

SAGITTARIUS EYE

ISSUE **20**
April 3305

Pulses beyond the plane



Also Featuring:

Aisling Duval • Mobius

The Federation • Barnard's Loop

Eden Apples • Piracy

Krait Mk II vs Python



SAGITTARIUS EYE ISSUE 20

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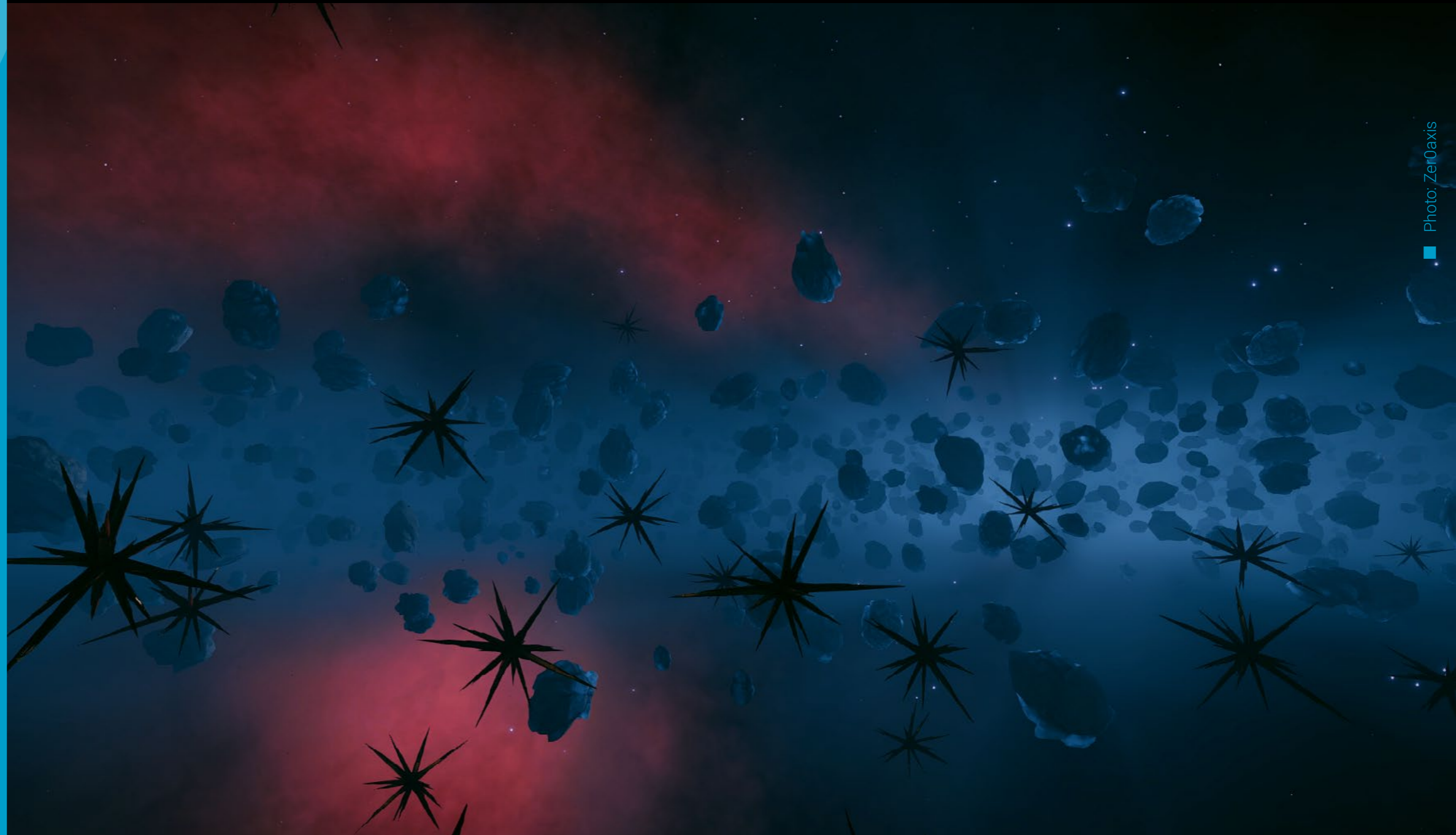


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SAGITTARIUS EYE



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For most of its life, Sagittarius Eye was based out of fairly rudimentary rented offices in a peripheral concourse of Lave Station. From there, the growing team wrote articles, designed the magazine and created our popular video bulletins.

In September of 3304, disaster struck. A group of agitators calling themselves the Alchemy Den, led by the enigmatic Commander Alburich, chose the SAGi office as the target of a politically-motivated

attack designed to raise awareness of the incipient Thargoid threat to the core worlds of the Bubble.

The political validity of such an attack aside, the office was devastated — and one long-serving reporter was lost. The magazine's partners, the SPVFA photography group, kindly lent us a Lakon Type-10 Defender, into which we moved what was left of our equipment.

Months later, in January 3305, the team received a piece of good news:

a lease had finally been secured for SAGi on a new office building in McMullen Ring, Millese.

After some success over the previous months, we drew upon our increased resources to set up a security and operations wing to support our journalism and prevent an attack of that nature again. Sagittarius Eye now exists as a faction in Millese, with an operations contact at each station in that system. The co-operative ensures that Millese remains a safe, neutral space in which to cre-

ate galactic-class media. Interested commanders are welcome to come and visit us here.

If you'd like to apply to join our operations team and protect independent journalism in the Bubble, drop in to our online office or scan the code opposite. You can also join our Squadron* — search for 'Sagittarius Eye' in your ship's Squadrons index and verify that the squadron ID is 'SAGI'.



Souvarine

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STRUCTURE OF A SUPERPOWER: THE FEDERATION

In issue 10 of this magazine, we discussed the history of the Federation. In this issue we look at the state of the superpower today; the structure of government, distribution of power and way of life within it.

For more than a millennium, humanity has been expanding its civilisation from Earth outwards into thousands of different star systems. That expansion has been fitful, dependent on the available technology and the collective will of those brave souls who volunteer for hard lives as colonial pioneers.

As the reach of our species lengthens, so too does its political diversity. Central administrative control of such vast interstellar territories will always be imperfect, with leaders unable to react quickly to events at far distances. Nevertheless, allegiances remain and trillions of people accept the rule of distant governments and officials they will never see during their lifetime.

The Federation, the Empire and the Alliance all maintain differently-evolved government structures. In some ways, each are reactions to the methodologies of the others, and they retain certain strengths and weaknesses that were inherent in the national and international models from which they developed. Each government treats its citizens differently as well, favouring a selection of rights and privileges for individuals that are considered inalienable by those who have them, but are actually part of the cultural identity of the faction itself.

In this article, we will begin taking an in-depth look at the first and oldest of the interstellar superpowers – the Federation.

After some failed starts, human civilisation established itself in a small cluster of different star systems. These were Tau Ceti, Altair, Delta Pavonis and Beta Hydri. Corporate/government partnership lay at the heart of humanity's first successful ventures beyond the Sol system. That heritage is reflected in the political infrastructure of the Federation which is, essentially, the inheritor of Earth's capitalist vision.

A Federation citizen sees themselves as patriotic and self-made. The link to Sol and Earth is a strong bond that holds up across thousands of light years. The dream of carving out a life for oneself in commerce, trade, entertainment, or as a new colonist is continually fed back to the many billions of federal citizens via the voracious, multi-platformed news media.

Status in the Federation is distinguished between 'haves' and 'have-nots'. People are practical and materialistic: they value convenience and brands. Often, brands promote a way of life associated with their products and offer discounts to customers who are prepared to wear their logo. It is not uncommon to see federal citizens earning regular income from brand-associated tasks, whether they are simply dropping product names into conversations or engaging in more elaborate promotions. Homeowners sell roof and wall space to commercial sponsors, watch adverts, perform tasks, and wear corporate logos.

Corporate contracts for workers can also stipulate restrictions on what products those workers use, how they vote in elections, and anything else that might advance the agenda of the businesses in question. Those who accept this way of life are supported with medical insurance, transport assistance, and a raft of subsidies to their living expenses.

This advertising culture and the resulting passion for instant gratification, materialism, trends and fashions, define social hierarchies and

groups. Commercial organisations compete as aggressively as the law will allow for the time and attention of the Federal citizen, who goes through life bombarded by advertising while following their contractual obligations. In many ways, this is a similar life to those who live on fully-incorporated planets.

However, unlike those corporate worlds, Federation space is a battleground of commerce. This makes the average Federal citizen a mixture of a brand-loyal and bargain-based consumer.

In the core worlds, passion for the latest news, tech and clothes is motivation for many otherwise-un-

satisfying career paths. Media consumption is an hourly pastime, vocation and necessity. Federal citizens are constantly sold a materialistic dream.

Those outside of the corporations' benevolence are left to fend for themselves at the mercy of Lady Fate. This means there is a lot of inequality on some Federation worlds, as only those who have the opportunity (and the means to best exploit it) get ahead.

Culturally, the Federation is quite tolerant of some things (like religions), but is utterly intolerant of drug-use, political activism, slavery, and certain other cultures. There is a media-

driven morality with regards to corruption and white-collar crime. The unspoken rule is: don't get caught or be seen as dirty. 'Getting one over the system' is a tradition that remains deeply intertwined with the self-made vision of getting ahead. This materialistic veneer distracts citizens from real political issues and abuse of power.

The Federation is a federated democracy, made up of States and Systems. A State is something of a changeable term. It can be part of a continent, an entire continent, a planet, or a whole system. The categorisation is determined (roughly) by population of up to a few tens of million people. The term is used a lot

and generally, outside of the core, each System is a State.

To an outsider, the hierarchy of Federal society is based on democratic principles. However, corporate loyalty oils the machine. Citizens vote for the candidates their brands endorse. Campaigns are funded by businesses looking to obtain a return through supportive legislation. Unfortunately, the profusion of competing business interests that are represented on legislative bodies can paralyse them, as each corporation manoeuvres to gain the best advantage.

“ There is a lot of inequality on some Federation worlds.





“ The unspoken rule is: don't get caught or be seen as dirty.

Voting takes place within a System or State, electing Congressmen and Senators. Voting also takes place federally to elect a new President. Terms of office are much longer than they were in the past, as the early days of the Federation proved that many years are needed for a presidential administration to see policies through on an interstellar level. Presidents have an eight-year term, with a mid-term vote of confidence at four years.

“ Homeowners sell roof and wall space to commercial sponsors.

Getting ahead and getting noticed in Federation society requires money. Whilst lineage and a prestigious name carry some weight, money is what really talks. For some, corporate representation is a lifelong commitment and sometimes even more than that. Families are known to support commercial organisations from generation to generation. Success within that organisation brings with it status, financial reward and security. However, other individuals divide their support, picking and choosing sides in the war of commerce that perpetuates Federation society.

Corporate/government partnership requires commodification and innovation. In a successful (if somewhat corrupt) partnership, a business might bring an idea to elected officials, lobbying to get it on the agenda for discussion. Then, democratic forums debate the idea and pass motions to see it enacted.

The business then presents itself as the means by which the idea can be made into policy, winning a hefty government contract along the way.

However, with competing lobbies from a host of different corporations, the road from suggestion to action is a highly contested one. This structure of advancement and competition also serves to negate any prospect of consensus or long-term strategy. The immediate needs of each corporation are the priority in any forum where their representatives have decision-making or voting power. Again, this turns many of the local government structures into ineffective bureaucracies that cannot provide the kind of transformative leadership their citizens may want.

This, in some respects, is all part of the real agenda. Corporate interests are kept in balance by forcing competition. This is capitalism writ large into a democratic system.

It is rare for individuals to be empowered by the Federal Senate or a star system authority. For the most part, individuals acquire personal power to obtain freedoms from the onerous complexities of Federal bureaucracy, but it can also be used for more sinister aims. This is a structurally endorsed method of bribery and creates a shadowy oligarchy in the highest tier of Federal society. The people who belong to this upper class believe they are above the law.

Despite all of this, things get done. Laws are passed, and battle fleets are built and deployed. Wars are fought. Much of this seems miraculous to any individual trying to achieve something within the layers of bureaucracy, but there are always ways...



Structure of a Superpower:
The Federation

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A Visitor's Guide

There is no other region so beautiful to behold, and so deeply steeped in mystery, as the Orion complex. The area holds several nebulae and this article will guide you to one of the most outstanding ones: Barnard's Loop.

In the constellation of Orion there is a famous emission nebula, visible to humans since ancient times, albeit only in the darkest of nights: Barnard's Loop. It is named after Edward Emerson Barnard, an American astronomer of the 19th century.

Through a ship's canopy filters and enhancers, the Loop looks like a big, dark-reddish arc centred on the Orion Nebula. With an approximate diameter of 300 light years, it has long aided explorers to get their bearings as far as the Sagittarius Gap far rim and acted as a final beacon on a long journey home.

Barnard's Loop is part of a much larger cosmic structure called the Orion Molecular Cloud complex (OMC), a vast and sometimes diffuse area of dust clouds, nebulae and stellar nurseries. The word 'molecular' is significant: molecules — mostly hydrogen, carbon monoxide and even silicates and graphite — are a basic requirement of star formation and they can only form in cold, dense clouds of dust where they are not atomised by the heavy radiation of nearby massive stars.

A vast and sometimes diffuse area of dust clouds, nebulae and stellar nurseries.

Those massive stars, on the other hand, are the jewels of the complex: strikingly beautiful hot burning orbs that are capable of illuminating the various nebulae that dot the OMC.

This is what makes Barnard's Loop an emission nebula. Orion is full of very massive and energetic stars, like the famous Belt stars Mintaka, Alnitak and Alnilam (the latter can only be found in ship navigation software under its Bayer designation of Epsilon Orionis). Their radiation is so intense that it pumps up electrons in the surrounding gas, which then fall back, emitting light at the characteristic frequencies of their host atoms and molecules.

Sounds inviting? Good. Now, how do we get there?

First of all, many explorers consider a visit to Barnard's Loop a 'proof of fire' for those starting their careers. The area is not easy to navigate and there are a number of sectors that have been completely permit-locked for travel by the Pilots Federation. The reasons for this are unknown. This means any traveller heading to the Loop needs to plan ahead. This planning should include outfitting your ship: a jump range of at least thirty light years is recommended. Also, pack a large fuel scoop, a trusty SRV and maybe a stack of materials for frame-shift drive (FSD) synthesis. Once you're done, the average exploration ship is ready to go.



Next, map the route. The permit-locked sectors pretty much sit around the Loop and 'shield' it from trespassers. To avoid backtracking and a lengthy detour, first go for **Rigel** (Beta Orionis). This is a very bright supergiant and is also a good point to access the area.

A pilot might choose to visit HIP 23759 and the Witch Head Science Centre but making directly for the Loop after this should be avoided, as this route is blocked by the huge COL 70 sector, which is entirely permit-locked.

Instead, go for the Spirograph sector and the system **BD-12 1172**. This way, the trip will also include the beautiful **Spirograph Nebula**. It is a mere 250 light years, so why not?

The Spirograph Nebula (IC 418) is a small planetary nebula some 1,100 light years from Sol. Its central star system contains a number of landable planets for the intrepid explorer and there are some magnificent vistas, including a number of notable stellar phenomena and a Sanchez-class science megaship (which happens to be under infrequent attack).

There are now two options to go further: 1. To go straight for the Orion Nebula and through the densely populated Orion Trapezium Cluster, also known as Theta-1 Orionis. The cluster was once thought to hold an intermediate black hole much like the Great Annihilator near the Core, but the theory could not withstand what explorers call 'FSD astronomy': going there and having a look. Still, it holds a number of highly unusual stars and gives the opportunity to fly right through the Orion Nebula. Check out **EZ Orionis**, a yellow giant star roughly as massive as Sol but more than two hundred and ten times its size. Go further and visit Theta-2 Orionis, Parenago 2149 or HR 1918, a system containing a black hole. This is a sight to behold and a trip to remember!

Option 2 is plotting a route through **Sigma Orionis**. It is a pentuple system and currently the largest star system known with its fifth stellar body orbiting the primary at a staggering 0.24 light years. It is also the entryway to the lesser known Sigma Orionis Cluster, a somewhat dispersed group of stars born out of the diffuse nebulosities that dot the surroundings of the Loop. HR 1950 is also worth visiting at this time: the system contains a neutron star, which is always a nice sight and can be useful for a boosted jump.

From the cluster, one can either take a detour to **Messier 78** or continue onwards. Messier 78 is a reflection nebula higher up on the galactic plane and there are a number of interesting sights there, including 47 Omega Orionis, a massive B-type star holding a neutron star in its clutches. Another option could be to continue to go 'up' further and eventually 'over' the Loop towards the **Orion Dark Region**, an extremely dense dust cloud that will probably give birth to a new generation of stars 'soon' (in astro-



nomical terms). However, for the sake of a magnificent trip, we suggest something else.

No matter which approach route is chosen, make sure to visit the **Flame Nebula** (NGC 2024). Not only is this another stunningly beautiful location, but it is also the entry ticket into the area between Barnard's Loop and the fabled Horsehead Nebula (Barnard 33). It is here that pilots notice the stellar density lessening. In 3305, and with a suitably-ranged ship, this is not a problem at all, but the first waves of brave explorers in their Cobras, Asps, and earlier ships struggled with the increasing distances.

On the way, one can pay homage to the **Horsehead Dark Region**, an incredibly dense cloud of dust and gas. This is where images for holofac postcards showing a familiar 'horse's head', immersed in a field of red and blue, were taken. This small cloud is what gave the area its name.

The Trapezium or Orion sectors will run right through most of the OMC without putting you at risk of running into another permit-locked wall. Should difficulties be encountered with the locked-down Horsehead Dark Region sector, go 'up' a bit until the Orion Dark Region is reached, which is not permit-locked.

The area is not easy to navigate and there are a number of sectors that have been completely permit-locked.

If FSD range allows, try to make a push for the Messier 78 sector (which is located at a completely different spot than the namesake nebula). This is what makes the region a bit awkward to navigate and that is the chief reason to bring a decently-ranged ship.

Where to next?

Barnard's Loop is about three hundred light years from top to bottom and almost that wide. This leaves an immense area to explore.

A trip to the **HD 37397** system is highly advisable. Apart from two massive B-type stars, the system holds a black hole in a very tight orbit around its companion.

HD 37804, a yellow 'baby' giant star with some thirteen solar radii is also worth visiting. The system has a number of landable planets suitable for parking with a stellar view. Enjoy!

The system holds a black hole in a very tight orbit around its companion.

Another must-see is the **HD 38563 triplet**. Although it is not really a trinary system, these three systems are gravitationally bound, with its central white giant star of HD 38563C at the centre. 'C' in itself is a quintuple system, where the primary forces three K-type stars and a G-type into its orbit. The other two stars of the triplet, named HD 38563 North and South respectively, are located roughly a light year away with their own complicated orbits and tidal forces.

Now, how about a different route back? We mentioned going 'up' when exploring Barnard's Loop but at some point this route will meet the ubiquitous COL 70 sector again, blocking the way towards going 'zero' on the galactic plane. So why not try something different?

Perhaps try to go deep, deep below the plane until eventually reaching the Oochorrs sector, which is a very remote place. Navigating back to the Bubble at -800 below can be tricky, even for a dedicated pilot. But it is also rewarding seeing the beauty of the OMC from below and against the dust of the Milky Way.

Another possible route is to head towards the COL 69 sector and the Lambda Orionis Cluster (which is Collinder 69), another prominent member of the Orion Molecular Cloud and an indicator of how large it really is. The cluster is relatively young and believed to have formed in a succession of supernova blasts. If you want to get a sense of direction, type 'LAM01 Orionis' or 'HD 245140' into the Galaxy Map. Like most clusters, exploring it is a mighty tale of its own to tell.

From here, your return journey could take whatever form you like. Perhaps pay the California Nebula a visit; or even go to the Geminga pulsar (PSR J0633+1746), which, some people think, is a hot contender for having started it all in the Orion Complex.

If a much longer trip is in the works, why not dive deeply into the adjacent Monoceros constellation, the realm of the unicorn (covered in our last issue)?

The way back is up to you; here our guide ends. If you make the trip and find this guide useful, let us know via our [submissions page](#).

Fly safe!



Barnard's Loop: A Visitor's Guide

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WE ARE MOBIUS

You've heard of them, but unless you're a member, you don't know much about them. Who are Mobius? ▶



Within the Pilots Federation, there are almost as many philosophies as there are pilots. Some choose to embrace conflict with other members as a means of proving their dominance or getting what they want. Others reject and avoid such 'pilot versus pilot' (PvP) conflict as wasteful and futile. Many of these choose to rally under the Mobius banner.

The core ethos of the Mobius movement is simple: 'don't ruin another commander's day'. This is essentially a re-ignition of the ancient 'Wheaton's Law': 'don't be a dick'. The movement was not born of a single person, though the group does take its name from one of the early leaders, Cmdr Mobius.

These days, some forty thousand commanders follow the Mobian way, going about their own business safe in the knowledge that they can call upon their thousands of brothers and sisters for aid in times of need, and offering up the fruits of their experience to others in need of assistance.

Mobius is often branded by those outside its ranks as a group of pacifists, 'carebears', or as fearful cowards who run from conflict. This isn't true. Mobius does have a strict policy of non-aggression between members and even encourages conflict avoidance with other members of the Pilots Federation, but it would be folly to believe a Mobian commander easy prey.

Mobius is much less formally organised than many might think. At the apex of responsibility (not power)

are the Moderators. These commanders are not leaders in any conventional sense — they do not provide instruction or guidance: they are simply gatekeepers. They handle membership applications, perform security and background checks and ultimately prosecute infractions against the Mobius Code.

Because Mobius is such a large group with members in a great many factions, the Moderators need to maintain impartiality, and not show favouritism to any one faction over another.

Amongst the dizzying array of factions in the Galaxy are the Mobius Factions. These are groups that bear the Mobius name, and either hold territory in the name of Mobius or perform some other specific function, with a clearly-defined operational mandate. At present, there are two formal territorial factions: the Order of Mobius and the Mobius Colonial Republic Navy (MCRN). There are also two other non-territorial groups: the Mobius Exploration Corps (MEC) and the Mobius Xeno Corps. A great many of the commanders within Mobius migrate their support between these groups or even serve in multiple groups simultaneously.



The Order of Mobius

The Order of Mobius is the oldest and largest of the dedicated Mobius groups. Headquartered out of Rafferty's Mobius, an Orbis starport in the Azrael system, the faction is governed by a council of admirals, with Mobius himself at the head of the table. The admiralty manages the day-to-day push and pull of galactic politics.

During the summer of 3304, the Order came under sustained attack from a then-unknown foe, later revealed to be the Smiling Dog Crew (SDC). It suffered substantial territorial losses, though these have since been restored. At present, the Order has controlling interests in six systems.

Animosity between SDC and the Order is long-running and deeply ingrained, given their opposing ideological positions on PvP conflict. SDC allegedly even included the ambush and destruction of a Mobian as part of their membership initiation process.

With tightening security this has become much harder, and during 3304, SDC moved to other targets.

Though the Order does maintain a strong core of dedicated commanders to undertake missions, it can also call upon a large transient population of 'regular' Mobian pilots to provide cartographic data and short-term support as and when they're needed.

“ The core ethos of the Mobius movement is simple: 'don't ruin another commander's day'.

The Mobius Colonial Republic Navy

The MCRN had its beginnings in the Colonia expansion, earning a place in the third wave and establishing a base, Pedersen's Legacy, in the Mobia system. Mobia 1A, where the base is located, is affectionately known as 'Pedersen's Potato'.

Initially expansionist, the MCRN laid claim to a number of nearby systems. This ultimately led to a devastating conflict with their closest neighbours, the Privateers Alliance Expeditionary Force (PAEX).

The astro-cartographic make-up of Colonia meant that both MCRN and PAEX were boxed in with only limited expansion potential. MCRN had taken ownership of both the potential expansion routes and from then, poor communication ratcheted up tension and mistrust. The end result was a long and bitter war.

By the time a call for help went out, the MCRN was already shattered and on its knees. A small cadre of commanders from the Mobius Exploration Corps responded, travelling from their exploration of the Hawking Gap to bolster the MCRN's defences.

The fighting defined the MCRN for the better part of a year until an internal coup replaced the faction leadership, effectively hollowing out the MCRN and replacing it with members of the Mobius Exploration Corps.

The change of leadership allowed for the unthinkable to occur: the MCRN and the PAEX began to talk to each other again. A ceasefire came into force, which was extended to allow ongoing negotiations. MCRN for the first time recognised the claims of PAEX to the Alberta system and proposed a phased handover of power to allow PAEX expansion. This was important, because it paved the way to a fundamentally different path for both factions, and brought peace to their corner of Colonia.

Both MCRN and PAEX now stand together, calling out aggressive factions in Colonia and demanding the restoration of all the home systems to their founding factions. The modern MCRN has cast off expansionism in favour of stability, and now holds controlling interests in only two other systems: Desy and Hamlet's Harmony. Despite its limited hold on Colonia territories, MCRN pilots frequently fly in support of a wider alliance of factions dedicated to stability and the safety of the colonial homeworlds.

“ Some forty thousand commanders follow the Mobian way.

The Mobius Exploration Corps

Several years ago, a small band of Mobian explorers set off into the Formadine Rift to find the Zurara. What began with just three commanders quickly grew to more than twenty, as the expedition picked up momentum and the Mobius Exploration Corps was formed. Today, the MEC boasts almost 450 commanders, scattered across the black.

Every quarter the MEC holds an expedition, giving members the opportunity to come together out in the black (although at present most of the membership are engaged in Distant Worlds 2). MEC holds a strong position on the Squadron exploration leaderboard.

In the latter part of 3304, MEC members voted to adopt Mobia as their 'home base' and to formally support the MCRN. This has led to a situation where most MCRN commanders also serve in the MEC, and vice versa.

The Mobius Xeno Corps

Established in late 3304 as a Mobius-based reaction force to the Thargoid threat, the MXC actually have more than just an anti-Thargoid remit. They are tasked with a mission that is both military and scientific: to investigate, gauge and contain potential xeno threats. Early expeditions investigated the Guardians, but increasing Thargoid activity has promoted the need for military action over scientific research.

Be among friends

Mobius is by far the largest Pilots Federation entity, standing for collaboration in a hostile Galaxy. Long a fixture of the spaceways, today they exist as much an intrinsic piece of the galactic infrastructure as a mere 'group'. If collaboration – rather than conflict – with other pilots appeals to you, [you might want to seek them out.](#)

We are Mobius

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CORE
DYNAMICS

BORN TO BE WILD = F63 CONDOR



SNAKE OFF:
KRAIT MK II
VS
PYTHON

The introduction of the Krait Mk II by Falcon deLacy last year left a number of commanders asking the question: has the Python finally lost its grip on the market?

On the face of it, the new Krait appears to fill a similar role to the Python — it fits on a medium pad, it has similar hard point configurations — but with certain enhancements, such as having the capability to carry ship-launched fighters. Now that the Krait Mk II and its sibling, the Krait Phantom, have been available for a few months, we can truly make an assessment.



Looking back at the Python

The Python we know and love has been around for a long time. The basic spaceframe we fly today has a clear and direct lineage back to the shipyards of Whatt & Pritney Space-Construct (W&P) in the year 2700. Named after the non-venomous snake genus *Pythonidae*, the Python holds the distinction of being the ship in longest continuous production in history; although it could be argued that today's Python has little in common with the ship that launched back in 2700.

The Python has lumbered on during these years, unsexy but undoubtedly good at its job, forming the backbone of many a trade route. As the last century began, the design was suffering from a lack of development and it was showing. By the 3250s it was considered slow, poorly defended and obsolete, but W&P doggedly continued to manufacture the vessel, relying on the goodwill

of its corporate clients. The author of the popular ship buyers' guide of that era, the larger-than-life 'Big Bob' Isacatti, lamented in the 3250 edition of his guide, "I used to wonder if I would ever own [a Python]. Now I wonder if I can ever sell it".

The Python was on the verge of oblivion when, due to a complex set of corporate actions and mergers, Falcon deLacy gained the design information and the rights to build the ship. Rather than abandon the design, deLacy decided that it still held promise.

It was significantly refreshed by adding the standard modular internal layout system used today, and marketed as the 'Jack of all trades'. Gone were the two rather inflexible gun mounts and four missile mounts, re-

placed by three standard Class 3 and two Class 2 hardpoints, upon which the owner could fit any standard hardpoint module. Out were the old Exlon 76NN drives, to be replaced with modern Class 6 thrusters and a Class 5 frame shift drive.

The refreshed Python was a vast improvement without fundamentally changing what made the Python what it was. Thanks to being able to do nearly any job while still being able to land at outposts, it has proven popular, especially amongst 'mission runners'.

The Krait Lightspeeder

The Krait we can buy today is a new design. However, it's worth considering its predecessor, as the modern Krait Mk II was clearly designed with the older ship in mind.

The Krait has always been a Falcon deLacy design, the first iteration taking flight in 3027. Once again, the snake tradition was followed: the Krait deriving its name from the common name of the genus *Bungarus*, a family of venomous snakes from southeast Asia on Earth. The 'Krait Lightspeeder', as it was referred to in marketing material at the time, was designed as a single-crewed fighter.

Unlike the Python, the Krait Lightspeeder did not endure. It was not originally designed to be hyperspace-capable, and as such began to fall by the wayside as commercial markets started to demand ships that could jump between stars. The ship's adherents persevered, and eventually Kraits were retrofitted

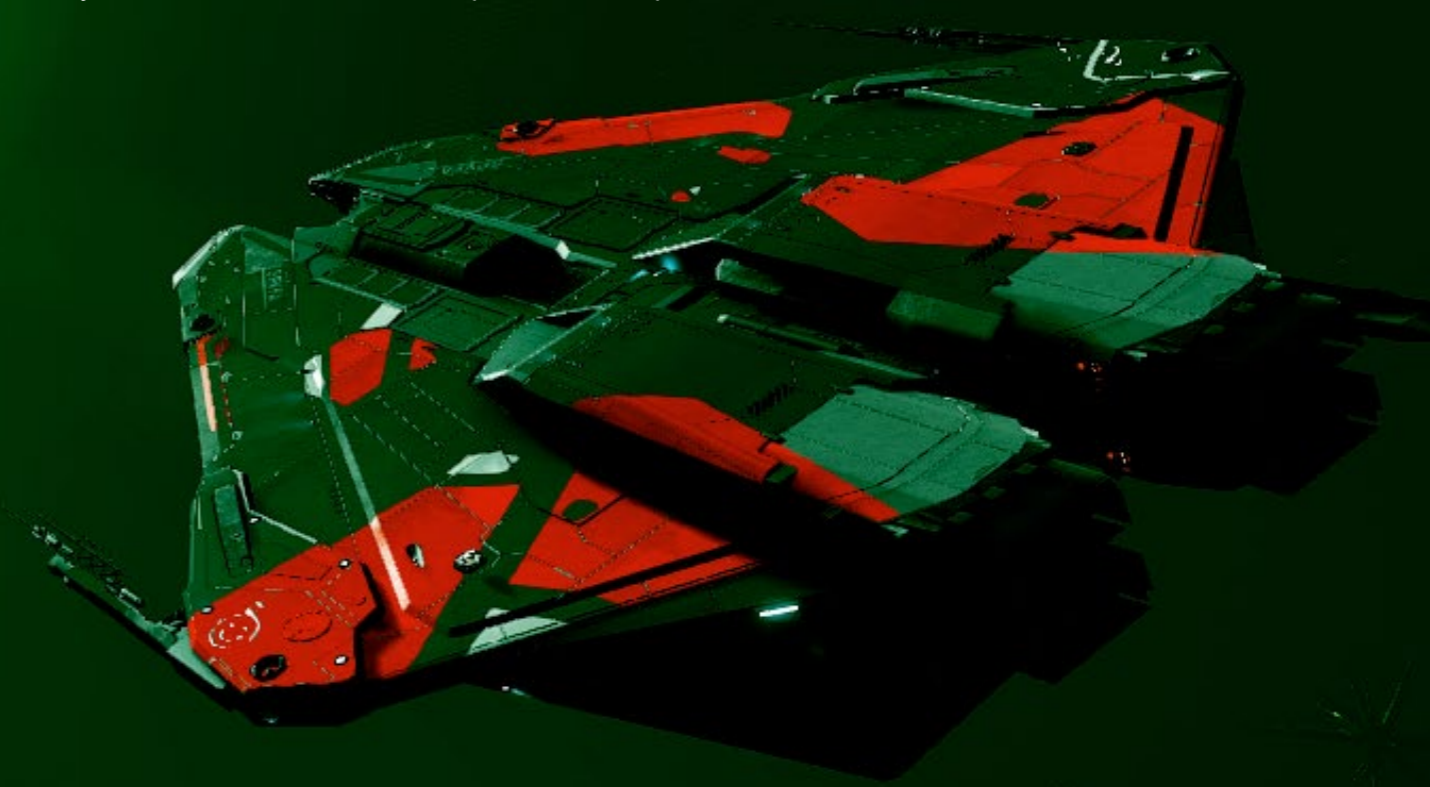
with hyperspace capabilities; but by the 3250s these ships had been long out of production. The remaining ships were the rare favourites of explorers, pirates and rebels, with several taking part in the revolutionary battles in the Lave system in 3265, where their limitations were fatally exposed. Today, the only Krait Lightspeeders still in existence are static museum pieces.

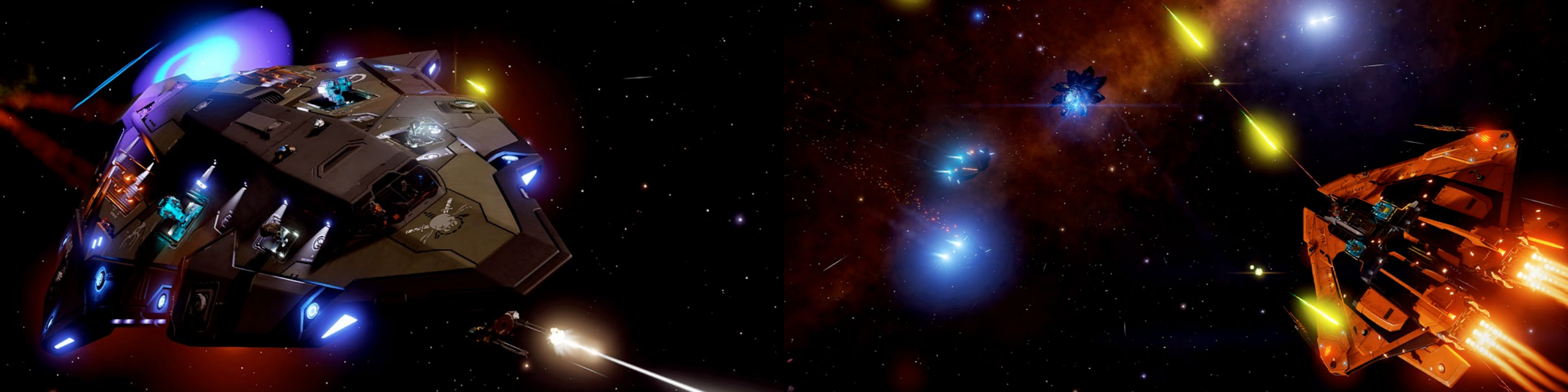
The ship has retained its adherents and followers, however, so in 3304 Falcon deLacy decided to cash in on that goodwill and revive the name and a good part of the concept.

The Krait Mk II is only superficially related to its older sibling. Part of the Krait Lightspeeder's allure was its clean arrowhead shape, and Falcon deLacy wished to retain this aspect. Today's Mk II is a much larger ship, similar in size to the Python. The Krait Lightspeeder had a reputation for speed and maneu-

verability, and deLacy have worked hard to carry this over into the new model, despite the increase in size. A superficial comparison of the Krait Mk II's internals with those of the Python certainly has promoted the idea that the new Krait is basically a 'faster, better Python'. Things are rarely quite that simple, though.

One thing is certain: the Krait Mk II has proven a massive hit for Falcon deLacy. On its official launch date, the exclusive Pilots Federation station, Jameson Memorial in Shinrarta Dezhra, reported that every single medium pad had a brand new Krait Mk II parked on it, and commanders were lining up to get their hands on one. The station reported that it had not seen such a buying frenzy for a new ship design in decades, and it had handily beaten even the excitement around the launch of the Lakon 'tank' series (the Alliance Challenger, Crusader and Chieftain).





Combat

Part of the reason people see the Krait Mk II succeeding the Python is because a glance over the hardpoints and internals of both ships reveals that they share three large and two medium hardpoints, as well as four utility mounts. Both can mount a Class 6 shield, both have a Class 7 power distributor and both have a Class 7 power plant. They even use the same size frame shift drives.

Look a bit deeper though, and differences emerge. You'll find that the Krait Mk II can also take a ship

launched fighter (SLF), a capacity the Python lacks. However, the Python has slightly stronger shield coverage: basic unengineered 6A shields give the Python 398 megajoules of shielding, versus the Krait's 350. As you start to add boosters and engineer the shields, the Python retains its advantage in shield strength. For example, engineering that brings the Python up to 1.75 GJ of absolute shielding brings the Krait up to only 1.53 GJ.

The Python also wins on hull, too.

The basic military grade composite upgrade will give a Python an absolute hull strength of 910, but the Krait only 770. The Python comes out on top in terms of protection, then.

However, the Krait greatly makes up over the Python when you consider the active side of combat: damage per second (DPS), speed and maneuverability. Like the Krait Lightspeeder of the past, the Mk II is quick, has good pitch and roll rates, and — with some engineering visits — can boost indefinitely with just one pip to en-

gines, even with grade 5 'dirty drag drive' modifications to the thrusters. Being able to keep the power distribution focused on weapons or systems and not worry too much about engines gives the Krait a huge advantage over its older stablemate.

When it comes to speed, a typical combat loadout for the Python will boost to 488 metres per second, but the Krait will sail on past at 541 m/s with the same level of engineering. The better maneuverability, speed, and boost ability of the Krait will

also make fixed weapons a practical proposition. In the hands of a capable combat pilot, the extra damage per second of fixed weapons — and their immunity to chaff — is highly desirable.

Then comes the *coup de grâce*: the Krait's fighter bay.

A ship launched fighter in the hands of a good pilot is like having an additional Class 4 (huge) hardpoint that flies. For instance, the Class 4 beam laser has — off the shelf — a DPS of

41.4. When thinking purely about tech and capability, the fixed beam Imperial Gelid F fighter has a DPS of 45. It is essentially an absurdly maneuverable gun that flies independently of the mothership. Of course, there's also the cost of the pilot to consider.

Thanks to the SLF, the extra speed and maneuverability, and the practicality of the use of fixed weapons, the Krait Mk II is the clear winner against the Python, despite the Python's greater defensive capabilities.



A ship launched fighter in the hands of a good pilot is like having an additional Class 4 (huge) hardpoint that flies.

Making money

The Python has always been seen foremost as a trade ship which can defend itself, whereas the old Krait Lightspeeder was first and foremost a fighter with little capacity for anything else. The new Krait Mk II however could make a perfectly viable trader. But is it a challenger to the Python in this respect?

If we take a look at the basic stats for both ships, the Python has the following internals available for trade, mission or passenger activities: three Class 6, two Class 5, one Class 4, two Class 3 and one Class 2. The Krait Mk II by contrast has one fewer Class 6 internal module bay. This doesn't sound like much of a difference - but if you fill both ships with cargo racks and stick with a Class 6 shield, the Python will carry 228 tonnes versus the Krait's 164 tonnes. Put like that, it's a significant difference.

A Krait aficionado might remind you that for mission work, you're often not filling the cargo hold to the brim, so perhaps the advantage isn't all it seems. This may be so, but an extra slot is also extra flexibility. The Python can carry the largest available passenger cabin (Class 6) while carrying as much cargo as a Krait equipped with only cargo holds and a shield.

Consider the commander whose job it is to see to it that as many contracts as possible are fulfilled in the Neits system. The nearest outpost in that system is some 16,000 light seconds from the primary star, so it's a long drag out there, and a visiting pilot needs to maximise the number of jobs taken at once. There's no shipyard at any of the outposts, so you can't have other ships brought along to do specialist jobs. The ship you take has to be able to do everything.

You can equip a Python to be able to carry passengers, carry cargo and do many types of combat mission all at the same time (although this writer would suggest you don't begin the combat jobs until after your cargo



and passengers have been dropped off). You can maximise the list of jobs you can take from the far-off outposts, and minimise time transiting back and forth to them. With the Krait, however, you will have to sacrifice one of these abilities. If you arrive at the outpost and find you've sacrificed the wrong ability - well, it's been a long trip out for nothing.

The clear winner here is the Python. It remains the undisputed king of mission runners - and not just against the Krait. There's not another ship in service that matches the Python's flexibility for being able to simultaneously take a wide variety of missions to all destinations.



Exploration

The old Krait Lightspeeder was a flawed exploration ship, with its optional long range aerial pylon mounts on the wings. The designers clearly didn't consider that their pilot might need more modules and carry space than the small ship could cope with.

When considering exploration load-outs now, the Krait Mk II just wins on range over the Python, but the Python - with its extra Class 6 slot - wins on flexibility and survivability. Applying a typical long-duration exploration build to both ships (Class 4 shields, surface reconnaissance vehicle hangar, hull repair limpet controller and auto field maintenance unit with a range-engineered A-rated FSD) will give a maximum jump range of 48.6 light years for the Python and 51.2 for the Krait Mk II, so the Krait's edge in jump range is slight. The extra Class 6 slot that the Python has means it has everything it needs for long-duration exploring as well as the ability to 'fuel rat', making it the better fleet exploration ship.

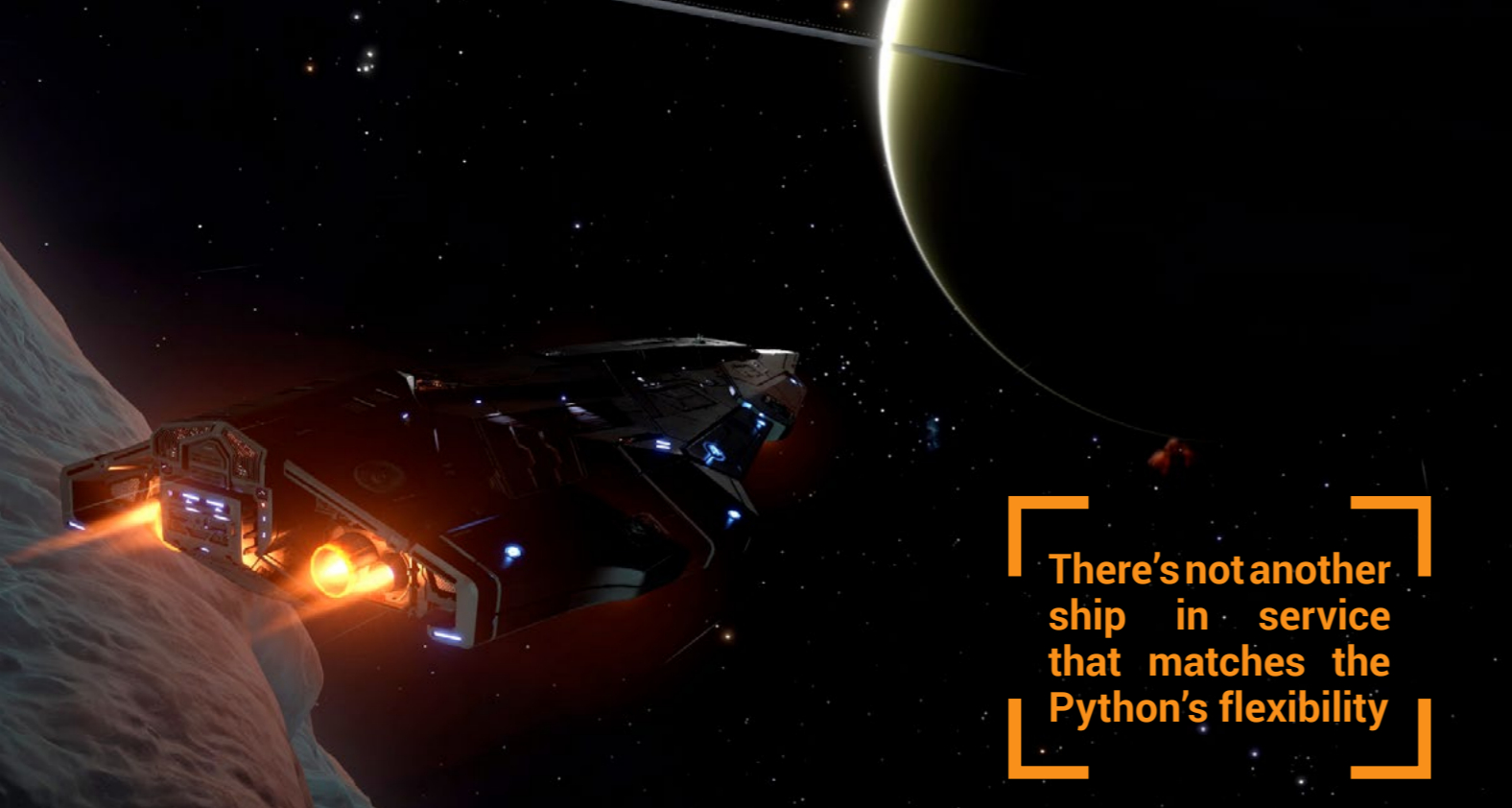
A common error that pilots make is to think exploration is just about



maximising jump range. This error tends to be exposed during the first unintended lithobraking incident, or when mistakes are made on high G planets; or worse still, if you are unlucky enough to meet what is colloquially known as a 'murder hobo'. The extra shield and hull strength of the Python may mean the unfortunate pilot only has to change their flight suit, whereas the Krait's com-

mander might have to endure the 'RemLok Ride of Shame' back to populated space, as well as the inevitable loss of exploration data.

All things considered, the Python just about has the edge on long-duration exploration. But for shorter duration trips, either ship will serve. You'll get a better view from the cockpit of a Krait and it's more fun to fly.



There's not another ship in service that matches the Python's flexibility

A new menace

We can't leave this topic without talking about the Krait Phantom, deLacy's newest variant of the ship. The Krait Phantom is inferior to the Python in all respects except for one: exploration.

This isn't surprising as the Phantom was explicitly designed as a more light-weight variant of the Mk II. It has the same number of module slots as the Krait Mk II, but the slots are smaller - only one Class 6 instead

of two, and one of the Class 4 slots is replaced by a Class 3.

The decrease in mass manifests as a significantly increased jump range. Using a comparable long-duration exploration build, the Phantom will jump 57 ly, a significant increase over both the Python and the Krait Mk II. However, many would argue that the Krait Phantom is more meaningfully compared to Lakon's venerable Asp

Explorer than the Python, even if it's not quite in the same price bracket.

It's notable that all of these ships use the same size core modules (notably, the Class 5 frame shift drive), so if you've spent time engineering a Python for exploration, find you don't like it and would prefer the Krait Mk II or the Krait Phantom, your efforts spent getting the engineering done have not gone to waste.



And the winner is...

At least in the mind of this writer, the Krait Mk II has most certainly not made the Python obsolete. While the Krait is a much better combat ship, the Python's real strength lies in its flexibility as a mission runner and this is the real reason people still buy this venerable design today.

The Krait – for all its strengths – can't quite pull this job off nearly as well as the Python. As such, the Python can expect to enjoy a pro-

duction run of many more years to come. If anything, the launch of the Krait has highlighted the Python's excellent flexibility.

The Krait Mk II, rather than being a Python successor, stands in its own right as a very competent combat machine which can be refitted for other roles, too. This is evident in Thargoid conflict systems, in which many Pilots Federation members are choosing the Krait Mk II as their

weapon of choice.

And by the way, it turns out we have all been pronouncing 'krait' incorrectly, all along. The snake's name should be pronounced to rhyme with 'kite', not 'crate'. However, were this distinction observed, we would have been deprived of nearly a year of puns – a privation this publication could not countenance.



Snake off:
Krait Mk II vs Python

Text:
Mack Winston

Design:
Donald Duck

Images:
DasExorzist, OrangePheonix, Zer0axis, Tolaak Grohiik, Sebastian Wehmeyer, Timbo Haze, Donald Duck

Pulses beyond the plane

There is a strange group of pulsars far below the galactic plane. How did they come to be there? And why are they included in the standard Pilots Federation Galaxy Map?

The Milky Way is full of wondrous places: a supermassive black hole capable of holding billions of stars in its orbit, vast clouds of heated gas in between, giants and dwarfs and vast fields of neutron stars that have sunk to the Galaxy's bottom. Wonders upon wonders.

But ask yourself: does it all end at the far fringes of the Galaxy? Are there no fantastic places past its outer limits? An observant explorer, delving deeply into astronomy, will already know the answer: of course there are. You just need to go looking.

A dense cluster of pulsars some eleven thousand light years below the galactic plane?

The Galaxy Map has a convenient search function. You type in a name or number and are safely guided to the next best search result. It is an invaluable tool, with hundreds of billions of stars to visit. Countless curious explorers have used it to follow rumours, to find lucrative markets, to complete their constellation trip or search for the most unusual stars and planets. Still, you need a name to search for the right star, so all commanders rely on some method to find them.

Some of these elusive places have old catalogue names, mostly acronyms from some long-gone sky survey when astronomy was still in its infancy. One of these acronyms is 'PSR', which stands for 'pulsating source of radio', or a pulsar.

A pulsar is a neutron star emitting tight beams of radiation along its poles, strong enough to be observed at a distance. Back in the pre-spaceflight age, such observations could only be made from Earth or its near orbit. As a pulsar's beam axis is tilted from its rotational axis, the beams did not constantly hit Earth but in pulses, hence the name.

Today, with thousands of settled planets, every neutron star can be considered a pulsar, because its beams will be observable on some colony eventually. As a result, the term has become something of an anachronism.

Because these objects are so fascinating and alien — some of them have jets travelling at more than 0.1 the speed of light, while others have magnetic fields a billion times stronger than Sol's — many fascinated explorers wanted to visit and study them up close. When they did not know how else to go looking for them, they eventually uploaded the ancient star catalogues and just started to enter 'PSR' into the Galaxy Map.

And they must have been surprised, because they were led to strange places indeed.

You may expect to be guided to a pulsar drifting around somewhere in one of the spiral arms. But nothing could be farther from that: just entering 'PSR' will lead you to an empty space far, far below the galactic plane. A very careful observer will briefly see a small group of objects on the map. However, they almost immediately vanish again, but when you keep hitting the search button, you will eventually spot more of them. There are roughly a dozen of these distant objects.

Why does the Pilots Federation include the pulsars of 47 Tucanae in their Galaxy Map?

A dense cluster of pulsars some eleven thousand light years below the galactic plane?

We asked a famous explorer, Jackie Silver, about this phenomenon. Commander Silver has been involved in extensive studies of the makeup of the Galaxy's spiral arms, Universal Cartographics' sector codification, and the survey of a vast number of stars from the old catalogues. On these particular pulsars she said:

They are part of the 47 Tucanae (NGC 104) globular cluster. If you are quick on the draw and catch the GalMap before it glitches the names off your display, you can catch the names of the pulsars.

Yes, the 47 Tucanae globular cluster. The name comes with an aura. The cluster lies in the constellation of Tucana, which was named after a colourful bird of Earth's past. If you need a sense of direction, search for Pi Tucanae. Now go for another eleven thousand light years towards the Small Magellanic Cloud and you are there. Again, Commander Silver gives us a rough idea of what a globular cluster is:

A globular cluster is a large ball of stars held together by gravity. At their centres they are very dense, similar to the sort of areas we see in the galactic core in 3305. They are found orbiting around the Galaxy, but as part of the spherical halo, not the flat disc. Because they are so dense there is a lot of scope for unusual stars and phenomena there.

In addition to this, globular clusters are thought to be the remaining cores of satellite dwarf galaxies that interacted with their 'parent' galaxy — ours — in the past. The clusters have long been stripped of their gas, either through star formation or by the tidal forces of the Milky Way. To use a poetic metaphor: they are the ancient harbingers of a much younger universe. Imagine standing on a mountain on a world within one of these clusters.



When you looked up at the sky, you'd see hundreds of stars clustered together, no more than five light years distant from one another. It would be an incredible sight, and very different from what we're used to seeing at night now, billions of years later.

So, how do our pulsars play into all this? As Cmdr Silver stated, globular clusters are home to a number of very unusual objects. Some of them are indeed pulsars that formed when the more massive stars of the cluster exploded. Not only that, but the complicated gravitational effects in such a dense stellar neighbourhood also intensified their motion and rotation: nearly all of the currently-discovered neutron stars are so-called 'millisecond pulsars', rotating many hundreds of times per second.

The same intense gravitational forces and high interaction rate of the stars inside the cluster also make possible another strange type of star called a 'blue straggler'. 47 Tucanae is full of them, and in this case, 'interaction' is the mild word for 'collision'. Asked about these blue stragglers, Cmdr Silver said:

These are stars which do not fit neatly into the main sequence. As the stars in a cluster share their general age, the "turn-off point" where stars evolve away from the main sequence is well defined. Different clusters have different turn-off points depending on their age. Blue stragglers are stars which exist beyond the turn-off point, which indicates they have formed or evolved differently to the rest of the stars. Possibly they come about from star mergers, because the clusters are so dense.

We now know a few details about globular clusters: their locations, their general makeup and the likelihood of unusual stars in them. One question remains, though: Why does the Pilots Federation include the pulsars of 47 Tucanae in their Galaxy Map? And why do they not include all the other surveyed stars of the cluster?

There are a range of explanations, from simple oversight when Universal Cartographics uploaded all those ancient star catalogues, to the challenges of maintaining a viable system of astrometric ranging. When it comes to the question of why the rest of the stars are missing, system engineers also point out that the Galaxy Map would be overwhelmed and unable to handle astrometric data of literally thousands of stars adequately in a densely-packed sphere a hundred light years wide.

Most of these theories are rather scientific and they certainly have merit: the Pilots Federation is known to have included several other halo stars in their Galaxy Map. Cmdr Silver gives HD 479 as an example.

However, there are also some more conspiracy-oriented theories. Some speculate the 47 Tucanae pulsars are included as a beacon or mid-point towards the Magellanic Clouds. 'Tinfolers' continue to point out that at least one mega-corporation has plans to mount an expedition there. Others go so far as to postulate that the pulsars form the end point of an intricate energetic star constellation which holds the ultimate prize in astronomical and astro-esoteric delving: Raxxla, 'the door that is also the key'. Although not directly commenting on this theory, Cmdr Silver has her own thoughts:

I think one side of the keyless door is closer to home, but who knows where the other sides open?

As strange as these theories may sound, they have their believers, especially after the recent rekindling of the search for that fabled planet. What is certain — at least these days — is that 47 Tucanae seems to be unreachable. The Galaxy's halo is too poorly surveyed and stellar density is next to nonexistent.

Still, this has never deterred the daring or the unscrupulous from trying.

Pulses Beyond the Plane

Text: Andrew Gaspurr
Design: McNicholl
Images: Andrew Gaspurr

Thanks to: Jackie Silver



Flogging it with Yamiks

Commander Yamiks is a well-known videographer and controversial figure. Over the last four years, he has gathered more than fifty-five thousand followers from every corner of the Galaxy. A vocal critic of the Pilots Federation, he is praised by some for his fearlessness in calling out poor policies, while others condemn him for going too far in his attacks.



Yamiks is the leader of the Dead Horse Squadron, one of the first to reach the maximum membership of 500 pilots. Yamiks founded the squadron with the express purpose of demonstrating how impractical the 500-pilot limit is, and it is a testament to his popularity.

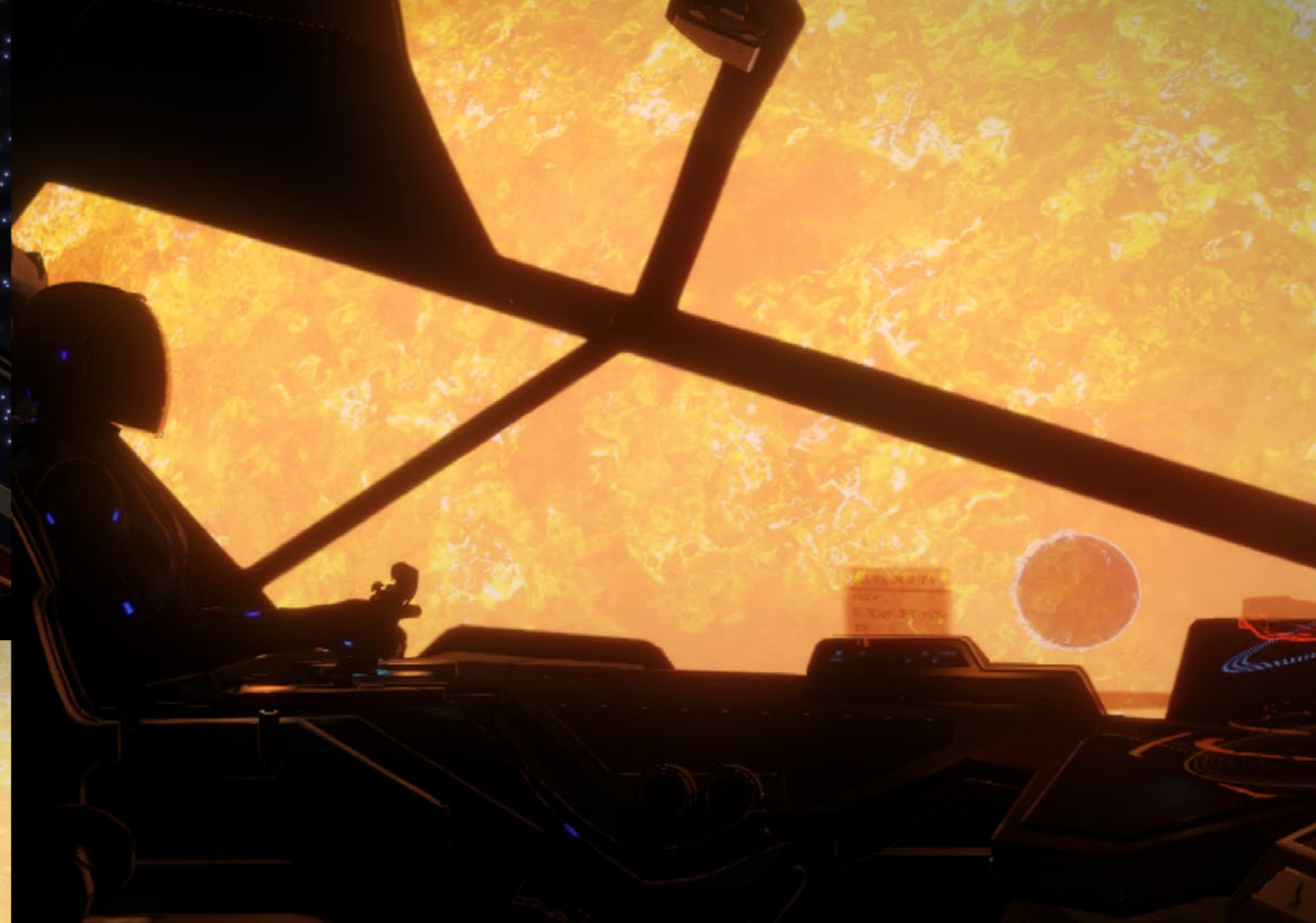
In 3301, Yamiks shared his first video aimed at Pilots Federation members — a guide to supporting a given leader in the most efficient way. Since then he has broadened his subject matter, recording entertaining videos on diverse topics relevant to the life of an independent pilot. He is famous for coming up with sneaky ways to earn money faster and make life happier for fellow spacefarers.

Yamiks publishes scathing ship reviews: vocal in their criticism and grudging in their praise. Many appreciate his perspective as an independent one, unshackled by vested interests. Viewers relish his honest opinions

about bad cable management, ill-fitting panels, bad hardpoint alignment, or missing cupholders, while ship manufacturers dread the ridicule and negative attention a critical holo vid will bring.

Ship manufacturers dread the ridicule and negative attention.

We finally tracked Yamiks down for an interview. He is currently planetside, taking a break from the cockpit until something happens interesting enough to make him want to return to space. There are no missions interesting enough, no challenges hard enough and no secrets secret enough for him to bother with changing the bottle of Lavian Brandy for the flight stick and underpants for a space suit, he tells us.



I got every ship, done every mission, the only thing left at this point is to find new ways to amuse myself. Hmmm maybe looking at some trippy places would be nice... or just crashing and burning. Well, whatever I end up doing it should be fun, otherwise: what's the point?

Very few people know much about you, even those in your Squadron. Who is Commander Yamiks?

You see, Yamiks has no face, it's an idea and compilation of opinions... that sometimes manifests in a corporeal form to beat a dead horse or random Federal bystander.

Why is your Squadron so named?

What can I say? We like to beat the dead horse.

What motivates you to make your videos?

Just like everyone else, I wake up in the morning, sit down on my glorious Gutamaya throne and contemplate many things. Through my deep meditation, and some intense pushing, I come to many conclusions.

How do you feel about the accusation that you're too fierce in your criticism?

I suppose it's in Latvian spirit to just not shut up and criticize things, even to one's own detriment.

Rumours have flown in recent months about supposed contact between you and Thargoids. Is there any truth to these?

Oh, for crying out loud, I found some documents from a totally-alive scientist and published a theoretical description for the 'Kirk maneuver', that is all...

At that point our connection was abruptly lost.

Not everyone loves Yamiks' unique take on things. Some object to the extent and ferocity of his criticism of the Pilots Federation authorities, and others find his content puerile. However, Yamiks is undeniably popular, and there is certainly nobody else quite like him anywhere in the Galaxy.



Flogging it with Yamiks

Text: Souvarine, Ziggy **Design:** Balthazarn Noxx **Images:** Hvacker, Ziggy

Thanks to: Yamiks

FEATURED

Artist

COMMANDER

ToCoSo

Occasionally, we like to take the time to shine a light on people who go a long way towards making *Sagittarius Eye* the best magazine in the Galaxy. This month, we want you to meet Commander ToCoSo.



What tools do you use for your work?

Besides in-flight captures, I like to use holo-sim tools and games, such as Planet Coaster, Daz Studio and Space Engine to make my artwork. I try to use the Cobra imaging engine as much as possible, as it makes images feel more legitimate, so even though I'm creating art, I try to keep it grounded in reality as much as possible.



Which images are you most proud of?

I have done around 600 pieces for the galactic community. I really enjoyed being able to create the station over New York City from Earth, as it took a lot of work to find the right station, lit the right way at the right angle to match the original photograph. But I also really liked drawing some ink images, as people often think of me as an editor, not an artist.

I also write music for Commanders Turjan, Yamiks, Spatula, Ascorbius, and Mach1ne, as well as the Brocast, the Distant Worlds 2 theme, the SAGi news theme and some collaborations with Miguel Johnson. I am currently working on a new Distant Worlds song called Let's Jump Together.



What aspect of your work is most challenging?

The lighting. You have an idea, and then to make your idea into a photograph you have to get the ship lit the right way, either near an Earthlike or against a gas giant so it's easier to cut out. All the planets add different shades to the ships, and the new holo-camera filter adds even more colour, so now I have to get the ship with the right paint job/kit and then find the right planet with the right coloured star. If I am adding figures to the image, then I have to recreate the lighting for them to feel realistic.

Also keeping the images believable and having a bit of humour seems to really help, so it's a real balance between a concept, a pun, and good technical work.

How did you become an artist?

I have been a community artist for twenty years as well as a composer for holo-shows and holo-films. I have also worked with musicians with autism for twenty years, the most famous being Commander Daniel Wakeford from The Undateables. I have written six albums with him, and we are currently working on a musical.

Really, I began playing instruments and drawing at about the age of five. I never went to university. I just recorded and made art.

I have written theatre pieces, created art in schools, theatres, hospitals, behavioural units, and worked with people of all ages. I love the creativity in people. Everyone has a unique view on things and finding a way to let that out is the best part of my work.

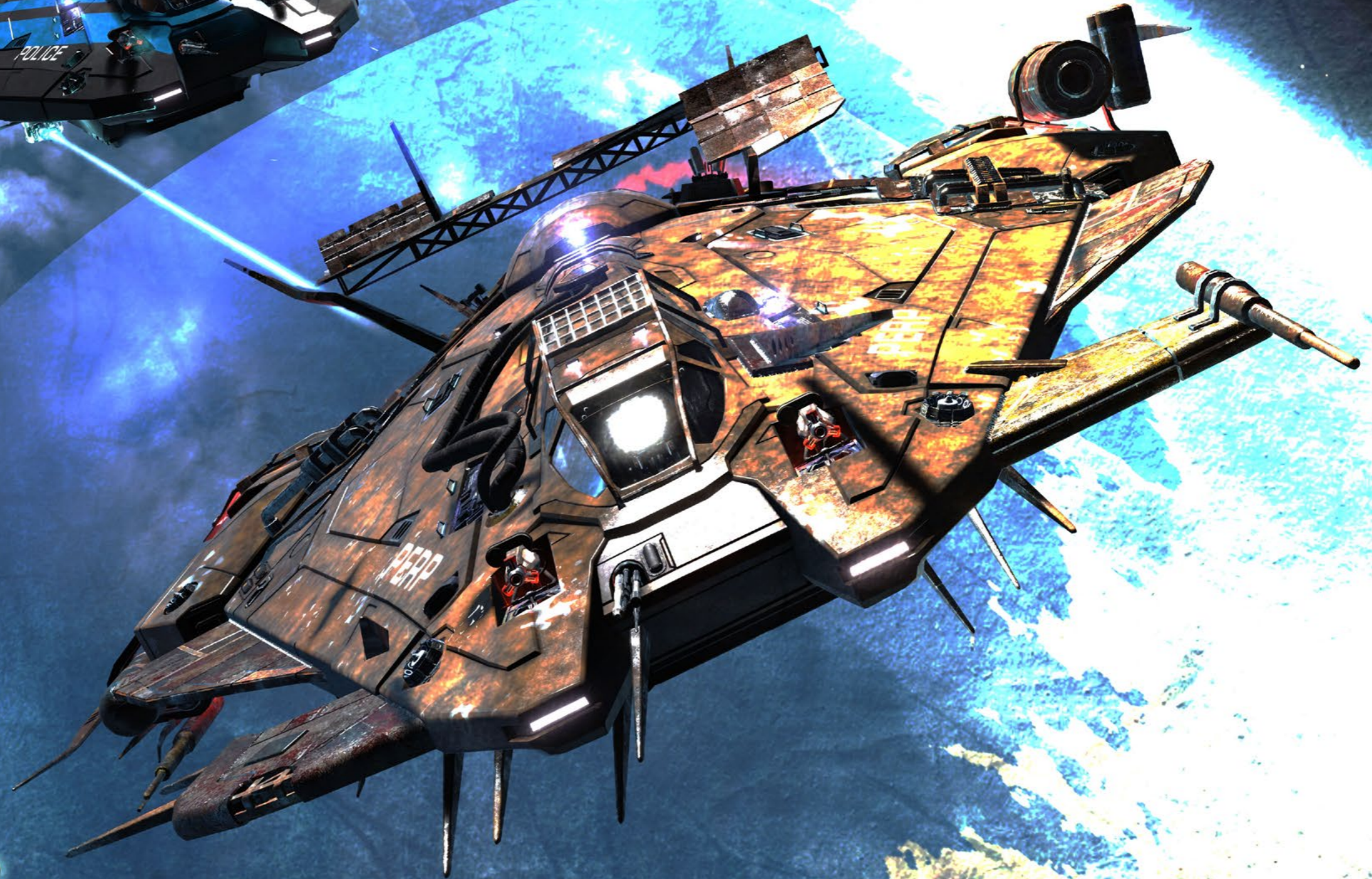
I took a break from community work about five years ago and then found my way to the cockpit. Soon after that, I started to become a community artist for fellow pilots, so space flight kinda brought me back to what I love: communities. Now, I'm working back in community art with new vigour!

I saw SAGi and immediately fell in love with what they do, as it is purely for the commander community. I think Souvarine messaged me after seeing some of my GalNet work and I try to do as much as I can for them. Still, I have to balance all the communities I work with and also have time for my wife and two kids – not to mention flying a spaceship!



Featured Artist: Commander ToCoSo
 Text: ToCoSo
 Design: McNicholl
 Art: ToCoSo

WHOSE SIDE ARE YOU ON???



VIPER MKIII

*I was flying my cobra right out of Kremainn,
with a hold full of Lavian brandy.
I was swigging so deeply on my Hutton mug,
with a rare smell of onionhead round me.
Maybe I'll find a girl in Frigaha tonight,
who'll put up with my pirating ways,
but until then I'll drink from this old Hutton mug and I'll hope that I meet her one day.*

- A Hold Full of Lavian Brandy, Commander ToCoSo



PIECES OF EIGHT:
A USER'S
GUIDE TO
PIRACY

THE TABOO CAREER: THE ONE YOU'VE NEVER CHOSEN.

Sure, we've all hunted bounties, headed off into the black to chart new stars, raked asteroids with our mining lasers. But who amongst us has actually partaken in piracy?

In this article, we're not going to weigh up the moral implications of making a living through destructive theft, or search for empathy amid the murky criminal undercurrent of the spaceways. Like it or not: this is *Sagittarius Eye's* guide to stealing stuff from space ships.

What to fly?

“Piracy is by far the most complex vocation in the Bubble, as it combines a range of different skills and requires the use of a wide assortment of modules,” explains Commander WiggyB. He is the creator of several notorious holo-vids on the topic of piracy, and a recognised authority on the subject.

The wide assortment of modules required means a multi-role ship is preferable. An inexperienced pirate may think that a pure combat ship is a great pirate ship, but in almost all circumstances they would be incorrect. Combat ships like the Viper, Vulture and Fer-de-Lance (FDL) are a poor choice as they have a low number of optional module slots.

A pirate’s ideal ship will instead have a large selection of optional module slots, but it will also be manoeuvrable and boast hard-hitting weapons. The Python and Imperial Clipper are ideal for the task. The Cobra or Keelback can be also be utilized if funds are limited.

The Lakon Type-9, a veritable piñata of booty.

Weapons and utility slots

The first task of a pirate is to strip the victim’s shields without destroying the ship outright. Pulse lasers are good for this: they are less demanding on the power distributor and can be engineered with the efficient modification to further ease distributor pressure when sustaining fire. Lasers’ low effectiveness against bulkheads is in fact an advantage here: a dead victim can drop no cargo, after all.

Pilots who are confident in their accuracy may wish to consider plasma accelerators. They will cut through shields alarmingly quickly. Be careful though, as they are also effective at destroying armour!

Next, a pirate should seek to disable their target’s internal modules. Multicannons, engineered using the sturdy blueprint which increases armour piercing, are well suited for this. Alternatively, railguns — particularly with the super penetrator experimental effect — are unparalleled at

gutting a ship. One must exercise caution though, since these weapons have a high thermal load and require a steady hand. Armour-piercing weapons prove particularly potent against heavily defended targets, such as the Lakon Type-9, a veritable piñata of booty.

Cannons can also play an important role in a pirate’s arsenal. Specially modified, they can counteract a ship’s momentum, especially useful if their thrusters have gone offline.

I tend to use a single small cannon with the force shell special effect. This can be used to rapidly slow a ship. Too many shots and you'll send it flying away from you. — WiggyB

In terms of utility slots, a manifest scanner is of course essential to see what a potential target is carrying. For protracted chases, a wake scanner is also advisable.

Core internals

A pirate will want their vessel to remain lightweight and agile, so the standard lightweight alloys are recommended. They can be modified with heavy duty engineering to maximise armour integrity.

The power plant should be modified as needed, and desired changes will differ from vessel to vessel. If power usage is relatively low (for example, when running mostly kinetic weapons), the armoured blueprint may be utilised to increase integrity and slightly improve power generation and thermal efficiency. The ‘monstered’ experimental effect can provide an extra kick to the reactor if a little more power is needed. If this is insufficient, an overcharged power plant may be necessary, though these are notorious for their low integrity and poor heat efficiency.



In order to outmanoeuvre prospective prey, A-rated thrusters are a must. Using the ‘dirty drives’ blueprint with ‘drag drive’ experimental effect will give the best manoeuvrability and speed available.

The frame-shift drive (FSD) should be engineered for increased range, with the mass manager experimental effect for classes 5 and higher and the deep charge effect for classes 4 and below. This maximises jump range so that any targets that manage to jump away can be successfully pursued.

As with a standard combat ship, the power distributor should always be engineered to enhance charge rates, so when those pips are redistributed the capacitors are full! A variety of experimental effects may be applied, but those with higher-draw weapons may need to use the super conduits effect for further increased recharge, or cluster capacitors for increased capacitor size.

Life support and sensors should be engineered to reduce their mass by as much as possible, as this will boost your speed and jump range.

Optional modules

Shields should be prismatic if available. These are the strongest shields money can buy, but are only accessible to trusted lieutenants in the service of Princess Aisling Duval. If you can’t get them, choose bi-weave shields for their quick recharge rate. However, shielding isn’t the first concern as a pirate; after all, if you’re taking a lot of fire, you’re doing it wrong.

Shield cell banks (SCBs) can be utilised to bolster shields in a pinch, particularly in the face of a security response. If possible, these should be specialised to reduce heat output, but rapid charge may be needed in well-policed systems.

If you’re taking a lot of fire, you’re doing it wrong.

Of course, every pirate will need to be able to pull potential prey from supercruise, so an FSD interdictor is essential. Engineer the module using the wide angle blueprint for best capture results.

Engineer the collector and hatch-breaker limpet controllers to reduce as much weight as possible. Reducing weight increases agility; even for a small amount, it is still worth investing in.

Finally, fill those remaining optional module slots with cargo racks: the more the merrier, me hearties! We recommend leaving port with a one third cargo capacity filled with limpets, but these can also be synthesised in the field should they be exhausted. A mark with point defence can destroy limpets, so limpet efficiency can be hard to predict.

How to choose your mark

The key to profitable piracy is the ability to find high-value targets. There are ships around carrying large quantities of silver and gold. However, the best are mining ships, loaded with low-temperature diamonds – WiggyB

The most important part of being a successful pirate is finding systems that yield a good amount of loot in the shortest time possible. The EDDB database is your friend here. Use these following search terms to increase the chances of finding a worthwhile system:

- Only populated systems: Yes
- Allegiance: Independent
- Primary economy: Agriculture
- Station filter: Having orbital (makes landing easy)
- State: Boom (increased number of worthwhile ships to pirate)

It is best not to pirate in systems that are taking part in powerplay activities as this will decrease the number of traders in the system. Independent systems without an allegiance to a Power are best.

Anecdotally, agricultural systems make the best hunting grounds. For some reason, traders are more likely to be carrying low-temperature diamonds in these systems (for prosperous farmers, presumably).

Always try to pirate in systems that do not have far-flung stars or distant outposts, as the majority of ships present in those will be out of scanner range.

We recommend choosing a system with asteroid belts and planetary rings, as this will increase the likelihood that traders and miners will be carrying precious cargo.

Pirating techniques

Anyone can build a properly-equipped ship, but knowing the pirate's trade is important.

Before any pirating can begin, the target must be interdicted. WiggyB recommends spinning on the target ship's central axis: this motion acts to keep the target centered, assisting interdiction. This combination of rolling and pitching tends to be more effective than yawing, but a mixture should always be employed.

Once you've snared your mark, it's time to get your hands dirty.

If you are lucky enough to bag a low-ranked, fully-laden Type-9 then it's likely that you will be able to fill your entire cargo hold with diamonds from that one trip. Most runs are not as easy as this and will require two or three interdictions to fill up your hold – WiggyB

(1) The classic – disable thrusters and the 'bump stop'

Take out the prey's thrusters. Disabling the thrusters does not remove the vessel's momentum, so it will begin to tumble on its final vector. To keep limpets safer and more efficient, one will need to manually reduce the target's speed and rotation.

A technique called the 'bump stop' can be used, using your own ship as a brake. Always bump stop a vessel from directly in front, as other angles will simply knock the target onto another vector, requiring further manipulation.

Use a cannon with force shells to help reduce the velocity and spin of the stricken vessel first. Then, use your ship as a 'buffer' on the target, reducing its velocity even further, as this is more precise than using a cannon.

Once the target is at a standstill, align with their cargo hatch to ensure that limpets have the shortest travel time possible. This will reduce limpet waste and increase the odds of completion and escape before the authorities arrive.

One hatch-breaker limpet releases four to six units of cargo. For an efficient use of limpets and collection of cargo the recommended ratio is one hatch-breaker limpet for every four units of cargo released.



(2) The shield tank

Shield tanking is best used pirating small ships that can outmanoeuvre your larger ship. – WiggyB

Shields with a high capacity will stand up to continued fire for an extended period of time. This can be utilised in a more laid-back pirating technique.

Four pips to systems will allow maximum shield integrity while the victim attempts to break them with their quaint little weapons. It rarely occurs to the pilot that they should flee; they are prone to becoming myopic in their attacks. This allows an easy steal.

The victim will tend to move into a dominant firing position approximately 1.2 km above and behind the pirate's ship. At this point, limpets may be deployed to commence the theft.

"From this point on you can kick back and have a Lavian brandy whilst laughing at the pathetic and ineffective tantrum thrown by your target," says WiggyB.

There is a serious disadvantage with this technique though: the limpets will have to travel around 2.4 km to complete the trip. This can take in excess of 40 seconds per limpet. To loot a vessel with 100 units of cargo will take around ten minutes, using six collector limpets.

Splash damage from missiles will destroy limpets, so take note of your mark's weaponry. They may also change their mind and decide to flee, so pirates may wish to destroy their FSD after initially collapsing their shields.



■ Python interdicting

Convoy Beacons – practice makes perfect

Any budding pirate needs to hone their skills, and convoy beacons are perfect. The freight carried in a given system depends on the system's economy type, points out WiggyB. Systems undergoing outbreaks of disease offer particularly rich pickings.

Remember, it's best to attack convoys in lawless systems, so you don't attract a police response. When the system is lawless, multiple targets can be pirated without authority interference – and if a target is accidentally destroyed, a murder bounty will not be issued.

A pirate's ideal hunting ground for this type of beacon is a high-population system in an outbreak state with an extraction economy. This is a rare combination, and the list of candidates will change from day to day. Low-population systems with digits in the mere single thousands should be avoided.

Piracy in high-security systems

These are tricky waters for pirates. Interdicting will result in a fine, and shooting a clean ship will attract the authorities. The appearance of the Fuzz is a distraction you certainly don't need, so be sure to steal quickly in these systems.

A better tactic is to chase your quarry to less-policed space. Interdict them, then instead of firing, allow them to 'high wake' out (jump to another system) and follow them. You can find out where they've gone with the wake scanner.

Only when the quarry jumps to an anarchy system should they be attacked. Look at your target panel - if it says 'lawless' in red letters, loot away. If not, interdict them again to chase them to a new system. This technique best works around the edge of the Bubble, where there are a large number of uninhabited systems.

Remember, a typical Type-9 will have a jump range of about nine light years - so a starting system should be more than nine light years away from a populated system. This guarantees the trader has to jump through a lawless system in order to get to a populated system!

Occasionally a mark will try to be smart, dropping out of supercruise next to a star in the hopes of shaking off their attacker. Simply follow the low wake signature.

Be a baddie

Piracy is an involved activity: it needs specialised equipment, and experience and skill go a long way. Hopefully, this guide can help you get started. Just don't say we told you to.



Pieces of Eight: A User's Guide to Piracy

Text:
G-Dubya

Design:
Balthazarn Noxx

Images:
TolaakGrohiik,
TwoSpoons

Thanks to:
WiggyB

THE PHOENIX CAMPAIGN



The Children of Raxxla are a household name in today's Galaxy. This month, one of their members, guest contributor Saul, shares what they've been up to.

The Children of Raxxla (CoR), and their late leader, Salomé, were once well-known for attacking targets known to be affiliated with the Club — a small group of powerful, unknown individuals which treats the Galaxy like a puppet, constantly pulling at strings and manipulating its populace for an unknown agenda.

On the 29th of April 3303, a mad dash across the stars saw the fiery demise of the CoR's leader, Salomé. With her untimely death, much of the CoR retreated back into the shadows, feeling vulnerable with a large portion of the Galaxy watching them. Since this event, however, the CoR have not been sitting idly in their starports. They have been working, studying and watching the goings-on of the Galaxy — and its mysterious puppeteers.

To mark their rise from the shadows, they have created a series of operations under the umbrella name of the 'Phoenix Campaign' in order to continue the fight against the Club.

Insiders at the CoR's strategy team — and the man behind the operations themselves, Commander Aleister Fox — have provided some details regarding their attempts to fight back at the shadowy figures. Whether through reading GalNet articles and local news broadcasts, or following Black Flights through their wakes, the strategy team locates targets with known or heavily-suspected Club affiliation.

Doing no harm

One such example of this was Operation Primus Non Nocere: a coordinated strike on a research facility with ties to heavy illegal human experimentation: something that the Club is not averse to doing. The facility in question was known as the Janus Corp. Medical Research Facility, located in HIP 106288, above the rings of the third planet.

The CoR first became aware of this facility after following up on rumours of a listening post in system HIP 105408, near Planet 2b. The satellite holds a message logged from someone named Tommy; apparently a patient who had escaped the Janus Corp. Medical Research Facility:

"My name... Tommy... I was... big journey... out to see... stars... something wrong... escape pods launched... they found us... or was it them... no, no I'm fine... no drugs... darkness and dreams... bright light in my eyes... experimenting on people... using progenitor cells and other... worse... kinds of procedures... they say ...is it... to slow ageing... don't believe them... not sure how... I got away... was sure they would find me. Some big corporate facility, I... if you are hearing this they... I can't go back... research installation... 3... Gas giant... HI... P 106288... help us..."

Following the information provided within this message led interested parties to the research facility. Multiple logs were discovered there — recorded by both medical and security staff — regarding the operations of the facility. Within the logs are mentions of a missing patient who was part of the 'control' group for the research tests, identified as 'Tommy'.

The CoR launched a preliminary investigation into the facility. After assessing their data, they led a surgical strike on the location to disable critical equipment and to hamper distribution of progenitor cells within the system.

It was an attempt to temporarily halt illegal human experimentation and to send a clear message to the Club: that the CoR will not tolerate their continued operations, and that they will not be allowed to treat humanity and its property as tools for their unknown agenda.

The Harmony

Following the strike's success, the Children of Raxxla moved towards a more humanitarian goal with their Phoenix Campaign: an opportunity to improve the lives of those who need shelter from the chaos of the Galaxy.

Many veteran independent pilots will remember former President of the Federation, Jasmina Halsey, and her disappearance some years ago. After her reappearance, she began to make waves as a politician-turned-humanitarian.

In February of 3303, she partnered with the Yum Kamcabi Purple Life Industry to establish a centre for refugees looking to escape from harmful situations in their day-to-day lives and to instate a small governing body to oversee this goal. This effort was a resounding success, with the construction of a megaship, the *Harmony*, and the creation of the independent Emyrean Foundation to oversee its continual operation.

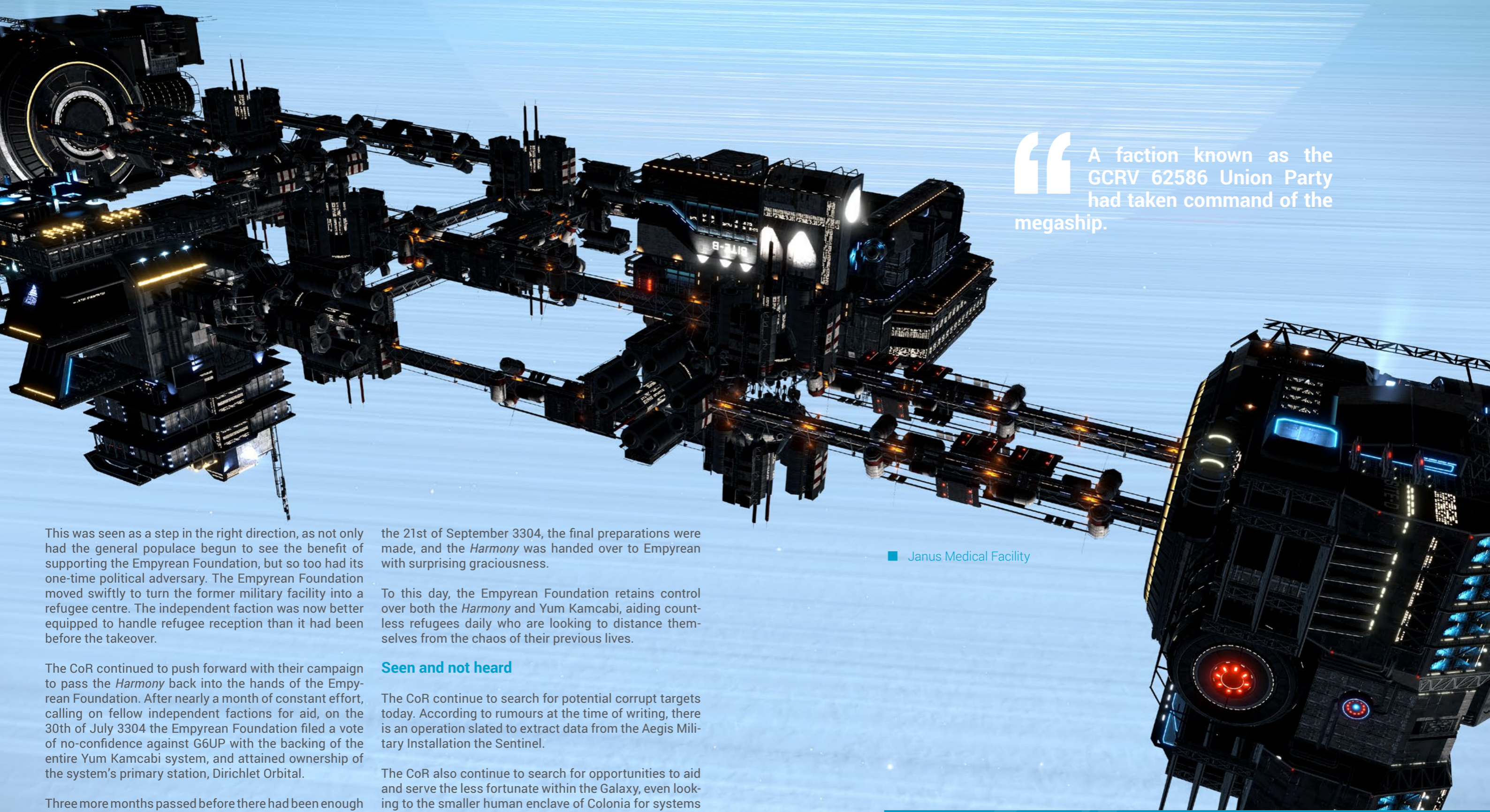
However, in July of 3304 it came to the attention of the CoR that the *Harmony* had undergone a change of hands, and was no longer under the control of the independent Emyrean Foundation. Instead, a faction known as the GCRV 62586 Union Party (G6UP) had taken command of

the megaship. The CoR, suspecting corruption, moved swiftly to plan and execute an operation, known as Operation Lighthouse, to place the *Harmony* back in Emyrean Foundation jurisdiction.

On the 9th of July of 3304, the CoR made their move into the Yum Kamcabi system and began their support of the Emyrean Foundation. After consulting with executives of the Foundation, the CoR began an initiative delivering data for the independent faction in an attempt to raise awareness among the local populace of their efforts.

After nearly a week of constant support, on the 15th of July 3304, the CoR saw their efforts begin to bear fruit. The Yum Kamcabi Progressive party, after enough political pressure, stepped forward and offered the Emyrean Foundation control of their security installation, King Terminal.

“ It was an attempt to temporarily halt illegal human experimentation. ”



A faction known as the GCRV 62586 Union Party had taken command of the megaship.

This was seen as a step in the right direction, as not only had the general populace begun to see the benefit of supporting the Empyrean Foundation, but so too had its one-time political adversary. The Empyrean Foundation moved swiftly to turn the former military facility into a refugee centre. The independent faction was now better equipped to handle refugee reception than it had been before the takeover.

The CoR continued to push forward with their campaign to pass the *Harmony* back into the hands of the Empyrean Foundation. After nearly a month of constant effort, calling on fellow independent factions for aid, on the 30th of July 3304 the Empyrean Foundation filed a vote of no-confidence against G6UP with the backing of the entire Yum Kamcabi system, and attained ownership of the system's primary station, Dirichlet Orbital.

Three more months passed before there had been enough political pressure on the G6UP to hand the *Harmony* over to the Empyrean Foundation. The move was surprising at the time, given how fiercely the G6UP had held onto their assets. Allegedly, they had felt so much pressure from the galactic community that they could not, in good conscience, continue their campaign against the Empyrean Foundation and those that it intended to help. On

the 21st of September 3304, the final preparations were made, and the *Harmony* was handed over to Empyrean with surprising graciousness.

To this day, the Empyrean Foundation retains control over both the *Harmony* and Yum Kamcabi, aiding countless refugees daily who are looking to distance themselves from the chaos of their previous lives.

Seen and not heard

The CoR continue to search for potential corrupt targets today. According to rumours at the time of writing, there is an operation slated to extract data from the Aegis Military Installation the Sentinel.

The CoR also continue to search for opportunities to aid and serve the less fortunate within the Galaxy, even looking to the smaller human enclave of Colonia for systems where their help might be needed.

The Phoenix Campaign signifies not only a new era for the CoR, but also a new age for truth and humanitarianism.

■ Janus Medical Facility

The Phoenix Campaign

Text:
Saul

Design:
Donald Duck

Art:
Karnath

Thanks to:
Children of Raxxla

Images:
Sebastian Wehmeyer, OrangePhoenix



THE POWERS:
AISLING DUVAL
THE GIRL BEHIND THE PRINCESS

Princess Aisling Duval, called by some the 'People's Princess', is arguably the most popular politician in the Galaxy. More Pilots Federation members have pledged to her cause than any other galactic Power – no doubt due, in part, to her photogenic appearance and humanitarian politics. She's known for charity work and her controversial opposition to slavery within the Empire. ▶

However, besides the occasional candid interview, the Princess remains enigmatic. The Duval family guards its privacy: security around each member of the Imperial Family is tight, with no information released without permission and oversight. Obtaining access to the Princess or anyone who knows her is a difficult task even for an Imperial journalist with a pristine reputation. For a reporter from a magazine like *Sagittarius Eye*, the chances are even slimmer.

It was early morning when your correspondent arrived at the residence of one Siphya Trelyvan, a woman who claims to have known Princess Aisling. Permission to travel planetside and visit an individual who spent a part of her life in direct service to an Imperial princess is a rare opportunity.

She has campaigned for its abolition for most of her adult life

“As you know, Princess Aisling is very involved in politics. After her father stepped down from the scene, the entire responsibility for her people and representing the Duval name was left on her shoulders. This alone is taking a huge part of her time. Besides her responsibilities as the Duval heir, she also plays an active role in various organizations whose missions include helping Imperial citizens, campaigning against narcotics, and her own anti-slavery organization, Unchain. To be honest she rarely has a free day when she can relax,” Siphya told us.

The Princess’ stance against slavery is well-known. She has campaigned for its abolition for most of her adult life, pitching herself against powerful interests like Senate veteran Zemina Torval.

Her high-profile opposition to such an entrenched aspect of Imperial life has, at times, put her in danger. We asked Siphya about an attempt last year on Aisling Duval’s life.

“This cowardly act happened during a fundraiser for the Unchain organisation in the Zhao system. Imperial Internal Security Services intercepted encrypted communications that morning, but by the time they were decrypted the gala was already underway. They wanted to evacuate her immediately, but she refused. Hundreds of people were in danger, she said, and she couldn’t leave them to die. So she ordered her security chief to find and disarm those explosives quietly and went on to continue the fundraiser,” Siphya claimed.

It was not the first time an attempt on the life of a famous member of the Senate has been made. In 3302, Denton Patreus was the target — a man Aisling Duval had once



courted. Siphya refused to be drawn on the Princess’ personal life, nor would she comment upon the abrupt cancellation of her planned wedding to Jordan Rochester last year.

Some observers have suggested that Aisling’s sunny exterior and excellent press management are more considered than her boosters would admit. It has been suggested that beneath the holo-friendly smile and easily-digestible policies is a cunning political operator, whose manipulation of the press is as calculating as it is deft. Siphya downplayed this interpretation, instead focusing on Aisling’s political ambitions:

“Princess Aisling Duval will change politics and law. She will finally end slavery and make sure that Imperial citizens live long, healthy and happy lives under Duval rule.”

Utopian ideals aside, her ideology puts her surprisingly close to Shadow President Felicia Winters of the Federation, though the latter is less frequently dismissed as a political lightweight. Lovers of individual liberty and equality are drawn to Aisling. For many, she is emblematic of a ‘new’ Empire: more outward-looking, egalitarian and meritocratic.

Aisling Duval is certainly one of the Empire’s modernisers. Widely tipped as a favourite to succeed Arissa Lavigny-Duval, should the throne become vacant, the Princess is the most popular political figure among Pilots Federation members.

The Powers; Aisling Duval, the Girl Behind the Princess

Text:
Allen Stroud,
Souvarine,
Ziggy

Design:
Balthazarn Noxx

Art:
Balthazarn Noxx

Eden Apples of Aerial

RARE COMMODITIES SPOTLIGHT



According to ancient mythology, when Adam and Eve lived in the Garden of Eden they knew nothing of pain, hunger, suffering or death. But when Lucifer tempted them with an apple from the Tree of Knowledge, their world was changed. God cast them out from Paradise, and they were forced to live as mortals, living, breeding and dying in the dirt for generations until our civilisation reached out for the stars.

Most ancient scholars interpreted the story of the apple as a metaphor for humanity achieving sentience and self-awareness. Many believed this was a replicated myth, comparable to Prometheus' gift of fire, or Pandora's Box. However, this has not stopped some theologically-minded adventurers from seeking a return to the mythical Eden, whether on Earth or in the heavens.

When humans first colonised the Aerial system and descended on the planet Shangjun, they came seeking a new beginning. The first pioneers wanted new lives for themselves and their descendants, but some amongst them held beliefs in the old scriptures, and when they discovered a beautiful, silver-tinged fruit growing from alien trees in an alien forest on an alien planet, they named them after something familiar from their past — an apple.

The first humans to eat the apples of Aerial were not enlightened in the same way that Adam and Eve had been, but they did suffer similar consequences. The native fruit proved incompatible with the human digestive system, along with the rest of the planet's environment. People died before they learned any better, and so ignorance and stupidity returned to curse humanity once more.

Shangjun is a terraformed world — an early project of Imperial scientists and engineers. As the planet was tamed, the dangers of its past became novelties and trinkets for the generations that followed. Shangjun will never be a paradise — the dense atmosphere left behind by the artificial engineering process ensures that day-to-day life on the planet is arduous — but something of its early mystery remains.

One part of that mystery is the Eden Apple. The native fruit has been genetically modified into a sugary delicacy that is much more reminiscent of the old Earth variety, but has retained its silvery sheen, which gives it a heavenly or magical quality.

The taste of an Eden Apple is zesty and fresh. It is usually eaten as an appetiser, without garnish or sauce. Any type of cooking or juicing the fruit is said to blunt its flavour, reducing it to mushy blandness. Some chefs still experiment with the apple, seeking a preparation method that will unlock its true potential as an ingredient for the ultimate meal.



Rare Commodities Spotlight:
Eden Apples of Aerial

Text:
Allen Stroud

Design:
McNicholl

Art:
McNicholl



Co-Pawlots

Co-Pawlot name: **Aza**

Commander name: **Ziggy**

Aza was given to Ziggy by a high-ranking Imperial politician for his actions supporting the Empire and Princess Aisling Duval, for which he was also crowned an Imperial King. Since then, she has become an important part of his life in the void.

She's currently protecting him from space madness on the Distant Worlds 2 expedition. Occasionally, she's also a good engineer's assistant, when high-G planetary landings cause ship damage. He told us:

I wasn't sure how well an animal would cope in space, but she mastered it. She's very smart and is a huge help with the maintenance – bringing the right tools when I can't get to them, or serving as my personal bodyguard. It's nice to see her running all over the ship with her new mag-boots for dogs.

Even on bad days far from civilization, she's always able to get my mood up with her constantly-smiling face and the funny doggy things she tries to pull off. She's the best companion ever, and every commander should have a dog just like her!

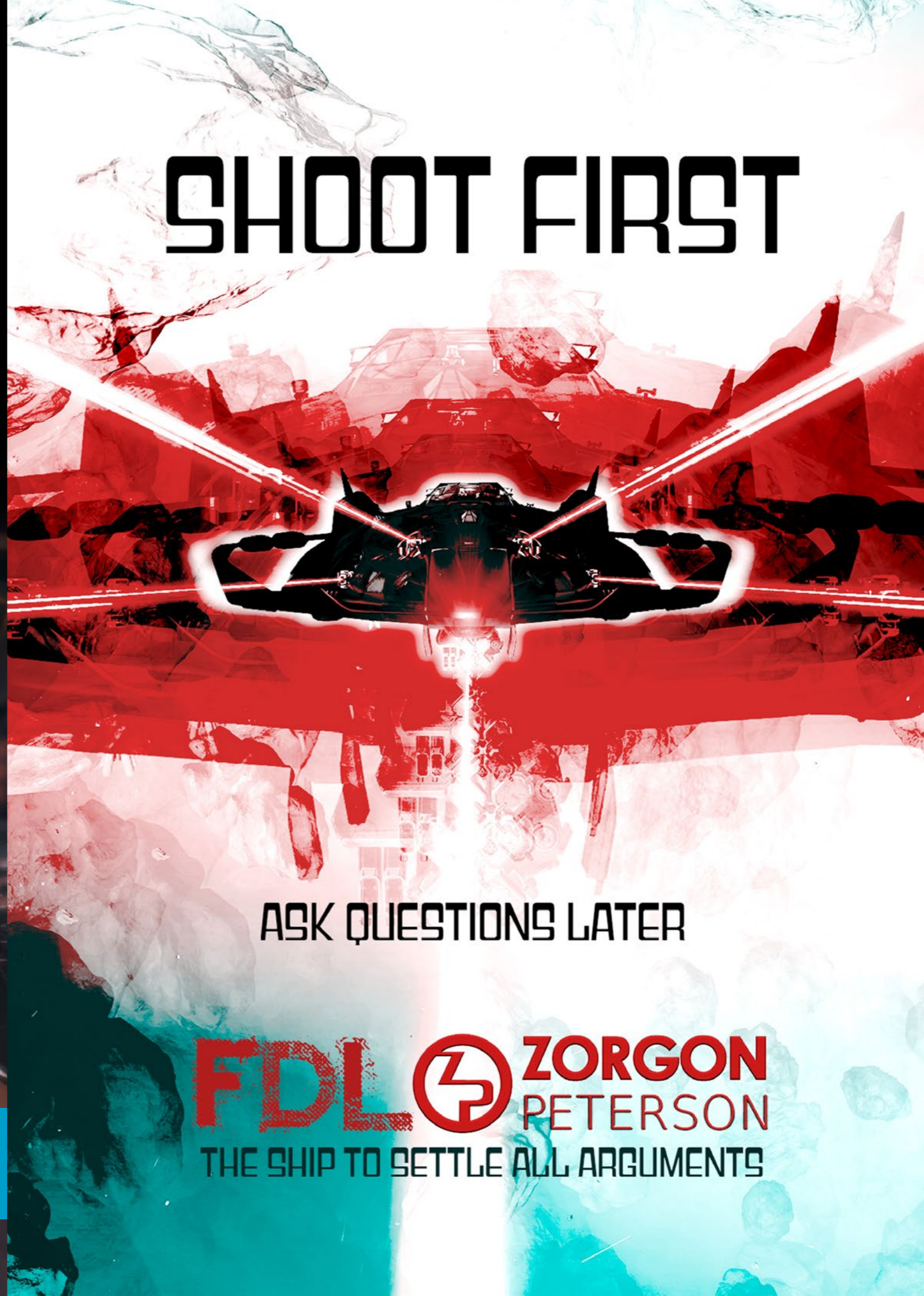


Do you have a Co-Pawlot you'd like to share with the Galaxy? Hop on to www.sagittarius-eye.com/submissions and let us know! Be sure to include their name, role aboard your ship and any particular story about them you'd like to share.

Text:
Ziggy

Design:
McNicholl

SHOOT FIRST



ASK QUESTIONS LATER

FDL  **ZORGON**
PETERSON
THE SHIP TO SETTLE ALL ARGUMENTS

Lab Notes



Text:
Mini_Watto

Image:
OrangePheonix

Design:
McNicholl

(tek-NEE-shee-em)

To the untrained mind, technetium is nothing special. Sure, it has a couple of specific uses for the average pilot: it can be used to synthesise particularly potent plasma accelerator or repeater ammunition, or to increase the fuel efficiency of SRVs. Many, however, never bother with premium level synthesis, and so their technetium reserves will sit in their storage, gathering dust.

For scientists, however, this element poses one of physics' greatest modern mysteries. Technetium was one of the last transition metals to be discovered: it was not until 1937 until it was finally produced. Ancient history to us, perhaps, but considering that this was only eight years before humanity's first ever nuclear detonation, it was certainly a late arrival in terms of chemistry and physics. But why?

Well, our more semantically-versed readers may have figured out the reason for this from the element's name. 'Tech' is a term we are all familiar with, conjuring images of fantastical technology (see?) and engineering excellence. It derives from the ancient Greek τεχνητός meaning 'synthetic', or 'artificial'. Essentially, the only way for us to attain technetium on Earth was through technological means (generally, by-products of nuclear fission power plants). This is because there are no stable, naturally-occurring isotopes of the element.

While the fully ionised state of technetium-97 is stable, this isn't produced naturally (at least not in noticeable quantities). Technetium-98 boasts the longest half-life of any isotope, at an impressive-sounding 4.2 million

years. This, however, is a pittance in comparison to the lifetime of stars and planets, so we shouldn't really find it naturally. In fact, if we take a look at the cradle of humanity, Earth, we can calculate that at any one time, there are only about 18,000 tonnes of technetium in the planet's entire crust, as part of various radioactive decay chains. Comparing this to the total mass of somewhere around 20,000,000,000,000,000,000 (that's 20 quintillion) tonnes, that's less than 0.00000000000001% of the planet.

Yet, as any pro SRV driver will tell you, technetium seems to be rather common! Sure, it won't decay within a pilot's lifetime (assuming it's the correct isotope, of course), but it really shouldn't be there. Exactly why humanity has seemed to pop up around a time of technetium 'boom' is truly a baffling question. Perhaps some exotic stellar events happened to be frequent relatively recently (or cosmically, extremely recently) in the Milky Way's history, or perhaps there is some as-yet-undiscovered natural method of production, which simply does not occur on Earth.

Either way, it is always important to realise that, even in an age in which we can hop between stars in the time it takes to sip a cup of tea, there are still some relatively primitive physics questions that haven't been solved for generations.

Hopefully though, you'll all still trust your frame shift drives.



PATREON

SAGITTARIUS EYE

Sagittarius Eye is the Galaxy's leading news network – created by commanders, for commanders, and supported by commanders.

We would like to thank those who have supported us over the past month:

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A LONG JOURNEY
NEEDN'T BE DEMANDING

BUT IF THE WORST
COMES TO THE WORST

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