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OUR BEGINNER'S GUIDE TO MINING

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SAGITTARIUS EYE

ISSUE 18

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EDITORIAL

The very first issue of this magazine asked the question: "Who the hell are the Thargoids, and what could they possibly want?" Now, nearly a year and a half after those words were written, we'd like to revisit this question.

Over the last two years there has been much speculation over the aliens' intentions (including plenty from this publication). Are the aliens defending themselves from our aggression? Are they the 'great filter' of the Milky Way, routinely stamping out sentience wherever they find it?

An image shared over the datasphere in the last few days struck this writer. It shows a Barnacle in a dusty canyon, surrounded by ships, SRVs crawling around it. The spires are broken and the ground is littered with pieces of the alien growth. The image is one of destructive curiosity.

This writer was there at that spot himself in late 3301, and remembers the canyon. He remembers the chatter amongst the gathered pilots — the nervous laughter, the prodding, the speculation. He remembers shooting at the spires himself. All in the name of science, of course.

The Codex, recently introduced by the Pilots Federation and Universal Cartographics, asserts that the Barnacles gather resources from a planet's surface and convert them to Meta-Alloys: essential materials in Thargoid biomechanical structures. Thargoid Interceptors have been documented extracting something from the Barnacles; it is reasonable to assume that they are extracting the Meta-Alloys.

That old image of the ruined Barnacle in the canyon symbolises the clumsy, destructive curiosity with which humanity has approached all the Thargoid artefacts we've come across. When viewed in this light, the Thargoids' behaviour becomes strikingly simple and understandable.

Michael Brookes, an observer often quoted in connection to the Thargoid mysteries in 3300 and 3301, once predicted that the actions of the pilots involved in a 'first contact' scenario would determine how any ongoing relationship with the aliens developed.

This puts the current 'war' in achingly simple terms. We came to the Thargoids' attention after wrecking their stuff, like birds stripping grapes from a vineyard. In this light, the months of the Thargoids' harmless curiosity before the fall of the Oracle seem tolerant.

Souvarine

SAGITTARIUS EYE

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TRUMBLES
LOVED & LOATHED

A legend among spacefarers, the Trumble is little-known in the present day. It may, therefore, surprise some readers to learn that this animal was once the cause of near-hysteria. This month, *SAGi* delves into the history of this improbable menace.

The Trumble is a small furry creature, easily held in the palm of your hand, with an unprecedented reproduction rate and an endless appetite for anything edible. Some cherish them as pets, much like cats, dogs, or similar species; while the mere mention of them to others can trigger a response akin to a medical professional treating a deadly condition.

Trumbles are hermaphroditic and capable of asexual reproduction when no mates are available. They are often born pregnant, and can quickly start reproducing if there are sufficient food sources for them to devour. With enough food — and the Trumble is not a picky eater — the creatures can reproduce at an exponential rate, devastating local ecosystems.

When food sources are scarce, Trumbles enter into a state of extreme hibernation that is so far the longest recorded of any creature found on any world. During hibernation, their metabolism is undetectable with current scanning technology. This has led explorers to think them dead and take individual animals as keepsakes; only to have them awaken and begin to reproduce rapidly in less inimical conditions.

A Trumble will purr when content, similarly to a cat. The low-frequency vibrations of the purr can cause increased oxytocin production — more so than a cat's purr — in humans, leading to a heightened state of calmness and relaxation, thereby leading some humans to love the Trumble for its calming and soothing abilities. Its fur is incredibly soft and similar to that of rabbits (herbivorous creatures from Earth). These characteristics make Trumbles attractive potential pets to the uninitiated.

Trumbles come from a unique world upon which most species have evolved rapacious breeding and predation

> **Most consider it a myth told by old space folk.**

habits. There, the Trumble's prodigious metabolism and breeding rate have evolved to allow it to keep pace with a hostile ecosystem.

Predators of the small creature are voracious and many; and even most flora have developed robust defences against animals. It is this unique ecosystem that allows them to live in balance on the planet and prevents them from devastating it.

> **The Trumble's prodigious metabolism and breeding rate have evolved to allow it to keep pace with a hostile ecosystem.**

If a local ecosystem becomes overpopulated by Trumbles and its food sources are depleted, the grazers will find whatever nooks and crannies they can to hibernate in until the ecosystem restores itself. On their native world, this has led to areas that are almost cleared by Trumbles then regrow, creating the same effect that wildfires do on many forested Earth-like worlds.

When Trumbles were first discovered and exported from their world, they were poorly understood and quickly be-

came a 'must-have' pet. The little creatures found their way onto many ships and stations in civilized space, and as companions on long journeys out into the unknown.

However, due to lack of oversight and understanding, most of them weren't monitored and their populations exploded. Food sources for them were plentiful aboard ships and stations, and they bred unchecked. This led to many stations having their food supply vanish, sometimes overnight, and having to call for emergency supplies that often had to remain aboard the relief vessel and be ferried across to the station as needed.

Once a station's food stores were depleted, the new Trumble population would enter hibernation and become impossible to detect with standard scanners due to their extreme metabolic slowdown. It was at this time the Pilots Federation, Alliance, Empire, and Federation started to impose controls on trade in Trumbles.

The only viable method of control that was discovered for spacecraft infestation was prolonged exposure to heat. The legendary Commander Peter Jameson was the first to discover this when flying his ship near a star. After a breeding explosion of the creatures on board his ship, he lost control and ended up in the extreme temperatures for longer than normal. As his ship heated to dangerous temperatures, the creatures began to die, resulting in a complete purge of Trumbles on board.

Once this information spread, countless vessels took to

diving into the heat of the stars to cleanse their vessels of the infestation. Personal ships could easily accomplish this by repeating Jameson's method; flying close to the corona long enough for the Trumbles to perish in the heat, which could often be accomplished by simply fuel scooping. Larger ships struggled with this process, whilst stations could not be moved close to stars and therefore had no such option. However, the creatures' weakness to heat was something that could be exploited. Other methods of control were tried with varying success.

During the height of what many considered 'the Trumble plague', a number of stations became overwhelmed with the creatures and had to be evacuated. It was deemed too expensive and time-consuming to remove the creatures from the station, and more cost-effective to simply abandon them. These stations now exist as conservation areas. They are under strict quarantine and are no longer listed in navigation computers unless a pilot possesses special clearance, which is granted only to scientists and conservation specialists.

The rapid reproduction and voracious appetite of Trumbles, coupled with their ability to get into tight spaces inaccessible to humans or most robots, led the Pilots Federation and most governments to impose strict controls on transporting the creatures. It was thought that if they were to spread to another planet, they would quickly devastate it completely.

Fortunately, the authorities acted quickly enough to prevent that. Trumbles did not cause harm to any planets due to the embargos, and it is thought that no wild population of Trumbles exists on any world in the Galaxy beyond their native one. An accompanying media campaign promoted the fear that these alien organisms would wreak havoc on ecosystems, much like historical events on Earth in the third millennium. By 3200, Trumbles had vanished from the majority of space.

These days Trumbles can only be owned by those with special permits. These are tightly controlled, infrequently granted and difficult to obtain. Couriers are frequently checked to ensure they are complying with Trumble-related regulations, and if a ship carrying a Trumble approaches any station — or Trumbles are detected in any cargo — a quarantine is immediately placed on the ship. Any transit between the ship and station has to be conducted by spacewalk, or with a small shuttle that is rigorously checked by station workers before being secured to a pad under quarantine.

In station bars, you still hear dockers tell stories of 'the Trumble plague'. More recent generations of station workers never witnessed what happened firsthand, and so most consider it a myth told by old space folk: some-

thing the veterans use to scare greenhorns. Despite this, new workers still go through training on how to handle Trumbles, and information posters on the problems the creatures can cause are still seen in stations around the galaxy.

If you wish to visit the Trumble homeworld, you need a permit. The location is a closely-guarded secret and unknown to most spacefarers. However, several museums have displays for those who are curious. These are often accompanied by scientific lectures highlighting the perils of disturbing an ecosystem.

If you don't want to go through all the red tape of Trumble ownership, you can see them in person in a few zoos. Most will only have a digital display for them due to control measures, but occasionally you might see a frozen example or a stuffed corpse behind glass. Both are memorials to a cute, but incredibly dangerous, creature. 🪐
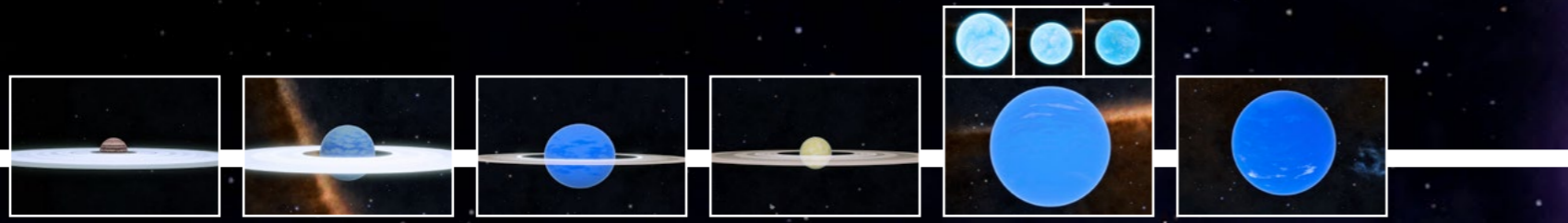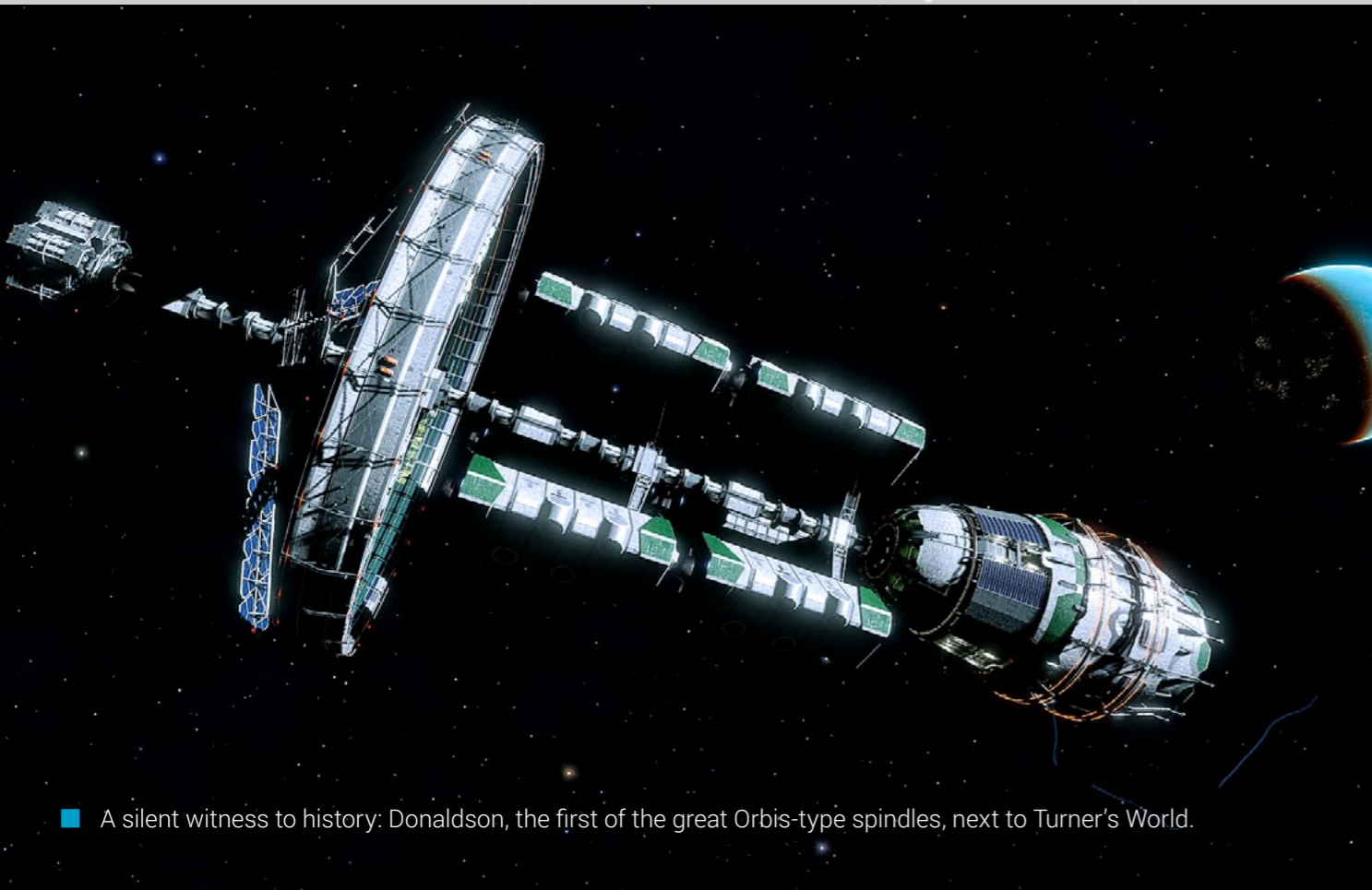
ALIOTH
CONFLICTED CAPITAL

The centre of more than half a millennium of protracted warfare as both the Federation and the Empire vied for supremacy in a region far from their bases of power, the story of Alioth is as complex and conflicted as that of any place in human-controlled space.

Alioth was first colonised in the latter half of the 25th century. The earliest settlement in the system was first named 'Fruitcake', apparently because of the rich loamy soil deposits found by the early settlers. For outsiders, the appellation became a nickname for those early colonists. Alioth was a long way from other established worlds, so there would be no help for anyone should there be a crisis.

However, colonising Alioth was seen as a necessary risk. The massive natural resources available in the system meant it had the potential to become a nexus for further expansion and a rich exporter of materials to fuel the next step in humanity's quest for the stars.

The first rebellion on Alioth was known as the 'Quarterson Revolution'. It began in 2617 and was led by Quentin Devisises, whose aim was to turn Fruitcake into an independent harbour for free traders, far away from the ongoing disputes between the Empire and the Federation. However, in a rare moment of cooperation, the two warring factions united to put down the fledgling independence movement. Fruitcake was retaken by Federation General Charles C. Gordon, made a Federal protectorate and renamed 'Gordonworld'. For their part, the Empire took control of the planet's gas production trade, until the truce between the two powers broke down again later in the century. The cause for this was the terraforming and colonisation of a second world in the system, named *New California*.

Despite this, over the centuries, regular insurrection leaders would rise up in the name of Quentin Devisises, often claiming kinship with the enigmatic revolutionary or even to be 'Quentin Reborn'. Members of this continuing resistance became known as 'Cakers' for their refusal to accept the Federation's new name for their home planet.

A silent witness to history: Donaldson, the first of the great Orbis-type spindles, next to Turner's World.

...When it became necessary, the Federation did not wait long to send forces to protect their citizens in Alioth...

The 'Birthright' wars

Revisions to land ownership rights throughout the Federation in the 27th and 28th centuries caused significant displacement of its citizens. Many dispossessed families moved to Alioth and other systems, where the reach of the ownership reforms remained weak. Other parts of the Federation were wracked by internal division, but for once, this did not happen on Gordonworld or New California; though it did cause some minor local division.

Terraforming side effects

The rushed and experimental procedures used to alter the environment of New California for habitation were evident almost immediately after Imperial citizens colonised the planet. Still, the Empire kept the matter contained for several decades as their doctors treated the ailments suffered by the population and their scientists sought to amend the ecology and the environment. However, matters did not improve.

When several fringe settlements were beset by a collection of previously unreported diseases and whole populations were wiped out, the Imperial hierarchy on the planet could no longer contain the issue. An attempt was made to instigate martial law, but a new Caker sect seized its chance and captured the Imperial garrison, locking the majority of the soldiers inside. A conflict broke out be-

Whatever happens, for now, Alioth is content in its role as grande dame of the third interstellar power.

tween the remaining Imperial soldiers and the rebels, including those on the orbital stations around the planet. With no other option, the rebels sent a request to Gordonworld and, within days, Federal troops landed under the command of Admiral Kracer and liberated the planet from the Empire, finally bringing the system together and reducing the Imperial presence to a minimum garrison on the orbital stations.

A motion was put before the Federal Senate to formally accept 'New California' into the Federation, amending Alioth's original colonisation charter to include the terraformed world. This motion never actually passed. Instead it was deferred, exploiting a procedural loophole to ensure the planet's status remained unclear. This pacified objections from anti-terraforming groups, but made

sure that the planet would have some Federal protection if there was another war in the system.

The Federation didn't have to wait long. In 2924, the Durn and Resner corporation requested aid from the Imperial Navy to enforce their claim over a large swath of the system's mining territories. A vast armada descended on the system, overwhelming and driving out the Federal defenses. However, the very next year, the entire force disappeared. No one has ever understood why or how, but decades later, several media stories circulated claiming that illegal cloning practices had been involved in the creation of that Imperial armada, and that the subsequent defeat was owed to a latent genetic instability in the vat-grown soldiers.

After the incident, the Hassoni-Kruger corporation exploited an unpaid invoice to acquire all of the Durn and Resner contracts.

In the last years of the third millennium, both the Empire and the Federation pursued detailed plans to take complete control of Alioth from each other; but there was never the same impetus in their actions. In each conflict and crisis, the interstellar superpowers were forced, time and again, to evaluate their investment in the system. Any attempt to raise finances for defense or attack required a fresh round of taxation, gradually poisoning the minds of the system's citizens against both the Empire and Federation.

...and the Empire quickly followed suit.

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The Quinker process

One innovation Alioth was famous (or notorious) for was the 'quinker' process developed by scientists at Nesbitt Landing in 3114. Quinker technology was an adaptive systemisation of robotic processing, first applied to the system's vast gas mine network. It was rumoured at the time that the concept involved a new 'neural net' setup; a technology that had been outlawed by the Federation many centuries before. For a time, the project leaders denied this, claiming they were working with 'dumb' algorithms like everyone else, but this didn't stop the Empire ordering their Third Fleet to Alioth as a means of discouraging such technological misconduct. The Federation responded in kind and another standoff ensued, with a variety of proxy conflicts occurring until 3122, by which time all the of the people and research associated with the Quinker project had disappeared.

Rumours persist that the Achilles Corporation or one of its subsidiaries acquired the Quinker information or managed to smuggle out some of its scientists to work in their top-secret development laboratories, but this has never been confirmed.

■ ...and mining quotas...

■ Disputes over artificial intelligence...

■ ...ended in a war of independence that would give birth to the Alliance of Independent Systems.

Building tension

In 3184 there were presidential elections in the Federation. The eventual winner, Loric Trander, had a background in the interstellar mining business and, in response to a corporate lobby, got involved in a murky dispute over permitted quotas in Alioth. An official named Riley Dain, who had been appointed by the authorities on Gordonworld, had disappeared after launching an investigation into quota abuse and falsified documentation. Dain's dismembered body was discovered in a septic collector. In response, Trander authorised an independent investigation, sending in a team from outside the system. When their suspicions turned towards several high ranking Imperial citizens, Emperor Hesketh Duval sent in the XV Fleet.

The conflict avoided the settlement of New California, thanks to the previous treaty, but the settlers there found themselves cut off from interstellar trade and forced to survive with little support until a further ceasefire was established in 3198. Neither side achieved anything except lining the pockets of the industries who fuelled and powered their fleets. The incident also stirred further resentment amongst the settlers. At this time, the Caker insurrection resurfaced, became more organised and received substantial financial support from unknown sources.

The Rebellion, Mic Turner and Meredith Argent

Mic Turner was born in the Essafa system in 3205. He grew up in Jones Colony and graduated with honours from the civilian pilots' school. Sometime after that, he moved to New California in Alioth.

In 3228, when the Federal corporations supplying New California attempted to raise their prices again, the citizens revolted, taking over the ships berthed in the space station and riding out to the gas mining stations to assault the corporate workers. Federal and Imperial forces arrived within days, but fighters from Alioth and several neighbouring independent systems joined forces to repel them.

Turner's piloting skills saw him amongst the first to fly out to the orbital platforms, and he won a great deal of respect from his peers for his efforts. It was there that he met Meredith Argent, a scientist who led one of the Caker cells on the gas platforms and was a direct descendant of Walter Argent, a wealthy industrialist from Ayethi in the 27th century. Argent and Turner were to become partners for life.

The Imperial fleet withdrew first. Alioth was too far from their supply bases and, without the resources of the system, they did not want to fight a protracted campaign.

The Federation's efforts were also deeply unpopular amongst its own citizens; media coverage of the war was tightly controlled at first, but enterprising Alioth rebels managed to smuggle out their own recordings and, once the Empire had withdrawn, Imperial agents saw an opportunity to thwart the Federation and assisted them. Finally, in late 3229, the Federation was forced to withdraw as well.

Until recently, Lave's presence amongst the Alliance systems has provided a counterpoint to Alioth on the Assembly floor.

In the aftermath of the revolution, Argent and Turner rose to prominence with their proposal for a safe political unit for colonies who wished to exist outside the protection of the Federation or the constraints of the Empire. This was to become the Alliance of Independent Systems. Gordonworld was renamed Turner's World in honour of Mic Turner's efforts in the revolution.
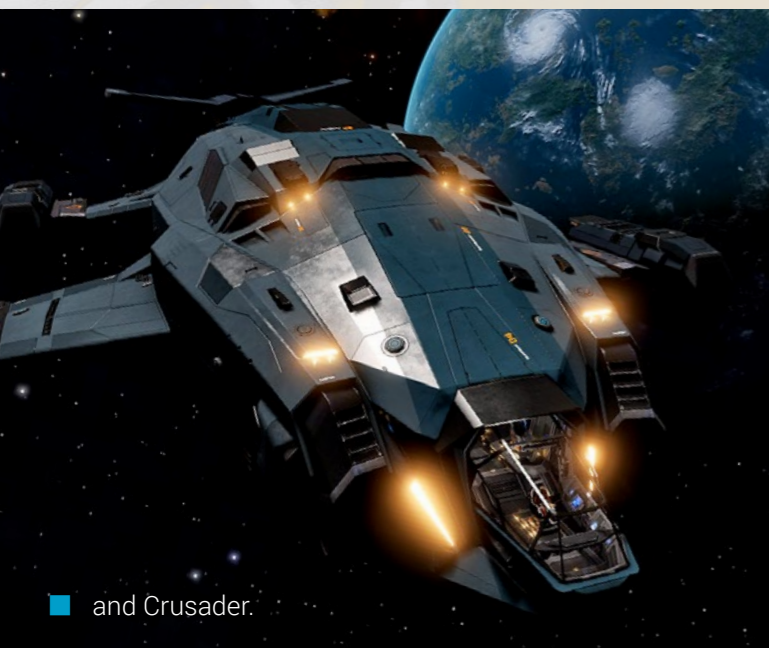
The Alliance was founded in Alioth in early 3230, with the system as its capital. Over the next two decades, more

■ Expressing the Alliance's present strength: Chieftain...

■ Challenger...

■ and Crusader.

than twenty systems joined the new faction. Some were independent, while others had revolted from Imperial and Federal control. For nearly a thousand years, colonial settlements had been able to choose between only Imperial vassalage or Federal interference unless they wanted to go it alone. Alioth and the Alliance provided a third way: more supportive and less conditional on cultural alignment.

The Alliance was founded in Alioth in early 3230, with the system as its capital.

Meredith Argent and Mic Turner continued to be a positive influence on the Alliance, both politically and economically. Alioth developed a solid economy and became the site for the New Rossyth Shipyard, owned by Argent Aerodynamics Amalgamated Incorporated (AAAI), the company founded by Argent and Turner to develop new spacecraft and pioneer space exploration.

These noble aspirations were quickly tempered by the practicalities of interstellar politics. The death of Mic Turner at the hands of the notorious Commander J (Javelin) Saunders of the INRA dented the new faction's positive outlook on the Galaxy, and the prevailing strategy of Alioth's leaders became more defensive. By using the Alliance as a projection of its power, the system had secured itself some protection from its former masters. The Alliance 'hub' became a buffer against reprisals and would prevent any large invading fleet from establishing a supply line. However, each new system joining the Alliance meant a different voice at the table with different needs and agendas. The pace of expansion gradually slowed over the next few decades.

The Lave Incident

The deployment of Admiral Bryce Jander's Furnace Carrier battle group to the Old Worlds sector is a moment in history that has been written about many times.

At the time, the Alioth Navy was the largest contributor to the mutual Alliance security treaty. However, with expansion slowing, the navy had been exploring sub-contracting work and was engaged in a mining operation partnership with Wreaken Construction and Mining. The corporation had commissioned the Furnace to act as a refuelling station and security escort for their prospecting team operating in the Quator system; a notorious anarchy at the time.

The events that drew the Furnace and her support ships

■ Garden City, the flourishing center of the Galaxy's third superpower on Turner's World.

into the Lave system and a battle with Hans Walden's decaying fleet put the Alliance on the precipice of war with both the Federation and the Empire. That such a conflict did not come about remains a testimony to the diplomatic efforts of all those involved in the aftermath of Lave's revolution in 3265. However, it was clear to the leaders of Alioth that they had overreached and lost a great deal of political capital amongst their contemporaries.

Subsequent Alliance policy for expansion has been much more conservative. Until recently, Lave's presence amongst the Alliance systems has provided a counterpoint to Alioth on the Assembly floor. Its return to independence after elections in 3304 may see a new shift in the future.

Alioth today

The bright idealistic naivety of Alioth's people that inspired its legislature in the early days of independence has dimmed somewhat. Nevertheless, the Alliance remains the most active and acquisitive of the three superpowers in the 34th century.

However, the stultifying procedural processes of the Assembly have made any attempt to enact policy and maintain a position of power difficult. Edmund Mahon has proved that such things can be done, but the majority of actuation has been performed by individuals and small groups at local levels. Alioth's part in this is much less prominent than before, although it may be that Assem-

bly members will look to its legacy for new leadership in the next century. Whatever happens, for now, Alioth is content in its role as grande dame of the third interstellar faction.

Culturally, the identity of Alioth has traces of both its Imperial and Federal legacies. Some minor corporations still acknowledge 'Duval Days' – the occasions when Emperors are mourned or celebrated for the beginnings or ends of their reigns. Federal citizenship (and voting rights) are still available to be purchased in some districts too.

Political movements rise and fall – some champion a return to the Empire or the Federation, but such movements rarely become more than instances of regional extremism. The system as a whole takes pride in its identity as the birthplace of the Alliance. ✐

GHOST SHIPS

In 3304 several members of different Pilots Federation groups reached out to *SAGi* to bring light to a disturbing phenomenon: starships being flown by automation programs, emulating the actions of human pilots.

Following our exposé in December of widespread sabotage within the 'power play' community, this month we shine a light on these 'ghost ships'.

In a darkened room within an undisclosed base, 'JTrinity' pores over charts. Her flight suit is unzipped and her Remlok retracted. She is not flying today.

The doors to the room retract with a hiss. She looks up, momentarily distracted, and squints in the bright light from the hallway.

"Oh, it's you. Come here."

The figure steps towards the desk. Screens adorn the walls; some holographic, some visible only via eye implants. They look down at the lines on the graph. She stabs at them with a finger.

"Look. This is irrefutable. See that line? That's a Python-class hauler. Every datapoint represents a docking – there's one every… twelve minutes."

The other flightsuited figure nods assent. His codename is Pan Drewno, and he is a visitor from the Alliance Elite Diplomatic Corps. He watches the woman's finger trace the line all the way up the sheet.

"Know what that means? It means that the pilot doesn't stop. Not for lunch, not for sleep, not for a break – not ever. That ship has docked at that port five times per hour for the last 168 hours."

▶

Unmasking the faceless

The building belongs to the Alliance Office of Statistics (AOS), the Pilots Federation-dominated group of analysts based in the Gateway system who, despite their innocuous name, are thought to be behind several star system-wide transfers of power in recent years. They advise other outfits active in the service of Prime Minister Edmund Mahon and the Alliance of Independent Systems more widely. It is April 3303, and the AOS are investigating prodigious deliveries of preparation supplies to the system of Soholia.

Soholia is of no strategic importance to the AOS, or Edmund Mahon; in fact, an expansion there would stretch the Prime Minister's supply lines and command infrastructure far more than the system would be worth. But it was being prepared nonetheless, and the AOS were tasked with finding out by whom. They had identified six ships that exhibited unusual behaviour.

"One day I decided to stick around outside the station to watch... and noticed a highly automated departure from the station, which all six pilots exhibited, exactly the same," JTrinity recalls. "Hailing these ships brought no response. Blocking their departure from the station resulted in them just ploughing through. No change of direction, no slowing down or speeding up. It was as if they simply weren't looking, but they always departed in a direct straight line, very slowly until they reached the 10 km mark from the station. Came to a full stop, rotated in the direction they were going to jump. Engaged frame shift drive, and then just slowly accelerated until they jumped out."

The evidence began to pile up. Not only did every one of the ships display the above behaviour — their every single action was identical, and their actions could be tracked, like clockwork, across impossible consecutive hours of flight.

The implications were clear: these ships weren't being piloted.

While 'dumb' artificial intelligence is all around us in the 34th century, self-aware artificial intelligence is banned throughout human-governed space. On the rare occasions that sentient machines have been created, they have caused havoc.

The Pilots Federation, eager to remain nominally compliant with terrestrial governments to preserve its freedoms, therefore has strict rules around automation, or 'botting' (regardless of sentience). While it is certainly possible to program starships to perform most of the functions that human pilots perform, the Pilots Federation correctly identifies laxity in this area with the death of independent starfaring. After all – what good would an association of pilots be if there were no longer any pilots?

So mundane, non-economic tasks can be automated – such as docking or leaving a planet's surface. Use of automation software for any activity which could have an economic effect, however, is strictly prohibited.

Following the identification of the pilotless ships, JTrinity took the footage she'd collected and, with the traffic data that the AOS had compiled, presented it to the Pilots Federation. In September 3303 the six ships were temporarily impounded.

The victory was short-lived.

"During those thirty days, we started seeing a bunch of new [ships] showing up", JTrinity remembers. "New pilots flying T6s. All exactly the same load-out, exhibiting same departures. Then we'd see them in Pythons and gradually Cutters. On the thirty first day, the original six returned, but by then we had about ten new [ships] also prepping Soholia and we had a very sudden and sharp attack on our [economy]. I believe it was in revenge."

More evidence-gathering ensued, with more back-and-forth to the Pilots Federation authorities. Eventually, in December of that year, fourteen of the sixteen identified ships were impounded – albeit for only another thirty days.

"But those thirty days were glorious, as we were losing our [economic] fight against them leading up to the ban wave. During those thirty days we managed to recover our economy," she remembers.

After this, it seemed the bots' tactics changed. The AOS perfected a technique to track the automatons via their interactions with starport interfaces, and through this, they managed to track the six original ships.

"Two of the original six headed out to Colonia, while the other four headed to a system just outside the Bubble," JTrinity explains. "A few days later I looked at the influence graphs in both systems.

"The two in Colonia had adopted the Mobius group in the system Alberta, and were absolutely destroying another faction in that system called Privateers Expeditionary Force. And the system outside the Bubble [that the others headed to] happened to be the [home system of the] Privateers Alliance. They were attacking the PA."

The Alliance groups contacted the Privateers Alliance. They showed them the tracking of the ships against the influence graphs for the new target systems, demonstrating beyond reasonable doubt that the attackers were one and the same. Commander Brap Man, of the Privateers Alliance, remembers seeing "suspected bots parked in stations and dramatic influence swings for other factions in our systems" for around two months.

The two groups held long discussions, searching for a common enemy. They could find none. In fact, the only similarities they could identify were that both were large, successful outfits, and both made up of Pilots Federation members. The only conclusion they could draw was that the automatons were being used to attack popular groups, for no other purpose than to cause harm.

However, while the choice of target appears random, the need for a secondary target is real. JTrinity and Pan Drewno explain that adopting and supporting a faction can be lucrative — factions will remunerate those who carry out their missions. These credits are then spent on sabotaging Edmund Mahon's activities (covered in the December issue of this magazine).

Sabotage in this context involves preparing a loss-making system for expansion, knowing that should the expansion happen, it would weaken that power. These 'preparations' are done by shipping specific goods from the power's centres of command to the target system. Doing so in a big enough way to make a difference is expensive.

It quickly became clear that whoever was controlling these automatic ships was earning money by destabilising the PA, and spending those credits destabilising Mahon.

Gateway is the headquarters of Edmund Mahon, the Prime Minister of the Alliance. For a long time, it was nominally governed by the Alliance Office of Statistics. One of the other factions present in the system, the Gateway Jet Brotherhood, is an anarchist criminal organisation. In November of last year the faceless bots adopted the Jet Brotherhood, fulfilling contracts and missions for them — pushing their interest until they locked horns with the AOS themselves.

▶

The battle for control of Gateway lasted a week. "Hundreds of Alliance commanders came out for the duration of that conflict fighting for AOS to win, but we still lost by a landslide," remembers JTrinity. The anarchist Jet Brotherhood remained in control of Edmund Mahon's seat of power until mid-December.

The Alliance Elite Diplomatic Corps (AEDC) is a Pilots Federation group associated with the faction Wolf 406 Transport & Co. Conflicts around the Lave system, often with the pirate radio broadcaster Lave Radio, have erupted several times in recent years. While these were often acrimonious, neither side suspected the other of anything underhand.

"All traffic reports and influence swings were well within predictions and intelligence reports," recalls Pan Drewno. "Fast forward to September, when the war was ongoing, and we spotted new things in our space. Very worrying traffic patterns, unexpected record-setting influence changes across multiple systems."

Initially, the AEDC suspected that their opponents in the Lave conflict had enlisted the help of a massive group. However, the assault continued across their entire territory with greater ferocity than the conflict had previously seen, and extended far beyond Lave — drawing in even the Alioth Council (the leadership council of Alliance-affiliated groups). Lave Radio and their allies categorically denied involvement with the 'bots' and promptly ceased hostilities.

An armistice in Lave was agreed, and yet the assaults continued.

"At the beginning of October we started cross-referencing data with the AOS, and that's when it dawned upon us that we're both being hit by the same force," says Pan Drewno. He shows me a traffic graph: during the day in question, one or two ships of each popular model jumped into the system. Each model except the Python, of which there had been 166.

The two analysts are keen to emphasise that they do not suspect Lave Radio, their opponents in the Lave conflict, of running the bots themselves. But they deduce that their hidden adversary had chosen to take that group's side in the conflict for no other reason than to undermine a specific group (full disclosure: several Lave Radio members are also on the staff of this magazine).
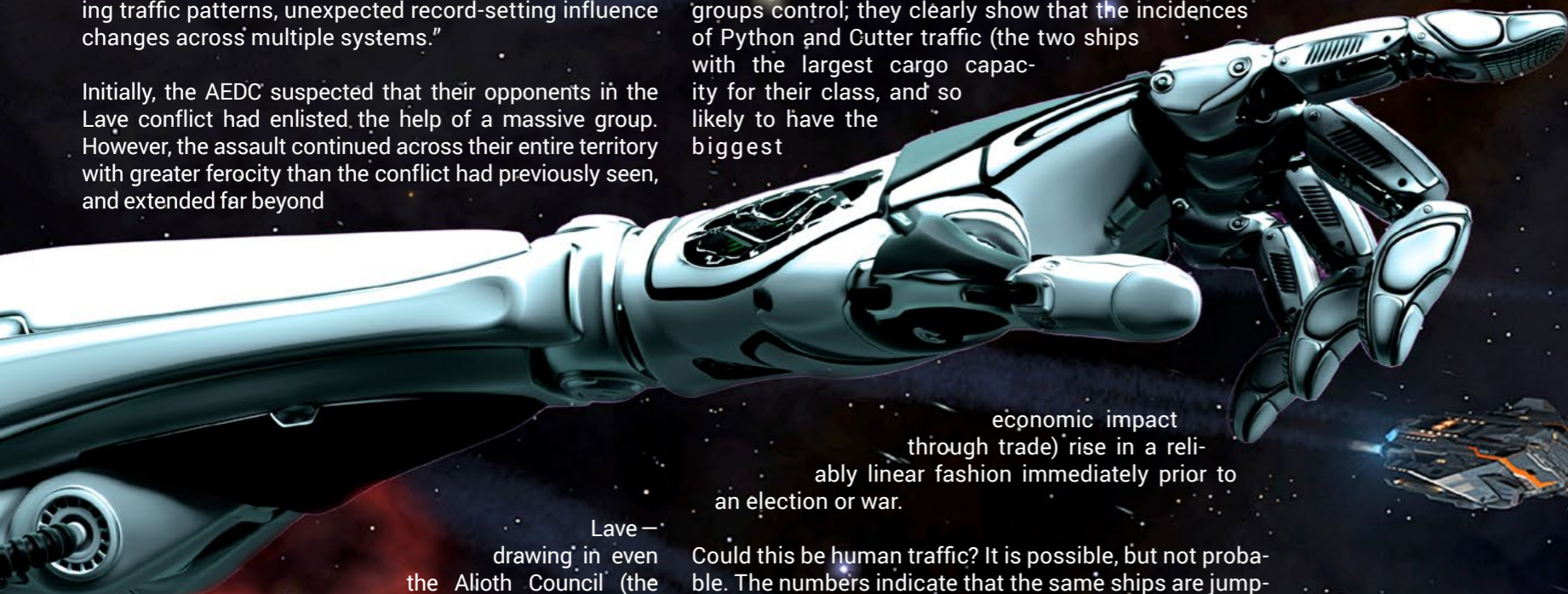
If this evidence sounds circumstantial, that's because it is. But JTrinity and Pan Drewno paint a convincing picture. They have thorough data for all systems their groups control; they clearly show that the incidences of Python and Cutter traffic (the two ships with the largest cargo capacity for their class, and so likely to have the biggest economic impact through trade) rise in a reliably linear fashion immediately prior to an election or war.

Could this be human traffic? It is possible, but not probable. The numbers indicate that the same ships are jumping into a target system a predictable number of times per hour, for more hours than a human pilot would be expected to.

Who controls the 'ghost ships'? Whoever it is finds disruption and control more enjoyable than flying a spaceship — a sentiment this writer can't understand. It is clear, however, that using automation a single operator could have several ships doing nothing but mundane trade runs — without breaks for sleep or any out-of-the-cockpit activity. In this 'arms race' of boredom, it is difficult for human pilots to compete.

Why does this matter? The bot operators have been shown to target large, popular groups. This therefore affects many of us. The Pilots Federation authorities have set up the system to allow each of us the same potential impact on the galaxy. A basement-dweller operating six 24/7 bots has the power to undo the work of twenty dedicated human pilots.

But surely all's fair in love and war? If some pilots have access to automation tools and the desire to use them, it's unfortunate for their targets, but nobody has a right to victory. Right?

Not so. The bots aren't pursuing any coherent goals of their own (from what can be observed); only the disruption of the goals of others. The use of bot ships disheartens those arrayed against them, and those people leave the spaceways for good. It is no fun trying to compete in boredom with a machine.

Those lost pilots impoverish the community. As it shrinks, we all lose out.

Where does this lead? A smaller, emptier Galaxy, populated only by those who don't even fly themselves.

It is up to the Pilots Federation authorities to prevent that. Only they have the ability, and ultimately it will be their loss if they don't.

SHIPS YOU DON'T FLY

KEELBACK

The Keelback is based on the trusty Lakon Type-6 frame — a modified transport given some teeth due to a perceived weakness in the original's offensive and defensive capabilities. So if it's a redesign of the much-beloved T6, why is it that so few commanders actually fly it?

Unfair comparisons

Like so many variants, it is naturally compared to the original. However, the Keelback fulfils a very different role to the T6, making direct comparisons unfair. If you are looking for a budget transport or exploration vessel the Lakon T6 is an excellent option.

The Keelback, however, compares less favourably in all areas that budget transport or exploration pilots look for. With a shorter jump range resulting from a heavier frame, and a lower cargo capacity, pilots looking for an upgrade to the T6 in these areas are often disappointed.

The Keelback does sport improvements over the T6, but these are in areas that traders and explorers don't care about: such as improved hardpoints, a more robust hull, and better shielding. And while the Keelback is also the cheapest ship capable of mounting a ship launched fighter (SLF) bay, traders typically don't want SLFs taking up valuable cargo space.

Vertical thrusters

Dorsal heat exchangers

Quad engines mounted in pairs

Twin medium-sized weap-on hardpoints, one each side of the cockpit

Single drive mounted on rotating lateral sponson for improved thrust-to-mass performance while manoeuvring

Classic Lakon 'glass nose' cockpit allowing both pilot & copilot an excellent view

Twin small weapon hard-points, located behind the 'glass nose'

Lateral heat exchanger
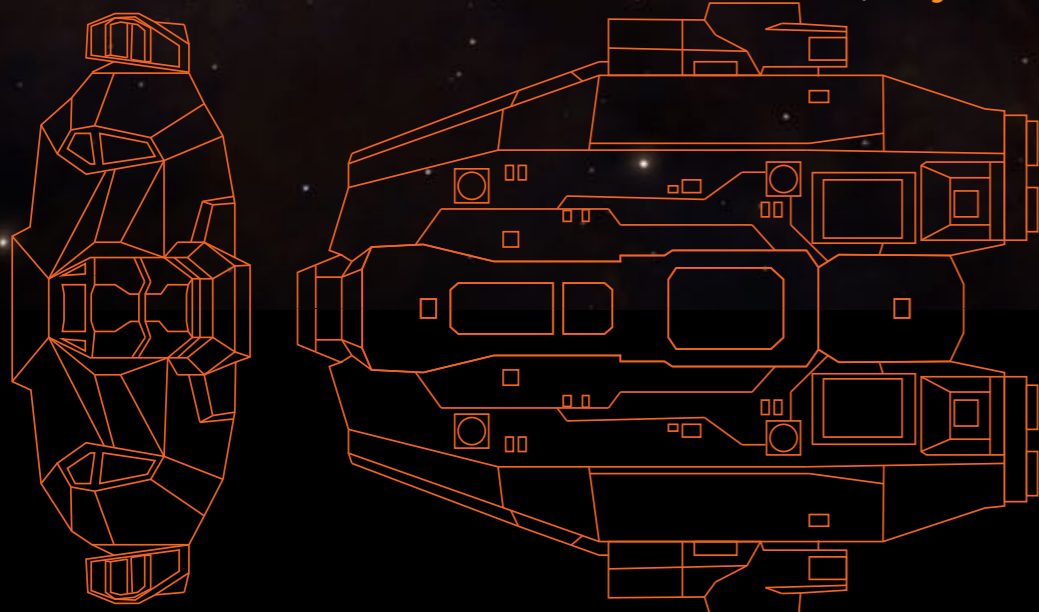
So you want to be a fighter pilot?

So what kind of pilot would fly a Keelback? The kind of pilot that really likes to zip around in a small, agile fighter, but doesn't have the bank balance to buy a bigger, better mothership. As a low-cost fighter carrier, the Keelback excels. Let us take a look at the basic dealership model.

On the pad, you'll be struck both by how boxy the Keelback is, and just how similar it is to the original T6. You could easily mistake one for the other. The only major external difference is the addition of the lateral sponsons, housing some extra thrusters which pivot to bring thrust to bear in almost any direction. As with the T6, the key characteristic of the external design is its boxiness, with the signature Lakon glass nose. It looks robust and functional.

If you are at all familiar with the T6 there are only a few surprises once you have cycled the airlock. The Keelback shares all its major systems and components with the T6 and, in fact, the original avionics software shipped with the vessel identified it as a T6, even displaying the T6 hull plan on the pilot's console!

There are differences to the internal layout due to the additional space needed for launch bay fittings, and hull bracing reduces the ship's internal compartment space by one Class 4 bay. That is a serious space reduction for a medium-size ship. On the positive side, the flight deck does have room for a co-pilot's chair, and the Keelback can fit that all-important Class 5 fighter bay to complement.

What's in the box?

The standard Keelback incorporates Class 4 thrusters, power plant and frame shift drive (FSD) housings. The distributor is only a Class 3, which without engineering leaves heavy duty energy weapons like beam lasers starved of power. A Class 2 sensor suite and a surprisingly small Class 1 life support completes the standard loadout. Even with all A-rated systems, the Keelback is heavy in its handling. With even modest engineering the improvement is obvious, but it still falls well short of the performance of a more combat-focused ship.

In terms of options, the ship sports a pair of Class 5 bays. One of these is usually dedicated for use as a fighter bay, while the second should be outfitted as a fuel scoop if the plan is to explore, or a shield generator if the pilot favours combat. There are also a single Class 4 bay, a single Class 3 bay and a pair of Class 2 bays, as well as a trio of utility points, a pair of light hardpoints located on the belly of the ship and a pair of medium hardpoints mounted on the top side of the hull.

The first lift-off at the helm of an untested ship is usually nerve-wracking; with an unfamiliar layout and flight profile — but not so with the Keelback. For those who have flown the Type-6, everything about this ship is familiar, right down to the vibrating fuel lines that create the characteristic 'rumbling honk' sound when you hit the boost. It's small enough to fit through the mail slot with room to spare on all sides, making it comfortable for even inexperienced pilots to handle without scraping the paintwork.

Obviously, the loadout should reflect the ship's intended use. Assuming that an SLF is required in any build — if not, you would surely be flying an alternative ship — how should you outfit your optional bays?

For exploration, the usual logic is to go for the biggest fuel scoop you can mount, which on the Keelback is a Class 5. The advent of the new Guardian tech offers some alternatives. It is possible, with engineering, to exceed a 50 light year jump range with a fully equipped Keelback carrying both a surface recon vehicle (SRV) and an SLF, but only if you equip a Class 4 fuel scoop and reserve your remaining Class 5 compartment for a Guardian FSD booster. A shield generator or auto field-maintenance unit (AFMU) should take up your Class 3 compartment. The inverse configuration is also possible and comes out at around 48.5 light years range. It's a tight fit.

For combat, there is one factor that affects the survivability of your ship above all others, and that is the skill of the co-pilot you hire. Whether you like to pilot the mothership or the fighter, having an experienced hand on the controls of the other ship in the duo greatly improves your odds of survival. The spacers' wisdom is to spend the cash to hire the best you can afford — but be aware that better pilots will demand a higher share of your earnings!

Using the Keelback as a support ship for the fighter, given its underwhelming pitch and roll rates, means that turret-mounted weapons should be the order of the day. With an engineered power distributor and plant, energy weapons can be used fairly comfortably. For engineering purposes, consider efficient blueprints on energy weapons and long-range upgrades to projectile weapons. Ideally, you want to keep your mothership as far away from the action as you can, while still applying pressure on the target. Losing a fighter can be annoying, but not nearly as costly as losing its mothership!

All things considered

The Keelback is not a ship for everyone, but it does have its own niche to fill. At 3.1 million credits for the dealership model, it's about 42 million credits cheaper than the next cheapest ship that sports a fighter bay — and that's this ship's real selling point. It's a budget ship for the commander who doesn't have time to waste in the rat race and wants to get straight out there and do things, be that exploration or combat.

Your correspondent can afford bigger and better ships, but has really enjoyed getting down and dirty with the Keelback. When you make actual performance comparisons between it and other ships on a per cost basis it performs very favourably. It doesn't manoeuvre like a combat ship, but nor does it handle like a pregnant space whale. It doesn't have a blistering weapons array, but it is modestly armed and the SLF makes all the difference when it comes to damage output.

As is true of every ship out there, it's how you equip and engineer it to meet the challenges you face that makes all the difference. 🪐
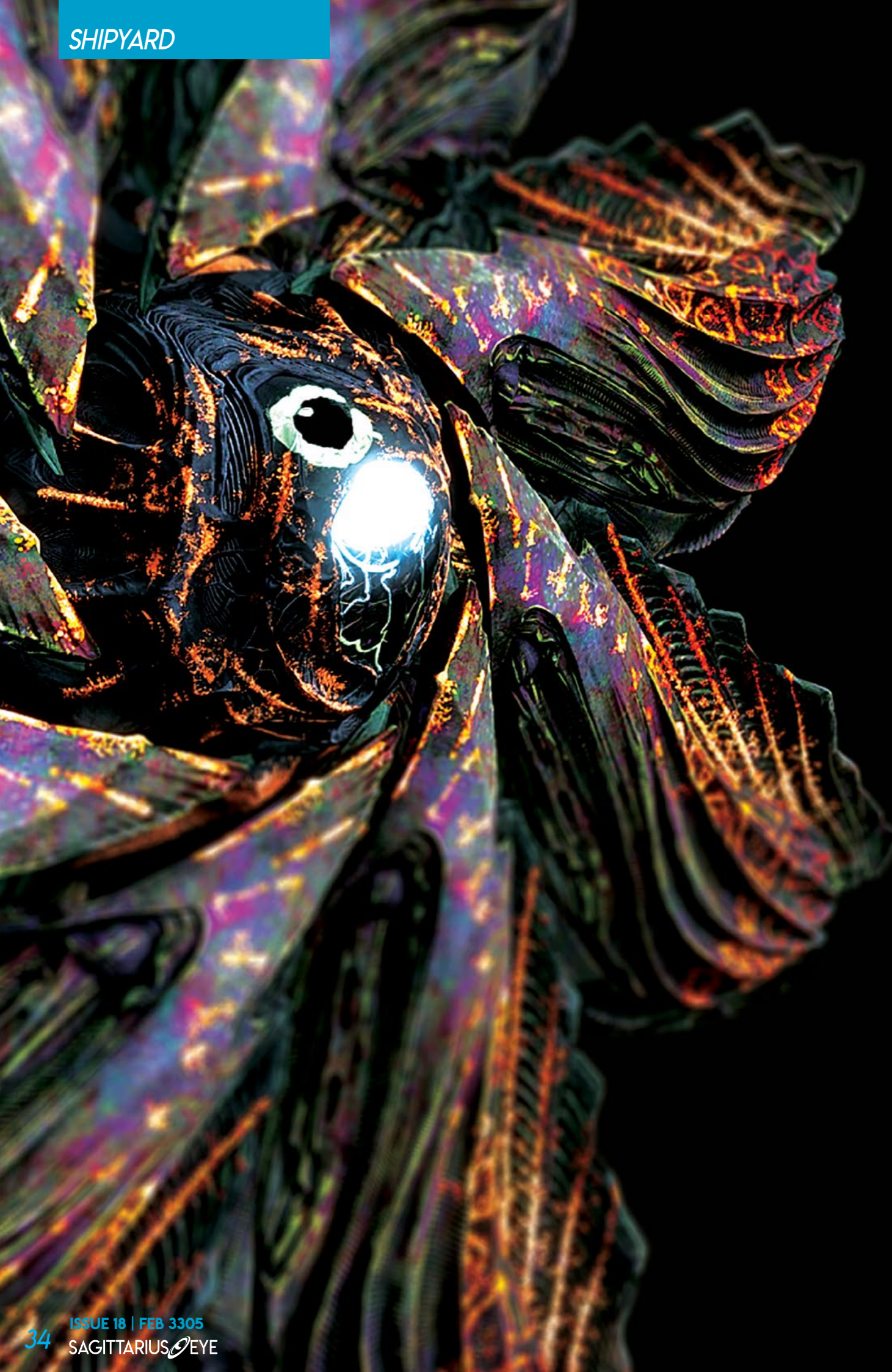
XENO
COMBAT GUIDE

BEHAVIOUR & TACTICS

In the final part of our Xeno Combat Guide, we deal with the Thargoid Interceptor: its behaviour and tactics, and ways to counter them.

▶

The attack run

During combat, a Thargoid will perform 'attack runs'. These are the period from the first shot to the moment the Thargoid turns its back and moves away from you.

Each attack run consists of the same amount of bursts, or 'volleys,' broken up by type:

Cyclops	20 volleys
Basilisk	19-20 volleys
Medusa	17-18 volleys
Hydra	12-13 volleys

For the full breakdown of the damage inflicted by each type, see the table to the right.

When the Interceptor turns its back on you and starts to fly away, the current assumption is that she has emptied her clip/distributor and needs time to reload. – Cmdr Painbeaver

Thargoid Interceptor damage (by variant)

|	Cyclops	Basilisk	Medusa	Hydra
Lightning strike duration (seconds)	8	10	12	14
Lightning strike damage	780	1,700	2,800	4,400
Basic attack run duration (seconds)	30	26	26	20
Basic attack run full damage	144 shield 17 armour	513 shield 82 armour	886 shield 216 armour	790 shield 133 armour
Single volley strike damage	7 shield 0.8 armour	26 shield 4 armour	51 shield 12 armour	64 shield 10 armour
Damage per second	5 shield 0.6 armour	20 shield 2 armour	33 shield 8 armour	39 shield 6 armour

Note: these values are approximate

Exposing the hearts: two phases

The Thargoid's hearts are exposed by inflicting damage to its hull and are visible for no longer than forty seconds. Each subsequent heart is easier to expose. If you don't succeed in destroying the heart within this time, the heart is retracted. Fighting a Thargoid with all of its hearts intact is called 'Phase 1'.

Once a pilot has successfully destroyed a heart, the Thargoid enters a period known as 'Phase 2', which continues until the end of the fight. In this phase, the Thargoid employs its ability to use a 'lightning' attack.

There are other, special abilities that the Thargoid can use, but only once per heart. First is the double lightning attack, which occurs only after the destruction of the first heart. Secondly, caustic missiles are fired after the destruction of each succeeding heart; and finally, the electromagnetic pulse (EMP) attack is used at any time following the destruction of the penultimate heart.

Immediately after any heart's destruction, the Thargoid goes into a kind of a 'stagger phase', which lasts about thirty seconds. In this state the Thargoid will use its special ability and then fly away to recharge/rearm and deploy another swarm. However, if your temperature is at zero and you are not closer than 1,000 metres, it won't be able to detect you and will stay motionless for thirty seconds.
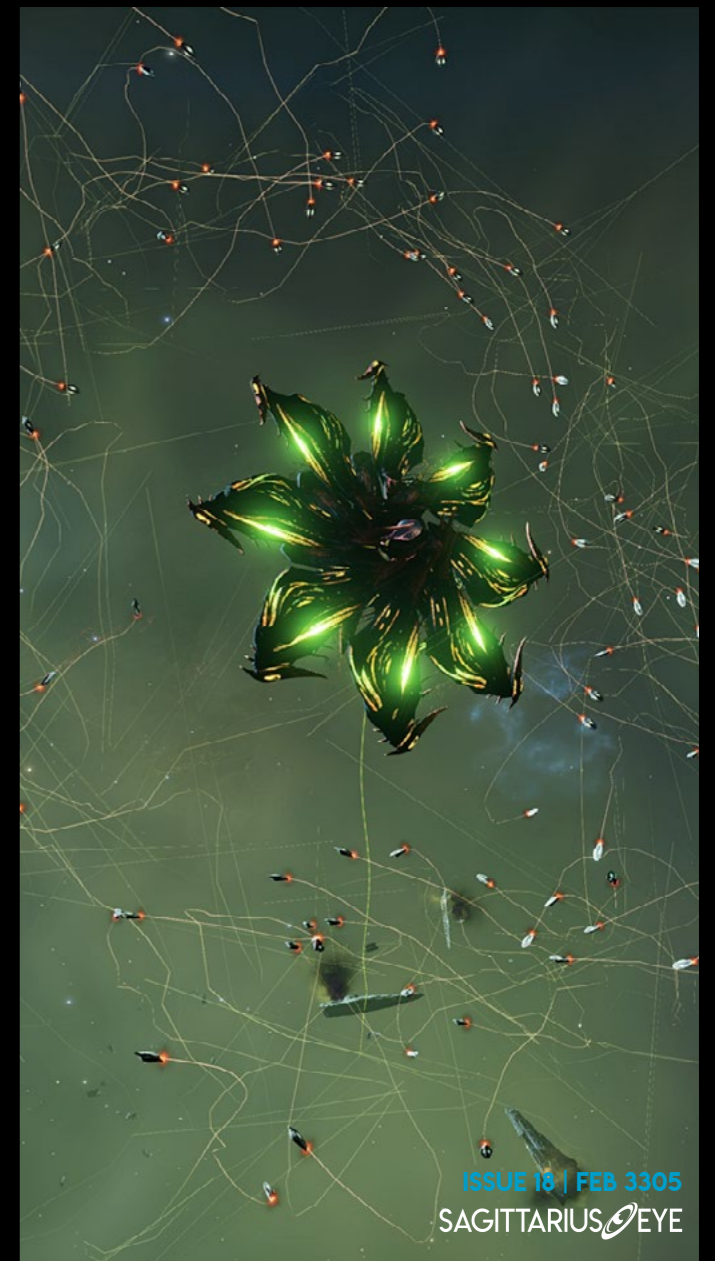
Lightning attack

The maximum range of the lightning attack is 800 metres, so being out of this range will ensure you avoid it. The Interceptor will unleash a second lightning attack run if you are within 800 metres of it after the first lightning attack. This second lightning attack will only occur if the Thargoid is glowing yellow after the destruction of the first heart.

"In the glowing yellow state [before the lightning attack], the interceptor will try and match your speed," explains Cmdr Stormrage. "So if you boost towards her, she will slow down and fry your butt. The best thing to do is to slow down or even reverse away at 100 metres per second, wait until the Thargoid is 1 km away, and hit your boost towards her. You will fly past, get hit by the lightning for a short period, but after a few seconds you will have enough inertia to pass beyond the 800m boundary, which will end the lightning attack."

If you prefer bigger ships and you are unable to avoid the lightning, it is best to double back, deploying shield cell banks (SCBs) while you 'tank' the damage. More often than not, this tactic will save your life.

Caustic Missiles and EMP

Caustic missiles can only be avoided by deploying a heat sink before they are fired and being further away than approximately 1,000 metres. – **Painbeaver**

Another 'special attack' tactic deployed by the Thargoid is to disable your systems via electromagnetic pulse. The Thargoid will only use its EMP after the destruction of the penultimate heart. To avoid it, deploy a heat sink and maintain zero temperature for the thirty-second duration of the attack.

If you do not manage to deploy a heat sink in time and you hear the computer alerting you that an "energy surge has been detected," you must either use the shutdown field neutraliser or boost away and disable flight assist, to allow your momentum to keep you moving away in the absence of thrust.

If you don't destroy the 'heart'…

When you fail to destroy a heart within the window (seven minutes for Cyclops, Basilisk and Medusa and eight minutes for Hydra variants) the Thargoid becomes 'enraged'. Its Thargon swarm turns kamikaze, and the Thargons begin to take suicide runs at your ship. While it is enraged, the Interceptor will immediately deploy a new swarm as soon as its current swarm is destroyed. This 'enraged' mode can only be stopped by the destruction of a heart.

'Swarm' behaviour

Dealing with the swarm of Thargons is essential, as they will erode your internal module integrity at an alarming rate if left unchecked. Swarm density is dependent on which variant of Interceptor you are dealing with – Cyclops variants boast the fewest Thargons, Hydras the most.

Importantly, and for reasons unknown, the swarm will not attack your ship until it has flown two kilometres past you. Start chasing it immediately and stay within that distance and it will continue to fly in a straight line, making it very easy to kill with the remote release flechette launcher. This tactic is known as 'from the back' and is the easiest way to kill a Medusa swarm for large and slow ships.

Fast ships should fly backwards with flight assist disabled, shooting flak from a safe distance. Painbeaver has coined the term 'reverski' to describe this tactic. The optimal chasing distance is about 600m – don't fly any closer than this, and try not to be further away.

"The faster you fly and the faster you kill the swarm, the less of a chance the Interceptor has to catch you and fry your butt," Painbeaver explains simply.

The range of the Thargon swarm is about nine kilometres. If the swarm flies more than this distance away, it'll turn back and into the range of its mothership.

"In a fast enough ship [you] can ignore the swarm with 'low heat orbiting', but this is only recommended for seasoned pilots," says Cmdr 100.rub of the Anti-Xeno Initiative. "However, most commanders feel that ignoring the swarm is a death sentence."

The most effective way for most pilots to deal with the swarm is to 'drift and flak'. It is also worth noting that the swarm can be decoyed by a ship-launched fighter (SLF).

Flight assist?

"Full-time FA-OFF is best suited for speedy medium to small ships rather than large vessels; apart from the Federal Corvette, which has the manoeuvrability to make it work if you really try. Being able to decouple your aim and flight vector is a huge bonus in any kind of fight," explains Cmdr Shwinky.

There are two main fighting styles which utilise flight-assist: 'tanking' and 'kiting'.

Tanking

'Pure tank' style is for large, slow ships, like the Anaconda or Cutter. The main feature of this style is to take the damage with little 'kiting' involved. This has the benefit of allowing you more time on target, and therefore a faster kill.

The main tactics of this style are killing the swarm 'from the back' (as covered above), and 'zero temp reboots'.

"When the Thargoid is at the 'stagger phase', right after heart destruction, deploy continuous heat sinks to hold a zero temperature or by using thermally vented beam lasers," says Painbeaver.

"One important thing about thermal vented beams is that the higher the beam's temperature, the more effective thermal venting is; so using the efficient blueprint with beam lasers is a bad idea. In my opinion, the long-range blueprint is the best modification combined with the thermal venting experimental [effect]."

Pilots utilising both this and the 'kiting' method should aim to avoid both EMP blasts and caustic missiles.

"Remember! The tank method is significantly harder to master because you are always very close to the Interceptor and any mistake could lead to very serious consequences," Painbeaver warns.

Kiting

Kiting is the main tactic for all fast, manoeuvrable ships that can outrun a Thargoid. The main tactics of this style are the 'reverski' swarm killing method, and – when taking damage – to retreat outside the damage radius until your shields recharge.

Cool runnings

Thargoids do not appear to be able to detect cool ships and struggle to detect a ship that has deployed its heat sink. 'Low heat orbiting' is a technique that has been developed by Cmdr Synoxys.

"Flying slow and predictably works fine if you're willing and able to take the hits you receive as a result. However, this is not the only solution; strafing laterally FA-ON not only allows you to dodge incoming fire but also helps keep your aim steady," he explains.

"Deploying heatsinks and orbiting or pseudo-orbiting the Interceptor or swarm will prevent most of the Thargoid's shots from hitting you; provided you are moving laterally at a rate high enough to be outside of the approximate ten-degree 'accuracy cone' that is projected directly ahead of the Interceptor."

The 'panic shield'

Ramming the energy shield that Thargoid Interceptors deploy is a good tactic, as damage to your shield is minimal. So hit that boost and ram – it's easier and quicker than using weapons.

The caustic cloud

Once the Thargoid has been destroyed, a caustic cloud is left behind that expands over time and has a maximum range of around 3.5 km. This cloud will damage your ship and many a pilot eager to collect their spoils of war has been killed by this acidic cloud of death. The cloud deals much more damage to the hull than caustic missiles, so you need to wait until the cloud has dissipated.

An easy way to determine sufficient dissipation is to target any dropped material inside the cloud. When the integrity of the material has decayed to under 50%, it is safe to enter.

Remember that a Thargoid heart is considered illicit cargo and must be carried in a corrosion-resistant cargo rack. ✆

MAKE YOUR MARK

BUILD YOUR DREAMS

MAKE OR BREAK

LIVE OR DIE

EVERY STRUGGLE

EVERY SCAR

IT COMES WITH THE

TERRITORY

BREAKING ROCKS
OUR BEGINNER'S GUIDE TO MINING

One man drills a powder-hole the colour of a bruise
One man sounds the bugle and another one lights the fuse
Blow up! Pick and shovel it! Carry the earth away
Brains and brawn with hammers drawn blasting through the day

—The Men They Couldn't Hang, circa 2000 CE

Mining is an ancient profession. For as long as humanity has been aware of the valuable resources buried in layers of rock, we've been trying to dig them out. The oldest known human site (a hematite mine on Earth) has been dated to around 40,000 BCE.

Since then we've learned how to dig deeper and faster, seen entire industries collapse as their products become uneconomical to extract, and even developed a conscience about the effects that mining is having on our environment.

Fast forward to the 34th century and, while the basic aims remain the same, we now use advanced techniques and equipment to exploit the inexhaustible supply of riches found within the vast asteroid fields orbiting planets, moons and stars throughout the galaxy.

Let's go mining!

▶

Types of mining

There are two primary types of mining, and each requires different equipment and techniques. The first, which we've been able to do for many years, is laser mining.

This requires the addition of at least one mining laser to your ship which you fire at the surface of asteroids to carve off large numbers of small fragments of materials, such as the 'three Ps' mentioned below. This type of mining is as much about quantity as it is quality and typically requires more cargo space, but is less dependent on finding hotspots. The second type focuses on using new tools made available at the end of 3304 to get at specific deposits on the surface, just below the surface, or buried deep in the heart of the asteroid. For this article, we're going to focus on the latter.

Experience counts for a lot, especially when looking for 'motherlode' asteroids.

Heading out

You're going to need a ship and, although it's possible to mine in any ship to an extent, to do it properly requires some specialisation depending on what types of mining you want to do. For starters, you're probably going to want a fuel scoop and a moderate jump range to be able to get out to the richest untouched resources and also to transport the loot back to a station that's offering over the galactic average price. You'll probably want shields to protect against collisions with asteroids, and also to defend your ship against pirates, and you're going to need enough cargo capacity to make the trip profitable. You should also fill about 70% of your cargo space with limpets (available from the 'Advanced Maintenance' section of the station interface), the function of which we'll cover later on.

Deciding where to go mining may require some research. There are four types of asteroid ring: Rocky, Icy, Metal Rich and Metallic, and each contains its own type of reward. For a long time the process of laser mining has favoured the latter with its promise of the 'three Ps'; painite, platinum and palladium (which sell at a galactic average of tens of thousands per ton) while some prefer hunting in icy rings for rare but valuable low temperature diamonds.

However, new tools have given us access to far more valuable materials such as alexandrite, grandidierite, musgravite and even the legendary void opals, all of which sell for hundreds of thousands of credits per ton. Before you decide which to do, it's well worth researching where to sell these commodities, since fluctuations in demand can sometimes lead to 'gold rushes' during which some markets may offer many times the galactic average.

In addition to the basic types, each ringed body also has different qualities of 'reserve', ranging from 'depleted' and 'low', through 'common' and 'major' and up to the much-prized 'pristine'. The reserve rating broadly determines the quality and quantity of materials to be found within that body's rings. All the information on both the type of ring and quality of reserve can be found in the system map under the information about each individual ringed body.

Choosing a location

Having decided on a system, the first thing you'll need to do when you arrive is bring up the system map. If the system has previously been explored then it may already be available, otherwise you'll need to either visit the local Nav Beacon or else use the Full Spectrum Scanner (FSS) to reveal it. The FSS denotes ringed bodies with a slightly separated arrow pattern.

Once you're in the system map you'll be able to see which bodies have rings, the type of those rings, (some bodies have more than one ring) and the quality of the reserves contained therein. Pick a body that you like the look of and head towards it. Once you get close enough you'll need to use another important module, the Detailed Surface Scanner (DSS).

The DSS (used in Analysis mode) allows you to fire probes into the rings in order to discover the location of 'hotspots' and the kind of materials they're likely to contain. If the planet has multiple rings, you'll need to send a separate probe into each one. The description of these hotspots is an indication of the most significant material concentration in that area; you may find other materials too and you may also find the same material outside of the hotspots.

Once you've selected a hotspot, rather than flying right down to the navigation target at its centre, try heading into its outer regions. This is because many other miners will be tempted to go for the centre and, at least in popular areas, you're quite likely to find that the better asteroids have already been mined. Reduce your speed to below 100 km/s to avoid damaging your ship and drop down into the asteroid field itself.

Pirates!

Before we go any further we should briefly mention piracy. When you first drop into an asteroid ring, pirates may notice you and will drop by to scan your ship. Just sit tight and ignore them. At this point all you're carrying is limpets, which they're not interested in. They're also impatient and will go elsewhere as soon as they realise you're not carrying anything of value. Once they've gone you can start mining.

If you're successful then hopefully your ship is soon going to be full of extremely valuable cargo. Pirates *will* be interested in that! If you decide to take a break while mining then it's probably a good idea to head out of the ring first — you don't want to wake up to find yourself surrounded!

As for escaping from pirates: since your ship is outfitted for mining, it's unlikely you'll be up for a fight. Two main options are open to you: If you've finished mining and are on your way to sell your goods then you should probably try to run as fast as possible, so choosing a fast ship with shields is a good idea. Or, if you've just found a motherlode asteroid and are reluctant to leave, then using silent running to avoid detection may help. If this is your preference, you should be carrying heatsink launchers to prolong the time you can stay hidden.

Back to the mining.

Finding your asteroid

Once you're within the ring you're going to need our next piece of specialised equipment, the pulse wave scanner (PWS). When activated, the PWS sends out a wave through the asteroid field which highlights asteroids containing higher concentrations of the deposits we're interested in. Simplistically, the brighter the glow of an asteroid after the scan, the more 'interesting' that asteroid will be.

However, experience counts for a lot, especially when looking for 'motherlode' asteroids that can be cracked open. These asteroids are a particular size and shape depending on the ring type. They are described as 'popcorn-like' and typically of medium size. They also give a particular response to the scan. Some miners describe an intense 'orange/reddish' glow, while others talk about thick black lines and spots within the glow that become apparent after multiple pulses.

To search an asteroid field you want to keep flying towards a visible marker, to avoid going in circles. The planet itself is usually best. While doing this you should ping the PWS every few seconds and scan the field ahead for tell-tale signs of an especially valuable asteroid. Equipping an A-grade PWS will help as it has a greater range. It might also help to coast above the asteroid field (rather than flying through the heart of it) using Flight Assist off to point down at a 45° angle as you scan, so that you can survey a wider area of the field.

Once you have a likely candidate it's time for the next piece of specialised mining equipment, the prospector limpet. You'll remember that we've filled our cargo with limpets – and that's because we're going to be using the prospector limpet controller to fire limpets into candidate asteroids to find out exactly what they contain.

You're quite likely to find that the better asteroids have already been mined.

When launched, the limpet will fly towards your chosen asteroid and you should target the limpet as soon as it comes into view. Once attached to the asteroid it will analyse the contents, give you a read-out of the materials contained, and also highlight any specific deposits which then appear as targets in your contacts panel.

There are three types of deposit which an asteroid can contain, each with its own unique marker and each with its own visual cues on the surface of the asteroid itself. Over time you can learn to recognise these markings (perhaps aided by the use of night vision) to the point where you won't even need prospector limpets when searching. That said, you should still fire one at the asteroid you're going to mine as it increases the yield.

There are surface deposits, sub-surface deposits and fissures (into which we can place charges in order to crack the asteroid open and reveal further surface deposits on the exposed inner surfaces). To fully extract all the resources an asteroid has to offer, you should try to work through all three types of deposit in that order. However, in practice many just go straight for the fissures since the pay-offs can be huge and completely overshadow those gained from other two.

Getting your hands dirty

First let's take the surface deposits. To get at these you'll need an abrasion blaster. Target the deposit and then hold down the appropriate firegroup trigger to fire a pulse of energy which, when aimed correctly, will simply knock the deposit off the surface of the asteroid. It's worth noting that certain ships, like the Imperial Clipper, have widely separated hardpoints which mean you will need to dramatically overcompensate when aiming, especially if your ship is close to the asteroid.

Second, we have sub-surface deposits. To get at these, you'll need to use a sub-surface displacement missile. Again, target the deposit and then fire a missile, making sure to keep the fire button held down. If your aim is true the missile will hit the surface and then start drilling into the asteroid. If you miss, it will just bounce off. At this point you'll see a display in the bottom-left of your heads-up display (HUD) with a graph showing the density of the rock the drill is moving through and also an indication below that of approaching material deposits. Release the fire button when the drill reaches a deposit and it will vent the material up and out of the asteroid. You can typically extract around three material fragments from each sub-surface deposit before depleting it.

Finally, there are fissures. These are rare but with experience it's possible to find and work several fissured asteroids an hour. For these you'll need to use a seismic charge launcher.

Fire a charge into a targeted fissure, holding down the fire button to increase the level of the charge before releasing it. Once the first charge is set, you have a 120-second countdown before detonation, displayed in the top-right HUD info panel, during which you can set other charges around the asteroid.

The idea is to get the overall detonation yield, shown as a graph in the top right of your HUD, into the middle blue band. If the yield is too low the asteroid won't break. If it's too high, then you'll destroy both the asteroid and the materials contained within. Logic would suggest matching each charge to the strength of its fissure (shown on the left in the contacts panel) but it's often easier to get one or two high strength charges into weak fissures to start with in order to get the overall yield level up quickly, and then use weaker charges in stronger fissures to refine the level.

Also note that if you go over the optimum level then you can re-target individual fissure charges and disarm them via the contacts panel. Once the charges are all set, retire to a safe distance and either wait for the countdown to finish or else detonate them manually via the same panel. If you've done it correctly, the asteroid will be blown apart and, once the dust has settled, you should find that the exposed inner surfaces of each piece show new surface deposits which can be knocked off with the abrasion blaster as before. Note that getting into the narrow spaces between the chunks in order to gain access to these new surface deposits may favour the use of a smaller, more manoeuvrable ship.

Collecting and refining

As you carry out each of the processes described above, fragments of material will be knocked off the asteroid and float free in space around you. These need to be collected and refined. You could of course simply scoop up the fragments one by one with your ship but it's far easier to use collector limpets.

For these you will need to equip another module, the collector limpet controller. When fired, a collector limpet will either collect the individual fragment you have targeted and then expire or, if you have nothing targeted when you deploy it, it will fly around collecting every fragment it can find until it either is destroyed in a collision with something or expires after a fixed period of time. Make sure the cargo hatch is open!

Many just go straight for the fissures since the pay-offs can be huge.

The better the rating of controller the longer the limpets will last, and the higher the class of controller, the more limpets it can handle simultaneously. Ideally, you want to have four or more limpets active at once since this will greatly speed up the collection process.

As the limpets deliver the fragments of material to your ship, they're placed into our final piece of mining equipment: the refinery. This module turns the raw fragments of worthless crude material into the marketable tons of raw commodity we're actually after. Since the refinery can only handle a limited number of different material types simultaneously (via separate 'bins') and since asteroid mining can yield a wide variety of different materials, you'll want to buy a larger refinery with more bins to be able to process them all unless you want to constantly be venting unwanted materials into space.

Note: if there are materials you're not interested in collecting (e.g. because they're effectively worthless and therefore wasting the time of both your collectors and your refinery) then you can add them to your ignore list by targeting them in the contacts panel and picking the appropriate option.

Cashing in

You've found your asteroid ring, scanned, mined and refined its resources until your cargo hold, once full of limpets, is now full of valuable commodities, and now you're ready to go and sell them. Don't forget the advice above about checking the markets (and indeed, the gossip) when choosing where to sell, and also be on the lookout for the dreaded pirates.

If you get interdicted on the way to market then submit immediately, turn to face your attacker, boost past them, put full pips to shields and jump out to another system as soon as your frame shift drive (FSD) has cooled down.

Sell the goods, and perhaps re-evaluate your loadout based on your experience. Did you have enough collector limpets? Was your ship manoeuvrable enough? Could you make do with smaller shields and instead fit a larger refinery? Then, it's time to refill with limpets and head back out for another load. If you feel like the system you picked had lots more to offer, then just go back to it for more; otherwise, pick somewhere new. The galaxy is your oyster because, guess what? You're a miner now!

Aepyornis Egg

RARE COMMODITIES SPOTLIGHT

There is something incredibly satisfying about an Aepyornis Egg eating party.

By all accounts, the gene splicing of the extinct Elephant Bird of Madagascar (the Aepyornis) with some distant relatives, back in the 23rd or 24th century, resulted in the recreation of an approximation of the Aepyornis in modern times. This artificially-constructed DNA was included in several genetic libraries onboard colonial ships heading out to distant planets to find new homes.

One ship was the *Raster*, an old colonial vessel that reached 47 Ceti B3. The introduction of the new Aepyornis to the oxygen-rich world was a success. Although the bird didn't breed in huge numbers, it did adapt and thrive in the high-oxygen environment, resulting in a substantial increase in mass to the size it is famed for today (three metres or more in height). This also resulted in a substantial increase in the size of the bird's eggs, from 70 centimetres or so back before its extinction on Earth, to the metre plus circumference we commonly see now.

The eggs are traded from Glushko Station under special license from the planetary government who recoup a percentage of every sale to fund the preservation of Aepyornis habitats in the wild.

Eating an Aepyornis Egg should be a communal occasion. To cook the commodity by any of the methods usually employed for eggs is to waste its subtle flavour. The egg does not respond well to being scrambled, grilled or boiled, and the result is a pretty tasteless high-protein goop that might be prized by a few health freaks or particularly deprived soldiers, looking for a change from their ration bars.

To eat an Aepyornis Egg properly, it needs to be stewed and rotated in a thermal bath for at least 48 hours. Some specialist chefs program their own heat flux sequences to 'cook' the egg for two weeks or more. There is no visible sign when the egg is ready, but when served, the shell should still be intact. The thermal process will have thinned it sufficiently for eating, but not so much that it breaks before it arrives at the table.

Aepyornis Eggs are big enough to be shared by two to four people. The bathing rotation will have gently whisked up the contents, allowing the egg's yolk flavour to permeate through its 'white' (green in this case). At your party, one person should be nominated as the breaker for each egg. They should take a heated spoon and press it carefully against the shell's apex. If cooked correctly, the shell will melt into the green, enriching the meal further.

The sight of this is particularly enjoyable and can make a high point of any celebratory meal.

The interior of the egg, known as 'Cooked Aepyornis Green' is a thick, loamy broth, similar to porridge in its consistency, particularly if the shell has been melted correctly. The taste is surprisingly sweet, moreish and filling. You are likely to want a second bowl but give up finishing it halfway through. The Green digests slowly and feels heavy in the stomach. This makes it a good meal before wine or beer, slowing down the body's metabolism and giving the effect of increasing an individual's alcohol tolerance. That said, pushing this new limit can result in a particularly unsavoury green mess, should the body decide to evacuate by any possible exit.

SPACE LINGO

We all know the basic Pilots Federation salutation, originally used to indicate 'no further communication' by traffic controllers. It has been around for centuries now: 'o7'. But have you ever heard 'bear bait'? Maybe you've seen a 'tommyknocker'? Oh yes, you have. All of those words refer to something (or someone!) a member of the Pilots Federation will come across one day. ▶

No matter what kind of work you take, there's a ton of specialist knowledge you might need to absorb. We've chosen some terms from specific careers in space that might be useful… or at least, make you laugh.

Thanks go to Anopheles, Drew Wagar, Erimus Kamzel and Mossfoot for compiling most of this list. It is naturally incomplete, but we hope you enjoy reading it!

"PIG IN SPACE: DENOTES POOR FLYING SKILL.

Trucker terminology to load up on

Bear bait: abandoned cargo in an area with law enforcement nearby just waiting to scan you.

Riding bareback: foregoing a shield in favour of more cargo space. Generally a bad idea.

Dog House: an outpost with a black market frequented by pirates and/or bounty hunters, used as their base.

Dragonfly: a ship with no power/thrusters/fuel. Dead in space.

Go-go juice: fuel scooping at a sun (often while stationary, shaking like crazy).

Icarus: taking hull damage while flying too close to a star: "I pulled an Icarus fuel scooping."

Shot in the back: being scanned just as you're entering the letterbox.

Supercruiser: one who brags about himself, or his big, fast, shiny ship.

Through the woods: going through unpopulated regions to reach your destination.

Too many eggs in the basket: cargo weight affecting your jump range.

A rich seam of mining jargon to dig into

Blat: to crash your ship into an asteroid and destroy it (the ship).

Claim: your preferred mining field, especially if you feel you found it first.

Claim jumping: when someone in a bigger ship comes to your 'claim' and you're afraid they're going to bleed it dry.

Creeper/Drifter: opportunist; someone who sneaks in to steal ore, especially chunks lost from 'fly catching' (see below).

Drift: the rotation of an asteroid. Slow 'drifts' are easier to mine.

Dufferdom: a complete failure as a miner.

Fly catching: chasing after ore fragments that have drifted away.

Hatter: a miner that works solo instead of with a team (mad as a hatter).

Rock hobbit: a classier and more civilised sort of 'rock hermit' who knows the meaning of comfort and isn't afraid to have guests. Plenty of cakes in storage.

Roll up: assemble for a meeting. A group of miners might 'roll up' to decide how to deal with a pirating problem, for example.

Salting: telling someone a particular 'claim' is full of valuable metals, usually in an attempt to steer them away from a better claim. Some of the more elaborate and unscrupulous people will actually leave some high-quality metal there for a person to 'find'.

Tommyknocker: a contact on the edge of your radar range, not coming close enough to resolve. Makes miners nervous.

Jump into this list of...

Jonk: a contraction of 'jump and honk'. To jump in and immediately out of systems; a means of travelling long interstellar distances quickly.

Buckyball: to travel as quickly as possible over long interstellar distances, often via 'jonking'.

Badlands: a region of brown dwarfs, every explorer's nightmare.

Bagged and tagged: describes a fully explored system, down to the last moon.

Banquet: a system containing far more interesting stars, planets and other objects than you expected.

Bastard: a T Tauri star, unscoopable but often resembling a main sequence star.

Bowman: an explorer (some female explorers prefer 'Janeway').

Bowman Boogie: reaching 2001c (often happens if a second star is really far away and you're just that much of a completionist).

Bowman Blues: the low mood an explorer feels after having been in civilised space for some time.

Budget Bowman: an explorer in a Sidewinder or an Adder.

Closed gas station: a T Tauri star that looks scoopable at first.

Columbused: you thought you were first in an area, only to find someone else got there before you.

Comet: an explorer who gives up quickly and goes back to the Bubble. Exploring isn't for everyone.

Costner system: a system containing multiple water worlds.

Countdown dementia: when you've become utterly sick of your onboard computer's voice. Some explorers have smashed their speakers before realising the voice can be switched off.

Disco party: finding a large number of unidentified objects using the Discovery Scanner.

Flying brick: a Lakon Type-6, while a hauler by design, is easily converted into a tolerable long-range explorer with a great cockpit view. Also called a 'flying pig'. See also 'space cow'.
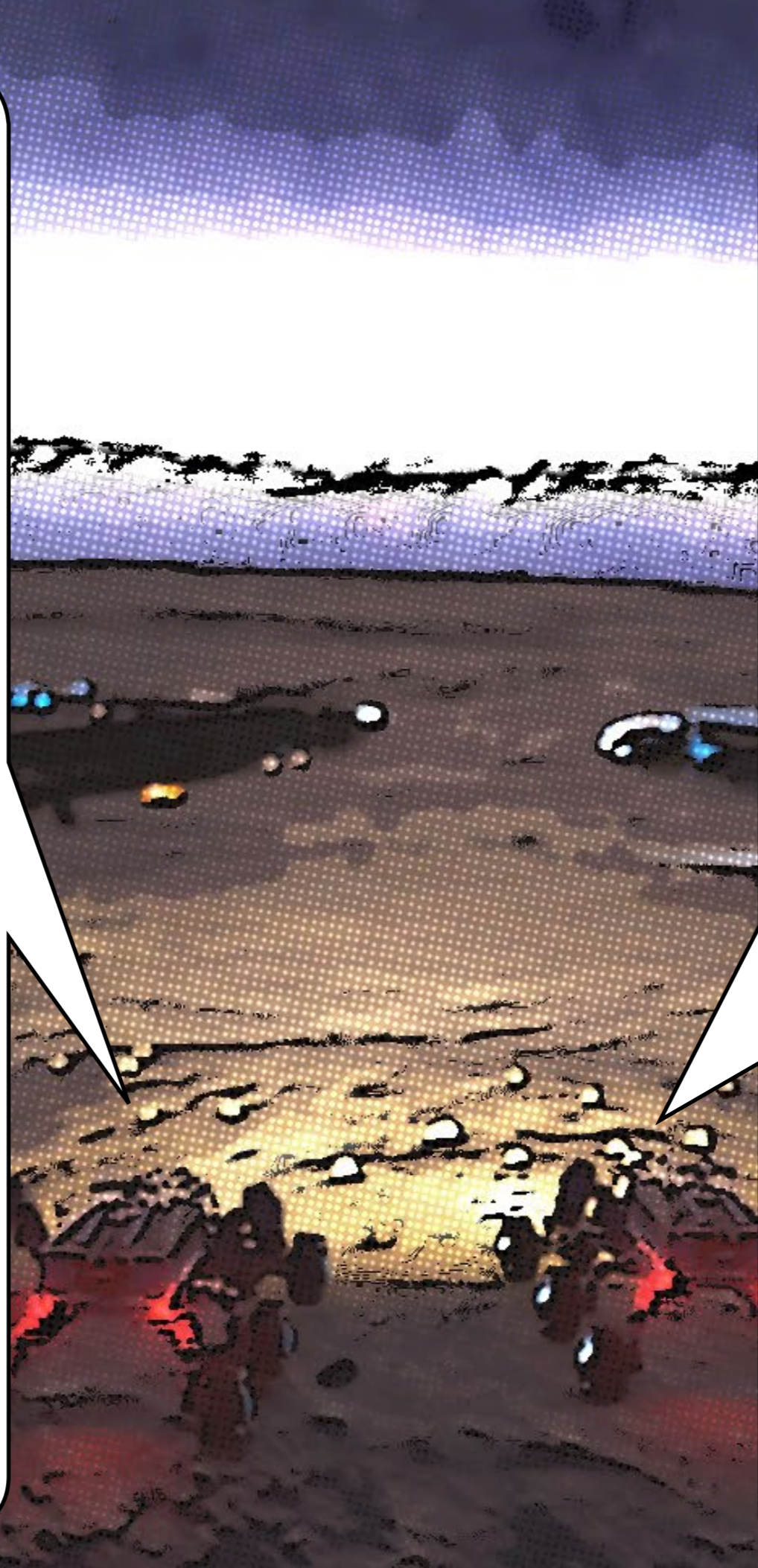
...exploration patois

Gazed into the abyss: describes someone who has been out so long they've gone a bit nutty. Could be harmless or eccentric, could be dangerous. Also known as 'space madness'.

Hydrogen headbutt: flying headlong into a star (usually due to inattention).

In a gadda da vida: a system containing two or more Earth-like planets.

Last homely house: the final station you see before you venture into unpopulated areas. It is traditional to stop and have a drink.

Lighthouse: a beacon or otherwise noteworthy system used in general interstellar navigation.

Longest mile: the return trip after an expedition. Usually, your ship is in poor shape and you're worried you might not make it back at all.

Ratsignal: a call for help to the Fuel Rats, because you're stranded in deep space without fuel. Use with extreme caution. It is considered very poor form to use this word in any context other than an emergency.

Ratted up: an exploration ship is Fuel Rat compliant, with at least a fuel limpet controller and a number of fuel limpets so that the pilot can assist in deep space rescue if called upon.

Record store: a system containing mostly ringed planets/orbital bodies.

Shiny Bowman: an explorer in an Imperial Clipper or other ship designed with comfort and luxury in mind.

Shotgun wedding: accidentally flying into a planet's ring.

Space cow: as with 'flying brick,' but the Lakon Type-9.

Spare tire: an extra fuel tank added to your ship.

Topside: to fly 'up' (or 'down') in a system a long way, so you can turn and easily see all the elliptical orbits. Going 'topside' is one way to spot a black hole.

Turnwise: travelling with the Galactic rotation (clockwise on the Galaxy Map). Also known as 'Spinward'.

Wedged in the inferno: jumping to a close binary star system and landing between close-orbiting stars. Dreaded by explorers. Also called 'the crush', or 'this is fine'.

Widdershins: travelling against the Galactic rotation (counter-clockwise on the Galaxy Map). Also known as 'tracking'.

Laser language: useful for...

Battle Buggie: SRV (used as a pejorative).

Blood Money: money lost in the pursuit of a target, typically in the form of fines.

Bloodsuckers: collectors of those fines.

Brother (or Sister): a fellow pirate. The Brotherhood or Sisterhood refers to an alliance of pirates.

Coreward: towards the heavily populated centre of human space, or towards the capital planet of one faction (e.g., Sol). Confusingly, explorers use this to refer to the Galactic Centre.

Ghosting: using 'silent running' to close in on an acquisition or otherwise tail them unseen.

...both bounty hunters and pirates alike

Jeremiah Weed: refers to top-shelf alcohol, regardless of its actual name (for example, Indi Bourbon). The preferred brand will vary from sector to sector. Often drunk to celebrate a big score.

Ninja: to steal a kill (and bounty) from someone else.

Pig in space: denotes poor flying skill.

Popcorn: used by owners of large ships such as Anacondas to describe being attacked by smaller, easily-destroyed ships like Sidewinders or Condors.

Rimward: leaving civilized space, out towards the galactic rim.

Sniff: to use any kind of scanner on a ship to determine if a target has a bounty, ascertain whether they carry illegal goods, track their wake signals, etc.

> 'ROLL UP' AND ENJOY THE LINGO

Space Lingo

Text: Buanzox

Images: Orange Pheonix, Donald Duck

Design: Donald Duck

Commander: Karaya

Co-Pawlot: Chilli

Karaya named her Chilli for her sharp mind and how she is spicing up life on the ship.

"I had a Xihe Biomorphic Companion before, but it's just not the same as a real cat on board. Amazing how well she copes with zero-g and how she moves around the decks – pushing herself from wall to wall, even using the handrails as a hold sometimes!"

She keeps their ship free of any vermin which might sneak on board with freight. Once, she bravely cleaned out the hold of a dozen Pavonis Ear Grubs all by herself.

"Whenever I am close to a planet, she comes to the pilot's seat and wants to sit on my lap," Karaya says.

"I even took her for an SRV ride once. But she didn't like it — probably all the bouncing around.

"When we are on the ground, her favourite place is at the very front of the cockpit, especially on ships with a low-drawn canopy like the Asp or the Krait. In those, she will sit there for hours on watch, be it a barren airless wasteland or the busy life of a space dock. A beautiful sight for a lone spacefarer like me when returning to their ship!"

Do you have a Co-Pawlot you'd like to share with the Galaxy? Hop on to https://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.

Co-Pawlots

■ **Design:** McNicholl

788 TONS NO SHIELDS
HAULING IT ALL
LIVING THE DREAM
ONLY THOSE
WHO DARE
CAN WIN?

LAKON TYPE-9
EVERYDAY EVERYTIME

CARTOGRAPHICA
places to go before you die

EDSM

Thor's Eye

-439.84375 / -86.625 / 4205.15625

A massive O-class star with an orbiting black hole. This sits amid an open cluster of A and B-class stars, the combination and alignment of which can make for the most startling and dramatic vistas. Bending the light from the star through the gravitational lensing of the black hole will take the traveller's breath away.

The origin of the system's name is in some dispute. Scholars believe that the system was mis-named by an early explorer, after the Norse god of thunder. In fact, it was Norse god Odin who was reputed to have traded his eye for knowledge. Regardless, the name has remained unchanged.

- **Image:** Eoraptorur
- **Design:** McNicholl
- **Thanks to:** EDSM
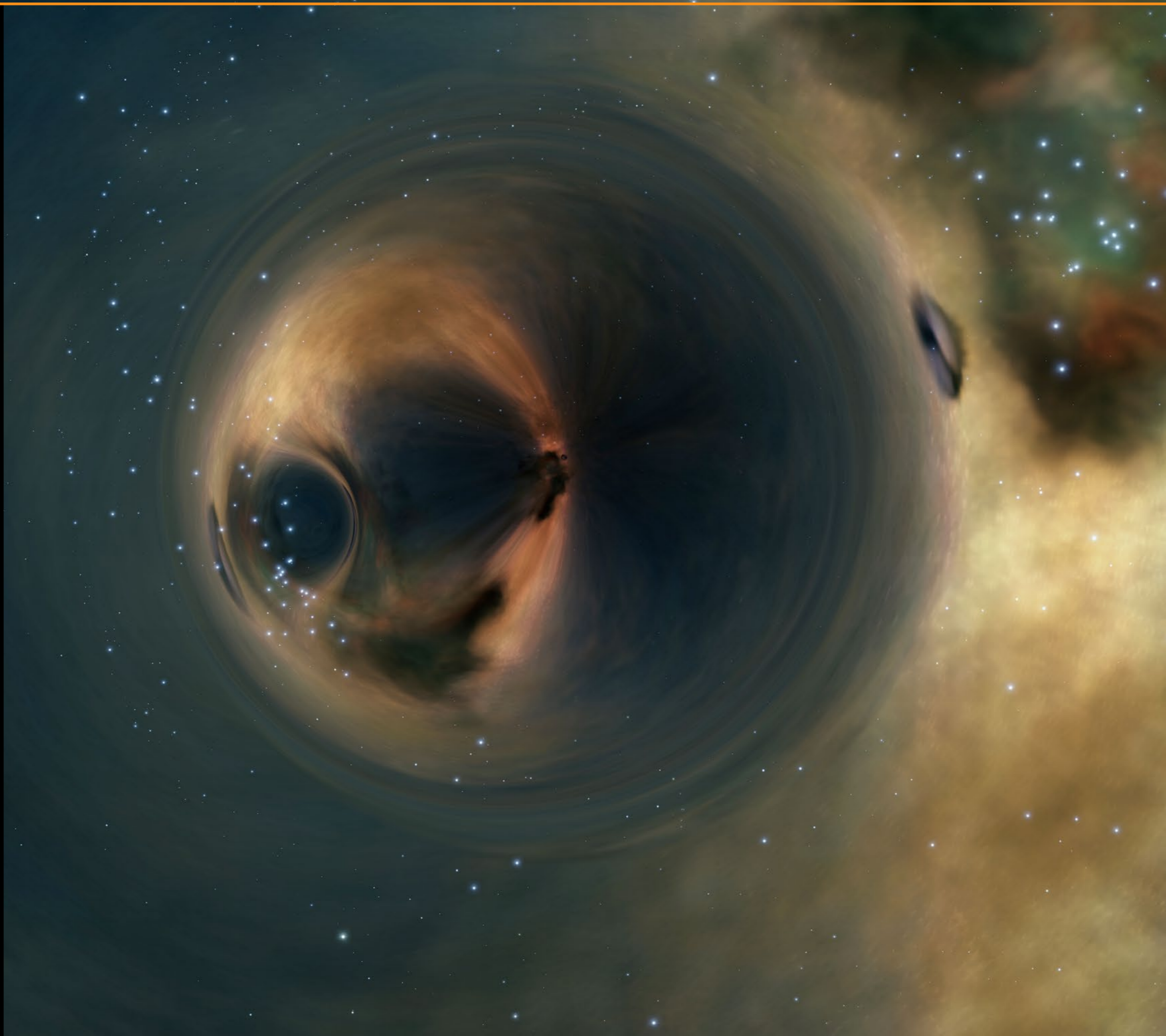
Danksgiving Expedition

Eighteen months ago...

Another hard day of mining. Another day of supplying Colonia's voracious appetite for minerals, metals and chemicals. Another day where the *Isambard Kingdom Brunel*, a mining ship for too long already, would need repair and cleaning, the nastier jobs naturally to be done by hand...

"I mean, look at this," Cal said, turning the glass of Brown on its base, smearing the sticky substance that seemed to coat all the tables at Jaques Bar. "It's called Brown."

"Well, it *is* brown," I pointed out, trying to be helpful.

"That's all you can really say about it. Sure, it has alcohol. Then there's the Black." He wrinkled his nose.

I didn't disagree. I was sure I'd need a fork to consume my last glass of that vile substance that advertised itself as 'craft stout'.

"And then the gin, described as artisanal. I think 'artisanal' in that odd language Jaques mutters to himself really means 'paint stripper'."

"I did warn you."

"With all the hard work the people of Colonia are putting in, I think they need something better. That means there's a business opportunity." Cal began to smile.

"Jaques has run out of all the good stuff. I'm sure he'd make an eager buyer."

And so the seed of an expedition was sown. The people of Colonia did need a reward, that was true enough. The new settlements may have been young and growing, but aside from the salty tales of miners and explorers, there wasn't really much to pass the time. People deserved better!

We returned to the Bubble, and were soon caught up in company work. For a time, the idea was forgotten.

Then the Minerva Centaurus Expedition brought us back through Colonia. We saw that although the frontier settlement had expanded during our absence, it still lacked the comforts and distractions that we had at home. Once again, we found ourselves at Jaques, and Cal's look of disgust at what claimed to be 'rum' said it all.

We just had to go to the East India Company (EIC) board and float the idea of a new trade route.

While the EIC was not interested in building a base in Colonia, the company was enthusiastic about the idea of establishing a trade route. The EIC was aware of its ancient heritage of running high-speed trade routes in pre-industrial times on the oceans of Earth. We needed to draw on this cultural history and not simply follow the well-established Colonia Connection, but instead find a new, fast route; away from the prying eyes of customs officers, and away from the those who would attempt to pirate our cargo.

To this end, Cal Vazquez — an experienced explorer, having accompanied me on the Minerva Centaurus Expedition — departed in a specially-modified Saud Kruger Dolphin to scout suitable waypoints and find promising routes. Meanwhile, the idea was also floated with Lave Radio (an important partner to the East India Company in the supply of Lavian Brandy) and soon the expedition's planning was underway.

Our goal was to not simply to bring goods to Colonia, but also to test out the feasibility and speed of a new route. The scouting reports confirmed that there was only a sparsely-explored but extensive field of neutron stars high above the galactic plane in the Scutum-Sagittarii Conflux. This provided the fast route that we were seeking: as the Traikaae Nebula passed behind the fleet, speeds would pick up as the neutron star density increased, such that even the most laden freighter would be able to easily plot giant leaps between the spinning stellar remnants.

Cal wasn't merely charged with finding a fast route, but also useful intermediate landing zones which could provide interesting meeting points for the convoy and would be rich in materials to recharge auto field-maintenance units (AFMUs). After all, surfing the neutron plumes is punishing on frame shift drives.

Geological sites were the preferred locations due to the abundance of materials, although finding these sites was a slow process. The scouting mission took place months before the release of the new mapping probes which explorers can now use to find these sites with ease. Prior to the release of these new tools, scouting for geologically interesting sites had to be carried out by eye and by short-range sensor.

The Expedition

By early November 3304, the publicity for the trip was ready, the route had been scouted, and the roster was thrown open to the public. The expedition would launch first with loading parties at Harvestport, Kappa Fornacis, then at Lave Station, Lave, where EIC and Lave Radio affiliated pilots would load freighters with rare goods. Onionhead, Lavian Brandy, Leestian Evil Juice, you name it — anything rare, prized and intoxicating, we were going to carry it.

The departure was to be on November 20th, to coincide with the weekly Lave Radio talk show and news programme. The departure of the expedition was a triumph, with dozens of ships in the loading party, ensuring all the freighters carried a full load. Loading complete, the EIC-registered Imperial Cutter *Alan Mathison Turing* led the mass hyperspace jump, marking the official start to the expedition.

From this point on, the convoy spent three weeks travelling to Jaques, not only carrying goods but also exploring the route. The route itself had landing zone waypoints at regular intervals, so that the convoy pilots could gather and share their findings. Waypoints were timed to also coincide with Lave Radio's weekly show, giving a taste to those back home what we had found during our travels.

The expedition wasn't without casualties. Two freighters were lost to piracy before they even left the Bubble — but thanks to the early stage, the cargo could be replaced and two replacements could be launched. One of the fleet mechanics also had to take the 'Remlok Ride of Shame' back home after some unintended lithobraking at Waypoint 1 caused a rapid unscheduled disassembly of the Asp Explorer he was flying. He was, however, able to catch back up to the convoy.

Another freighter, carrying nearly 160 Imperial passengers, was also tragically lost in an accident involving a neutron star jetcone — demonstrating that neutron boost routes still require respect. This writer's own Imperial Cutter was heavily damaged in an incident involving a high-G world and a photo opportunity. Fortunately, the same fleet mechanic mentioned earlier was able to provide repairs.

Most of the convoy did make it to Jaques Station unscathed. Unfortunately, the convoy's arrival on the 11th December 3304 was beset by a systematic failure of the orbital control system in Colonia; but once the technicians had got at least a temporary fix into place the convoy duly arrived — and we could make Colonia drunk again.

▶

Waypoints were named after notable smugglers from Earth, with the landing zones always in a discreet spot that would be overlooked by any passing pirates or authority.

Waypoint 6: Final Destination

Colonia (23 kly)

Waypoint 5: Isaac Gulliver's Cove

Ooscs Aob SQ-Q c7-33 (20 kly)

Gulliver ran an entire smuggling enterprise of fifteen ships during the early 18th century, operating from the south coast of England. He became extremely wealthy as a result of this enterprise, and always stayed one step ahead of the customs man - including by one time faking his own death and holding a funeral.

Waypoint 3: Jean Laffitte's Hideout

Preae Ain IS-A d1-17 (12 kly)

Jean Laffitte was a smuggler and pirate, thought to have been born in the French Basque Country. He operated in the Gulf of Mexico in the 19th century, terrorising traders with his acts of piracy, and confounding lawmen with his smuggling. He was killed while trying to capture Spanish merchant vessels.

Waypoint 4: William McCoy Landing

Blo Aescs RR-U c19-3 (15 kly)

In contrast to Laffite, this North American smuggler was no villain. During the era of alcohol prohibition, he smuggled only good quality products and never paid off criminals nor the lawman. While not the origin of the phrase 'the real McCoy', he did co-opt this in relation to the alcohol he smuggled. The coast guard finally caught up with him, though, and he served a short period of time in prison.

Waypoint 2: George Quayle's Gulch

Lysoosms OW-B b18-0 (8 kly)

George Quayle was a banker and a politician who owned a pleasure yacht named Peggy. The Peggy was festooned with cannons, and it was widely rumoured that Quayle was a smuggler, despite also being a lawmaker. Quayle's boat was preserved and may still be seen in a museum on Earth.

Waypoint 1: Mount Rattenbury

Traikaae NJ-L b26-0 (5 kly)

Named after the 19th century smuggler and author, Jack Rattenbury. Rattenbury plied his trade around the town of Beer (Devon, England) for thirty years.

FULL SPECTRUM

ONE SHIP
FOR EVERY ROLE

DELACY