

JUMP POINT

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FROM THE COCKPIT

GREETINGS, CITIZENS!

Star Citizen Alpha 3.13 is now live in the PU! As usual, we'll cover many elements of the new patch in the coming months, but we're starting this issue with something that delivers on a very early promise: the ability to launch the Kruger Merlin snub fighter from the RSI Constellation. As we were planning out the original crowd funding tiers, one of the specific callouts Chris Roberts made was the ability to launch a small defensive fighter for our first multicrew ship, and we've seen the Merlin go from stunning Ryan Church concept art to a real fighter you can fly... and now it's working the way Chris always knew it would! We cover that whole story this time around and I think it's a good one! It's extra special in my mind because launching the Merlin yourself is something totally new and something well beyond anything we could do in *Wing Commander*. It might seem small to some but to me it's a huge deal that we're delivering on this early promise and making *Star Citizen* play in a way it was meant to from the start.

Next up, we've got a new expansion of our Visual Guide series covering *Star Citizen's* (many) corporations. Like the previous articles covering ships, places, and weapons, these will offer you a nice reference library for new and old backers alike. One of the very first lore decisions made on *Star Citizen* was the creation of a coherent 'corporation matrix' that assigns manufacturers, styles, and more to almost everything imagined in the game... so it should be pretty exciting to go back through all of that years later and see the many incredible and unlikely ways it has evolved.

Part one may seem a little familiar -- it's a fair bet that you already know our ship manufacturers -- but we want this to act as a long-term guide so you can look forward to future installments covering everything from weapons to food services.

Over on the lore side, we've got a fascinating Portfolio that covers Tehachapi, an armor manufacturer you're likely at least passingly familiar with at this point. Tehachapi has gone from low-level custom armor maker to a mass production affair in the past ten years and you've likely already spotted its work in the 'verse. Then, we close with a new Whitley's Guide covering the Anvil Gladiator, the little bomber that could. When picking a Whitley's subject, I like to try and fill out the backstory for a ship that doesn't get so much attention and I think the Gladiator fits that bill very nicely. It came online very early and, while it's important for a number of reasons, it's not a ship that gets brought up every day! Read on to find out how the Empire decided to build a carrier-based bomber and what that meant for modern space warfare.

That's it for this month! If you're interested in seeing a particular visual guide or having a special ship covered in a future Whitley's, I encourage you to reach out or to post to Spectrum. This is, after all, your magazine!

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LANDING THE MERLIN

As Chris Roberts and a small team finished preparations to introduce the world to the *Star Citizen* universe, plans were made to include different ship types with different pledge packages in the funding campaign. Standard packages would include a base starter ship, while other options would include more specific models that chased a particular sort of gameplay: combat, trading, piracy, and the like. While much of these spacecraft were still nebulous (many were listed simply as ‘military fighter’ or ‘civilian privateer’), Roberts had a particular interest in the highest tier offered - a multi-crew spacecraft that would eventually go on to become the Roberts Space Industries Mk. III Constellation. Here, he was very clear on his desire: this ship must go beyond anything done in *Wing Commander* or *Freelancer* and allow multiple players to operate it together. One could fly the ship while others could man turrets, act as the engineer, or even, he specified, launch in a separate defensive ship that could be flown like an interceptor to protect the larger Constellation.

IN THE BEGINNING...

The design of the Merlin began in earnest in December 2012 as the task for developing the Constellation was assigned to external concept artist Ryan Church. A veteran of massive media franchises including *Star Trek* and *Star Wars*, Church was a superstar choice to develop a concept that would both define Robert Space Industries’ signature ‘civilian’ look and carry over to countless other spacecraft as *Star Citizen*’s development continued. The first brief for the Constellation was already clear that it would include a snub fighter, then known only as the P52: “The Constellation includes a launch bay with a small P52 fightercraft, plus in-flight configurable arrays, optimized for travel, combat, and other flight modes.” Roberts went on to explain that:

“The Constellation is the Rolls Royce of space adventure; think Millennium Falcon in size (small crew, a couple of turrets, cockpit, sleeping/mess

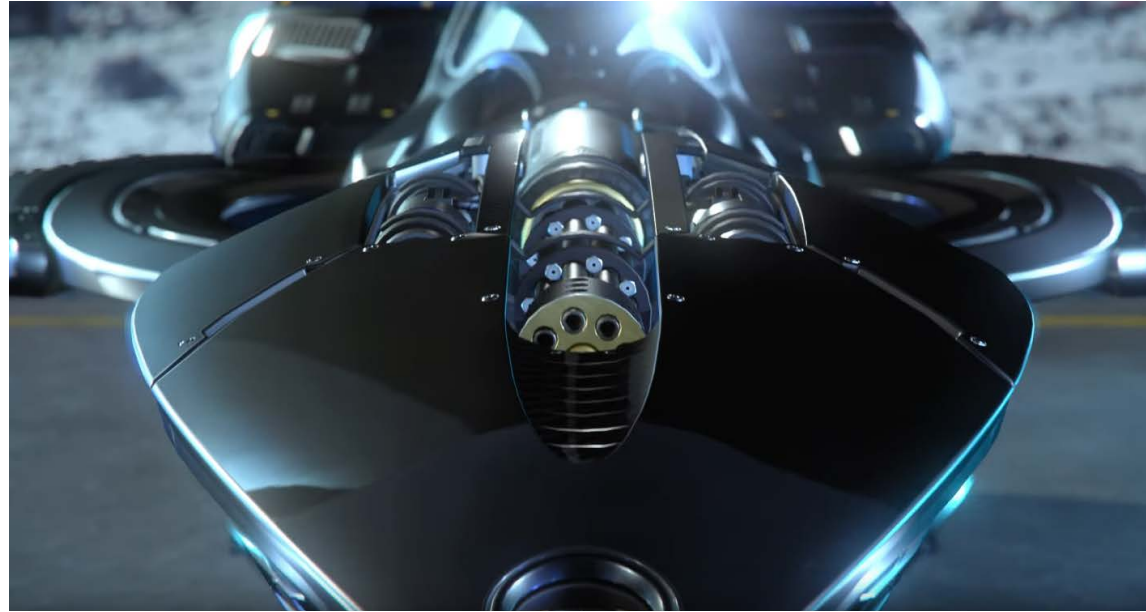
quarters inside). It has a small, single-man, short-range recon fighter that isn’t as heavy-duty or weaponized as the Hornet but is handy in a dogfight – especially in tandem with the mothership. The design needs to make apparent how much fun it is to crew it with three people ... so you can see the cockpit, the turret, and the flight deck/dock (maybe it has a Hornet already plugged in!) at first glance.”

Church quickly set to work both drilling down to the final shape of the Constellation and then determining how the parasite fighter would be launched and what it might look like.

The P52 designation had been chosen to reference the P-51 Mustang fighters that acted as escorts for B-17 Flying Fortresses over Germany during World War II. The ship’s ultimate name, the Merlin, would continue the reference by alluding to both the Allison Merlin engine that drove the Mustang and the AI system from the *Wing Commander* film. When the

time came to develop the Merlin’s sister ship, a luxury model included with the Constellation Phoenix variant, the decision was made that future snubs from Kruger would carry the names of magicians or ancient scientists (with the first follow-up being the P72 Archimedes).

Throughout the first quarter of 2013, the growing *Star Citizen* team were thrilled by the deliveries from Church that established the new ship. The Constellation was like nothing yet in space, a totally distinctive hero ship for *Star Citizen*. And in its belly was not a stock Hornet but the first draft of the tiny, needle-like Merlin, itself having a distinctive ‘retro aircraft’ look perhaps implied by its name. *Star Citizen*’s Narrative Team would create the Merlin’s backstory, including a new company, Kruger Intergalactic, that would be responsible for designing the custom ships that would initially exist only in limited numbers aboard Constellations. Church would deliver a host of options for the snub, starting with a sort of flying torpedo look and eventually delivering renders of a truly spectacular snub fighter built



around a central ring and a swept-back cockpit, although one that might have been overly armed for the task, with large wing-mounted lasers and a pair of Gatling-style cannons in the nose.

UPDATED

In mid-2014, work began on updating the Merlin for its eventual flight-ready status. While rules were few and far between for spacecraft designs during Ryan Church's initial concept, the Merlin needed to be worked into the specific metrics determined by the development of *Arena Commander*. The task for reworking the design fell to Elwin Bachiller and the growing Vehicle Team. Bachiller explained, "We wanted to take the Merlin in a bit more of an automotive direction, something like a BMW or Audi with some classic Stingray and Mustang influences. We modeled in the light fixtures and made sure they made the ship look as though it meant business."



The new Merlin would drop the large wing guns and trade some of the retro aviation styling for an ultra-modern look. The Constellation, now available in several variants that did and did not carry the snub, was also reworked to better visualize how the launching mechanism would work. Animators for the first time created footage of how doors would open and a manipulator arm could assist in dropping and recovering the interceptor. "We spent a lot of time redesigning the overall shape of the Merlin," Bachiller continued, "to give it a clear sense of direction and implicit motion that comes through even when it's sitting quietly in the hangar. We wanted it to look fast and deadly, which is exactly what it needs to be to defend the Constellation."

Initial implementation of the Merlin would take place the following year for a July 2015 launch. At that point, the Merlin was not yet launchable from the Constellation and owners instead needed to spawn it separately as the technology to do so while in flight did not yet exist. Still, desire to see the Merlin in action drove interest so much that the ship was eventually made available for all backers to purchase and try themselves without needing to own a specific model of Constellation. Merlins, fast and nimble, would fill the 'verse for at least several patches.





BRINGING IT HOME

In April 2021, the dream was finally delivered, with Alpha 3.13 including the first pass of a Merlin that can be launched from a Constellation. To many, this may seem like a small feature... but to anyone who remembers Chris Roberts' passion for the feature at the very start of the project, it's a satisfying reminder that *Star Citizen* is continuing to take shape as originally envisioned. Lead Vehicle Programmer David Colson explains how the development of the docking feature was the key to getting the Merlin working with the Constellation as intended.

"There's a fair bit of technology that was not directly developed for docking but that we benefited from hugely. One example is a newly refactored attachment system for attaching two ships together. Ships are complicated beasts that have physics grids, various other parts, and so on. The new attachment system helps us attach the two ships together

in a straightforward way. Another example of tech that we benefited from would be itemports and how they work with persistence. Also, the Building Blocks UI system helped in making the special UI mode for docking. When it actually came to making docking, the troubles were less about making new technology and more about adjusting a huge number of features to deal with the consequences of docking and how they change things about how ships work. A great example is air traffic control, which had to be largely rewritten to account for the situation that someone is docking to an arm as well as landing on a pad."

Over the years, a number of ideas for launching the Merlin were developed, from the manipulator arm to a unified cargo door that would lower from the bottom of the ship and allow it to slip out, to even suggesting that the Merlin could be treated as a 'launch only' expendable ship.





"The flow is actually beautifully simple, you just get up and out of your seat and walk to the back of the Constellation, where we've added a new airlock for the Merlin. The cockpit of the Merlin is exposed so you can simply climb in, turn it on, and then request to undock by pressing 'N' (a button we share with the landing system). The docking clamps will disengage and your ship will be pushed away. At that point, you're free to fly away! To return, you can simply target the constellation you want to dock with and press N again. The ships will automatically understand that you want to dock rather than land and request permission from the owner of the constellation. Once permission is given, you simply fly up to the docking clamps and they will pull you in when you're about to connect, engage, and lock you in! And that's it."

One aspect of the current development that differed from work on the ship in 2013 and 2016 is that this pass made no actual changes to the Merlin itself, which was already happily flyable and balanced. The most major physical revamp occurred with the Constellation, which required changes to add a new airlock towards the back and edits to the geometry around the docking clamp to make sure the Merlin could be carried correctly. This is especially exciting because it means ships completed for past versions of the game are finally at their intended level without needing to be generally reworked alongside their technology anymore.

"It's nice, as this is largely the final implementation. Of course, there is always space for us to improve and polish the experience. Maybe there are still a few bugs here and there, but we'll be hunting them down. And there are always ways we can improve the experience. At some point in the future we'll have new ship MFDs, and we'll be using those for granting permission to docking ships rather than what we have now. But mostly we are quite happy with the actual docking flow."

For a feature imagined on day one and slowly developed over time, it seemed like there was the potential for significant difficulty in making sure all the pieces worked together. Colson expounded on what the team went through:

"Creating docking was very much an exercise in finding how it breaks assumptions about ships and how to fix those resulting issues. One of the more infamous issues we came across was that docking caused missions in the PU to not function. It took a very long time to realize that this had anything to do with docking at all, because they are completely unrelated. But we discovered that missions did not function because the object spawn queue was full of thousands of asteroids. So you may wonder why there are so many asteroids spawning. Well, there is some code that tells the asteroid system to not spawn asteroids that are nearby someone doing a QT jump, because they are obviously not sticking around for very long. But when you QT past an asteroid field with a Constellation, the Merlin attached to it is technically not in quantum, so it triggers the asteroids to spawn."



Finally, Colson would like to thank all of the supporters and the developers who worked hard to achieve this particular dream.

"This feature is a very long time coming and I know Chris Roberts is very excited to finally complete the feature set of the Constellation, one of our oldest ships. It was hard and it took us a while, but I take it as a sign of our commitment to finish what we started and deliver on our goals in the best way possible. So I hope it is well received and we can continue to tweak and improve the feature as it gets expanded around the 'verse. Obviously, I didn't personally make this feature by myself, the Vehicle Feature Team takes all the credit, Paul Ah-Thion, Tom McIntosh, Dan Trufin, Sam Cooper, and Brandon Grigg all take huge amounts of credit for their work on it. And then I would like to just shout out the countless other people in the company who helped in different ways. The Physics Team was a huge help, and the Vehicle and Environment Art teams, Audio, VFX, and so many others all put some time in to make this feature and we wouldn't have it without them."

With that, the Merlin is finally flyable as once intended... the only question that remains to be answered is what unexpected things *Star Citizen's* players will find to do with this new element of gameplay!

Another amusing issue we came across early was that the ship control system collects items connected to the ship and takes control of them; things like weapons, missile racks, powerplants, etc. So when we attached a Merlin to the Constellation, the Constellation would attempt to take over control of the items on the Merlin. It's all about those assumptions we are not breaking. It took a long time to sort through issues like this."

And while Alpha 3.13 will apply only to the Merlin, the technology built out as part of this effort will have long-term repercussions for other ships down the line. Without revealing specific plans, it's very easy to daydream about what dockable ships in *Star Citizen* means for other aspects of the game, from combat to salvage.

"The vast majority of the tech that powers docking was not created specifically for docking and so greatly benefits a wide variety of other use cases. For example, the attachment system is used heavily in actor technology and air traffic control is now far more agnostic of landing type and can support station docking, ships attached to ships, and various other things. Docking itself as a feature will be used for interacting with capital ships very heavily, along with ships like the Hull C and Caterpillar with their detachable command modules."



VISUAL GUIDE: CORPORATIONS (Part 1)



One of the first things Chris Roberts decided when he chose to bring Star Citizen directly to the players was that he wanted to present this new universe in the first person rather than in the traditional way a game is marketed. He wanted to establish a world that players would see themselves in, one they would root for to see made real. An initial part of that was presenting the game not as 'Star Citizen' in 2012 but rather as a world that existed through a 'Roberts Space Industries' company portal in 2942. That philosophy soon expanded to every aspect of the lore as the new universe was built up from the ground. Designers, writers, and others banded together to think beyond just hit points and thruster placement to plan for a cohesive, modular world that would constantly reference itself. The first step to this was introducing unique companies to build Star Citizen's different spacecraft. Instead of just Roberts Space Industries as first planned, the game would offer spacecraft from half a dozen different corporations each with their own marketing campaigns, design themes, and history that led them to create distinct ships offering unique gameplay experiences. In the ensuing years, several other ship companies have been introduced and their histories have all been expanded and continued into the present in-lore year of 2951.



Aegis Dynamics came into being late in *Star Citizen's* initial crowd funding campaign as part of the backstory of Anvil Aerospace: Aegis would be the UEE's historical ship manufacturer responsible for older military designs that would be more likely than Anvil's top-of-the-line hardware to fall into players' hands. *Star Citizen's* Narrative Team created a detailed backstory for Aegis that had them as the uncelebrated supporters of the Empire's former dictators, the Messers, though still responsible for countless distinct fighters, bombers, capital ships, and even refuelers that all survived in some shape or form from those days. Aegis' company name is not a particular reference save that it seemed appropriate for a purely military company.



Anvil Aerospace was one of *Star Citizen's* original set of ship manufacturers, created to be associated with the extant Hornet fighter seen in the game's first reveal presentation. Anvil was imagined to be the future empire's key military contractor, the 30th-century equivalent of companies like McDonnell Douglas and Lockheed Martin. Much of Anvil's style is derived from that initial Hornet, including the angular, armored military look, the muted dark gray and olive drab color schemes, and the industrial intakes and thrusters. Anvil, which seemed an especially appropriate name for a military company, was named after Digital Anvil, the game studio at which Chris Roberts developed *Starlancer* and *Freelancer*.



PRODUCTS: Avenger, Eclipse, Gladius, Hammerhead, Idris Javelin, Nautilus, Reclaimer, Redeemer, Retaliator, Sabre, Vanguard, Vulcan

BRAND DESCRIPTION: Aegis grew to prominence as a manufacturer of military spacecraft during the First Tevarin War. Favored by Ivar Messer, its orbital bombers grew to public prominence after his infamous victory on Idris IV and became synonymous with the ruthless Messer regime that followed. After the Fall of the Emperor, Aegis' contracts were stripped, their ships fell out of favor with the public, and the company went into a tailspin. It downsized its craft production and turned to manufacturing parts. However, time heals all wounds and today Aegis has risen once again to be a top military contractor of ships and components.



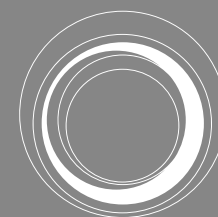
PRODUCTS: Arrow, Carrack, Crucible, Devastator, Hornet, Lightning, Pisces, Gladiator, Hawk, Hurricane, Osprey, Gladiator, Terrapin, Valkyrie

ORIGINAL PITCH: Produces dogfighters, but with less of the pirate stigma. These ships are more expensive, less spit-and-glue.

BRAND DESCRIPTION: For civilians, Anvil Aerospace produces small fighting craft but with less of the pirate stigma. These ships are more expensive, less spit-and-glue, and built to take more hits than a comparable Drake model. The bulk of Anvil's income is from its military contracts with the UEE to design and build their warships, especially the iconic Hornet.



As an early stretch goal, *Star Citizen* introduced the idea of making two alien spacecraft flyable, the Banu Merchantman and the Xi'an Scout (later Khartu-al). The team wanted to make sure that these alien crafts had a backstory that would explain why they were available to Humans rather than just suddenly filling space with strange, new spacecraft designs. As such, Aopoa was created as the Xi'an company (or company equivalent) responsible for making sales to Humans, with a deeper backstory about the success of its previous dealings with MISC allowing the Xi'an to take a more direct interest in Human conversions of its spacecraft. As Xi'an culture has evolved and specified over time, the role of Aopoa and the nature of how it sells spacecraft has similarly become more elaborated upon.



ARGO
ASTRONAUTICS

Argo is a later addition to *Star Citizen's* pantheon that came to be somewhat organically. The concept behind the company is that it is responsible for the countless pieces of background machinery that might not be apparent at first glance but which keep spaceports and starbases running efficiently. Take a look around any busy street and you'll first notice the colorful cars... but wait for a moment and you'll start to notice all of street sweepers, utility trucks, white box trucks, and the like that run through everyday life unnoticed. Argo is the *Star Citizen* company that builds these short range transports, shuttles, mining vehicles, and more. Each is given a somewhat ungainly acronym to match its role and then sent into the 'verse to help make it a deeper experience than has been previously available.



PRODUCTS: Khartu-al, Nox, San'tok.yäi

BRAND DESCRIPTION: Amongst the Xi'an, Aopoa has a sterling reputation solidified due to their aggressive political maneuvering a millenia ago when they wrested control away from the manufacturing faction who held the light-craft ministry chair at the time. Incorporating the iconography of the Emperor's personal god into their prototype design, Aopoa challenged their predecessor to shoot at the holy symbols during their trial skirmish. It was a clever move as the ship could not be fired upon without risking the Emperor's displeasure and Aopoa gained control of the chair. Though many attributed their elevation to the sole provider of light craft to audacity and daring, Aopoa's cemented their position thanks to the innovative dual-vector thruster technology that has revolutionized their ship design.



PRODUCTS: MOLE, MPUV, SRV

BRAND DESCRIPTION: Manufacturers that focuses on building shuttles and other transport vessels (responsible for building the (incorrectly named) airbuses that offer commercial flights to other systems). The corporate image is incredibly bland, one of those milquetoast corporate entities that is responsible for items you use or see every day but never bother to ask who builds them.



CONSOLIDATED OUTLAND

Welcome the rebels! Consolidated Outland was the first major company added as a story beat during *Star Citizen's* development. Patterned after founder-defined startups like Tesla and Amazon, Consolidated Outland started an ongoing story in which it offers strong competition and breaks new ground in spacecraft function as time moves forward. The only thing standard about Consolidated Outland's future is that it can't be predicted. From the Mustang starter to the Pioneer colony platform, Consolidated aims to disrupt the status quo in the 'verse... and it may just have some success as history moves forward! Consolidated Outland's name is a combination of the long-defunct Consolidated Aircraft Corporation (for a hint at its aerospace role) and a word to imply its outsider, frontier-colony-bound origins.



CRUSADER INDUSTRIES

Like Argo, Crusader is a secondary company that has risen in prominence as *Star Citizen's* universe has become further defined. First introduced as the industrial-style manufacturer for the Genesis Starliner in 2015, Crusader has since become a major industrial player across *Star Citizen* and a namesake of one of the Stanton System's planets where it manufactures its spacecraft and operate its headquarters. Crusader is typically assigned smooth, working spacecraft that are consumer facing, like the Genesis or Hercules.



PRODUCTS: Mustang, Nomad, Pioneer

BRAND DESCRIPTION: Founded by maverick billionaire Silas Koerner, Consolidated Outland is an up-and-coming spacecraft concern, the first ever headquartered on a frontier world. Koerner, who made his sizable fortune in jump-communications, founded the company as an attempt to strike back at what he sees as the overly-regulated spacecraft industry. With facilities established as far from possible from the prying eyes of competing corporations, Outland is quickly becoming one to watch.

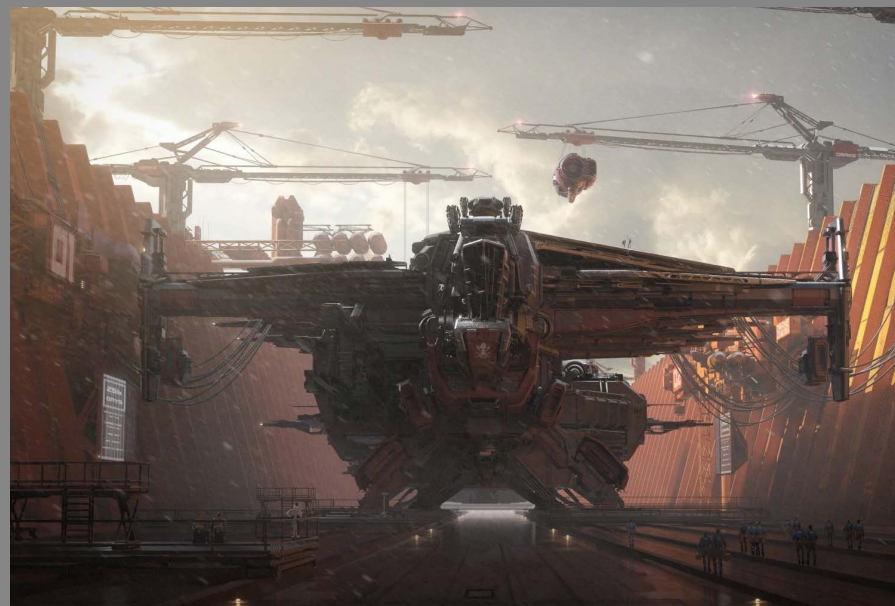


PRODUCTS: Ares, Genesis, Hercules, Mercury

BRAND DESCRIPTION: Makers of the Genesis passenger starliner, an extensive fleet of cargo, vehicle and data transport ships, and cutting edge shuttles, Crusader Industries is a titan of the aerospace industry. It is a company so powerful and prominent that it purchased a gas giant in the Stanton system to house its current headquarters.

DRAKE INTERPLANETARY

Drake is one of *Star Citizen's* earliest and most-loved company, a spacecraft manufacturer with an affordable, industrial style that happens to be particularly popular among pirates. Drake makes ships that aim to compete with more established manufacturers, but does so in its own style, using more affordable materials that make them both easier to repair but also sometimes less durable than their direct competition. The company's name is a reference to historical figure Sir Francis Drake, whose role as a pirate is still hotly debated today.



Like Aopoa, Esperia is a company born out of a desire to allow players access to further alien spacecraft. Esperia's unique backstory is that the company produces exact (or sometimes modified for Human use) replicas of alien spacecraft that are otherwise totally unavailable. This includes both enemy Vanduul ships (initially replicated at the request of the UEE military) and historical Tevarin ships. The latter has allowed *Star Citizen's* ship builders to go back and design comprehensive ships that will function both as modern replicas and as reference-quality historical ships that fought against the UEE generations ago.



PRODUCTS: Buccaneer, Caterpillar, Corsair, Cutlass, Dragonfly, Herald, Kraken, Vulture

BRAND DESCRIPTION: Makes affordable, modular ships that have become the go-to manufacturer for pirate ships.



PRODUCTS: Blade, Glaive, Prowler, Scythe, Talon

BRAND DESCRIPTION: Ship manufacturer that focuses on flyable historical recreations. With the recent discovery of the lost Tevarin planet in Kabal System, Esperia's engineers were given unmitigated access to examine the preserved ships found in several of the caches, before meticulously recreating the design choices and producing accurate reproductions of Tevarin ships.



Kruger is a boutique manufacturer that builds the two 'snub' fighters seen aboard different Constellation models, the standard Merlin and the speedy Archimedes. Kruger is said to have entered into a special partnership with Roberts Space Industries to create these spacecraft as its first independent designs. Will we see more spacecraft from Kruger in the future? Only time will tell. The company was so-named to imply it was a Germany-based corporation in honor of *Star Citizen's* many German supporters.



PRODUCTS: P-52 Merlin, P-72 Archimedes

BRAND DESCRIPTION: Brand Matrix Description: Kruger Intergalactic started as a custom machined parts manufacturer on Borea in the Magnus system. Focusing primarily on UEE contracts, they were one of the few companies who managed to survive when the military transferred the majority of its production to Killian. Their reputation for precision and quality helped them develop a strong working relationship delivering parts to companies such as RSI and Behring. As their list of clients who depended on them for specific parts grew, Kruger looked for ways to expand their operations. It was an offhand remark at a board meeting, that they "made all the parts for a gun, except for the gun itself," that turned them

towards the idea of manufacturing and selling products directly. Their first line of weapons, such as the Tigerstrik, were known for being thoughtfully designed, with straight forward operations, and excellent construction. Finding success in selling arms, they decided to see if they could have similar luck taking their experience in manufacturing ship parts and apply it to manufacturing an entire ship. The opportunity to do so came thanks to their long standing relationship with RSI who was looking to outsource production on the small short range vessel that was to be packaged with their Constellation line. Kruger won the bid and produced the P-52 and P-72 for RSI both which heavily featured Kruger parts and weapons.



Abbreviated MISC, Musashi Industrial & Starflight Concern was first imagined to be a sort of 'just off cool' manufacturer that didn't quite understand the aesthetics followed by other ship builders. When the spectacular first designs for the Freelancer 'space truck' came back, this idea was quickly abandoned in favor of giving MISC its own distinct style based on its smooth lines and brushed chrome exterior. MISC was imagined as a sort of heavy vehicle manufacturer in the same vein as an automotive company like Ford or Toyota. As such, MISC builds both personal vehicles like the Freelancer and Reliant but also large industrial "hauler" backbone ships like the Hull series of freighters.



PRODUCTS: Endeavor, Freelancer, Hull series, Prospector, Razor, Reliant, Starfarer

ORIGINAL PITCH: Mass produces very efficient, modular ships, mostly armored freighters of different sizes that make them the preferred brand for traders and larger corporations.

BRAND DESCRIPTION: Mass produces very efficient, modular ships, mostly armored freighters of different sizes that make them the preferred brand for traders and larger corporations. Over thirty years ago, MISC signed a lend-lease agreement to establish a tech trade with Xi'an engineers.





ORIGIN Jumpworks

Origin Jumpworks was one of *Star Citizen's* initial corporations, imagined as the 'luxury' alternative to Roberts Space Industries. Origin would be responsible for building ships that were a little more functional but also a little more expensive than those in similar roles at RSI... and they would do so with a totally distinct look that would make them as easy on the eyes as they would be to pick up and fly. Like MISC, Origin is based roughly on a luxury car manufacturer that relies on its own internal patterns, like having numbered series instead of named spacecraft. Like Anvil Aerospace, Origin's name is a reference to one of Chris Roberts' former studios.



The first and arguably still the most important! Roberts Space Industries was first intended to be the producer and point-of-sale system for all of *Star Citizen's* spacecraft (hence the website, robertsspaceindustries.com). As the plan for the game evolved, it became the flagship of half a dozen competing manufacturers that would offer their ships on the newly imagined Spectrum (and eventually in in-game dealerships). RSI has been carefully written deep into *Star Citizen's* lore as the first company to produce a jump-capable ship, the first company to introduce space travel to average people, and, today as the manufacturer of everything from the Aurora starter that most players will begin the game owning to the massive Bengal carriers that serve in the UEEN.



PRODUCTS: 100 series, 300 series, 600 series, 85X, 890 Jump, M50, X1

ORIGINAL PITCH: The BMW of the Star Citizen universe. Their craft are more expensive, sleeker looking status symbols, maybe more so than they're worth? They get numbers instead of names: "Origin 300i," "Origin 890 Jump," "Origin M50 Turbo," etc.

BRAND DESCRIPTION: Known primarily for ship manufacturing (the 300 series), but also provides some custom parts for their ships - particularly maneuvering thrusters. High-end ship manufacturer. Sleek and elegant fusion of art and engineering.



PRODUCTS: Apollo, Aurora, Bengal, Constellation, Mantis, Orion, Pegasus, Polaris

ORIGINAL PITCH: The original creators of the engine that kickstarted humanity's expansion into space, Roberts Space Industries build a wide range of spaceships that serve all needs starting at basic interstellar travel to deep exploration on the outer edges of the galaxy. The tagline is "Roberts Space Industries: Delivering the Stars since 2075".

BRAND DESCRIPTION: The original creators of the engine that kickstarted Humanity's expansion into space, Roberts Space Industries builds a wide range of spaceships that serve all needs, from basic interstellar travel to deep exploration on the outer edges of the galaxy. Makes well-designed armor with a reputation of holding up better in the face of adverse environmental conditions than a firehose.

THE ANVIL GLADIATOR

DEVELOPMENT HISTORY



DEVELOPMENT HISTORY



IN DESIGN

UEEN propaganda posters frequently display the Gladiator bomber as a symbol of the modern navy, highlighting its storied striking power and success in a variety of different combat and support roles over the past several decades. The Gladiator's origins, however, were more inauspicious than the modern conception. Development of the first production prototype Gladiator, designated T3A, was begun by the military as a top-secret program in 2890. Up to that point, there had never been a successful carrier-based torpedo bomber, as contemporary military doctrine had instead focused on strike packages for fighters or used heavier strategic bombers protected by carrier-based fighters for larger-massed attacks. At the time, the Gladiator was not intended to change the status quo. Instead, it was designed specifically to mount a new weapon in development, the Multi-Vector Torpedo (MVT).

In 2889, a newly formed development firm, Kreg-Levine Accelerator, made a highly classified presentation to the UEEN. It claimed to have developed a radical spacecraft-based munition that would kick off an entirely new generation of ship-guided weaponry. The promised guided bomb, the aforementioned MVT, was said to possess incredible capacities: not only was the rocket itself nearly completely invisible to sensors but the patented warhead could scan and 'skip' directly through an opposing target's shields. Firing the MVT would require the

launching bomber to maintain a special laser lock on the target through to detonation, meaning that it would not be particularly effective on larger spacecraft like the standard Retaliator. The presentation convinced the military of the technology and tens of millions in black funds were moved to Kreg-Levine to perfect the prototype. Anvil received the assignment to build the platform, a fighter-bomber capable of carrying a large torpedo and the theoretical sensor suite required to lock it.

The only problem: it was all a lie. Kreg-Levine had falsified its data and the military, eager to buffer its aging bomber force, had fallen for the idea hook, line, and sinker. None of this was discovered until 2894 after millions had been spent on a prototype that proved in the initial tests to be simply a completely non-functional dumb warhead stacked with off-the-shelf components that didn't do anything in particular. The military opted to cover up the mistake rather than admit its failure to properly vet the weapon's development and the MVT became a thing of the past. It was left, however, with an order for 144 T3A Gladiator platforms that had been intended to mount the weapon. Thus, the public story at the time became that the military was developing a new doctrine for space-to-ground raiding missions and the Gladiator would be the heart of this effort; a kind of two-crew mix between a Retaliator and a Hornet that could drop unguided munitions but also adequately protect itself during attack runs

thanks to higher speed and maneuverability. The final spacecraft was designated T8A, with the change intended to help cover the unfortunate design history (confusingly, Anvil's documentation continues to swap between both designations). Anvil's engineers, one of the only groups familiar with the MVT debacle, were asked to quietly redesign the Gladiator's bomb bay to support traditional munitions, allowing it to make use of the extant supply chain created for the fleet's Retaliator force. The conversion took only four months and it was retroactively applied to the twenty-eight production prototypes already constructed. All examples of the MVT operation console mounted in the early Gladiators were ordered to be destroyed, and it is believed that none survived even deep in Anvil's vault for historical posterity. The executives behind the Kreg-Levine Accelerator debacle were never tried, though they have not reappeared in public life.

AT WAR

Unfortunately, the UEEN's lack of interest in developing proper carrier-based bomber doctrine quickly came back to bite it. While the Gladiator shared much with the Hornet on paper, in practice it was not at all like a fighter. Yet, instead of developing a dedicated light bomber curriculum, UEEN flight schools instead treated the Gladiator as a wash-out assignment for lower-scoring fighter pilots. Recruits would go through

the same training process flying Gladiuses and Hornets and would then find themselves aboard escort carriers assigned to new dedicated bomber squadrons. Similarly, the idea that the Gladiator was a sort of fighter that did not need escort coverage fed further into the disaster. In the first years of the 30th century, there were no fewer than six disastrous encounters in which inexperienced and unprotected Gladiator pilots were slaughtered by the Vanduul, including one incident in which an entire squadron of twelve was wiped out by just four Scythes, a single turret gunner surviving the encounter to report back. The Gladiator seemed like a true failure, with pilots increasingly unwilling to accept Gladiator assignments, which simply further decreased the readiness of the bomber force.

To the fleet's credit, once the problem was understood, effective action was taken quickly. Starting in 2908, the fleet began offering a new mixed training that initially used experienced Retaliator and Hornet pilots to teach new recruits specifically chosen for their potential ability to fly and fight a light bomber. As the program expanded, experienced Gladiator pilots were returned from combat assignments as quickly as possible to share their experience with others. What was quickly discovered was that the Gladiator was actually an incredibly durable fighting machine... but that it would need a great deal of work to build a proper



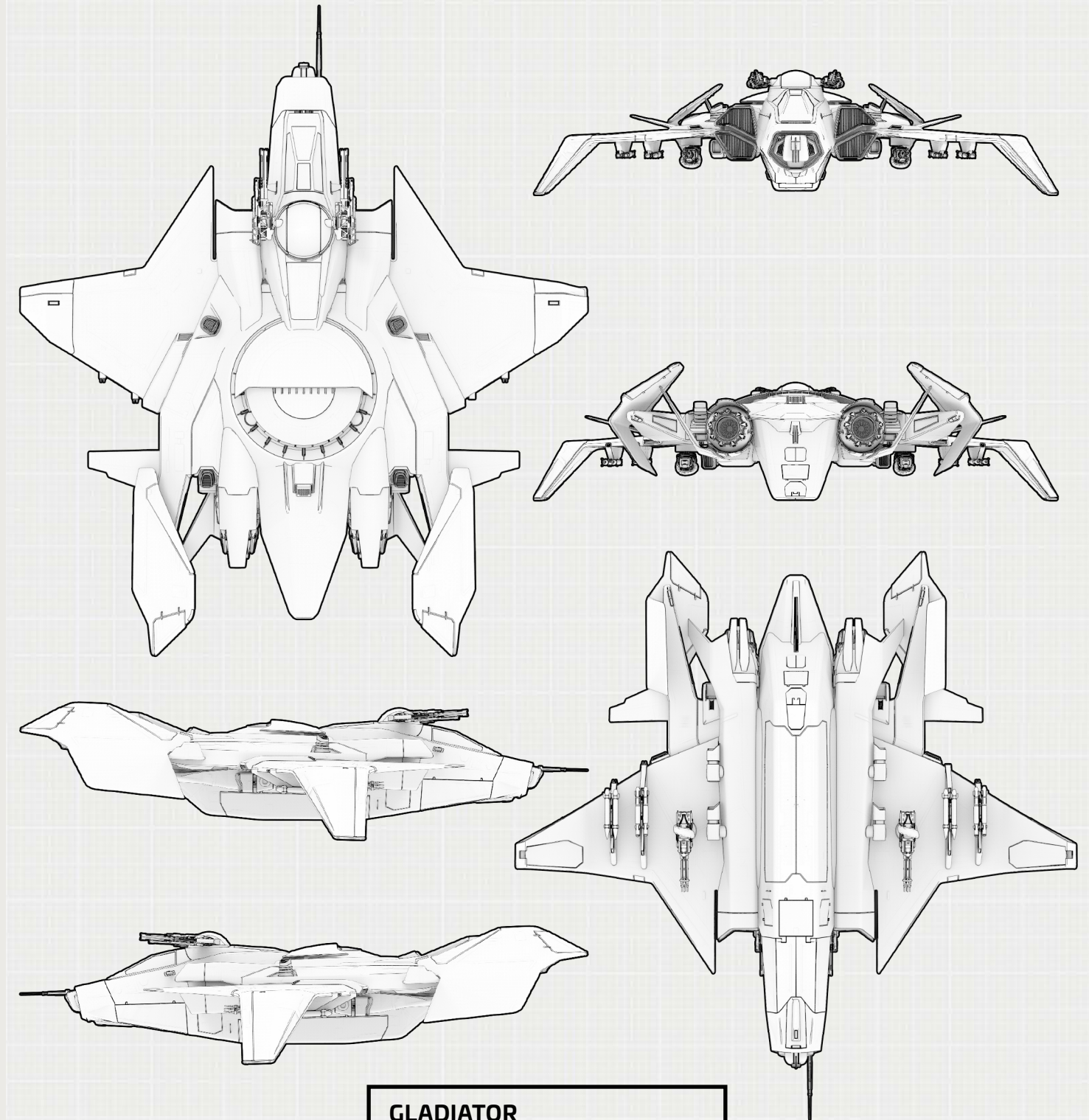
and effective strategy beyond simply throwing it at the enemy. Over the course of a decade, the Gladiator proved itself effective in a number of combat and support roles, ranging from direct strikes on both capital ships and planetary installations to sensor-spoofing wild weasel runs. A good-natured rivalry developed between Gladiator and Hornet pilots alongside a much-improved working relationship: Hornets would pair with Gladiators on a generally one-to-one basis during strikes, learning to escort their 'big brothers' effectively. Properly escorted Gladiators would prove particularly effective when pitted against medium capital ships, with several successful strikes against both Vanduul and makeshift pirate warships being highly publicized during these years. In the years since the fleet adapted to properly use the Gladiator, the armored ships have conducted countless successful operations and have taken the number one slot for amount of gross tonnage of enemy shipping destroyed per spacecraft type. Gladiators have also been adapted to serve in a number of other roles, with a variety of service conversions to the bomb bay allowing for the mounting of special mission packages, like long-range snoopers and data-transfer arrays.

AT PEACE

Meanwhile, civilians saw very little of this chaos. Instead, they followed glowing reports of heroic Gladiator pilots diving between enemy turrets to score torpedo hits. The design even became a popular media focus as the distinctive Gladiator silhouette was used in popular entertainment (including a starring turn in Flight of the Gladiator). As mass production of the Gladiator continued to increase year-on-year, a trickle of retired spacecraft began to become available on the civilian market. These

early Gladiators were not built specifically for civilians but instead were demilitarized and typically adapted for hard work on the frontier. Particularly popular were firefighting conversions with their torpedo bays replaced with liquid tanks for fighting planetary fires. Until the 2920s, the military resisted allowing militia forces to purchase high-yield torpedoes, insisting that such offensive missions should remain the purview of the fleet. As public demand for more and more quick reaction forces to head off increasing Vanduul attacks intensified, the policy was pulled back and Anvil was finally free to develop a civilian-focused version of the Gladiator, the T8C.

The T8C launched in 2943 and immediately proved more popular than the ship did in military circles, with civilian organizations adapting them for everything from strike operations to armored personnel carriers (owing to their short runway requirements, a specification necessary to operate aboard escort carriers). Anvil has continued to upgrade both the military and civilian Gladiator, particularly in terms of what systems are accessible to the radar operator/turret gunner. Many smaller forces operate Gladiators with just a single pilot, though Anvil strongly recommends against this because of the need to crew the turret during strike runs. Non-combat civilian Gladiators also continue to serve, with it proving particularly popular as a courier in some areas and as personal transport in others. One company on Terra offers one-on-one planetary and local system tour packages with a fleet of four vividly painted Gladiators outfitted with 'glass bottom' camera arrays in their bomb bays for maximum visibility for the passenger manning the radar operator's seat.



GLADIATOR	
MANUFACTURER	ANVIL
MAXIMUM CREW	2
MASS	87,497KG
LENGTH	22.5M
HEIGHT	6.0M
WIDTH	22.5M
SCM SPEED	200 M/S
AFTERBURNER SPEED	980 M/S
ROLE	BOMBER




TEHACHAPI

In less than a decade, Tehachapi transformed from a small-scale armor manufacturer with a small-yet dedicated following to an empire-wide brand. Though much of the credit goes to the armor's distinct and practical designs that blend armor plating with strong polymer weaves, company founder and CEO Claude Gadkarii discovered that solid craftsmanship sold at an affordable price wasn't enough to distinguish Tehachapi. It would take the armorer years of hard work and dedication to make the brand stand out from its competitors. Despite his best efforts, Tehachapi still found itself on the verge of bankruptcy only for its prospects to change almost overnight.

ADVENTUROUS SPIRIT

A middle-class kid from New Junction, Corell, Claude Gadkari believes his uneventful childhood inspired him to pursue a life of adventure. An avid consumer of spacefaring adventure vids and books, Gadkari fantasized about exploring unknown frontiers but found his feet firmly planted on his homeworld. While his parents worked hard to provide him and his two siblings a safe and stable upbringing, they couldn't afford their own ship or even a family vacation off-world.

When Gadkari reached the right age, he attempted to enlist in the Navy in an effort to finally leave his planet, but he failed the physical due to a congenital heart defect that had until then gone undiagnosed. Even though it made him ineligible for service, Empire Health Services wouldn't cover the expenses to have it corrected because it wasn't classified as a life-threatening. Gadkari was devastated knowing he couldn't afford the medical implant that would clear him for enlistment. Instead of heading home, he wandered to the New Junction spaceport

looking for any way to get out of the system. Finally, a rough-and-tumble salvage crew took him up on the offer and hired him as a trainee. Gadkari wrote a comm to his family and sent it moments before the ship slipped through a jump point leaving the system.

Gadkari later deemed this period of his life "Roughneck University." When he wasn't doing chores and learning the ins-and-outs of life aboard the ship, the crew ran him ragged with errands for supplies at landing zones. He figured that the lists of random and obscure items he was tasked to retrieve were just another form of hazing, until one day, he doubled back after forgetting his rucksack and caught the crew loading crates into a smuggler's compartment. The crew had been sending Gadkari out because they hadn't fully trusted him yet. Luckily, by this point the crew had an affinity for Gadkari and gave him an ultimatum, either he was all in or had to walk away immediately. Thus began Gadkari's real adventures among the stars.

Gadkari learned the smuggling ropes and visited corners of the universe most prefer to avoid. One run brought him to Olympus in the Nul system, where he happened upon a stall selling custom armor. The unique pieces combined repurposed ship plating with reinforced polymesh fabrics leftover from an abandoned construction project. The design was far from unique but the custom pieces gave it a cool, distinct look that embodied the individualist spirit of the frontier. Obsessed with it, Gadkari made the suit his first major purchase. In the years that followed, not only would the armor save his life more than a few times, he would receive compliments almost everywhere he went. It wasn't before long that he was turning down offers to buy it for double or triple the purchase price. He was too attached to his armor to ever sell it, but



thanks to the numerous patch-up jobs he'd done on it, Gadkari became convinced that he could build something very similar if he got his hands on some armor pieces. Following a particular dry-patch and a nasty run-in with a rival gang, he decided that it was an idea worth following up on. With his crew's blessing, he bought a beat-up Cutlass and flew to Olympus to start again.

DÉRACINÉ

Gadkari searched Olympus for the original armor vendor but came up empty. Word among the locals was that the vendor had fled following a disagreement with Nescus, the crime lord in control of Olympus. No one knew where the armorer went, so Gadkari searched for him in bazaars across the 'verse, doing legit cargo runs along the way to make ends meet. While in Nexus, Gadkari met Heizo Tam, who ran a small armor repair stand. Struck by the unique armor set, Tam offered to patch Gadkari's armor for free so he could examine exactly how it was made. The two struck up a friendship and Gadkari shared how he had been searching for the original maker with the hopes of selling the pieces. With hearing how much people had offered for the suit, Tam proposed the idea that the two could launch their own armor line. Tam would provide the raw materials and craft the suits while Gadkari would provide the capital and handle distribution. In honor of the suit that inspired the collaboration, they named the company after that lost Olympus vendor, Tehachapi.

Mixing inspiration from Gadkari's armor and skills Tam had picked up repairing pieces of every make and style, the Atzalan became the company's first official armor set. Initial sales were sluggish. Gadkari found success selling directly at bazaars but was unable to get any respectable shops interested in featuring the armor. They finally caught a break when, during a meal with a buyer from a large chain, Gadkari

let it slip that he used to be a smuggler and that the armor was inspired by his old suit. The buyer was immediately hooked and began firing off questions, so Gadkari regaled him with stories and plied him with drinks until landing Tehachapi's first big sale. Gadkari sensed an angle and continued to use tales of his time roughing it on the frontier to interest buyers. Stories he later admitted were half-truths blending his experiences with heightened spacefaring adventure stories he loved as a kid.

The ploy worked and Tehachapi found fans, primarily by those who embraced the frontier spirit. While the affordable price was a positive to prospective buyers, the company needed to sell a lot of units to turn a profit. Tam went into debt to keep the production lines rolling, and at a few vital junctions, Gadkari found much needed capital via bridge loans from less than reputable sources. After a few years of struggling to stay afloat, Gadkari and Tam had serious discussions about ending the business. Then something unexpected happened that changed everything.

In 2946, Gadkari provided free armor as a costume option for a spectrum show that recalled the spacefaring adventures he used to love. That series, *Shadow Siren*, became an instant hit and the vid's mysterious rogue known as Déraciné cut an iconic image armored in Tehachapi. Sales skyrocketed and cross-promotions with the show and *Drake Interplanetary*, another prominently featured brand, only raised the company's profile further.

The company has capitalized on this mainstream success ever since and continues to deliver practical and affordable armor that celebrates that frontier aesthetic. Though Gadkari's career adventuring among the stars might have been cut short, his journey created an armor now seen as symbolic of an adventurous spirit. It's not the path Gadkari expected, but one he's happy to have traveled.

READY TO BUG OUT?



Prove you're the fiercest creature in the wild by wearing the all new mandible helmet. This exciting line combines a delightfully twisted design with Sakura Sun's expert engineering for a truly unique set of fanged helmets. You can choose from three bold colors to help separate yourself from the swarm even more.

SAKURA SUN