. That also gave me a day to tour Boneyard

Station.

Gropa took me down to the station ER and we said our goodbyes. Gropa told me that his ship was pushing out in six hours to Athor and he had to report for duty. Gropa also told me to go ask for Gloobirt in the salvage office and tell him Plicka and Gropa sent me. Gloobirt would show me around. I got my physical and had the medic send it to the *Void Crusher*. The medic seemed pretty amused at this as I left to find Gloobirt.

I found Gloobirt in the salvage office near the work pod launch bays. I had brought along some eepo for breakfast and made my introduction. Gloobirt was impressed that I had been granted passage on the *Void Crusher* and took the strawberry syrup and put it into food stasis stressing that, "if this is for Plicka we better keep it fresh." Then he put Plicka's name on it so that no one would eat it.

Gloobirt lead me over to the locker room and found me a pressure suit. Fifteen minutes later we were in a work pod headed out to the bone yard. Gloobirt punched the thrust full throttle and mashed me into the seat. I hadn't expected it and sat grunting to get my breath. When he stopped thrusting he jabbed me in the sides as I was catching my breath and said, "You better get used to that if you're going to fly with us drals around here." Then he punched it again to the left and mashed me into the wall.

Gloobirt took us over to some of the racers and I got some good up close shots of some real hot rods. Many of them were more engine than ship. There was one green one that was little more than a large escape pod mounted to a triple of engines. Gloobirt told me she's the *Freeze Ride*, a single crew race rocket for in-system races only. A human named Haddley owns it and has rigged it to put him in stasis when the gees get too high. Gloobirt also informed me (with a few colorful descriptions) that it's not real racing if the pilot is unconscious for the ride. She looked to me like a suicide machine.

We then vectored over to the center of the yard and Gloobirt gave me a tour of some real classic spaceships, all old zero gee craft with parallel decks. He took me into a CU-37 Courier, and three ST-250 Trans Strata Class Transports. There is a style to these old birds that doesn't go into the modern designs. You also get the feel of freedom and adventure that the old spacers felt as they explored the black before it was all charted and lit up.

I really liked the pair of cowboy boots that were stuck upside-down to the sides of an MRX-8 we passed. I wondered if it had a purpose and Gloobirt said he didn't know of any, that they had found the craft like that drifting on the far edges of Theseus with an old dead human mummified at the controls. The ship has been there for years now and no-one wants to buy it.

After the bone yard Gloobirt took me over to where the salvage crews were storing the engines from ships whose

hulls were too far beyond repair. Two single crew pods would handle the engines and move them over to the storage area while a third would cut them from the engine struts. Here is one of Boneyard's claims to fame, every engine ever made is likely available at Boneyard Station. I'm not a qualified expert on engines but I did recognize a few Streeel Big Bang atomics, a PGC Eureka, piles of Kupper atomics of various sizes, several Obar Enterprises and Interstellar Industries Ion drives, and even a pair of Yayax SC/I drives.

I felt like a kid again dreaming about all the cool ships that could be built out of these engines. I felt like I did at the races at Craig's Speedway in Caesar City. I got to wandering about spaceship demolition derby and mentioned it to Gloobirt. He got the concept and said he vaguely remembered something about the old sport but he considered it unsuitable for spaceships.

I beg to differ. I think that with a properly reinforced life-pod built in as the pilot's capsule, and sticking to shuttle hull sizes, it would be a hoot. Imagine the spinning and pyrotechnic explosions that would result. Under the correct conditions and speeds this would be awesome. I encourage all my human and yazirian readers to share their thoughts with me on spaceship demolition derby.

For lunch we docked on one of the old hulls that was being gutted. Inside we met up with a trio of humans who had gathered in the old galley and were eating sandwiches. Gloobirt introduced me to them and they provided me with lunch. Lunch wasn't bad even after having been in a salvaged freeze field for fifty years. I had just finished my chips when Rick pulled out a watermelon from the freeze field and said, "Hey Gloobirt, want to juice this one?"

Gloobirt shot down the corridors back to the service pod, bouncing off the walls in the zero gee. In five minutes he came back with a clear plexi-alloy box.

"Suit up boys!" said Gloobirt as he sealed the watermelon into the box.

We all went into an airlock and Rick sealed the door.

"Watch the box!" said Rick as Tom and Charles tied me and the box off to anchor points then Rick opened the outer air lock door.

The air rushed out into space and we were all pulled



momentarily toward the exit. Then as the last of the air escaped from a vent in the box the watermelon began to swell. Suddenly it burst in a gush of red. Juice began to mist from the box vent and Gloobirt quickly shut the vent.

The four of them were jumping and kicking around excitedly. They laughed and swatted each other on the backs and punched each other's arms. I received a jovial beating as well. Rick closed the outer door and repressurized the air lock. The Boys rushed back into the galley and ripped their helmets off.

"Juice! Juice! Juice!" they shouted as Gloobirt removed his helmet.

I was getting ready for drinks all around when Gloobirt stuffed his head into the box and started sucking it in. The Boys pushed themselves wildly around in the zero gee of the galley, whooping and hollering. I could see Gloobirt wiggling with laughter as he sucked in the watermelon juice. A few minutes later he was done and pulled his head out, it was stained red and the Boys recommenced their antics and laughter. The four of them together made quite a show and I enjoyed it greatly.

With lunch finished Gloobirt took me back to the salvage office and encouraged me to explore the station. Gloobirt had a full day of work yet to do so I let him get back to his job. I took to wandering the station for the next few hours. I found an old arcade game functioning in a corner surrounded by some yazirian hangers eagerly battling space ships that dived at their fighter. The lounge offered me a quiet corner sub-space communications booth to check in with my family. Then back on the concourse I picked up a few souvenirs for the family and got a great deal on a dral shape sculpture from an ifshnit I about bowled over in the shuffle of beings.

I had wondered the station for about four hours then I boarded the *Void Crusher*. My visit to Boneyard Station had been brief but fulfilled my dreams completely. If I ever get rich enough I want to come here and build my own hot rocket.

TECHNOLOGIES MENTIONED

Kupper Interstellar Drives have become the mainstay of merchant pilots throughout the rim territories. Reliable and affordable these drives have what it takes to haul your pseudo-pods anywhere in the Frontier sector!

Jedgy Quick-Haul™ Although Jedgy drives are faster than Kupper drives, they are primary used for short-haul missions due to their tendency to overheat when jumping more than 6.34 light-years. These drives can be found on many tramp freighters and were made popular when the *Moon Osprey* made the Dramune Run in under 89 hours with a pair of Jedgy drives.

FE

Fiction

THE REDSHIFT FROM WHITE LIGHT

Edwin Cintron

Flatlanders tend to think that Spacers have no patience, it is a common mistake. Space leaves no room for indecision. A minor air leak could become an explosive decompression event; a sudden peak in outside radiation can be an indication of a solar flare or a radar blip a warning of a pirate attack. One must be ready to react, it's either the quick or the dead, but if anyone could have sat in on my meeting with the station's Post Master, they would have been impressed with my restraint. We had been talking for over two hours before Post Master Alex Glade even broached the subject of a courier run.

"I've been asked many times how courier pilots can make a living with the existence of subspace radio. The answer is easy, just send a birthday greeting to someone in a next star system. It will easily cost you a week's salary, and the bandwidth of the hyper x frequency insures you'll wait a week while it sits in the queue waiting its turn to be transmitted," he paused checking to see if I was following along, "Computers just put out too much data, just the bytes associated with a single day of trading at the Timeon Security Exchange would take every subspace transmitters on the planet a year to broadcast. So that's where couriers ships come in, computer memory storage is cheap and compact.

"Each courier transports a single ten kilo memory cylinder containing several googol bytes worth of data. The courier service pays barely enough to cover fuel and the cost of refit of the atomic drives, the real source of a legit courier pilot's income comes from other sources."

I watched as he took a breath and continued, "To insure that critical data gets delivered and makes it in the shortest possible time, multiple couriers are sometimes dispatched. In the case of the Timeon Security Exchange's monthly reports, the Timeon Exchange pays a bonus to the pilot that get it delivered first. So basically it's a race, the monthly market runs to White Light have evolved to a widely televised sporting event and with any sporting event there is betting. That, my son, is where the real money is!"

I look at him and nodded, "So is there a chance that I can get in on the next run?"

"Well your granny and I go way back. Heck, I even courted her before your granddad Mac won her heart. You reminded me of him a little, if you are even half the pilot

he was, you stand a good chance at finishing first and it happens that I am down one courier ship."

"What happened"? I had to ask.

"Well he lost his radar, and he went head on with a fairly good sized meteor on the last run. That's the breaks," he said waving his hand as if this was nothing, "Still want in?"

"Of course, sign me up!" I said without hesitation. Maybe it was that Spacer's impatience taking hold, but I could use the cash.

He reached under the counter and brought up a freshly pressed uniform, "since there is a lot of press involved, you've got to wear the Interstellar Postal Service uniform. A skinsuit is a bit under dressed for many of the viewers and it's good advertisement for our service."

I took the uniform, and donned it in a public rest room on the station. It fit like a glove, and I reprogrammed the electronic name tag to display "R Shimout". "Sharp, like a vibro-blade," I had to tell myself.

I rushed back to the *Sub Orbital*, the local Spacer bar on Timeon's orbital station, hoping to catch Granny before



she left. I was surprised as I entered the bar; at first I thought it was Barnes, my older brother, but it became apparent as he turned around that it was my younger brother Xenon.

“Rod!” He shouted as he spotted me, and we circled each other like binary neutron stars before we came together in a hug. “Granny didn’t say you were on the station!” I yelled as we playfully began to tussle.

“Have to find new ways to surprise you boy,” granny’s voice came from behind.

As I turned, I found her with my cousins, Fang, Garlin and their sister, Red.

“Xenon was running a little errand for the clan while I waited for you boy,” Granny said as she grabbed my arm, “We had the local families build us an Agro-ship, Dixon is not much on foodstuff and we would like to be a bit independent of corporations.

“If this works out right we can supply our clan and all the other clans in the system. He was working out the details with the local clan, he a wiz with specs and robots”

“Must have cost a lot?” I asked

“It did, basically all the spare credit the clan has.” Granny answered as she guided me to a free table. “What about you, did the Post Master give you a route?”

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I told Granny about my entry into the monthly run, when I was done, she simply shook her head.

“What are you thinking? You’re a good pilot, but you also need to plot a jump through the void, on top of keeping an eye on your reactor and keep it from going super critical! Hard enough to do on a normal run, but you will be going full throttle. You’ll need a crew and that ship of yours is designed around a single pilot navigator.”

“Not really Granny,” Xenon rose to my defense, “the life support could handle two, and the bunk can double as an acceleration couch. Roddie, if you want I can be your navigator and monitor your reactor.”

Granny looked at us, “Boys if you are going to do this, you’re going to do this right. We are going to need to know who you are up against, what they are flying and their past performance in previous runs. I think I’ll talk with Alex. If I remember right the next run is in a week, so we have a little time to come up with a plan.”

We met in my room later that evening. Xenon and I sat on the floor, while Red lay on my bed and Granny sat in the only chair in the room, using her personal com to reach out to all her contacts on the station. Fang and Garlin volunteered to guard the *Granny’s Gift*, as sabotage seems to be common tactic in past races.

I watched as Xenon inputted all the data we could find on the other pilots and their crafts into his body comp. The data was displayed as series of graphs displaying position versus time. He then computed a prediction based on the specification of our ship’s atomic engine, mass and our tolerance to G forces. We all studied the image he projected using a holo projector he slaved to his body comp. It became immediately apparent that we had an issue. The *Granny’s Gift*, while finishing way ahead of the human and Vrusk piloted ships, finished a distant second to craft piloted by a Dralasite.

“I don’t get it, Xenon, all the ships have almost equivalent thrust to mass ratios, but why does the Dralasite finish so way ahead?” I asked, staring at his simulation.

“Well brother, Dralasite can withstand higher g forces than humans and for a longer period of time. It doesn’t matter if your ship can sustain a constant ten g thrust if you pass out after an hour. Because were from Dixon, we can withstand higher acceleration longer than the Vrusk and the Human pilot, but nowhere near the Dralasite.” Xenon answered without even looking away from his simulation.

“There has got to be a way?” I asked as I attempted to find an answer.

“Run faster,” Red answered as she sat up on the bed.

“What you mean?” I asked as I turned to face her.

“It a race. When the Post Master hands out the Data Cylinders, every pilot has to carry one from the Post Office to the docking cradle his ship is parked in. If you look at all the past races, Orkks the Dralasite is always the last one to his ship. Sssrst the Vrusk is the first, and the Human Marcus second. They almost always beat him to their ship by a good four to five minutes,” She answered.

“I could kiss you Red.”

“I’ll hold you to that cousin,” she replied as she gave me a look that me a shiver.

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“I did not take that into account!” Xenon said as he started to enter this information on his wrist keyboard.

The simulation shimmered and a new projection appeared. While we fared better, it still showed Orkk reaching Jump speed a full twenty minutes ahead of us.

Then it hit me, a way to shave a few minutes off Orkk’s lead. After I explained my idea to everyone, Granny nodded and said, “Boy you are crazy, but it just might work. You and Xenon will need to somehow make the modifications to your ship without anyone noticing or figuring out what you are doing.” She stated as she rose from her seat “That’s it then, let’s get some sleep and we can start in the morning.”

Frontier Explorer

Red made no effort to leave, instead she turned to me. "Well look like I can collect on that kiss you promised."

I was a little shocked, "We're cousins Red."

"Second cousins, Rod," she purred.

Granny stared at her, and Red noticing Granny's attention starred back. The contest lasted for about a minute till Granny reached down and grabbed Red ear and pulled her to her feet.

"Och, och!!" Red hollered as Granny marched her to the door.

When they left, I turned to Xenon, "What the heck was that about?"

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Xenon laughed, "Seems that the leader of the local clan, is interested in Red and has approached Granny about marrying her."

"Red not interested?" I asked.

"Oh Red is, heck he's head of the clan. She would be a fool not to accept. She's just reaping some wild oats while she can. She ran through most of the available candidates back home," he added as he headed toward the door. "I'd watch out for your virtue if I was you".

We spent the next few days making my modifications to the *Granny's Gift*. Red and her brothers were delegated the tasks of rounding up all the parts needed, in a way that would not attract a lot of attention, while Xenon and I worked on making the changes. With almost a day remaining, Fang arrived with a work pod from Granny's ship *The Long Knife*, towing a large gas storage tank.

"Anyone notice you?" I asked Fang as he used the grabbers on the pod to place the tank in the cargo hull of *Granny's Gift*.

"Don't worry; I had them deliver the tank to *The Long Knife*. While Garlin placed the tank in the main cargo hull, I slipped it out the other side. Red distracted everyone with a little strip tease as she changed out of a space suit at the main airlock," He laughed.

Xenon made the last modification as Fang looked on, "You won't have any room for cargo with that in place," Fang muttered.

"The only cargo I will be carrying is the data cylinder and she's riding up front with me and Xenon," I answered as Xenon finished.

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That night I stayed aboard the *Granny's Gift* to stand guard against any last attempts of sabotage. Suddenly the air lock opened, I sprang from the pilot's chair with laser pistol in my hand and in the hatchway was Red.



"Came to help you stand watch cousin." she said as she slithered towards me.

"Red I have no time for games, I've got to keep an eye out." I said turning back to the monitors.

"Don't worry, Garlin's outside keeping watch," She purred in my ear.

I turn around finding that Red somehow managed to get completely nude as she covered the distance from the air lock to me. As I rose out of the chair, I thought "What the heck?"

Later when Red fell asleep, I donned my vac-suit and exited to the station through the main air lock.

I drifted over to Garlin. "I got it cousin, why don't you get some sleep. I'm going to stay a while."

"Sure thing, later cuz." he said with a grin as he drifted toward the airlock.

I stared out at the stars and lingered in a daze, momentarily at peace with the universe. That would soon to change.

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Xenon arrived at dawn, and began the last minute checks on the ship. As he worked I changed into the Interstellar Postal Service uniform. "Xenon, will you be alright? I have a bit of last minute business to take care of." I asked as I made my way to the hatch.

"No problem brother, everything's looking good." He commented without looking up from what he was doing.

I made my way to the *Sub Orbital*, and searching the crowd I found Talon Vein, the local bookie taking last minute bets on the race. "What the odds on Shimout?" I asked.

"Twenty to one, it was higher but it seems that there were a few big bets placed by his family yesterday." he blurted without even looking in my direction.

"40k on Shimout."

He turned and looked at me and smiled, "Stupidity must run in the family."



“Just be ready to pay up when I get back.” I replied as I handed him my credit chit.

I made my way to the Postal station, the other pilots were already gathered and standing behind a blue line drawn on the floor.

“Must be the new meat?” Captain Marcus said as she watched me enter.

“Yeah that's me, Rodworth Shimout,” I said extending out my hand.

She shook it, “Don't get your hope up kid. No newbie ever won the run on their first try. Just try to make it to White Light in one piece.” Sssrt and Orkks stared but remained silent. We waited for over an hour, until Postmaster Glade finally entered pushing a cart with four message cylinders.

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“Okay captain, on my mark you grab a cylinder and make it to your ship. Good luck.”

“Go!” he shouted, and off we went.

Red was right about this part of the race. Each captain's position out the door was marked by their species. Sssrt was first moving with speed only a vrusk could muster, Marcus being a bit older than me made it out the door slightly behind me while Orkks was a distant last.

I turned the corner of the corridor leading out of the area of the station near the Post Office to find Garlin and Fang sitting on a pile of vrusk and few humans. It was also a tactic in past races to hire some muscle to slow down the competition. They waved me on.

After turning another bend, Red was there holding a stun rod with several more thugs, this time humans, at her feet. She blew me a quick kiss as I passed. When I hit the last bend for my ship, Granny popped into sight, holding an electro stunner on a collection of Dralasites and humans, “Go boy you have clear sailing ahead.”

I reached the hatch of the *Granny's Gift*, and saw Xenon strapped in on the ship bunk, with the jury-rig monitoring console he set up.

“Let's jet, Bro.” he shouted as I jumped into pilot's chair.

Sssrt's ship was already undocked, it drifted slowly, pushed forward by its cold maneuvering jets. Atomic drives use a stream of radioactive particles to propel a ship, and cannot be used until the ship exits the magnetic envelope that space stations use to shield against cosmic rays and solar flares. So all ships use maneuvering jets to dock and undock from any station.

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Generally the thrust of these jets are a few pounds, just enough to get a ship going. It's a bit slow, taking around ten minutes to drift far enough from a station to engage

the Atomic drive, but the *Granny's Gift* had one small modification, instead of the small reserve of inert gas use to power the jets, my jets were funneling a thousand pound of a nitrogen helium mixture from the tank in my cargo hold. I would have loved to have seen Sssrt's face as the *Granny's Gift* barreled pass him.

We hit the magnetic boundary of the station a few minutes later and I engaged the main drive giving all she had. Ten times the force of old Terra gravity pinned us to the chair as we jetted outward. Xenon and I used every spacer's trick in the book to extend how long we could tolerate the force of the ship's acceleration.

First, the Clan's skinsuit, which I was wearing beneath my uniform, acts as a G-suit. This prevents blackout due to blood pooling in the lower part of the body, depriving the brain of blood under high g's. Then there were also breathing and muscle tricks that we could perform that would help. Using these, we could withstand four G's all day without even straining and could sustain ten G's for around fifteen seconds. Hopefully with the lead we had, we would reach jump velocity before the rest of our competition.

Several hours later we were nearing jump speed with what we thought was a good lead over the rest of the competition. We were sore from hours at high G maneuvering but we were confident. That's when Xenon spotted something on the long range radar.

“Rod, on our six. Looks like Orkks,” he reported.

“So soon, I thought we had a big enough lead.” I said, swearing out loud.

“Look like he's red lining his engine, he just hit around 12 G's. He can't keep that up for long, but he only needs a few minutes to build up enough delta v's to get to jump speed ahead of us,” Xenon commented.

I watched and suddenly two additional blips appeared on the scope, this time ahead of us. “What's that Rod?”



Scott Mulder

## Frontier Explorer

Xenon asked.

"I don't know, they are on an intercept course with us." From their movements, they appeared to be small one man fighters. Not good, apparently someone was raising the stake on the race. "There no way we are going to be able to avoid them Rod. They should be in firing range in ten minutes," Xenon added.

The physics of the situation were against us, a fighter is basically an atomic rocket with a single pilot in a radiation suit with their mass to thrust ratio far exceeding our ships own. While the *Granny's Gift* could hit ten G, fighters could do fifteen, the limit of a well-trained pilot's abilities. I needed a way to out maneuver and alter my course without them being able to match; it would have to be done before they could lock on me.

Suddenly I found an answer on the navigation display, a small planetoid.

"Brace yourself Xenon, I got an idea and we're going to see how many G's this bucket can handle!" I shouted as I began firing my maneuvering jets to spin my ship around.

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I executed a high speed turn, and headed straight toward the planetoid. Xenon remained silent, either he had blacked out or he figured out what I was about to do. I watched on the radar scope and saw one of the fighters break off and make a course toward Orrks. Good for me not for him, at least I now knew he wasn't behind this.

"Rod, I'm not sure we're going to make it. We almost within weapon range of the remaining fighter and I am reading a weapon lock on sensors." Xenon moaned.

The ship shuttered as we began feeling the pull of the planetoid gravity, I hit the jets again as I attempted to force us into a parabolic orbit around it. The ship began to groan at the stress of the maneuver. The force pulled also on me while and Xenon struggled against blacking out.

"Rod, incoming!" Xenon shouted as the enemy fighter opened fire. The barrage of rockets attempted to track us but the *Granny's Gift* trajectory was already taking us in a sharp curve that the missiles could not match.

I eased up on the throttle as *Granny's Gift* swung around the planetoid, and the enemy fighter popped into view. We passed in front of the fighter, luckily it was out of rockets and we watched as it plodded through the *Granny's Gift's* engine wake. While radioactive particles of atomic rockets are not normally dangerous to shielded space craft, fighters are design without massive radiation shielding. The ionized radioactive particles impacted with metallic atoms of the fighter's structure, creating a series of EM pulses that interfered with the fighter's controls. Without the ability to adjust its course, we watched as it ran head on into the planetoid.

"Yeah!" Xenon cheered, but the joy of our victory was soon overshadowed as we watched on the Granny's radar scope the remaining fighter closed in on Orrks' craft.

A trio of new blips appeared on the screen, indicating that the fighter had launched its rockets. We watched as the rockets intercepted Orrks' craft. Suddenly the radar screen whited out and when it cleared, the only blip remaining was the enemy fighter.

"They got Orrks", Xenon muttered.

The remaining fighter was too far and out of rockets so it was no longer a threat. We made our way to our jump point and left Timeon behind.

In cheap Holo-novels the heroes would always face a sudden unexpected threat just when they thought that they would be safe. Thank the goddess Infinity that when we emerged out of the Void, the only thing waiting for us was a White Light Naval Frigate and several space yachts carrying members of the local press.

For the next two weeks that it took for the *Granny's Gift's* atomic engine to be overhauled and for repairs to be made to her support structure, Xenon and I were treated like conquering heroes. We appeared on Holo talk shows, had a parade thrown in our honor and were even invited to a royal dinner, but the best moment we experienced was when we boarded the *Granny's Gift* and watched the red shift from White Light as we turned on the atomic drive and headed back to Timeon.

FE

CALL FOR SUBMISSIONS

Interested in having your work appear in the pages of the Frontier Explorer? Have some sci-fi related material you'd like to share with the community? We'd love to have you submit it for publication.

The Frontier Explorer is looking for submissions for future issues. Whether you've got a new race, new equipment, a story, or anything else you'd like to see in print, we've love to help you get it published.

If you have material you'd like to submit, jump over to the Frontier Explorer website at <http://frontierexplorer.org> and hit the big, gold "Submit New Content" button. Don't worry if you don't think it's quite ready. We'll help you put the finishing touches on anything that needs it.

We're planning a spaceship theme for the next issue so if you have material related to space craft that's a plus but anything you want to share for future issues would be great. We love writing articles but would really like to highlight the work of the community and not just our writings and ideas. So submit your material and help fill the pages of the Frontier Explorer.



GRYMZ

GUIDE TO INTERGALACTIC CONQUEST



LESSON #8: DISCRETION

GREETINGS
PLANET DWELLERS!
YOUR HUMBLE HOST
GRYMZ HERE WITH
ANOTHER...

C'MON GRYMZ
WE DON'T HAVE
TIME FOR ANOTHER
LAME LESSON.

BUT, THE
FLOATER CAM
IS RIGHT
HERE...

AND THIS
ONE IS ABOUT
THE VIRTUE OF
DISCRETION.

LET'S JUST
GET DOWN TO THE
AIRLOCK AND FIX
THAT PANEL.

THAT'S
NICE...

ON THE WAY WE
SHOULD STOP BY THE
HAB MODULE AND GET
THE CREW OUT OF
CRYO-SLEEP.

WHAT DO
YOU MEAN?

UHH,...WELL,
THERE COULD BE
A LITTLE PROBLEM
WITH THAT.

THERE WAS
THIS LITTLE
ACCIDENT...

THE LAST
TIME THAT THE
SHIP'S POWER
WENT OUT.

