# Frontier Explorer 

An Intelligent Alien Invasion Battle For The Mind

Psirens: Na'dezh'da
An SP on Hakosaur
New Engine Requirementsfor KH
Critical Hits in Starerontiers
downloading information
directly from the universe.


FEATURES


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## FROM THE EDITORS

Welcome back explorers!
Can you believe that has already been three years since we started the Frontier Explorer magazine? I'll have to admit that given the state of the Star Frontiersman when we started this that I really didn't think we'd make it this far. I had suspected that we'd not be able to get enough submissions to keep the magazine going quarterly. Or if we did, it would shrink down to be fairly small. Needless to say I'm quite happy with how things have gone.
This is our psionics issue. We have a number of articles dealing with psionic abilities and creatures and equipment that use them and other forms of mind control. I'm really excited about the Psirens alien race (p. 11) developed by Laura Mumma, who is debuting as an author in this issue. She always has great things to say on the starfrontiers.us forums and I was glad to see this article get finished.

If you're not using any sort of psionics or mentalism rules in your Star Frontiers game, don't feel bad, I never do either. However, if you want to add them, check out the remastered rulesets on the Star Frontiersman site. There are mentalism rules in the Zebulon's Guide to the Frontier (p. 39 in the original and p 115 in the remastered version) and Bill Logan did a conversion for the original Alpha Dawn rules that are located in the optional rules section of that remastered ruleset starting on page 145. Jump over and grab a copy to check it out.
In addition to the great articles in this issue, I'd like to call your attention to our Patreon campaign. This is an opportunity for you to help support the magazine and help us improve it. You can find some of the details in the sidebar announcement on page 28 and the full details including all the reward levels on the Patreon webpage at https://www.patreon.com/FrontierExplorer. Your support will help fund both the Frontier Explorer and the Star Frontiersman.
Finally, we'd like to announce the Frontier NetCon 2015, scheduled for July 10-11, 2015. This will be a day and a half of on-line Star Frontiers gaming. Jump over to the website and register to either play, run a game or both. We hope to see you there.
Once again, thank you to all our readers. It's been a great three years and we hope to be able to continue doing this for years to come.

## Keep exploring!

- Tom Stephens

Senior Editor

## Production Credits



Cover Art: Enter the Rim by Wayne Peters. Wayne is a video game artist and illustrator with nearly twenty years experience. Recently he has become a freelancer, working primarily for indie game devs and the small press. He currently lives in Cardiff, Wales, UK with his wife and two children and a dog called, Merlin. http://www.crowstuff.co.uk
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Layout: Tom Stephens
Full Cover Quote:
"Psychic power is the ability to download information directly from the Universe."

- Lada Ray
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#### Abstract

Author's Note: The Zebulon's Guide to the Rim Project was a collaboration of the fans at the http://starfrontiers.us site to expand and bring greater detail to the material in Zebulon's Guide. While I have a writer's credit for this series of articles there were innumerable people that participated in the discussions of numerous threads in the project forums. I functioned more as a facilitator of the discussion and compiler and editor of the material developed. I am very grateful to everyone that participated and made this project a success. Thank You.


This is the first of several articles on the Rim to be published in future issues of the Frontier Explorer.
Thomas Verreault

## THE RIM COALITION

The Government of the Rim is officially a loose confederation of sovereign planets bound together by treaty for mutual protection against the sathar. Every planet elects representatives to the Board of the Rim Coalition (referred to as The Board) based on population density. Worlds with heavy populations elect three representatives, while worlds with moderate populations elect two and worlds with light populations elect one. All told there are now thirteen worlds electing 28 representatives.
In addition, the home world of each of the Rim's sapient species; ifshni, humma, and osakar, appoint an Adjudicator to represent their respective species. The role of the Adjudicators, in practice, is to review and rule on matters passed by the Board that may intrude on the sovereignty of member worlds. In practice the Adjudicators are a supreme court. The appointed Adjudicators give the racial home-worlds inordinate influence in the Coalition government. They also decide which representatives sit on the military and on political committees of the Board.
The military committee of the Board of the Rim Coalition is the civilian control overseeing the Flight, the military arm of the Coalition. This committee meets much more frequently than the political committee. It has established command and control structures that provide the Flight with a unified command during time of war.

Due to clauses in the foundational treaty of the Rim Coalition (the Osaka Accords), all of the member species of the Rim have aggressively developed new real estate through exploration and terraforming. Each colonized planet that is at light population levels and above generates new seats on the Board. Currently the humma home system has eight representatives on the board and both the ifshni and osakar have six each. This grab for political influence has pushed the species of the Rim to develop new planets regardless of the cost and is the reason that the Rim contains systems with some of the densest inhabited real estate in known space.

While the de jure government of the Rim is the Board, the de facto power behind it, in many ways, is the Capellan Free Merchants (CFM). The CFM had been, without a doubt, the driving force in the Rim economically, politically, and militarily for decades before the organization of the Rim Coalition and is likely to continue to be so for a long time to come. Its most significant achievement in defense of the Rim was the standardization of parts and equipment among its member planets and their militaries.

## RACIAL Agendas within the Rim GOVERNMENT

The humma desire to dominate the Rim by planet ownership and the ifshnit are seeking to dominate by business interests which lead the two races to occasionally clash. Caught between them is the osakar. However, they are politically astute enough to manipulate the other races for the greater good. The osakar have little interest in humma expansion or ifshni profits. Their goal is to keep the humma in check and the ifshnits from monopolizing. Here then are the three parties of the coalition and their motives. The ifshni are fiscal conservatives, the humma are aggressive exploiters and the osakar are the peace makers.

The osakar wanted a constitution, while the humma see other forms of government not their own as ineffective or weak and the ifshnit preferred contracts for everything. In the end they got a representative government, settled with treaties and contracts from the humma and ifshnit. The Rim Coalition works today probably out of fear of the sathar more than for any other reason though the osakar are proving they are the most astute diplomats in known space.

## The FLight

The Flight evolved out of the Capellan Free Merchants, having adopted doctrine, organization, and ship designs. The CFM continues as a separate organization focused on its own economic pursuits while the Flight has taken up the banner of first line of defense in the Rim.

The Flight's mandate is the protection of the Rim's signatory star systems but the treaties with the UPF allow for its deployment to UPF space in time of war. The Osak system, being the astrographic hub of the Rim, the capitol of coalition government, and a historic first line of attack for the sathar, made this system the logical location for the Flights headquarters. This system is the center of Flight logistics, ship building, and it is the single largest single concentration of Flight vessels.

The Kazak system is another major base for the Flight with extensive planetary and moon bases but only a small task force of ships is stationed there. Cryxia, being further out on the jump routes and younger lacks the military infrastructure of Kazak and thus has a large fleet stationed there. It's strategically located to watch over this important system and respond to sathar incursions in the outer Rim systems.

Capella and Fochrik have strong indigenous defense forces which permit the Flight to post smaller task forces there. With the large Flight presence one jump away at Osak it would seem that these systems are well enough covered against sathar attacks until the Flight can respond.

## FOCHRIK FLIGHT <br> WORKS SPRINGBLADECLASS Patrol Combatant

The Flight began to chart its own course independent of the path set by the CFM soon after its organization. Recognizing that armed merchant/paramilitary designs were unsuitable for its purposes, they introduced the Springblade Class patrol combatant design. An inexpensive but capable ship design that could be built in planet based ship yards and be launched into space, it quickly became a workhorse military vessel in the Rim.

HS: 4 HP: 15
ADF: 4 MR: 4 DCR: 60
Crew: 15
Weapons: $\mathrm{PL}(\times 4)^{*}, \mathrm{LB} \mathrm{TT}(\times 1)$ or
HARM(AR) $(\times 5)$
Defenses: RH, MS(x1)
Engines: 2 Atomic "A"
*All four PLs are forward firing and fire-linked for 2d10 damage.

The Springblade-class patrol combatant is the workhorse of the Flight and the various militias within the Rim. Though relatively fragile for its size, the vessel boasts an arsenal of weapons comparable to a Space Fleet frigate, with the same maneuverability and acceleration.

## RANK StRUCTURE OF THE FLIGHT

The officer ranks of the Flight reveal a clear influence from the ifshni and the CFM. With two of the worlds in the Capella system having large bodies of water, the ifshni have a strong maritime tradition which was carried on in their space services. Thus the Ifshna word for captain, shipmaster, has made its way into the vocabulary of all the Rim races.

The Flight, like the Capellan Free Merchants, favors officers from the Pilot and Astrogator career tracks for higher command. This is not to say that officers from the other career tracks cannot attain higher command, though it is less likely.

## ENLISTED RANKS

Spacer (3rd thru 1st rank), Sub Talon (3rd thru 1st rank), Chief Talon, Senior Talon, and Senior Talon of the Flight.

## OfFICER RANKS

Pilot* Apprentice, Pilot*, Leading Pilot*, Pilot* Major, Shipmaster (2nd \& 1st rank), Squadron Master, Group Master, Wing Master, and Flight Master.
(* substitute Astrogator, Gunner and Engineer for Pilot as per those career tracks).

## A Note on HARM Technology

When the CFM first discovered the humma they encountered the "humma swarm" which was essentially a swarm of fighter craft which could easily outgun single star ships of larger hull sizes. Due to the occasional hostile negotiations between the humma and the CFM the CFM needed a counter to swarms of fighters.
What they developed was the HARM, Hyper-velocity Anti-ship Reaction drive Missile for both the assault rocket and the rocket battery weapon's platforms. They cost a little more than the standard munitions used in assault rocket launchers and rocket batteries but have an increased Damage Table Modifier (DTM) that skews the damage toward hull hits. This almost guarantees that HARM munitions are a one shot one kill against a fighter.

If you are not using the damage table from the advanced game then all hits by HARM munitions should automatically take a fighter out of the game.

|  | DTM | DAMAGE | COST |
| :--- | :---: | :---: | :---: |
| HARM (AR) | -20 | $2 d 10+4$ | 15,000 |
| HARM (RB) | -30 | $2 d 10$ | 7,500 |

## Compoion Bockground

# AN INTELLIGENT ALIEN INVASION 

Ariel Williams

Editor's Note: This article is taken directly from Ariel Williams's response to a question on Quora and used with the author's permission. The images are also the same one's used by the original author in her answer. We really liked this article and the arguments made for how a real invasion would be run. It definitely provides a lot of possibilities and ideas for a sci-fi game.

Firstly, although the aliens may be carbon based life as we are and have similar biologies to us they almost certainly do not have compatible amino acid combinations. So what does that mean? It means that almost all biological material on Earth would be poisonous or indigestible if consumed to them and vice versa.
There are many ways to assemble amino acid chains and life on Earth has adapted to cohabitating with many of


Tom Verreault
these methods. On an alien world with just slightly different elemental makeup in their crust, this would likely change the entire spectrum of how those molecules mix and match. Just a tiny bit more of an already uncommon or semi-rare element on the surface like ammonia, neodymium, or boron (to pick three random ones) might change everything.
There are many foods that are poisonous even to most native species on Earth yet palatable to others. This same concept would be taken to an even greater extreme with aliens. Their biology is likely to be very different from ours.

So the good news is they don't want to eat us or our tasty cows, chickens, pigs, fruits, vegetables, beans, nuts, or coffee. That is also the bad news. This means they have no need for most forms of life on our planet.

The plan should ideally be done without humanity realizing it is under attack. If they have the chance to irradiate the planet, it can make it uninhabitable by any life even their own.
This answer makes a few assumptions.

1. The aliens have been traveling a very long time and can potentially survive in deep space for long periods of time. Even at light speed, travel would take many years and they are likely going much slower than that.
2. The aliens have learned how to mine and manipulate asteroids to build the colossal ships and fuel needed to travel here.
3. The aliens have different biologies to ours and cannot eat our food nor can they catch nearly any of our diseases.
4. They are here to colonize the Earth because it is an ideal Garden World in the Circumstellar habitable zone of its star and has similar gravity to their homeworld.
They want our planet for colonization because it is a rocky body, has a good gravity, is in the zone where liquid water exists in all three states, and we have a large moon to help deter meteor impacts. In real estate the three most important things are location, location, and location. This goes doubly so in space. They don't want us or our plants and food; they want the water, air, sun, and the land.


## STAGE ONE: KILL THE MOST DANGEROUS SPECIES, HUMANS.

1. Silently take samples of many lifeforms and microorganisms. Small robotic probes can do this without being detected. They could even be as small as an insect.
2. Engineered viruses can be created to wipe out almost every human on Earth. Remember that amino acid thing? That also means the virus is not likely to have any effect on them if they design it right. While using a bioweapon on another nation would be suicide as you can't stop the spread, due to their different body chemistry this is not an issue.
3. Similar engineered viruses that target key organisms in the food chain could kill most other life. Primary targets could be plankton, bees, and livestock. Without plankton most of the ocean dies, without pollinators like bees the land animals die. The only reason to kill livestock like pigs and cows is to speed the death of humans.
4. As the population dwindles and becomes less stable, wars may break out. Some small numbers will turtle in bunkers and secure facilities that limit the chance

of exposure and many weapon systems can be remotely activated. Sophisticated weaponry would need to be ready to place in orbit to destroy any attempts to launch or use nuclear or chemical weapons by the native populace. There is not a high chance of this but preparations need to be made. Radioactive contamination is going to be dangerous to all carbon based lifeforms, even the aliens.

## STAGE TWO: CLEAN THE SLATE.

1. Capture 3 large meteorites and send them on a collision path with the Earth that will take less than 13 years to reach the planet. One will be stony and 2050 km the other two will be $10-20 \mathrm{~km}$ and iron-nickel based. Place the two iron-nickel meteorites on a different orbit that will miss the Earth but can be easily corrected to be an impact using thrusters similar to what the ship uses. The larger stony asteroid will be sent directly for the Earth. Ideally, the stony meteor will take less than a year to reach the Earth at speeds just under what the humans would find suspicious.
2. This can be done concurrently with the epidemic. While the epidemic is at work there will be too much chaos to counter the impact. Most conservative theories think we would need as much as 3 years to a decade of lead time on a potential large impact to sufficiently stop it. We do not even have any technologies for this scenario prepared beyond pure theoretical concepts.
3. When the first asteroid nears the Earth, use controlled detonations to break it into smaller pieces which can each strike different regions or continents. 10-20 pieces should do the job. This will eliminate almost all remaining humans and much of the ecosystem.
4. Place the second meteorite on a final approach for the Earth. This is the planet killer. Big enough and solid enough to send ejecta (earth, water,) into the sky and cause an Impact winter but not so big that the Earth's water is ejected into orbit or the crust is melted. The impact should be a water landing in a fairly deep area to spread the ejecta via steam and water vapor, and reduce the chance of melting the crust. The impact winter will eliminate the majority of life reliant on photosynthesis.
5. Repeat step 4 again with the third meteor one year later. At the end of one year most of the ejecta will have returned to the ground and sun levels will rise again.
6. Continue repeating this process annually until all photosynthetic reliant life dies out. This will kill all plants, and most animals.

## STAGE THREE: CLEANUP AND XENOFORM.

1. During the ice age a targeted sterilization program can be fully begun. Any remaining humans in deep bunkers will be found and destroyed. Any nuclear weapons will be collected or dismantled.
2. Specific programs will begin that will destroy any hardy or resistant life forms that manage to survive the Impact Winter.
3. Those slightly different mixtures of surface materials will be utilized during this stage. Any materials found on the homeworld in greater concentrations will be mined from asteroids and salted on the Earth during the violent storms of the ice age. Chemical compounds will be produced to sequester any chemicals more common on Earth that could be difficult for the homeworld flora and fauna.
4. After the last impact winter, begin producing greenhouses to cultivate the seeds native to your homeworld. This will be a massive project and the seeds will be raised in ideal conditions for life on your planet. These will be expanded as needed. These can provide enough food to feed the seeded population.
5. A seed population of under $100-200$ could fully populate the Earth by using frozen embryos and sperm equivalents from $10-30,000$ or more individuals. This would prevent inbreeding and create a viable genetic diversity in a very small space compared to carrying $5-10,000$ breeding age pairs alive through the trip. $5-10,000$ is the minimum viable genetic diversity theoretically feasible based on Earth creatures.
6. Xenoform the environment making any slight changes that are needed to support native life without greenhouses.
7. This should carry you through for many, many years until you need to leave again.


Lagodekhi - About halfway to the waterfall - by Joar Wandborg - Creative Commons-Att-SA-2.0

Wash, Rinse, Repeat with several hundred vessels each carrying 100-200 colonists and 10-30,000 fertilization samples. In 100,000 years your species could consecutively spread to a large portion of the galaxy by this method.

## FE

## FRONTIER NETCON 2015 July 10-1ו, 2015

Are you interested in refereeing or playing in one or more on-line Star Frontiers games? Do you want to connect with other members of the Star Frontiers community directly instead of just via the forums? Or maybe you just want to listen in and see how others play. Here's your chance. Register to participate in the Star Frontiers NetCon 2015.

A follow-on event to the successful Virtual Con held in March 2012, the Frontier NetCon 2015 is a day and a half focused on getting together as a community and playing Star Frontiers, in whatever flavor you like. You can play on-line or organize a local in-person group for one or more sessions. Check the website for more details.

There will be nine potential game sessions starting Friday afternoon/evening and running all day Saturday designed to accommodate almost any schedule. Sign up for as many or as few as you'd like.

Want to referee a game? Great! Once you've registered, you can set up a game in any of the sessions that work for you. You pick the technology you want to use to run the game as well as the rule set you want to run.
Looking to just play? Every game needs players. Browse the schedule and game descriptions and sign up for the ones you like.
The Con is completely free (although you might spend a buck or two on munchies). We look forward to seeing everyone on-line and playing Star Frontiers in July. And if you can't make it, we hope to have write-ups of some of the sessions in our Fall issue.

To find out more about the Con and to register, visit the Con website site at:
http://starfrontiers.info/NetCon/2015

## Campaign Background

## HOw FAR TO THE FUTURE?

Without a doubt George Orwell's "1984" is the epicenter of themes in science fiction involving thought police. The novel introduced a repressive police state that prosecuted crimethink through psychology, hyper surveillance, and a false flag resistance movement in a dystopian future. Ironically, it sometimes felt as if you were being "policed" for expressing an unaccepted opinion about the novel when forced to read it as part of your sophomore year English class. Perhaps it was just part of the lesson plan to demonstrate the experience of "doublethink".
The Babylon 5 television series developed the idea of thought police into a genuine agency of telepaths that could truly police your thoughts as well as punish you psychically. Eventually, a telepath war broke out which resulted in greater liberty for telepaths. The setting is a far future reminiscent of classic science fiction with a less oppressive mood.

Star Trek: The Next Generation presented a sexier and

## Don't Even Think It!



## Psi Corp Agents Active In This Sector

more touchy-feely form of the thought police in the character of Deanna Troy. She was an empathic ships councilor who was there to "help you." In order to explore darker themes the show's writers had to introduce telepathic characters with less morals for which Deanna became the counter balance and hero of the episode.
Rumors and blogs abound on the internet which assert the military's development of drones that can read your mind. Reportedly China, Great Britain, the US, and Russia all have programs for drones that can read the mind of a specific individual. One company is working on a mind reading algorithm that can intuitively predict what an enemy pilot might do much in the way an expert human pilot can intuitively predict the same. Another reported development is an actual mind reading helmet. Is Big Brother about to be looking into our minds?

Or have the thought police already arrived? Do they already live among us under the cloak of political correctness run amok among the sheep? A Maryland teacher was fired and banned from school property as well as had his home searched because of having written a science fiction novel that included a school shooting in its plot. Science fiction writers nominated for Hugo awards have suffered smear campaigns to prevent the fans from voting for their work due to a comment by the author on an unrelated political issue in an attempt to make the Hugo Awards a referendum on political correctness and not an award for the best in science fiction. Political correctness is a ravenous wolf in our society and you just never know who it will sink its teeth into next.

Could it be that with the evolution of political correctness enforced by the masses and the potential for predictive algorithms and other mind reading technology in the hands of the government could converge in the near future into a perfect storm so bleak as to make any Orwellian dystopian setting look like a sunny day in a field of daisies?

Thought police in the real world did not go away with the dismantling of the Soviet Union. They are a very near and future danger. In a world where truth is becoming stranger than fiction they are, without a doubt, a worthy story element to explore in any science fiction property whether fiction or a game.

In the Star Frontiers game setting there are two primary organizations concerned with telepaths: The Clear Thinkers and the Free Thinkers. These cadres were introduced by Kim Eastland in "Patriots, Terrorist and Spies" (Dragon \#109). The Clear Thinker's mission is to eliminate or control telepaths (or mentalist as they were called in the game). The Free Thinkers is a response to the Clear Thinkers and is a nonprofit that supports and aids telepaths. It is portrayed as opening brick and mortar type offices on most planets for telepaths to seek out.
Fan offerings in the area of telepathically concerned organizations have taken two paths: The Family of One and Star Law. The Family of One, as an oppressive religious government, is ideal for employing thought police and if there were telepaths and mentalist in the setting Star Law would naturally desire to use them as well.
The leader of the Clear Thinkers is a politician called Hased Kor from the planet Yast. This creates an interesting intersection between fan cannon and official cannon in that Yast has sometimes been represented to be in opposition to the rulers of the planet Hentz. Hased Kor and the Clear Thinkers may have gotten their start as a reaction against Family of One Inquisitors demonstrating telepathic powers in their oppressive Orwellian manner.
The simplest method to set up a "battle for the mind" within the Frontier setting would be to allow the players to create a mentalist character. While the campaign progresses, agents of the Clear Thinkers could then be used to harass the player characters. Possibly even a Star Law investigator could come around asking questions. In this scenario the campaign is the main adventure following a custom outline or published adventure modules and the Clear Thinker agents represent a side

story that usually pops up in between modules or

occasionally during an adventure module. The pace of the side story should build over time to a climatic showdown. This showdown should relieve the pressure that has been building but will not likely resolve all the issues surrounding telepaths in the setting. For example, it might be that a particular cell of the Clear Thinkers led by a virulent anti-telepath has been the on-going foil for the player characters and the showdown would be a final battle with this cell and its leader. Ultimately, the problems that mentalist face in the setting may not be resolved but could linger as an on-going problem simmering on a back burner.
Another track would be to develop a home brew campaign to explore the issues around thought police and mentalist in the setting. The conflict created by the Inquisitors of the Family of One, the Clear Thinkers, and the Free Thinkers would be ideal for this. This option requires more work as published adventure modules become side story and the issues surrounding telepaths become the main story.

In a campaign where the sathar play a main element, the game master could develop the mind control elements of the Sathar - perhaps giving the mentalist characters greater insight into what is happening with sathar hypnotism. A Star Law telepathic investigator would become an important feature of this campaign especially if the player characters have secrets to keep in the form of prior direct contact with the sathar.

In any campaign where mentalism is used it will be up to the players to decide if they are keeping their psychic power secret or using it openly for all to see. Let the players know that there could be ramifications for open use of unusual powers. Reinforce the idea that the use of unusual powers can have consequences with rumors and news broadcasts at the beginning of a game session, latter use non-player character reactions and ultimately encounters with agents of the above discussed agencies. It's only logical that elements of the setting would have strong reactions to unusual psychic powers. Do not overlook the potential for the mega corps to want to exploit the player character for his or her power.
Thought police and psychic powers could be a fertile plot in the sandbox for your next Star Frontiers campaign. Unleash the power of your player's character's minds and let the battle begin.

A science fiction staple since George Orwell wrote "1984", the thought police have entered the common vernacular, mainly in reference to the proponents of political correctness. It remains a strong science fiction element through shows like Babylon 5 with its Psi-corp. In a world where hyper surveillance like that of Orwell's "1984" and cutting edge technology exists could thought police be far behind? They are certainly present for science fiction RPG game play. This article endeavors to make the archetype available to players within the Star Frontiers setting.

## CHARACTER CONCEPTS

Thought police have been presented as simply agents employing hyper surveillance and psychological measures to police the subjected population as well as telepathically
enabled agents of a far future setting. Both are valid ways of handling the thought police in a game setting and since the mentalism rules in Star Frontiers are optional I will leave this choice as optional to the game referee.

## FAMILY OF ONE INQUISITOR

The Family of One is a repressive religious government on the edges of the Frontier controlling the Araks system and the Greater Overall Development mega-corp (GODco). It uses the inquisitors as thought police to subjugate the population of Hentz as well as agents throughout the Frontier ready to do the bidding of the Family. They are ruthless and relentless in the pursuit of the Family of One's goals but all inquisitors are yazirian.

They have a solid grasp of Family of One theology (Frontier Explorer \#2) and understand the principles of the psych0-social skill set. They do receive some weapons training as part of their police duties but are also proficient at basic tech skill to operate communication devices as well as disabling locks and alarms.

They are unforgiving and hardened against opposing views. They can be both zealous for their religious belief and for their organization.

## THE CORPORATE NEGOTIATOR

This character concept can be any specie. However dralasites, with their natural lie detection ability and vrusk with their natural comprehension ability, will have an edge. The corporate negotiator is in the employ of a megacorp but the concept works well enough for a diplomatic envoy as well.

The corporate negotiator is very good at reading people and has excelled at the psycho-social skill set. He may have some computer skills that he uses to research those he is negotiating with but weapons skills are completely secondary to the concept. After all, most mega corps have a ready supply of knuckle-dragging mercenary types to handle their "diplomacy by other means". It's very likely that this character has some latent or fully realized telepathic talent that the corporation has actively recruited to exploit for its benefit.

The negotiator is savvy and personable with a reasonably high PER score for NPC interactions. He is well versed in the culture of the Frontier and can rub elbows with most of its upper echelons without a problem.

## THE STAR LAW INTERROGATOR

Note: The article, "Careers in Star Law" by Alex Curylo in Dragon \#91 covers the creation of Star Law agents by PSA. These characters are fairly advanced so it might be that the starting player character is merely an interrogator or investigator from a small police or sheriff organization on the outskirts of the Frontier. Also the dralasite ability, lie detection, will help that specie excel at this character concept.

The interrogator uses his psycho-social skills to find the truth and push a suspect to confess. He has not neglected his military skills being law enforcement and may have a level or two in computers or technician skills. He can read people and uses his PER ability score to gain favorable responses from NPCs. He is by far the most militant of the character concepts and carries standard police issue gear.

## DEVELOPMENT

## Developing Abilities

The ability pair of INT/LOG should figure large in actions involving mental processes and should be among the character's higher scores. LOG is critical to characters using the mentalism/psi rules and should in that case be the highest ability score. These character concepts will not be likely to "shoot first and ask questions latter" so the PER ability should not be neglected either.


## Developing Skills

Hands down the Psycho-social skill will be this archetype's bread and butter. The Inquisitor and the interrogator will both need some weapons training. A level or two in the right technical skill (computers or technician) will greatly aid these character concepts.

As noted before, the racial skills of Lie Detection and Comprehension could be a powerful edge to the character but do not discount the Human specie's racial ability to add 5 pts to any ability score. Of all of the "core four" species, the yazirians are the only one with a natural enhancement to the INT/LOG ability pair so they should not be counted out for this archetype either.

## EQUIPMENT

Negotiators, diplomats, and even the Inquisitor may desire civilian skein suits while the Interrogator probably uses a police issue skein suit which counts as a military skein suit in game terms. Thought police are less likely to go in for heavy weapons preferring a side arm that can stun or knock out a being so that they can be talked to later. They just are not geared to fight a war but function best in a support role to regular police or mercenary teams.

## MENTALISM DISCIPLINES (OPTIONAL)

Information gathering psychic disciplines like Analysis II, Clairaudience, Clairvoyance, Detection, Empathy, Telepathy: Aliens, Telepathy: Characters, or Timeread are excellent choices. Disciplines that influence NPCs can be handy: Confusion, Illusion, Infatuation, and Suggestion can be very useful.

## Edges And Flaws

If you are using the optional Edges and Flaws system from the remastered rule books or any other system that has a edges and flaws mechanic you can assign points appropriate to that system. Otherwise you can include these traits into your character background as appropriate.

## Flaw: Hubris

This character is so smart he occasionally makes a bad decision based on his own arrogance. Once per game session a character with the Hubris flaw may make a bad decision at the referee's discretion based on the character's conceit. This decision might put him or others in harm's way or simply offend an NPC such that he refuses to talk politely with the character anymore.

## Edge: Second Sight

The character's intuition is highly attuned and once per game session the player may invoke the right to re-roll a bad NPC reaction roll. In addition the character has an IM bonus of +1 at all times.

## Equipment

## DR: MENTD'S PSYCHIC EQLIPMENT

Tom Verreault

Dr. Mento's Shop of Psychic Equipment is a hard to find shop in the Minizii Market. He uses a changing front business as camouflage and does not openly advertise. Still, for those in the know the shop can be found.
Dr. Mento specializes in psycho-tronic equipment built to enhance or block psychic powers. His inventory is ever changing: some items are one of a kind. All one needs is a large credit balance and the right passphrase while visiting the front. A response of "one must think well before making such a purchase," will result in an invitation to look at some items in the back of the shop where the real Dr. Mento will offer the psycho-tronic devices.

As with all items in the Minzii marketplace, there is only a value and not a price. One must haggle with the merchants to complete a sale.

## MENTAL SHIELD HELM

This device blocks telepathy and mind reading. It also confers a +10 bonus against attempts to hypnotize and a 5 penalty to the LDR ability score due to its ridiculous appearance. It looks like a costume or holovid prop and wearing it could bring a question like, "Who are you supposed to be? A mad scientist trying to get back to the future?" This item might actually be the prototype and not one of the limited production run helms and if it is, the penalty to the LDR ability score is -10 .
Prototype Value: 5000 Cr. Mass: 1 kg
Production helm value: 1000 Cr . Mass: $\mathrm{n} / \mathrm{a}$

## PSYCHIC SCREEN

This is another iteration of the ubiquitous defensive screen technology in the Frontier. Like all defensive screens it won't operate while another screen is in operation. The screen flashes green when mentalism energies are directed at the wearer and it absorbs those energies negating their effects. The screen requires 1 SEU of energy for every minute it is on and 5 SEU for every level of Mentalism skill being used in the event where mentalism energies are directed at the person wearing the screen.

Value: 5000 Cr . Mass: 2 kg .

## Mind Reading Helm

Stolen from a secret corporate or government lab this item is actually quite "hot". It's a bulky chair with a descending head piece and must be installed somewhere
like an appliance (possibly on a ship or at a base). The helm will tell its operators if the occupant is telling the truth for 3-6 questions or it can be used to force the occupant to reveal the truth about one question (i.e. "Where is the location of your rebel base?"). After this the occupant develops a nose bleed and severe headache such that any further questioning is fruitless for 1 GST day or 20 hours. The device will use 50 SEU for one questioning session.

Value: 25000 Cr. Mass: 100 kg

## PsI-BEAM EMITTER

This is a worn device and usually resembles a bracer on the arm. A character with a mentalist discipline that has a listed "Limit" to its use can apply a "use" of that discipline to power the device which then acts as the mentalist discipline Beam. Example: the Confusion discipline has a limit of 2 successful uses per day per level and a character with this discipline and this device may use one of those uses to power the device to produce a beam attack as per the Beam discipline. The attack will do $4 d 10$ damage. If you are not using the Zeb's Guide resolution mechanic, this damage is not curable with surgery but a StimDose can be used to restore 10 STA.

Value: 8000 Cr. Mass: $\mathrm{n} / \mathrm{a}$

## SYNAPSE ENHANCEMENT DIADEM

Usually called a psi-diadem, this item boosts the LOG attribute of a mentalist or enlightened character by +5 . Agents of the Clear Thinkers cadre will recognize it automatically and this should trigger a response from them against the wearer.

Value: 1000 Cr. Mass: n/a

## Psychic Power Cells

These devices come in a shape and size similar to a power backpack and power belt. They allow the wearer to use mentalism energies to charge the power cells with SEU for use with normal electronic devices. Like the Psi Beam Emitter the user must have a mentalism discipline with a limit to its use and for each use of that discipline the mentalist can charge the power cells with 4 d 10 SEU.

Belt- Value: 750 Cr. Mass: 4 kg
Backpack- Value: 1500 Cr. Mass: 10 kg

Come this way, honored Odysseus, great glory of the Achaians, and stay your ship, so that you can listen here to our singing; for no one else has ever sailed past this place in his black ship until he has listened to the honeysweet voice that issues from our lips; then goes on, wellpleased, knowing more than ever he did; for we know everything that the Argives and Trojans did and suffered in wide Troy through the gods' despite. Over all the generous earth we know everything that happens. (The Odyssey)

## WHAT EVERY UPF CITIZEN KNOWS

The physical description of the creature known by spacers as the psiren is somewhat confused. The very existence of the creatures is doubted as nothing more than a space myth. Many folklorists and sociologists amongst humans feel the legend is nothing more than a modernization of the ancient human myths, perhaps influenced by the vrusk morality tales of a creature known to them as na'dezh'da.

However, events on board the mining ship Lucky 7 have led to the reevalution of this supposedly mythic creature by authorities.

## UPF Investigative SCIENTIFIC REPORT

Authorities were able to recover severely damaged internal security holovid clips from the mining ship Lucky 7, the ship's log, a few personal logs, and some recovered alien DNA. From this and the bodies of some of the crew, it has been determined the psiren is a real threat and far from a legend.
The origin of this insectoid race is open to debate. Theories include it may have naturally evolved as a split off race from the hypothesized common ancestor of the vrusk and clikk or that the sathar may have developed this creature. It has also been hypothesized that this creature may have no direct relation to known insectoid races and may have developed parallel as a parasite species that eventually infiltrated the hives of other races and fed on those hives. More data is required to rule out any one theory.

## DESCRIPTION

The psiren, when standing erect, are a 2 meter tall Insectoid. They have two soft, sucker appendages that can be manipulated, contracted, and retracted with ease. The larger orifice projects out above the mandibles and is actually a specialized organ for facilitating the removal of knowledge from another being's mind. They possess extremely underdeveloped mandibles near their second appendage.
The second smaller, lower orifice, sits underneath the chin area. This mouth contains rings of teeth on the inside of it. It has two long, soft, and flexible mustache-like feelers and two short feelers that hang down on each side of the mouth near the mandibles. It can actually wrap these feelers about things; the longer ones can wrap around a neck of a victim easily.

It has two extremely long antennae on its head along with several coarse short upright insect hairs between its eyes

on the top of its head. Psirens have a multitude of ovalegg shaped, glass-black, compound eyes allowing them to see from many angels. Long curved tongs project off the back of their heads framing their heads and creating a spiked or crown appearance on some specimens. Their necks are short.
The exoskeleton is solid or variegated greys, black, and dark brown to light tans. Its forearms are built for poking, stabbing, tapping, or slashing and are curved, ending in a point. It does not possess "hands", but set back near the joint part of the forearms are additional pincher digits that are capable of holding small objects. The forearms appear to actually be an extreme evolutionary adaptation of one of the pinchers into a solid limb. This creature has great difficulty operating most handheld UPF technology due to the extreme difference in the design with respect to the creature's natural grip.
The creature appears flightless. The softer sections of the main body and around the joints have insect type hairs. Their blood is iridescent green.
The small amount of DNA recovered indicated that they might be genetically similar enough to vrusk DNA to produce viable offspring. The DNA analysis along with the forceful abduction of a vrusk crew member from the Lucky 7 seems to add credence to the vrusk myth about the Na 'dezh'da being known to abduct male vrusk for mating reasons after which the male is, according to legend, killed.

Unlike the vrusk though, this creature appeared at times to be biped. It is possible the creature may be able to move in both a bipedal or quadrupedal manner.
This is a highly intelligent predator (carnivore) that reads the minds of its victims and then projects an illusion that lures the victim closer. Once within striking range, the creature grabs the victim, pulling them in close, and attaches a specialized organ that resembles a small trunk with a sucker to the head of the victim. Victims then appear to have their minds not just read by the creature but actually wiped, resulting in brain damage, coma, and unless, stopped, death. Once the victim of such an attack is brain dead, often the Psiren will then slash into the body of the victim and using their second lower mouth actually start eating the victim.

Psirens seem to prefer soft tissues, body fluids, and very small pieces of the victim. Scientists believe this diet is preferred because of the extremely under-developed mandibles. A psiren was observed actually cracking open the heads of some of its victims with its forearms and consuming the brains after the death of the victims. It was also observed that as the psiren attacked members of the ship's crew, the creature seemed to gain knowledge about the operation of the ship, making it progressively more dangerous.

## Psiren Psionic Abilities

## TELEPATHY

Mental; Activated, $L O G+10 \%$ x skill level
The psiren is able to read minds and transmit their thoughts mentally. Reading the mind of a hostile creature requires a mental attack (a LOG contest between the psiren and her intended victim, with a bonus of 10 x skill level). The opponent must be within 100 meters, plus 10 meters x skill level. Double the range if the other creature is cooperating with the attempt. When dealing with other telepaths, the psiren can send and receive thoughts with a willing, telepathic partner up to $5+$ skill level kilometers.
These same rules work for forcing the psiren's own thoughts into another creature's mind. The recipient of such thoughts will know, however, that the thoughts came from an outside source ("voices in my head"). Note this is a different ability than the Projection Ability. Creatures with telepathy automatically know when someone is trying to read their minds. Other creatures are oblivious to the attempt, successful or not. A psiren must read the mind of another before attempting to use their Projection Ability.
The psiren can scan an area up to $5+$ skill level kilometers radius. The referee makes a mental attack (a LOG contest between the psiren and her victim, with a bonus of 10 x skill level) for the psiren for every creature with a LOG of at least 25 within the area to see if the psiren detects their presence. The psiren cannot read a detected creature's mind or send his thoughts at that range, unless the creature is a willing telepath. However, once in range (see above) she can make another attack roll to read the creature's mind.

## Psiren Projection Ability

Mental; Activated, $+10 \times$ skill level
Psirens project images into the minds of their prey, luring their victim close and then they attack. They often pose through projection as a lost family member, lost love, or object of sexual desire. Images projected by the psiren will be something that appeals to their victims. Once the victim is within reach, the creature attaches itself to the skull of the victim and begins to transfer the knowledge in the mind of the victim to themselves.
The creature may change their projection to another desired image this requires 1 turn. They may affect multiple targets with one projection but must be within range, which is 10 x skill level (SL) in meters. The number of targets that can be affected by the creature is equal to its PER stat divided by 10 and rounded down.
The targets of the mental projection can resist by making a LOG check (note Telepaths receive a +10 x Telepathy SL bonus to their LOG check). This is a LOG contest between the creature and her intended victim, with a

## Frontier Explorer

bonus of 10 x SL for the psiren. Psirens do experience mental strain when projecting different images to multiple life forms, so each victim beyond the first to be targeted receives $\mathrm{a}+20$ bonus to making a LOG check.

If the victim's check fails, the mental images appear completely real to the victim in every way including sound, touch or feeling, while those who succeed see only reality. Once the victim falls prey to the projection, the psiren receives $a+5$ bonus to all PER, INT, LOG and LDR checks against the victim.

The illusion can be maintained for 3 xSL rounds.

## Mind Wipe (" Brain Suck")

Mental; Activated, $L O G+10 \%$ x skill level
When a victim is within close proximity, the creature will attack (DEX check), attempting to attach its specialized mind-sucking organ to the victim's head. If the attack is successful, the psiren will begin sucking the knowledge out of the mind on the next turn unless the victim succeeds in an INT or LOG check with a -5 modifier. If the check is successful the contact is broken (the victim will have a headache and a mark on his head where the specialized sucker was). The victim will then be able to try and break free from the creature's grasp.

If the mind wipe is not interrupted, the victim will continue to take damage losing five points permanently from all four stats of PER/LDR, and INT/LOG every turn. (The INT or LOG check to break contact should be done every turn after the first with the new stats as the victim may realize something is wrong and succeed in escaping despite the mental trauma). Once the victim losses $50 \%$ of their starting LOG stat they need to make STA rolls every


On the next round, Droolp still can't break free and the referee determines that his technician skill is being drained. Droolp is only a level 2 technician so his skill drops to level 1. The Psiren on the other hand, already has a level 4 technician skill so she doesn't learn anything from Droolp since her starting skill was higher than his and her skill does not change.

Poor Droolp never manages to break free and is eventually killed by the Psiren. At this point the Psiren has the chance to gain every skill Droolp possessed at the start of the attack at Droolp's full skill level. For each skill Droolp possessed that was at a higher skill level than what the Psiren possessed, the referee rolls the Psirens $L O G+$ skill level x10\% to see if the skill is gained. If our attacker had a LOG score of 40 and a level 2 Mind Wipe ability, the referee would have to roll $60 \%(40 \%+2 \times$

10\%) or less for the Psiren to gain the skill. Rolling for Droolp's Beam weapon skill, the referee rolls a 23, less than the necessary 60\%, so the Psiren now gains Droolp's full Beam weapons knowledge and has a level 6 with that skill. If she could only pick up and use his dropped laser rifle, she'd now be quite deadly with it.

## Surviving An Attack

Survivors of this creature's attack will have amnesia, a headache, lost time, loss of personality traits (basically they have brain damage), and damage to their whole psyche. If they are capable of speech and intelligent communication after an attack, they will report a sense of euphoric bliss occurring while things became harder and harder to remember. They can also have personal permanent memory loss such as not remembering friends, family members, or important events in their life (details to be determined by the referee).
There are many reasons why a psiren may not have finished an attack: the psiren was looking for specific information and upon getting it stopped the attack, the creature was too weak or too unskilled to continue the attack, there were too many other people approaching, or others physically attacked the psiren. A psiren cannot maintain illusions, mind wipe, or telepathy if physically attacked, as its concentration is broken.

## REFEREE NOTES

## PSIREN PHYSIOLOGY <br> AVERAGE STATS FOR AN ADULT <br> STR/STA 35/75 <br> DEX/RS $\quad 35 / 40$ <br> INT/LOG $45 / 45$ <br> PER/LDR 40/40

A Psiren has a +2 bonus to its Initiative Modifier because of its superior vision.

Mandible Damage: 1 d 10 divided by 2 rounded down. Forearms Damage: 2 d 10 slashing, stabbing

## Movement

Bipedal speed: walk/turn 10m, run/turn 30 m , Travel/Hour 5km
Quadruped speed: walk/turn 15 m , run/turn 35 m , Travel/Hour 6km

## TYPICAL SKILLS

As this race is extremely long lived, it is very capable of amassing large amounts of knowledge, most, however, are living on the edges of society and if younger or emerging from a deep hibernation cycle, they may not have had a chance to acquire more current knowledge. Some consideration should be given to the creature's environment, possible age, purpose in the adventure, and history prior to the PCs encountering one. If this is just a
scary new monster it is best to keep it younger, less experienced, and less skilled in skills. Below are some suggestions for a "middle-aged" experienced psiren, who perhaps found its way onto a ship, has dispatched the crew, and is lurking in the abandoned ship that has mysteriously come out of the void...
Knowledge of Clikk, Vrusk \& other Insectoid languages should be considered a given.
Many other languages are possibly known. These would be based of the derelict's crew so knowledge of Yazirian, Dralasite, Human, and Pan-Galactic are possible as well.

## Psionics

Telepathy - SL: 4
Projection Ability - SL: 3
Mind Wipe - SL: 3

## Military Skills

Beam Weapons - SL 3
Gyrojet Weapons - SL1
Melee Weapons - SL 1
Projectile Weapons - SL 2
Thrown Weapon - SL 1
Demolition Skill - SL 3
Martial Arts - SL of 4 as it is a hand-to-hand hunter.
Note that all weapons \& technology not designed for the creature will be operated/used at -30\% DEX check; simply because the creature knows how it is operated does not mean it can do so easily.

## Technological Skills

Unless the creature has had a chance to gain knowledge in UPF Technology it should be treated as having little to no knowledge of such technology. If, however, this is a creature that has had a chance to say gain knowledge from a ship's crew as previously encountered in this example:
Piloting Skill - SL 3
Astrogation Skill - SL 2
Computer Skill - SL 6
Technician Skill-SL 6
Robotics Skill - SL 2
Engineering Skill - SL 1

## Biosocial Skills

Environmental Skill - SL 4
Medical Skill - SL 3
Psycho-Social Skill - SL 1
These creatures should be treated as individuals. They can also gain skills and knowledge by any traditional means such as studying, practice, learning from teachers, or any teaching technology allowed in the setting, not just mind wiping others. Also remember that if this creature gathers a Skill that has Basic Skill Level Requirements say Piloting Skill it must also gather or already possess Technician 6 and Computer 2 to be able to use the Piloting Skill.

## SPEECH

Psirens still have their speech ability but now predominately speak to each other telepathically, but they can still make all the clicks, buzzes, chirps and whirls of old and can also learn to physically speak Vrusk and Clikk languages without difficulty. They do however require a poly-vox to speak without using telepathy many other languages.

## REPRODUCTION

Psiren reproduction is dependent on a good food supply. As most psirens live in environments that result in them having to be scavengers, their ability to produce viable offspring is naturally limited by food requirements. In addition all psirens currently are, as legend says, born female and to mate, a psiren must seduce a fertile male from a genetically compatible species, most often this has been a vrusk or clikk male. Copulation is normally fatal for a seduced male as their minds are being wiped in the process. The need for a male from outside their race to breed with further limits their numbers.

## Psiren Nymphs

All psirens are born with white exoskeletons that change colour as they age, they are also born with a random amount of knowledge from their parent, determined by rolling d100, there is only a $10 \%$ per knowledge skill that the nymph will inherit the skill at the most basic level (skill level 1). All nymphs do inherit the Na 'dezh'da language and have the ability to speak, write, and read it. All psirens inherit knowledge of their female lineage back to the first Na'dezh'da. In addition they inherit knowledge of their father's culture and a random amount of paternal skills determined the same way as the maternal skills where. All nymphs have skill level 1 in all their psionic abilities at birth.

## Physical Abilities

A naturally nocturnal species, they prefer dark environments the best. They are capable of going a month without food and can still remain active during such a fast. After a month they must hibernate, they do this by cocooning themselves; they can remain in hibernation for years.
They are capable of surviving being submerged underwater for an hour and a half and are capable of surviving without air of any kind, including the conditions of space without a spacesuit, for at least 12 hours before needing to spin a cocoon for long term hibernation. They can hibernate in extreme cold weather, under water, and in space and are capable of surviving in all these extreme conditions for years once cocooned.
The severed head of a psiren is capable of survival, waving its antennae for several hours, longer if refrigerated and given nutrients (in such cases a Psiren may attempt to communicate to another psiren via a
telepathic message so it's knowledge can be passed to another through the brain suck).

In addition, the creatures have high radiation resistance, 15 times higher than a human. The life expectancy of psirens is unknown but it is believed because of their life cycle of hibernating and moments of activity it may be in the thousands of years.

## Using Technology of Other RACES

When attempting to operate any UPF equipment; not modified for or compatible with the psiren's forearms; the psiren suffers a -30 penalty on a DEX check to operate anything more complicated than taping buttons or screens. The psiren most often must trick others into operating equipment for it.

## Psirens in the setting

## Habitat

Psirens are capable of employing technology \& trickery. These creatures can be found inhabiting abandoned space stations, on crashed or drifting spaceships, (maybe those occasional misjumped disappeared ships are not all that accidental), ancient ruins, abandoned outposts or colonies, asteroid belts and the dark fringes of society.

## SOCIETY

As a rule, psirens are usually solitary, territorial scavengers. However, they are sometimes found in mother-daughter pairs or small groups. It is not known if the psiren's mostly solitary society is one of instinct, choice, or circumstances.
All psirens trace their ancestry back to an individual known as Na'dezh'da who possessed psionic abilities and gave birth to only female children ( 33 in total) all similarly psionically gifted. There are thus 33 matrilineal clans of psirens.
The Na'dezh'da Insectoid line/race gradually evolved more and more powerful psionic abilities that they used at first as a means to hunt primitive creatures. In time they began using it to infiltrate and gain control of various hives and colonies in early Insectoid Society. As they evolved they developed the ability not just to be telepathic but also to literally suck knowledge from others and gradually became physically very different from their original racial stock. Once others in this early Insectoid Society realized the danger this posed to all colonies they began purging the descendants of $\mathrm{Na}^{\prime}$ dezh'da from their midst. The psiren written language, if studied, will reveal that it is extremely old and is often very close to the earliest forms of writing of the various other insectoid races.

## CLIKK AND VRUSK

Both clikk and vrusk cultures have a huge amount of myths and legends about dangerous psionic females, queens, or changeling creatures that threatened their societies. There are still some lines of clikk and vrusk that can produce psionic members and these lines are most likely related or linked to a similar genetic mutation or have similar latent sex-linked genes. Such offspring are often born with deformities and almost always female. However, these children are rarely an actual threat, as they do not have the evolved expressions of the total genes necessary to be a psiren. Such children, if not killed outright or abandoned, are often hidden away, given medical treatments to help with their deformity (and potential psychic ability), and sterilized. Vrusk will view such a child as an indication of dishonor to their trade house and something akin to punishment on the trade house from some greater cosmic karmic power. Vrusk use the Na 'dezh'da mythos in their morality tales.

## DeAth of Oblivion

Psirens call death before mind passing can be achieved "death of oblivion" as they believe all of the individual is lost forever at the time of death if the dying person's knowledge is not preserved to another living being. Psirens thus have no problem if mortally injured in consenting to another psiren to brain wiping them, to prevent Death of Oblivion. Psirens culturally prefer such transfers of knowledge to be within their own clan, but if no other clan member is available being mind-wiped by another clan or even enemy is preferable to "True Death" or "Death of Oblivion".

## As NEMESIS

Psirens can make useful spies, assassins, and murderous monsters in the Outblack. Connoisseur Psirens: are ones that hunt specific people for their memories, knowledge, or experiences. For instance a scientist Psiren would probably have a personal list of famous scientists they want to mind wipe. The Psiren Puppet Master: the psiren masquerades as a member of another race to get others to do it's bidding, build psiren friendly tools, conduct research and bring it victims. Psiren Scientist might conduct experiments on the brains of other races, on genetics to end their dependency on other race's males for breeding, or on further developing new mind powers for their race. The Psiren Fury are psirens that have learned to project things people fear, for the purpose of terrorizing others, this should be treated as a rare occurrence as the psirens evolved their abilities of projection to lure in prey.
Psirens may or may not have clandestine plans for the Frontier. This is a highly intelligent predatory species with its own agendas. Clans may or may not get along well, may have different agendas or specialties.


## Clandestine Hibernation Nemesis

Psirens encountered until recently where actually accidentally awakened from their hibernation cycle (that is one reason they are so rare), but that hibernation cycle for the whole race is coming to an end and all will be awaking in mass across the galaxy in "The Great Awakening". As a result Psirens will be trying to infiltrate as many societies as possible with the expressed desire to gain new knowledge (harvest the minds of other races), breed more Psirens, and work on their own race's long term goals like they did over 10,000 years ago when the Tetrarchs ruled.

That is not dead which can eternal lie,
And with strange aeons even death may die... (H.P. Lovecraft)

## REFERENCES

This creature is based on the Psiren from the Red Dwarf TV series but has been changed a bit:
Red Dwarf T.V. episode "Psirens" written by Rob Grant \& Doug Naylor
Red Dwarf the role playing game (based on the T.V. series) published by Deep 7 PO Box 46373 Seattle WA 98146 USA Copyright 2002 Authors Todd Downing, Mark Bruno, John Sullivan, Andrew Kenrick, Lee Hammock, Gavin Downing, Allan McComas, and Samantha Downing.

Star Frontiers Fan expansion reference Gamma Dawn by Scott Ireland edited by Lee Logan for inspiration on how to develop the specialized psionics.

The many great folks at www.starfrontiers.us a special thank you to everyone who gave me feed back on the Psirens: jedion357, KRingway, and Abub.


Greetings fellow beings. The Jurak Hangna Foundation would like to present this installment of our alien creature adventures as an official statement to the rumored events that occurred recently at the JHF Xenological Park here on Hakosoar. Many news outlets have reported that there has been a new sighting of the Sathar parasites that were in the media years ago. There are various holovid clips in the media purporting to show an SP attached to the back of a human that attempted to assassinate an elder of the Family of One High Council of Genetics visiting the JHF last week. These holovids were shot from a great distance and did not provide enough resolution to confirm the existence of the SP to the public. The JHF would like to present to the public and the applicable government authorities the following statement of events and collected scientific data from JHF personnel.

## A Special Visitor

The Honored Gruk Kagru visited the JHF for an afternoon tour of our genomics lab to review successes we have had regenerating several species of yazirian life forms previously attempted by GodCo without success. After the laboratory tours, Elder Gruk Kagru was escorted by Dwain, Tik, and I to the open habitats outside the genomics buildings whereupon a single laser shot was fired at Elder Gruk Kagru striking him through his left ear tip and burning across the back of his skull without penetrating the bone. The Elder's security detail immediately surrounded him and rushed him back to the building where Tik provided medical treatment. Others of the security detail quickly took to the air by jet pack and swiftly located and apprehended a human male of approximately 30 years of age concealed in the upper branches of one of the clan trees we have successfully cultivated here at the JHF.
Upon apprehension the human male went into a catatonic state and started convulsing. Several of the yazirian security detail of Elder Gruk Kagru bound the human to themselves in the ancient yazirian assisted decent grapple and dropped him safely to the surface and rushed him into the infirmary. The human was quickly succumbing to some form of nerve induced cardiopulmonary shutdown. He was fighting a losing battle to breath and his heart rate was erratic and dropping. A freeze field was activated and the human was put into a comatose state. The infirmary staff quickly discovered that the source of the human's failing nervous system was a parasitic creature
on the man's back that was trying to kill him. The freeze field was slowing the creature down and preventing it from removing itself from his back but was not fully staying the creature for some unknown reason. Tik was soon on the scene and assisted by our own Doctor Jika Gasar from the genomics lab they succeeded in stopping the creature from attacking the man's nervous system by subjecting it to a prolonged electric shock whereupon the creature succumbed to the effects of the freeze field and the life signs of the human stabilized into a comatose state controlled by the freeze field.
The stabilization of chaotic events upon saving the man from death quickly brought everyone in the infirmary to the realization that we were in a hazardous alien event and Tik ordered the infirmary sealed. Doctor Gasar, the Elder's Chief of Security and three others of his security detail, the infirmary doctor, Doctor SpaKa and two of his nurses, and Tik were all sealed with the human in the operating room. Myself, the Elder and his entourage, and the remaining infirmary staff were all sealed in the infirmary wing. We all remained in the lock-down situation while the medical staff conducted a thorough biological scan of everyone and the entire building. Tik, Doctor Gasar, and Doctor SpaKa conducted additional testing of the parasitic creature on the human's back and determined that the creature was alive but fully succumbed to the effects of the freeze field. They also determined that no one in the operating room was contaminated with anything containing DNA matching the parasite on the human's back.

During the DNA analysis Elder Gruk Kagru's Chief of Security was watching the doctors working and made the connection that the creature matched data he had learned about Sathar Parasites like the one on the back of Queanee Kloonanu's assassin. The chief then mentioned the possible sathar connection to the parasite. Doctor SpaKa quickly brought up a UPF data file of the structure of sathar DNA. Doctor Gasar then swiftly matched it to the DNA samples they had just taken from the parasite attached to the human's back. The tests confirmed that the creature is a sathar bioform. The chief then sent a private message without any of us knowing he had sent it. We learned about it a few hours later.

## Hosts and Parasites

The standard procedures to clear a biological lock-down took a few hours for the testing to complete. The quick
actions of our staff in activating a freeze field and shocking the parasite to disable it are credited with keeping everyone safe. The O.R. was quarantined from anyone entering without a full environment suit. Doctor SpaKa then set about treating his patient to keep him stabilized and search for a way to remove the sathar parasite or SP from his back. Toy Hurtbot was brought in to assist as a precaution against any other personnel being compromised by the creature if it became active again. The Elder and much of his security detail then left. The chief of security and several of his personnel stayed behind and loitered in the infirmary wing. Only Dr SpaKa, Tik, and Hurtbot were allowed to work in the quarantined O.R. with the human and the parasite.

Dr. Spaka first did an exploratory of the mechanism of attachment utilized by the SP. He quickly determined that the parasite's many tentacles were each tipped with a sharp microscopic carapace. These were utilized to pierce the skin of the human and allow the tentacle to wrap itself around the muscles and tendons in the human's back. This mechanical attachment is likely very painful to the host. Some preliminary chemical analysis suggests that the parasite secretes an anesthetic from its tentacles that numb the host and also coagulate body fluids around the tentacle incisions. Dr. SpaKa was able to free some of the shorter tentacles but surrendered the effort when he attempted to release the grip of one of the larger tentacles that was firmly intertwined into the human's back muscles. The grip of the parasite was so tight that it would have required severing the tentacle and cutting the severed appendage from the back muscles. This would have severely damaged the human's muscle structure. Tik also raised the risk of releasing unknown bacteria from the parasite by severing the tentacle.
Tik and Dr. SpaKa then switched their focus to extracting the head of the SP from the Human's back. They determined that the head of the creature was upright on the human's back due to what appeared to be a very small mouth piece attached to an area saturated with blood from what appeared to have been the parasite sucking blood from the Human for sustenance. Dr. SpaKa suggested that they inject the human with antibody plus to fight any infections the human may have contracted through blood contact with the parasite. Tik skillfully injected a dose of antibody plus into the ring of blood around the very small parasite mouth. Almost instantaneously the parasite twitched and its green color turned to a clear white translucence revealing a pair of tendrils running under the human's skin to the base of his skull. Further scans revealed that the tendrils were imbedded into the human's cerebellum. The tendrils then branched out into a network of the parasite's neurons throughout the human's brain.
The antibody plus had produced some unknown effect on the parasite without killing it. The parasite was still comatose and fully susceptible to the freeze field.

However, the now visible extent of the parasite's invasion of the human's nervous system left both Dr. SpaKa and Tik certain that they both would be killed if the parasite was forcefully separated. Dr. Gasar who had been assisting by operating Hurtbot remotely, observed that likely the combination of the freeze field and the antibody plus had made the parasite's nervous system not just visible to their scans, but possibly susceptible to probing and maybe even susceptible blockage.
Doctor Gasar proposed a procedure to saturate the human's cerebellum with antibody plus, implant a neural interface at the junction of the parasite's tendrils and the human's cerebellum, and then keep the parasite under a constant electric charge to keep it paralyzed while the human and parasite were released from the freeze field. The three ran a series of simulations and decided the procedure was a good risk that they could control. Dr. SpaKa would conduct the procedure with Tik assisting and Hurtbot employed as a countermeasure to hold the human forcibly if required. They were about to start the procedure when the chief of security entered the O.R. with his side arm drawn.


Image captured by T.H. (Source material from Wikimedia Archives).

## ENTER THE UPF

We had all been focused on the activities in the O.R. and had not been watching the security team loitering in the

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infirmary wing. The Chief had spent much of his time discreetly in an audio call on his chronocom. Two of his officers had been covering his actions by appearing to be in a discussion with him, while positioning themselves to block the views of the infirmary security cameras. One of our security programs triggered a silent alert when the Chief's view had been blocked for too long from all angles. The JHF security chief then contacted myself and Dwain and we decided to put Dwain in the security office to keep tabs on them.
When the Chief terminated the call our security system registered the cessation of the signal and was able to detect that the signal was not on the established planetary frequencies. I was en route to meet with the Chief and run interference when the Chief and two of his officers donned bio-suits, entered the O.R. armed, and stopped Dr. Gasar's proposed procedure to waken the human free from the parasite's influence. Dwain observed this and messaged me on my chronocom and then called in the press from Hyyay. Dwain's stroke of genius to call the press is why I am able to publish this account.
The Chief announced that he was taking the "human traitor and his alien master" into custody. He ordered all attempts to revive the human ceased and that the human be placed in a sealed cryo-chamber for delivery to the authorities. Tik and Dr. SpaKa protested and resisted but The Chief was very insistent and bordered upon raging to assert his authority. Tik had to insert himself between Dr. SpaKa and the Chief to keep them from a blood contest. Once Tik calmed the two down the Chief ordered Tik and Dr. SpaKa to stand against the wall and touch nothing. He announced that everything in the O.R. was evidence and all would be taken when the authorities arrived. Hurtbot was then commanded to place the human in the cryo-chamber when the other security personnel in the infirmary ward wheeled it into the O.R. Dr. Gasar guided Hurtbot from her place in the VR control room to place the human into the cryo-chamber then she set him down at one of the computer terminals, plugged him in, and put him in sleep mode.
The Chief and his security detail moved the cryo-chamber into the infirmary ward and then stood guard over it until the authorities arrived. The authorities arrived about ten minutes later with the press in hot pursuit. There was quite an event when the authorities arrived. The authorities ushered Tik and Dr. SpaKa from the O.R. to the infirmary doctor's office for private questioning. A team of technicians swarmed through the O.R. downloading all the databanks and deleting everything of the event. Dwain had to forcefully prevent them from dismantling Hurtbot and deleting all of his programs. Dr. Gasar only persuaded the yazirian authorities to leave Hurtbot alone by sitting upon Hurtbot and announcing that anyone who touched Hurtbot would become the life enemy of Clan Gasar.

The press got into a heated argument with the authorities about access to the O.R. records and the right to film the parasite on the human's back. The authorities did not allow them to see the parasite and ushered the cryochamber to an aircar with press cameras in tow. They returned to the infirmary ward minutes later without any parasite footage and started in on us. With the authorities packed up and gone we were questioned extensively by the reporters. We told them about everything that happened while their technicians and ours tried to recover any data from the O.R., they found nothing. The press was furious that the authorities had come in and taken everything in complete disregard to the freedom of information laws on Hakosoar. As the interviews were completed Tik pulled the senior reporter aside with us and we discussed the legal ramifications of the JHF announcing that this event actually happened. The press only has the above story from us and the image we obtained from one missed file later. We consulted with our legal counsel and we have full legal right to report and share any information we can recover from our databank.
When the press published their findings they could not get any statements from the authorities that the event at the JHF actually happened. Requests of the Honored Gruk Kagru's office only confirmed the visit to the JHF and denied that any assassination attempt happened.

|  | Sathar Parasite |
| :--- | :---: |
| IYPE: | Carnivore |
| SIZE: | Small $: 20 \mathrm{~cm}$ |
| NUMBER: | 1 |
| MOVE: | Unknown |
| IM/RS: | Unknown |
| STAMINA: | Established minimum 60 |
| ATTACK: | Unknown |
| DAMAGE: | Estimated 1d5 |
| SPECIAL ATTACK: | Neural toxins and anesthetics |
| SPECIAL DEFENSE: | Unknown |
| NATIVE WORLD: | Unknown |

## GM NOTES

Jurak and the JHF have more data than they have revealed to the authorities or the press. Dr. Gasar downloaded the entire O.R. database into Toy Hurtbot when she sat him down at the O.R. computer terminal and put him into sleep mode. The image presented in this article is a capture from Hurtbot's vision memory. The authorities that took the sathar parasite are suspected to actually be Family of One operatives.

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## NEW. ENGINE REQUIREMENTS FOR KNIGHT HAWKS SHIP CONSTRUCTION

I have always thought the spaceship design rules in the Knight Hawks campaign book had a fundamental flaw in assigning the number of engines to a given hull size ship. For example, why are the same ADF/MR values used when the ship hull-size increases from 3 to 4 , or from 6 to 7 , yet the number of engines decreases in these cases? Why would a hull-size 4 yacht have the same number and size engines as a hull size 1 fighter? Even as a teenager in the 1980's I recognized that discrepancy, and my old copy of the rules has handwritten corrections in the tables from the campaign book.
Assuming editing for consistency to mathematical formulae was not a focus of the original rule books, then it may be that some of these tables are typographical errors or design oversight. In that case, what should the tables actually reflect?

In answer to that question, I have established a redesigned set of ship hull-size to engine size values which follows a basic correlation of total engine thrust to ship size. In reality, the thrust requirements would be correlated to the ship's mass, but this gets incredibly fiddly very quickly once one adds equipment, armor, and life-support to the ship, not to mention weapons, luggage, and etc. Therefore, several basic assumptions are required to simplify the calculations to provide a realistic yet playable set of rules. Now of course, I could just give you my redesigned table, but remember, this is SCIENCE fiction so it is a little more meaningful if we go into the science behind the fiction.

I had originally intended to use a correlation to the volume of the ships, assuming they were solid cylinders of uniform density defined by their length and diameter. In that case, ship thrust would correlate to volume, where volume $=$ length $* \pi^{*}$ diameter squared / 4. But this equation did not lead to a useful linear correlation between engine requirements and small hull sizes ${ }^{1}$. Essentially I would have had different engine sizes for each of the first 6 or 7 hull-sizes to come close to matching the original material, but I felt that strayed too far from the flavor provided in the Knight Hawks rules and artwork.

[^1]However, on thinking through the problem of how to represent the ships as geometric objects; it occurred to me that what we are really dealing with are not solid cylinders of uniform density, but something much more like hollow tubes. The hollow-tube design is evidenced in almost every deck plan ever published: there is a lot of open space in these ships. We then make the following two assumptions: that the super-structure is the primary source of mass for the ship (more so than any equipment added later ${ }^{2}$ ); and that the outer surface of the cylinder has a finite thickness that is small in comparison to the tube's diameter. These assumptions allow us to consider the spaceships as very large tubes, where the overall mass is directly related to the surface area of the tube.

Using the above relationship of mass to surface area provides for a much more steady increase in the thrust needs for the ship's engines, and this in turn allows one to create several groupings of engine size across multiple hull-sizes. Refer to the table of ship dimensions, which includes the surface areas and volumes of each hull size (Table 1).
Looking at Table 1, with an eye towards keeping to the original design flair where possible, one can devise several logical break points in the numbers. Additionally, several new break points occur, especially for the small ships. This requires the creation of two new engine types, which I have termed AA and AAA (using a similar nomenclature as US standard alkaline battery sizes). Addition of these two new break points allows one to put a reasonable number of engines in the smaller ships, from HS 1 to 4. Also, it allows one to maintain certain traditions in ship design from the Knight Hawks artwork, such as fighters with one engine, and assault scouts with two engines. These new break points counter the bizarre possibilities which arise from using a single engine size across this range of hull sizes, such as a HS1 ship with an ADF of $>100$ when using even a single HS4-sized engine, or a HS4 ship with 32 of the engines used on a HS1 ship.
Another advantage of this paradigm is that GM's could provide a wider variety of designs for the small engines

[^2]Table 1 - Original Knight Hawks hull-size dimensions and engine values, with my calculations added

| hull <br> size | length | diameter | engines | type | base <br> ADF/MR | surface <br> area | Thrust $=$ <br> SA/ENG*ADF | volume |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 10 | 2 | 1 | A | 5 | 38 | 188 | 31 |
| 2 | 30 | 5 | 1 | A | 4 | 275 | 1,100 | 589 |
| 3 | 50 | 8 | 2 | A | 4 | 729 | 1,458 | 2,513 |
| 4 | 75 | 12 | 1 | A | 4 | 1,640 | 6,560 | 8,482 |
| 5 | 100 | 15 | 3 | B | 3 | 2,710 | 2,710 | 17,671 |
| 6 | 130 | 20 | 3 | B | 3 | 4,712 | 4,712 | 40,841 |
| 7 | 150 | 25 | 2 | B | 3 | 6,872 | 10,308 | 73,631 |
| 8 | 180 | 30 | 2 | B | 3 | 9,896 | 14,844 | 127,235 |
| 9 | 210 | 35 | 2 | B | 3 | 13,470 | 20,204 | 202,044 |
| 10 | 240 | 40 | 3 | B | 3 | 17,593 | 17,593 | 301,593 |
| 11 | 270 | 45 | 3 | B | 3 | 22,266 | 22,266 | 429,416 |
| 12 | 300 | 50 | 4 | B | 3 | 27,489 | 20,617 | 589,049 |
| 13 | 340 | 55 | 4 | B | 3 | 34,126 | 25,594 | 807,782 |
| 14 | 380 | 60 | 6 | B | 3 | 41,469 | 20,735 | $1,074,425$ |
| 15 | 420 | 70 | 4 | C | 2 | 53,878 | 26,939 | $1,616,349$ |
| 16 | 450 | 75 | 6 | C | 2 | 61,850 | 20,617 | $1,988,039$ |
| 17 | 475 | 80 | 6 | C | 2 | 69,743 | 23,248 | $2,387,610$ |
| 18 | 500 | 85 | 6 | C | 2 | 78,108 | 26,036 | $2,837,251$ |
| 19 | 540 | 90 | 4 | C | 2 | 89,064 | 44,532 | $3,435,332$ |
| 20 | 600 | 100 | 8 | C | 2 | 109,956 | 27,489 | $4,712,389$ |

(AAA, AA, possibly even A ), to account for the fact that multiple races/companies could economically produce small engines, whereas only a small number of companies could (or would bother) to produce the largest engine sizes $(B, C)^{3}$. This creates a situation which allows easy incorporation of the multi-engine fighter designs provided in past fan publications (e.g. Star Frontiersman issues 5, 7, 11).

Once the cut-off values are determined, then one can look at how many engines are needed for various speeds. The equations for this are the following:
Number of Engines $=$ ADF * Surface Area $/$ Thrust
ADF is the desired ADF for the ship, up to the maximum from the original Knight Hawks tables. Surface area is based on the dimensions given for the HS of the ship ${ }^{4}$. Thrust is a constant for various sizes of engines:

[^3]$\mathrm{AAA}=180, \mathrm{AA}=1450, \mathrm{~A}=7200, \mathrm{~B}=17,000, \mathrm{C}=$ 28,000 (units: $\mathrm{m}^{2}$ per engine per ADF)

The results are found in Table 2. Of course, using an equation results in a non-integral number of engines required at some steps, so then one must round up or down to get the actual number of engines required (second to last column in Table 2). Finally, one can recalculate the ADF now that the number of engines is fixed (last column in Table 2), or one could ignore this step, sticking with the suggested ADF values. Other than a difference in numbers of engines for many of the ships, the only other real difference created by this method is that HS2 ships are slightly faster than they used to be. But given they are intended as heavy fighters, making them fast should not be too much of a problem and will match very well with prior fan publications.

As noted, a certain amount of flexibility in the Thrust values for the AAA and AA engines can be incorporated into the model, to allow differentiation in capability of

[^4]engines from different races or organizations. For instance, it is clear the UPF must have tinkered with the engines on the assault scouts to make them more powerful, because civilian ships could not achieve their ADF rating and still carry any payload. If a GM intends to modify the constants in these equations, I do not recommend changing the Thrust values by more than $1 / 3$ the recommendations above for Frontier designed ships, but that is only out of deference to artwork in the Knight Hawks campaign book. Star-faring races outside the known frontier could use whatever thrust values the GM pleases. The only strict recommendation I make is to limit a ship design to ADF of 5 for most races ( 6 for Sathar), as explained in the "Beyond the Frontier" published modules.

In order to design and pay for their ships, players and GM's will want to know the costs of these engines. The costs of the $\mathrm{A}, \mathrm{B}, \mathrm{C}$ engines can be used as found in the original rules, with AA engines costing $50 \%$ of A -size, and AAA costing $25 \%$ of A-size engines. This means the cost of small engines is proportionally much higher per unit of thrust. Consider this as the price of miniaturization for small engines, while the large engines benefit from economies of scale. The new tables and costs will change
the price of constructing certain size ships, reducing the cost of smaller ships and increasing the cost of some larger ships.

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Table 2 - Revised hull size and engine values, based on surface area calculations.

| hull <br> size | length | diameter | surface area | calc <br> engines | Type | base <br> ADF/MR | Engines <br> (rounded) | calc ADF |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | 10 | 2 | 38 | 1.0 | AAA | 5 | 1.0 | 4.8 |
| $\mathbf{2}$ | 30 | 5 | 275 | 0.8 | AA | 4 | 1.0 | 5.3 |
| 3 | 50 | 8 | 729 | 2.0 | AA | 4 | 2.0 | 4.0 |
| 4 | 75 | 12 | 1,640 | 0.9 | A | 4 | 1.0 | 4.4 |
| 5 | 100 | 15 | 2,710 | 1.1 | A | 3 | 1.0 | 2.7 |
| 6 | 130 | 20 | 4,712 | 2.0 | A | 3 | 2.0 | 3.1 |
| 7 | 150 | 25 | 6,872 | 1.2 | B | 3 | 1.0 | 2.5 |
| 8 | 180 | 30 | 9,896 | 1.7 | B | 3 | 2.0 | 3.4 |
| 9 | 210 | 35 | 13,470 | 2.4 | B | 3 | 2.0 | 2.5 |
| 10 | 240 | 40 | 17,593 | 3.1 | B | 3 | 3.0 | 2.9 |
| 11 | 270 | 45 | 22,266 | 3.9 | B | 3 | 4.0 | 3.1 |
| 12 | 300 | 50 | 27,489 | 4.9 | B | 3 | 5.0 | 3.1 |
| 13 | 340 | 55 | 34,126 | 6.0 | B | 3 | 6.0 | 3.0 |
| 14 | 380 | 60 | 41,469 | 7.3 | B | 3 | 7.0 | 2.9 |
| 15 | 420 | 70 | 53,878 | 3.8 | C | 2 | 4.0 | 2.1 |
| 16 | 450 | 75 | 61,850 | 4.4 | C | 2 | 4.0 | 1.8 |
| 17 | 475 | 80 | 69,743 | 5.0 | C | 2 | 5.0 | 2.0 |
| 18 | 500 | 85 | 78,108 | 5.6 | C | 2 | 6.0 | 2.2 |
| 19 | 540 | 90 | 89,064 | 6.4 | C | 2 | 6.0 | 1.9 |
| 20 | 600 | 100 | 109,956 | 7.9 | C | 2 | 8.0 | 2.0 |

## CONDITION CRITICAL

## CRITICAL DIE ROLLS IN STAR FRONTIERS

Star Frontiers has an established automatic hit and automatic failure rule. The automatic hit is any natural die roll of $01-05 \%$ and the automatic failure is any natural die roll of $96-00$. However, many referees and players like to borrow the idea of a critical hit and fumble from Dungeons and Dragons and use the automatic hit and automatic failure results for this house rule. Some referees and players also expand the critical hit and critical failure results with a rule borrowed from one of Iron Crown Enterprise's RPGs like HARP (High Adventure Role Playing). The expanded critical hits include any die result that is a double and succeeds and the critical failure is any die result that is a double and fails.

The Alpha Dawn rules did not strictly include the concept of critical hits except in one particular case: martial arts. If the die result of a martial arts attack was $01-06$ or any succeeding result that was a multiple of 10 then the attack knocks the opponent unconscious. The rule only applied to a member of the four player character species and it increased the automatic hit range of the martial artist by $1 \%$ per level. Thus a character with $1^{\text {st }}$ level in martial arts that needs a $45 \%$ to hit would do this critical hit on a $01-$ 06 , and on a $10,20,30, \& 40$.
Using the martial arts skill as a template, a critical die roll system could be easily instituted in Star Frontiers. The automatic success and failure rule remains in effect meaning die results of 01-05 automatically succeed regardless of any conditional modifiers and die results of $96-00$ automatically failure regardless of the characters actual percentage chance to succeed or any conditional modifiers. All automatic successes and failures also become criticals with extra effects.

The actual range of critical success is expanded on the same format as that of the martial arts skill. The 01-05 critical is expanded by $1 \%$ per level of skill thus a level 4 skill would have a base critical result of 01-09\%. Note this does not expand the automatic hit range. In addition any result die result that is a multiple of 10 (example: 10,20 , 30 , etc.) is also a critical result if it happens to be a successful result.
Critical failures are simply $96-00$ plus any result that is a multiple of 10 that does not succeed.

## EFFECTS OF A CRITICAL

Previously, my own house rule was that if a player rolled a critical success in combat, they had about 2-3 seconds to state what the result of the critical was otherwise I would jump in and state it. The result could be anything like a range weapon attack striking an opponent in the face and knocking them unconscious or striking him in the hand causing him to drop his weapon. I basically encouraged creativity and barring input from the player I usually went with whatever popped into my head at the time that seemed to fit the situation. This is a rather hap-hazard method, so the following tables are offered to aid referees in implementing criticals.

## Ranged Weapon Criticals

Roll d100 on the appropriate table section below

|  | Success |
| :---: | :--- |
| $01-30$ | Shoot Item Out of Hand (whatever the target <br> is holding is dropped - 1 turn to pick up) |
| $31-60$ | Extra Damage +1d10 |
| $61-90$ | Knock Opponent Out/Unconscious |
| $91-100$ | Double Damage |
|  | Failure |
| $\mathbf{0 1 - 3 0}$ | User Failure (nothing wrong with weapon, <br> user failed to operate it properly - no ammo <br> expended) |
| $31-60$ | Weapon Jammed, Misfired or Malfunctioned <br> (spend one turn "clearing" the weapon and <br> lose one "shot" of ammo) |
| $61-90$ | Weapon Damaged (Must make a skill check <br> with the weapon to repair it and repairs take <br> 2 turns) <br> Weapon Broken (Weapon is inoperable for <br> rest of combat) |
| $91-95$ | Weapon Explodes (if appropriate otherwise <br> use weapon broken) |
| $96-100$ | Weal |

## Grenade Weapons

All grenades (except the tangler) have a built in ability score save for $1 / 2$ or null effect. This feature is cancelled on a critical success. A critical success with a tangler
grenade may be ruled to have knocked the target prone in addition to the entanglement effect or to have also entangled a character adjacent to the target as well. If two characters are entangled, combine both their STR for the 100 STR necessary to break the entanglement.

CRITICAL GRENADE FAILURE
Roll d100 on the table below

| d100 | Failure Result |
| :---: | :--- |
| 01-15 | User Failure (forgot to activate/pull pin - <br> opponent may pick up the grenade and use it <br> normally) |
| $\mathbf{1 6 - 3 3}$ | Malfunctioning device (grenade is a faulty <br> and fails to work at all) |
| $\mathbf{3 4 - 9 0}$ | Short Throw (grenade lands very short - roll <br> on bounce table and apply grenade effect <br> against the thrower if bounce comes back at <br> him) |
| $\mathbf{9 1 - 1 0 0}$ | Extremely Short Throw (grenade lands at <br> thrower's feet) |



Other Thrown Weapons
Roll d100 on the appropriate table section below

|  | Success |
| :---: | :--- |
| $\mathbf{0 1 - 3 0}$ | Sensitive Area Strike (apply pain penalty <br> same as for $1 / 2$ STA - note does not stack with <br> pain penalty) |
| $\mathbf{3 1 - 6 0}$ | Extra Damage +1d10 |
| $61-90$ | Knock Opponent Out/Unconscious |
| $\mathbf{9 1 - 1 0 0}$ | Double Damage |
| $\mathbf{0 1 - 3 0}$ | User Failure (weapon not thrown) |
| $\mathbf{3 1 - 6 0}$ | Weapon Damaged (failed throw resulted in <br> damage to weapon - can be repaired after <br> combat) |
| $\mathbf{6 1 - 9 0}$ | Thrower Injured (bad body mechanics results <br> in injury to throwing arm -5\% to all future <br> thrown weapon attacks and apply own Punch <br> Score against STA) |
| $91-100$ | Thrower Off-balance (all attackers get a <br> +15\% bonus to any 1 attack for 1 turn) |

## MARTIAL Arts

The default critical hit for martial arts skill is the nerve combat feature of the skill listed in the skill description. It applies only to members of the fours player character species. The following table is for all other situations. Roll d100 on the appropriate section of the table.

## MARTIAL ARTS CRITICAL RESULTS

|  | Successes |
| :---: | :--- |
| $01-30$ | Gain Critical Advantage (martial artist is <br> treated as defending for 1 turn -10\% against <br> this opponent) |
| $31-60$ | Double Punch Score |
| $61-90$ | Knock Opponent Out/Unconscious |
| $91-100$ | Triple Punch Score |
| $\mathbf{0 1 - 3 0}$ | Slipped/knocked prone (no attacks while <br> standing up - effect lasts 1 turn) |
| $\mathbf{3 1 - 6 0}$ | Self Injury (apply own Punch Score against <br> STA) |
| $61-90$ | Grant Critical Advantage (opponent gains <br> $+10 \%$ bonus for any 1 attack for 1 turn) |
| $91-100$ | Thrower Off-balance (all attackers get a <br> $+15 \%$ |

## DEMOLITIONS SKILL <br> SUCCESS

Player chooses: demolitions is more difficult to disarm $15 \%$ or demolitions more effective when detonated $+25 \%$ damage

Demolition Skill Critical Failure

| d100 | Failure Result |
| :---: | :--- |
| $01-45$ | Apprehensive (character wastes time only - <br> nothing is accomplished) |
| $46-90$ | Shaky (demolition will detonate - make RS <br> check for $1 / 2$ <br> damage) |
| $91-100$ | Cut Wrong Wire (demolition detonates - no <br> RS check) |

## COMPUTER SKILL

## SUCCESS

"You own this system!" $(+15 \%$ to next 4 computer skill checks with this computer - note multiple critical successes do not stack and the max bonus is $15 \%$ )

Or at the referee's option the character discovers something significant in the computer (data, clue, etc.)

## FAILURE:

Failures at bypassing security or defeating security result in fast response by the computer system's owners and the

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computer specialist not realizing he set off security but only thinking he failed to succeed.

## Other Critical Computer Failures

| d100 | Failure Result |
| :---: | :--- |
| 01-30 | Trigger Reboot of Computer (computer is <br> rebooting and unable to be used for 1d10 <br> minutes, in addition any defeated or <br> bypassed security is reset) |
| $\mathbf{3 1 - 6 0}$ | Corrupt a Program (one random program is <br> corrupted and will not operate correctly in <br> one way - referee determines results) |
| $\mathbf{6 1 - 9 0}$ | Delete a Program (one random program is <br> deleted and computer can no longer <br> implement its functions. |
| $\mathbf{9 1 - 1 0 0}$ | Fry the main CPU (computer will no longer <br> operate without significant repairs) |

## TECHNICIAN SKILL <br> Success

(Apply the result that seems best)
"I'm in the zone!" $(+15 \%$ bonus to next 4 technician skill checks - note multiple critical successes do not stack - the maximum bonus is +15 )
"No one drives like I do!" (Driver's advantage - increase or decrease distance in a pursuit or force other driver to make a skill check for control at $-15 \%$ )
"I am a wizard!" (not only are repairs completed but item/machinery is now functioning slightly better is some way - a $+5 \%$ bonus to one activity or similar benefit to one other limitation.)

## Failure

(Apply the result that seems best)
"Where did you get your license?" (Roll on the Control Table for skid, spin or crash - Alpha Dawn page 31)
"You broke it!" (Item or machinery beyond repair)
"They know we're here!" (Alarms, Defenses, and Locks are triggered in the most adverse way with imminent response by facility security)



## ROBOTICS SKILL

## Success

"I own this bot!" ( $+15 \%$ to all next 4 robotics skill checks with this robot - note multiple critical successes do not stack and the max bonus is $15 \%$ )

## Critical Robotics Failure

| d100 | Failure Result |
| :---: | :--- |
| 01-20 | Reboot (robot is rebooting and nothing can <br> be done to it for 1d10 minutes) |
| $21-40$ | Destroyed Program (1 random program is <br> destroyed and robot can no longer perform <br> tasks allowed by the program) |
| 41-60 | Short Circuit (robot is damaged but still <br> operating - bot stops and sparks every other <br> turn or similar) |
| $\mathbf{6 1 - 8 0}$ | Haywire (Robot is out of control - it will <br> randomly attack, spin, recite the Dralasite <br> Creed, or anything else at referee's <br> discretion) |
| $\mathbf{8 1 - 1 0 0}$ | Explode (parabattery explodes- 2d10 damage <br> times the parabattery's type to the robotics <br> technician) |

## ENVIRONMENTAL SKILL SUCCESS

"I'm in the zone!" $(+15 \%$ to the next 4 environmental skill checks - note multiple critical successes do not stack and the max bonus is $15 \%$ )

Or at the referee's option the character discovers something significant in the ecosystem.

## FAILURE

(Apply the result that seems best)
"I thought I analyzed that!" (something significant and dangerous was missed in the sample or ecosystem analysis - a toxin or dangerous creature)
"Could you be any louder?" (attempts at stealth, concealment or tracking result in drawing the attention of predators or opponents who attack with surprise)

## MEDICAL SKILL SUCCESS

"I'm in the zone!" ( $+15 \%$ to the next 4 medical skill checks - note multiple critical successes do not stack and the max bonus is $15 \%$ )

## FAILURES

(Apply the result that seems best)
"Did you just diagnose a gunshot as indigestion?" (diagnosis is an utter failure and you waste resources from med kit before realizing it - 1 random does of something plus 1 other random non-dose item OR all med checks with this med kit are now $-5 \%$ until the kit is restocked)
"They should call you Doctor Death!" (the attempt to heal has actually harmed the patient - 1d5 extra damage for first aid, 2d5 for Surgery, 3d5 for major surgery, +1 Strength for an infection, +5 more ability modifier for a disease, or +1 strength for a toxin)
"He's dead Jim!" (the medic has killed the patient with the freeze field)

## PSYCH-SOCIAL SKILL Success

"I'm in the zone!" $(+15 \%$ to the next 4 psych-social skill checks - note multiple critical successes do not stack and the max bonus is $15 \%$ )

Or at the referee's option the character discovers something significant about the NPC being analyzed.

## FAILURES

(Apply the result that seems best)
"You're as cuddly as a cactus!" (Attempts at empathy, persuasion, or communication result in outright hostility)
"You're a quack!" (Attempts at hypnosis or psychopathology should result in the opposite effect or hostile reaction from NPC).

FE


Tom Verreault

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## CRITICAL HITS IN STAR FRONTIERS

Helmut Liebeling (translated by Tom Stephens)

Editor's note: This is a translation of the article "Kritische Treffer in Sternengarde" from issue 6 of the German magazine "Drache", published in April 1985. I used Google Translate for a rough translation and then cleaned it up. I started working on this before Tom Verreault submitted his "Condition Critical" article so I thought it only appropriate they should appear together.
Also, there are at least two other Star Frontiers articles from other issues: "Abenteuer im Weltraum" from issue 3 and "Insektoide Plagegeister für Sternengarde" from issue 7. If anyone has copies of these articles let us know at editors@,frontierexplorer.org. We'd love to get a copy and translate them.

We all know the scene: Luke Skywalker chases through the corridors of the Death Star. All of a sudden an automatic door opens before him, and a scowling storm trooper in full battle dress appears in the opening. In a quick response, Luke swings his blaster forward and fires a single targeted shot. The storm trooper falls with a dazzling flash to the ground and doesn't move ...

Watching scenes like this, you quickly realize how boring a Star Frontiers battle is. In my opinion, the designer of Star Frontiers gave priority to the players' safety instead of trying to build a realistic weapons system. It's amazing that a player has to be hit with $10-12$ shots from an automatic rifle before being incapacitated. Even the damage from Gyrojet weapons seems too low when you consider the effects of a fire-spewing projectile in a human body. In fact, it seems that most wound in Star Frontiers are from pass through shots. It seems impossible in principle at least, that a projectile collides with a bone of vital organ. Adding such a rule would, of course, make the game much more dangerous for player characters but would also make the heaviest land whale susceptible to a lucky hit in the right place.

To create a realistic simulation, I have introduced the following damage system in my game:

Whenever a character attempts to hit an opponent and rolls a $01-05$, he scores a critical hit. The only exception is if the modified chance to hit is under $1 \%$ in that case it is just a normal hit and not a critical one. In addition, you cannot score a critical hit with the following weapons: needler gun, electrostunner, and doze, incendiary, poison, smoke, and tangler grenades. The frag grenade only does
critical damage to the character closest to the center of the explosion. Critical damage must be rolled separate for each character affected (see table below). Furthermore, the exact effect also depends on the particular combat situation. It is simply impossible to shoot a character in the leg when he is standing behind a one meter thick concrete wall and you can only see his head and shoulders. The referee makes the final decision in cases where there is a question. (When in doubt just select the roll of 1-10 on the table below.

Important: A critical hit never increases the damage that the corresponding weapon would have done with a normal hit, but receives additional damage to his personal characteristics. A character with a protective shield is still protected from the normal damage but the critical hit damage is still suffered. You can assume that the shield suffered some sort of malfunction due to the constant stress of use. When a critical hit is achieved the character first rolls the normal damage and then rolls to see the type of critical hit. This is done by rolling d100 and consulting the table below. In addition, the target must make a current stamina check (roll d100 under their current STA to pass) or they are knocked unconscious. Note that if the to hit roll was a $01-02$ this check doesn't need to be made as that is an automatic knockout roll per the standard rules. Animals with more than 100 STA are only knocked unconscious if they roll a 100 . Unconsciousness lasts the standard d100 turns.

## Critical Hit TAble

| Roll | Critical Hit Location |
| :---: | :--- |
| $01-\mathbf{1 0}$ | no other effect |
| $11-\mathbf{2 0}$ | left arm |
| $21-\mathbf{3 0}$ | right Arm |
| $\mathbf{3 1 - 4 0}$ | left leg |
| $41-\mathbf{5 0}$ | right leg |
| $\mathbf{5 1 - 6 0}$ | eye |
| $\mathbf{6 1 - 7 0}$ | head |
| $\mathbf{7 1 - 8 0}$ | neck |
| $\mathbf{8 1 - 9 0}$ | lung |
| $\mathbf{9 1 - 1 0 0}$ | death |

EXPLANATION OF THE EFFECTS
No other effects: target must only roll to see if he loses consciousness.

Left / Right arm: the injured limb cannot be used for 2 d 10 days If the target loses more than half of their maximum STA points from the hit, there is a $50 \%$ chance that the arm was permanently crippled or severed by the hit.
Right or Left leg: a leg hit results in the targets movement speed being halved for 2 d 10 days for humans and yazirians. A vrusk's speed is reduced by a quarter and a Dralasite's movement is reduced by a half if using two legs, a third if using three, etc. For Dralasites this penalty only applies until it has a chance to absorb the limb and regrow a new on (also applies to arms). If the target loses more than half of its maximum STA in a single hit, there is a $50 \%$ chance the leg is permanently damaged and the speed penalty is permanent.
Eye: the target permanently loses their sight in one eye, requiring them to deduct $10 \%$ from their to-hit chance with all melee and ranged weapons.
Head: the target is automatically unconscious and permanently loses 1 d10 points of INT / LOG due to a brain injury.
Neck: if the target loses more than one third of its total STA, the shot has opened the carotid artery and the victim loses 1d5 STA per round due to loss of blood, until a medic applies first aid.
Lungs: if the target loses more than 15 STA from the shot, there is a $30 \%$ chance that he dies in d100 rounds. This can only be avoided by lying perfectly still until a medic can operate. In addition, the target permanently loses 1d10 STA.

Death: Through a hit to the heart, neck, or similar vital organ, the target is killed instantly. Those killed by critical hits (including those that are smothered by a lung results) can only be helped a doctor that freezes them instantly in a freeze field. All critical damage that is not a permanent effect can be removed by a successful major surgery.
"With these rules any opponent could get lucky with that second roll," I hear players already complaining. The only answer I have is that critical hits are extremely rare and that in playtesting had little effect in most battles. If, however, after many adventures, a cherished character got hit badly, this is no reason to despair because the medicine and surgery of the Frontier worlds can help the "critical hit" victim with various prostheses. And although replacing a natural part of the body is not without disadvantages, they can be overcome with training.

## SOME SUGGESTIONS

Artificial Arm: Costs 3000 Cr. (the price of a prosthesis always includes the material price and attaching it in a hospital). If a character has an artificial arm, he must deduct $10 \%$ of his skill level.

Artificial Leg: 5000 Cr . The character suffers a $-2 \mathrm{~m} /$ turn penalty to movement.
Steel Corset: 6000 Cr . This device eliminates the permanent lost STA points due to a lung hit. However, the character suffers a $-10 \%$ to their RS as the corset has about the wearablity properties of plate armor.
Silver Skull plate: 3000 Cr. This Implant brings back lost INT / LOG from a head hit.
Robotic eye: 6000 Cr. (Default), 8000 Cr. (Infrared version). Adding a robotic eye is a complicated operation as it is directly connected to the brain. There is a $0.5 \%$ chance that the surgeon makes an error when installing it. If he does, the character will be able to see normally again, but permanently loses 1 d 10 points of INT/LOG (which cannot be regained by implanting a silver plate).
Apart from the corset and the silver plate, all prostheses need a Type I parabattery to function.

## PROPOSAL FOR A NEW MILITARY SKILL <br> target Shooting <br> -10 x skill level from roll <br> (Specialist degree)

This ability can only be used with ranged weapons (not with grenades and other thrown weapons!). Before a character can learn this skill, he must have a skill level of 6 with the weapon he wants to use for target shooting. For each level in the target shooting, the character may deduct 10 points from his roll to hit. A score of 0 or less is considered a 01 . Because of this, a well-trained sniper will land a critical hit more often than another similar character without the skill.
Example: Jonah "Mad Doc" Wilkens, a shrewd UPF officer, has a level 6 Gyrojet skill, as well as Target Shooting at level 11. He shoots at an opponent in the middle distance and has, after applying all modifiers, a $55 \%$ chance to hit. He rolls a 13 and hits his opponent. From this roll of 13, he subtracts 10, as he has mastered the first level in the target shooting, and gets 03. So Jonah scores a critical hit on his opponents. If he had rolled a 65 , he would have not hit since the negative roll modifier for target shooting may only be subtracted when a standard hit roll has already succeeded.

The XP cost for learning Target Shooting is twice the cost for learning a weapon skill of the same level. (i.e learning level 1 is 6 XP for someone with the Military PSA and 12 XP for anyone else. Level 2 would be 12 and 24 XP respectively, and so forth.)

## Adveniure <br> THE FROCG THA T KISSED THE PRINCE

Tom Verreault

## BACKGROUND

Prince Vasselloff of the Royal Family of Clarion was attacked on a boating tour of the Karimeko Rain Forest of Clarion. He and many of his Royal Guard bodyguards were all injured but are listed in stable condition at the Royal Valentina Hospital. Other reports of disappearances in the Karimeko Rain Forest have been surfacing and the Crown is dispatching a team to investigate.
The Karimeko region is a 10 million square kilometer rain forest. Near its center is a 10 kilometer high plateau of granite that is the only suitable location for an airport in the whole region. This landing field was originally an emergency landing site for space-capable craft needing a safe landing zone in this region, but it has grown into a rough star port used by privately owned vessels (yachts). There are several waterfalls that let rain water escape from the plateau and at the base of one of these is the outpost Karimeko Falls which is where fishing and science expeditions usually set out into the rain forest.

## DEEP BACKGROUND (REFEREE'S EYES ONLY)

On the planet Starmist a secret sathar lab developed weaponized versions of at least 10 common and harmless creatures found throughout the Frontier sector. One was native to Clarion: the frog. [NOTE: if the Starmist module was played in your local game adjust this background to match the results of that game.] The frogs are native to Clarion and its wet environment. As stated in the Sundown on Starmist module, they are harmless and virtually invisible in the environment. However, it appears that samples of the bio-engineered weaponized frogg made it off Starmist and a sathar agent has introduced it on Clarion. This invasive species has become an infestation in the Karimeko Rain Forest and is wiping out most other species of creature it displaces as well as killing some sapient beings.
Frogg constructs resemble frogs from Clarion. They are totally invisible in most terrain and attack instantly by leaping for the face of any character for a successful bite causing 3 points of damage. If they miss, they disappear into the surroundings. Only a character with a RS equal or better than the frogg has the chance to hit one. The froggs attack with surprise $85 \%$ of the time. Each attacks randomly only once.

|  | Froggs |
| :--- | :--- |
| Type: | Small Carnivore |
| Number: | 1 to 10 |
| Move: | Very Fast |
| IM/RS: | $8 / 80$ |
| Stamina: | 10 |
| Attack: | 75 |
| Range: | 10 m (leap) |
| Damage: | 3 points |
| Special Attack: | None |
| Special Defense: | Camouflage allows <br> $85 \%$ of the time |

Poison Variant: The above file is the standard model developed on Starmist but the poison variant is a new development. This frogg has a special attack of poison mucous on its body. Any contact with the frogg (a successful attack by the frogg or by the character upon the frogg or bare handed examination of a recently killed or captured frogg) requires a STA check or poisoning results. If the frogg has successfully bitten the character the STA check has a -20 modifier. The poison is not potent: S3/T5 ( 3 points of damage per turn for 5 turns) but if multiple froggs bite one character it could be deadly. The medic subskill Neutralize Toxins need only be used once to neutralize the poison form multiple bites.
Note: the referee may use both variants of frog or simply use only the poison variant for the increase in hazard to the player characters.

## THE SATHAR AgENT

Reginold Golly, aka Ringo Galaxy, is a charter ship captain who recently upgraded from a system ship to a corvette class ship. He is a sathar agent and the sathar financed his new ship. He's used it to smuggle colonies of froggs into the Karimeko Rain Forest. When not running a charter he typically rendezvous with a sathar ship beyond the asteroid belt and returns with the weaponized froggs to the rough landing port at the Karimeko Plateau.
Ringo Galaxy (STA 50; RS 55; PS 3; IM 6; RW 65; Melee 50) Skiensuit, power belt pack, albedo screen, gyro-jet pistol, 2 clips, 2 tangler grenades, sonic sword w/clip.

Ringo's Luck (corvette class ship: HP 25, Weapons LC \& LB, Defenses RH \& MS x2; ADF 3; MR 3: DCR 60, Other: radar \& external camera systems). Crew: Captain Ringo: pilot; Bob the Blob: astrogator, \& Singhai: engineer. Referee note: substitute other corvette stats as desired and use the corvette deck plans in Star Frontiersman \#17 or the Red Thunder from issue 9 of the Frontier Explorer.
Bob the Blob, dralasite (STA 40; RS 30; PS 4; IM 4; RW 40; Melee 35) Albedo suit, laser pistol, power belt pack.
Singhai, yazirian (STA 35; RS 55; PS 3; IM 6; RW 55; Melee 50) Skeinsuit, electric sword with clip, laser pistol, power belt pack.

## THE PLAYER CHARACTERS

Depending on the skill system being used, at least one character should have environmental or biology skills. The bulk of the player characters should also be in service to the Monarchy, either Royal Marines, Royal Guard, or even Royal Mounted Constables who act as a planetary police force and wilderness rangers. It may be that Star Law will assign an agent to the team to investigate the possibility that this is a sathar plot, though he will not disclose any information on the Starmist File till he confirms that these are indeed the sathar constructs from Starmist.

Weapons skills will come in handy by the end of the adventure when the team boards a handy Royal Marine assault scout to run down Captain Ringo and his ship.

## INVESTIGATING THE ATTACK

## INTERVIEWING THE BODYGUARDS

If the players think to interview the bodyguards, they will describe carnivorous frogs leaping for the face and biting off chunks of flesh and possibly the poison feature to the attack. No data is available on the poison as the effects of the poison were over before they reached medical facilities. The prince is in seclusion till the plastic surgeons can fix the severe damage to his face and is not available for questioning at this time. Note: there has never been a frog of this type discovered by science on the planet Clarion.

## The Crypto COOt

At some point before the player character hit the jungle, they may encounter John Sweden, a writer and cryptozoological enthusiast. John believes in unknown lake monsters like the Jockmess Lake monster rumored to be living in Lake Jockmess 500 km from Valentina, the capitol city. He's heard reports of the carnivorous frogs and is touting them as an undiscovered creature which in
turn supports his theory of the Lake Jochmess Monster being an as yet undiscovered creature. He will try to get the player characters to confirm the existence of carnivorous frogs even before their investigation is underway and will be a nuisance about it.

## THE FISHERMAN

The reports of disappearances in the Karimeko region are the highest they've been in twenty years and one report included a survivor's testimony of a fisherman (Jake Trout) who lost his fishing partner to "leapin' carnivorous frogs". Trout was sued by the family of his partner for wrongful death and has since dropped out of sight so that only his news footage interview is available to the players. It describes a basic instant attack with the victim falling overboard and Jake fleeing the scene when his friend never surfaced under a storm of frog attacks. The consensus is that Mr. Trout never waited to help his friend and simply ran in panic. Several bite marks can be seen in the holo footage. Initially he was not believed and his friend's body was never found.

## Poking Around

The players will need to venture into the jungle by boat (provided) from Karimeko Falls. The included map shows the region surrounding Karimeko Landing and the falls.
They will reach the site of the attack on the Prince within 3 days and experience typical jungle encounters. The jungle will be mysteriously empty and quiet around the area of the attack and rotting carcasses of small creatures killed by the froggs may be found.
Eventually the player characters will be attacked. If they managed to kill or capture a frogg the investigation can transition to hard evidence.

A character with environmental skill (or similar) can analyze both frog samples and the ecosystem as per the subskills in the Alpha Dawn rules. Specimen tests will reveal that they are similar but do not match any known frog species found on Clarion.



## MAP LEGEND

1. Karimeko Landing
2. Karimeko Falls
3. Site of oldest infestation
4. Site of Prince Vasselloff's attack
5. Site of Newest infestation

A full resolution version of this map is available from the Frontier Explorer website in the High-Res Maps section.

If there is a Star Law member of the party looking into a Starmist connection he can reveal his secret knowledge about the frogg weapon developed by the sathar on Starmist at this time. If no Star Law agent is present, allow the environmentalist to conclude that this creature is bio-engineered.

An analyze ecosystem check will reveal that the froggs are an infestation planted in various locations. Based on the rate of expansion by this invasive species, one infestation is approximately 40 days old and another is approximately 20 days old. Note that an analyze ecosystem check takes 200 hours and characters are typically active for 10 hours out of a 20 hour GST day. Normally this would require 20 days but you can allow characters doing this skill check to make it after 10 GST days of jungle exploration rather than let it drag on.

## INVESTIGATING THE INFESTATION

Having learned that these froggs are an introduced species and having a timeline on when that happened may lead the PCs to discover the seeming coincidence that the start of each infestation is timed to the arrival of Ringo's Luck to the plateau above Karimeko Falls. If the players check the records, the only ship or vehicle to arrive in the region at the time the infestations began is Ringo's Luck. If they ask around further, they will learn that Captain Ringo also likes to rent a boat and go fishing when he visits though he never seems to catch any fish.
Ringo's Luck is not on planet at this time. Captain Ringo filed a flight plan listing the ship as on "private charter" and stopping at Planaron Station to take on atomic fuel. A spacer will think it is odd that he did not top at Clarion station where atomic fuel is cheaper. Planaron station has fuel available for prospectors and mining ships but usually at a markup for the convenience of saving such customers the trip to Clarion for fuel. Note: Planaron station was detailed in Frontier Explorer \#1:
http://www.frontierexplorer.org/book/planeronstation.

## TRACKING RINGO's LUCK

If the players have already been active as Royal Marines, they may already have an assault scout assigned as their
ship and can use this. If they are a scratch built team for this investigation, they will be assigned a ship with minimal crew who will run the ship while the player characters continue their investigation.

Ringo's Luck did indeed dock at Planaron station briefly to take on atomic fuel and while the ship's engineer, Singhai, was loading that, he was also seen purchasing 5 kilos of TD-19 and a variable timer. Blasting compound like TD-19 is readily available on a mining station like Planaron so its purchase did not raise suspicions, but clearly a ship's engineer could not be in more than one place unless possibly a holo screen was in use. It was the passenger on board the ship that purchased the explosives (see below) as by the time of the corvette's docking at Planaron, word of the attack on the Prince had reached the station and this passenger is making contingency plans.

## CAtChing the Ringo's Luck

The players can play out a KHs scenario where 3 assault scouts run Ringo's Luck to ground and disable it. Captain Ringo will refuse to heave to and be boarded due to the presence of his passenger (a sathar observer). He is also hoping that the sathar ship he's supposed to rendezvous with will show up soon.
Place the Ringo's Luck in the center of the map with a speed of 10 and 3 assault scouts on 3 different map edges (one long edge and two short edges) with a speeds of 12. A sathar destroyer with a speed of 20 will turn up in 4 to 9 turns $(1 \mathrm{~d} 6+3)$ on the long map side that did not have an assault scout. The destroyer will not slow down but will close with the corvette and fire on it to destroy it before accelerating off the map. The referee may use what's known as "referee fiat" to destroy the ship's engines in this attack.
The players may opt to have the assault scout with their characters close with and board the corvette while the other two ships continue to chase the destroyer. The chase of the destroyer may be handled in an abstract manner. There is a high likelihood that two undamaged assault scouts, pursuing a sathar destroyer within the range of their weapons, can outright destroy it. This is because the destroyer's heavy weapons are forward fire and it lacks the ADF and MR to effectively turn and engage the smaller assault scouts; nor can it outrun them.

## GOING ON-BOARD

Use one of the suggested corvette deck plans to run the boarding of Ringo's


Thirty seven years ago an article was published in Dragon \#5 (March '77) titled, "Gandalf was a $5^{\text {th }}$ level Wizard." In it the author analyzed the displayed magic of Gandalf against the D\&D magic system and came to the conclusion that you could simulate Gandalf with nothing more than a $5^{\text {th }}$ level magic user in D\&D.
I would contend that Gandalf was very conservative with his power and only ever used the minimal amount necessary for the situation at hand. In the setting of Middle Earth the display of power could and usually did draw the attention of dark powers. My opinion is that Gandalf the Gray was simply in the habit of avoiding ostentatious displays of power. His career as the Gray Wizard was that of working behind the scenes and remaining unnoticed. When he assumed or was promoted to the rank of White Wizard he then came out in the open more than his entire career as the Gray Wizard.

A role playing game is simply a system of simulating action within a setting. Setting aside the pitfalls of forcing a fictional character to fit a game system, let's consider Gandalf as a Star Frontiers NPC.
attempt to unlock the door to Moria. He would have computer skills for writing the code to modify holographic devices and for his ability to delve into archives and research clues. It would seem he has considerable skill with a sword so he'd have melee weapons skill and, as suggested above, a level or two of beam weapon skill. In "The Two Towers" he breaks Saruman's hold on King Theoden and this would be done with the psycho-social skill in Star Frontiers. Finally, upon interrogating Pippen concerning the Palantír, he declared, "there was no lie in him," which is best simulated by the dralasite ability, "lie detection."

My gut feeling is that he should be a level $6^{\text {th }}$ technician who likes to tinker with things. He puts on a good fireworks show when visiting friends on outpost or low population colonies by reprograming holo flares with much more exciting displays. He carries a walking staff he built to function as a laser but is rugged enough for melee combat. He's programmed holo screen disks to subtly make himself more imposing ( $+15 \%$ to PER checks).

## GANDALF THE GRAY

A lot of his displayed magic is easily performed with a few items from the equipment list; the flashlight, the everflame, the laser rifle, the holo flare, the holoscreen, and the stun or flash bang grenade. In the mines of Moria, he used his staff to light the way but only enough so that the party could see where they were going; ie as a flashlight. In the fir trees he lit the pine cones on fire and cast them down amongst the wargs, a feat easily duplicated with the everflame. His fireworks at Bilbo's party would be nothing more than holo flares. Other magical effects would be easily duplicated with skillful use of the holo-screen. The lightning flash that laid the Goblin King low could have been either a laser rifle set to 20 SEU or a few well-placed grenades.
As for skills he almost certainly had the technician skill for the


## DOLLOF THE GRAY, A StAR FRONTIERS NPC

Species: Dralasite Sex: Neuter Handedness: N/A Walking: $5 \mathrm{~m} /$ turn Running: $20 \mathrm{~m} /$ turn Hourly: 3 km

## Ability Scores

| STR/STA | $50 / 50$ | IM: $4 \quad$ PS: 3 |
| :--- | :---: | :--- |
| DEX/RS | $45 / 40$ | Ranged Weapon: $43 \%$ |
| INT/LOG | $65 / 60$ | Melee Weapon: $65 \%$ |
| PER/LDR | $40 / 55$ |  |

SKILLS
PSA: Technological Skills: Melee 4, Technician 6, Computer 4, Beam 2, Psych-social 2
Lie Detection: 35\%
Elasticity - 5 limbs
EQUIPMENT
Skiensuit, holoscreen, power beltpack, Techkit, everflame, flashlight, 10 holoflares, 2 stun grenades, "Dollof"s Staff", and a hovercycle he calls Shadowfast

|  |  | Dollof's Staff |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Damage | Modifier | Ammo | SEU | Rate | Defense | Range (PB/S/M/L/E) |  |
| As a staff | 2 d 10 | -5 | N/A | N/A | N/A | Inertial |  |  |
| As a laser | 1d10/SEU | Special | 20 SEU clip | 1 to 20 | 2 | Albedo | $0-10 / 11-40 / 41-90 / 91-150 /--$ |  |

## DOLLOF'S STAFF

This item is unique, being specially designed and made by Dollof itself. The staff is has a federanium housing and the working "guts" of a laser rife. There is a retractable knife mount at the beam emitter end of the staff which will hold a flash light but not a knife as its too far back from the end. The staff counts as a concealed weapon and because of the special housing it will remain undetected to scanning $95 \%$ of the time. Because of the design it is not as effective as a laser rifle; $-5 \%$ modifier to use as a rifle but Dollof ignores this penalty. Its range is not as great as a laser rifle having no effective extreme range. The staff will not break in combat even if the wielder rolls a critical failure (though a referee might rule that the laser part is inoperable until serviced). Dollof can open and service his staff at any time but anyone else is at $-20 \%$ to open it until he has successfully done so at least once.

Mass: 3 kg Value: 1,500 Cr

## Bio

Dollof is an interesting character. He's travelled the Frontier (and beyond) studying ancient alien artifacts.

He is always careful with sharing his motives and usually there are deeper layers to what he has revealed. He can give the impression that he believes the Frontier sector could be in danger from ancient alien artifacts whether they be of sathar, clikk, or tetrarch origin.

He will not seek out combat but is not afraid of it, especially if companions are threatened. His weapon of preference is his staff, preferring to not advertise the laser feature. He will use his holo screen along with his psychsocial skill and PER checks to influence others. His holo flares are for entertainment or distractions. He is an expert as picking locks and disarming alarms and traps and he has spent enough time with Tetrarch artifacts that he no longer suffers the $-20 \%$ penalty for operating alien equipment when dealing with things of Tetrarch origin.

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 He's known for wearing a gray trench coat and a rumpled blue hat with a brim. Some say he's an archaeologist, some a college professor, and others just a crazy old coot. He does have a lively personality and sense of humor but does not suffer fools gladly.

He has contacts and friends on almost any outpost or low population colony as well as at major institutions of learning like the University of Zebulon and the Triad Institute of Technology. Some authorities, including Star Law, are mildly to coldly suspicious of him. He has been known to recruit teams of adventurers for expeditions into uncharted areas of established colonies as well as unexplored star systems.


# LNVERSE RPG 

## THE STEP-COUSIN OF STAR FRONTIERS

"Universe, The Role Playing Game of the Future" was published by SPI in 1981. One of the developers was an experienced Traveler referee who was attempting to "fix" the problems of that system. When SPI experienced financial difficulties it was bought by TSR making it the "step-cousin" of Star Frontiers till it was quietly phased out. The last official reference to it was in the Ares section of Dragon magazine \#87 which gave the impression that the game was going to receive continued support in Ares.
The game was noted for its map of the 30 light years surrounding Earth which included all known stars in a 3d system and is still considered a thing of beauty and one of the best science fiction maps in RPGs. Many sections of the rule system were praised as perfect to drop into any other system. However, combat resolution was universally panned as clunky and the setting as too thin.

One supplement was a game compatible with Universe called Star Trader. It's a mini game involving interstellar commerce which might be of interest to gamers today.
Universe was discontinued in favor of Star Frontiers. Its trademark was allowed to expire and appears to have not been renewed. Later when TSR was acquired by Wizards


of the Coast, part of the TSR catalog was sold to Decision Games and Universe appear to have fallen through the cracks. PDFs of the rules and many of the supplements are available for download on Sourceforge at http://universerpg.sourceforge.net/.

## FE

## What's Up Next?

We hope you enjoyed this issue of the Frontier Explorer. We already have a set of articles lined up for the next issue dealing with creatures as mounts and rules for races. If you have articles ideas or stories related to those topics feel free to submit them for inclusion. We'd love to have them.
If you have other ideas that aren't related to that particular topic, submit them as well. Articles related to a given topic typically only take up a part of the magazine. We always have room for other items as well.

And don't forget to check out our Patreon page and consider becoming a patron of the two Star Frontiers magazines to help support their production. See you next time and keep exploring!


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[^1]:    ${ }^{1}$ A mathematician would have quickly pointed this out, as ship diameter is linearly related to HS, but the volume equation contains the square of diameter, so a linear correlation to HS is not going to happen.

[^2]:    ${ }^{2}$ There are already several excellent articles on the subject of minimum hull sizes, equipment limitations, and their effects on reducing ADF for a given ship. This treatise does not imply one method or another is more valid for calculating the effect of adding weapons, defenses and other equipment.

[^3]:    ${ }^{3}$ Think about it - how many automobile companies and designs are out there today vs how many companies produce aircraft carriers? How many more cars are sold than aircraft carriers?
    ${ }^{4}$ I have calculated the surface area considering the ships as closed cylindrical tubes, considering the two 'end caps' as circles. Surface

[^4]:    area $=$ Length $* \mathrm{pi}^{*}$ diameter $/ 2+2 * \mathrm{pi}^{*}$ diameter $^{2} / 4$.
    Simplifying terms yields surface area $=\mathrm{pi}^{*}$ diameter $/ 2 *($ length + diameter).

