

JUMP POINT

ISSUE: 08 11



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FROM THE COCKPIT

GREETINGS, CITIZENS!

November is a very special time for *Star Citizen*, as it's the anniversary of when the community came together to make sure the game would happen. We traditionally celebrate CitizenCon in October to mark when the first announcement happened in 2012, but we also celebrate at the end of November in honor of when space-sim fans around the world came together at the end of that campaign. I can still remember those last days, when the amount of support meant we could show off things like the first images of the Constellation or the first mockup of a walkthrough of a landing zone... heady stuff!

First up in **Jump Point** this month is a deep dive into the development of the Mercury Star Runner, which I'm sure you all know has just come online in the latest patch. We spoke with the team behind the Mercury's concept presentation shortly after it was announced back in 2018, so this time I opted to talk to the team responsible for the ship's implementation. It takes, as they say, a village to raise a starship and I wanted to know exactly what that entailed. I hope you enjoy hearing from just a few of the many people who touched the Mercury in recent months! (And while we're at it, how perfect is that the big focus of this incredible new ship in the community is the playable chess board? It's exactly the sort of detail that has been making Chris Roberts' games special since the bucket of water in the Tiger's Claw's barracks.)

Next, we've got a visual guide looking at *Star Citizen's* alien ships, from the original Scythe, Merchantman, and Khartu-AI to the latest Talon. It's really neat seeing all of our alien ships together and track their development to see how they've both helped move forward the frontiers of the game's lore and how they, in turn, have been impacted by things like whole alien languages and architecture styles being developed by the Narrative Team. When it comes to alien ships, it's always a case of just wishing there were unlimited time and resources to build out larger and larger fleets... and it's interesting to see how that is slowly happening with each faction!

And speaking of lore, have some lore! This month's Galactapedia feature covers the opera mushroom and I'll just come right out and say it: you aren't going to find another space game that provides you with special documentation on a type of alien mushroom. We also have an excellent article on the Hadur Standoff, an early flashpoint between humans and the Xi'an that helped define the current quasi-cold war.

That's it for November! Enjoy all the festivities and the exciting new patch. We'll be here to talk more about some of what you're playing next month.

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BEHIND THE SCENES: CRUSADER MERCURY STAR RUNNER

The Mercury Star Runner is here! *Star Citizen's* latest multi-crew ship has attracted a lot of attention... and that's just for the chess set! How does a ship concept become a ship you fly? We asked several members of the team that brought you the Mercury to find out what goes into making a ship beyond just making it look iconic.

[BEGIN TRANSMISSION →](#)

INTRODUCTIONS

JUMP POINT: Hello! Please start by letting us know what you do and where we might have seen your work in *Star Citizen* before.

CHRIS SMITH: I'm a lead artist at Cloud Imperium Games. Before the Star Runner, I completed the Greycat ROC and RSI Mantis, and I have the 300 series, F7A, F8 Lightning, Hornet F7C, and the Nox amongst others to my credit.

JOHN CREWE: I'm the Vehicle Director at CIG.

JOSH BELL: I'm a sound designer, so you might have heard my work if you've flown a ship in *Star Citizen*. Most of my job is looking after and maintaining the existing ship audio, experimenting with new audio features to make it more detailed and believable, and working on a lot of the new ships we make.

MICHAEL SIZEMORE: I am a vehicle systems designer at CIG. I've worked on quite a few vehicles so far, including the 300 series remake, the M50 art rework, the Cutlass series artwork, the Ballista, and now the Star Runner.

STEPHEN HOSMER: I'm a senior vehicle systems designer on the US Vehicle Content Team. I've most recently worked on the Prowler.

DESIGN

JP: What was the starting point for the Mercury - why add a blockade runner to the game?

JC: We added the Mercury as, in the lore of *Star Citizen*, we don't have

secure faster-than-light data transfer, so we require ships to courier sensitive data around and we only have the Herald in that role. We always look to provide choice with our ship range and upgrade options, so the Mercury is a natural fit.

MS: The Mercury started as a cargo/data runner, which is initially its biggest push into the 'verse. We wanted to give players another ship and options to play around with but also give them something that's a bit more 'multi-purpose' in its overall role. The blockade runner part came in much later after I had looked at the ship a bit more and realized speed and its ability to quickly punch through something but perhaps not stay and fight would be one of its biggest perks.

SH: Adding a blockade runner to the game expands the number of roles available to the player and creates new gameplay for everyone.



JP: Why did you choose to give the Mercury to Crusader instead of one of the older shipbuilders like Anvil or Aegis?

JC: This sort of ship fills out the role of Crusader as a galactic courier but we also want to fill out the universe with different companies' content like the real world.

MS: And with its specialty being unique transport vehicles, a secure and flexible data-runner made a lot of sense for its lineup.

SH: We also met with the Narrative Team to discuss the design. At the time, we hadn't done too much exploration into Crusader Industries as a manufacturer, but we knew we wanted to expand the Crusader line of ships. Ultimately, we felt the Mercury's mix of utility would fit with the brand.

JP: How do the Mercury's data-running abilities compare with those of the Drake Herald?

JC: While these two ships occupy a similar career path, they are subtly different in capabilities: the Herald can hold less but is faster at delivering it, so great for urgent deliveries, but the Mercury can deliver much more in one go with its higher capacity.

MS: Basically, either ship could do the other's job but if you wanted to do what suits each, you'd use the Star Runner for your bulk data transfer needs and the Herald when you need something quickly.

JP: Give us a high-level overview of what special systems needed to be designed to make the Mercury work.

JC: The Mercury is half data-runner, half hauler, so at launch it leverages all the cargo gameplay we have in-game and is ready for when data-running comes online, which at a basic level is cargo transport but of a specific time-critical type. Ultimately, you'll be able to source the "data cargo" yourself with the scanning station and deliver it where is needed.

MS: Data storage and the secret cargo hold are just two of the overall systems that needed to be designed for the Mercury. I also wanted the chessboard to be special and unique and have an entire system behind it that let players both play the game but also function with the door itself - something we wanted to leave as a surprise for players and I'm glad they found it as fast as they did. Another feature that has been designed but needs future work is the design of shielded cargo areas of ships or cargo that is naturally more difficult to detect.

SH: While data-running gameplay has yet to be implemented, we needed to keep it in mind when designing the Mercury. We also added in the new light switches that were in the works for a while. This meant adding the switches throughout the ship and hooking them up to our current lighting system. Another system we added was the new door panels, which were then hooked up to all of the doors within the ship.





For example, the Star Runner can hold a wider spectrum of data but can take more time to fill the data banks.

SH: And while the Mercury will be able to hold more data than the Herald, it will also be able to take more hits.

JP: Give us your best 30th-century ship salesman pitch - why do I want to fly a Mercury?

JC: The Mercury is for the person who wants to do a little bit of everything! Cargo-running, check. Fast flight, check. Multi-crew fun, check. Data-running, check. Turret combat, check! It's the perfect ship for you and two associates to travel all over the 'verse plying your trade!

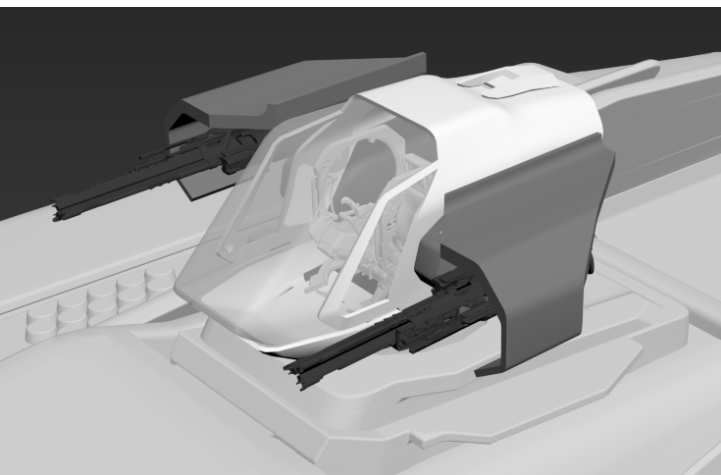
CS: Because you'll be the coolest player out there with the most fun ship! It's a must have!! (lol)

JB: All I can say is that ever since I joined the company, I've loved the concept of this ship and have been keeping an eye on the schedule to try to make sure I got the chance to do the thruster sound design for it. It's just very cool.

MS: So you're thinking of purchasing the Mercury Star Runner? Good, it's the ship you want to be in when the mission parameters change. Perhaps that quiet cargo pickup suddenly gets ambushed - this ship can not only fight long enough to let you get that cargo but also get out of the area quickly.

SH: The Mercury is fast, versatile, and stylish. It can hold a significant amount of cargo and most ground vehicles. And when you settle down for the long haul, you can play a game of chess!





IMPLEMENTATION

JP: What sort of material does the Concept Team provide to you? Is there a handoff meeting or do you get a package you work from?

CS: We usually get a comprehensive concept and style guide, which varies in detail depending on the ship and manufacturer.

JP: What exactly does implementing a ship in the game mean? How do you go from concept models and images into a functioning ship?

CS: Implementation means the vehicle has been built-up by the artist to our game standards and limits. Designers then take the model and 'bring it to life' so to speak.

JC: It's a long process covering many dozens of people and departments. We obviously conceptualized this ship a while back but production on it didn't officially kick off till Q4 2019. It generally had three artists on it but reached eight at its peak for short periods. In general, the time scales with the size of the ship and the number of rooms, which itself is then modified timewise by whether it's a known existing style (which Crusader wasn't).

MS: This requires a significant amount of work and communication between artists and designers, as often artists will almost always find some issues with the original concept that we need to address and, as a designer, I need to offer feedback on what I need out of the ship,

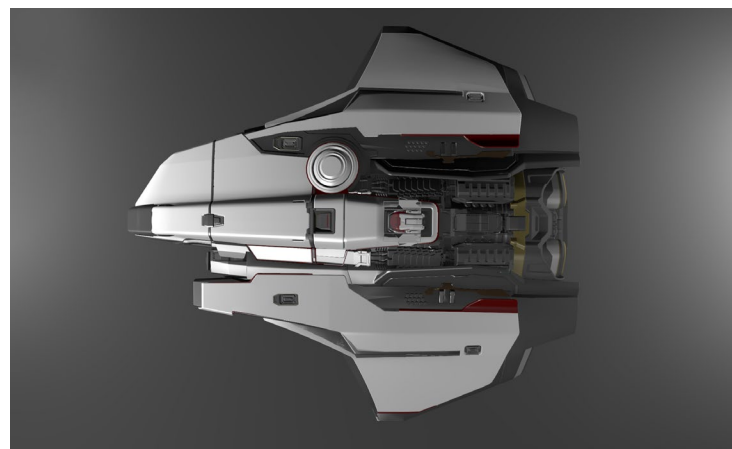
such as suggestions on how we can make the changes needed and keep the ship within its original intentions.

SH: The designer also needs to coordinate with the artist to break up the ship into all of its component parts. Anything that can move or be interacted with needs to be turned into its own entity, such as doors, seats, and turrets. Then we have to go in and define the interactions that a player would take with that entity and how those interactions will affect the ship and the other entities around it.

JP: About how long does it take to bring a ship into the game? Does the complexity matter?

CS: It can take anywhere from 3-12 months to bring a ship from concept to completion. Of course, complexity and size matter quite a bit and a big ship with multiple rooms will take quite a bit longer than a single-seat fighter.

MS: And ships that are more of an art update (such as the 300 series) or an art and gameplay update (like the Cutlass series) can be a lot faster as most of the systems are already present. Ships like the Mercury, however, are far more complex and thus can take far longer to get into the game. The single biggest reason actually isn't size as much as it is designing the new art style for the ship, so getting the concept in-engine so that we can see it and make design and art



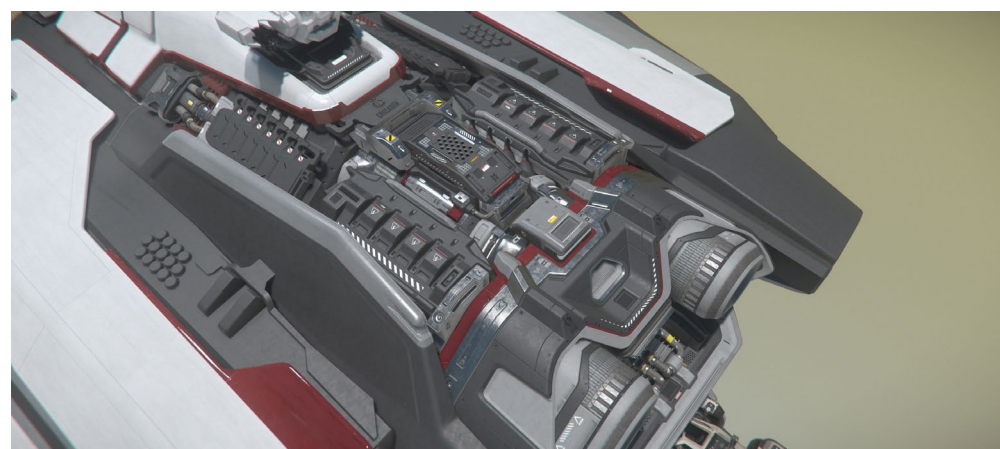
decisions on what needs to change. Players may actually be able to see this with the Mercury, as we had to change the rear of the ship quite considerably from the original concept but did our best to hold true to it. Once that stage is done then yes, the size of the ship by far is what takes up a majority of the time. The Mercury was extra special in this as it is the first ship with a lot of our newer tech ideas, implementations, and pre-setup for future gameplay features. This also added to its design time as it is the first for quite a few things.

SH: And while we can technically get a ship in-game and flying in about a day's worth of work by cobbling pieces together from other ships (like thrusters and seats), getting all of the functionality for a ship to the whitebox stage takes weeks.

JP: Does the concept cover every part of the ship or are there things you find yourself responsible for adding? Did anything stand out in the case of the Mercury?

CS: Yes, concept packages can vary in detail and sometimes unresolved areas must be completed by the artist while working on the game model. This can include concept changes on the fly, pieces that animate, materials, and such. The Mercury underwent some rework to the interior layout a few times and the style guide had some tweaks done by the artists as we were completing the ship.

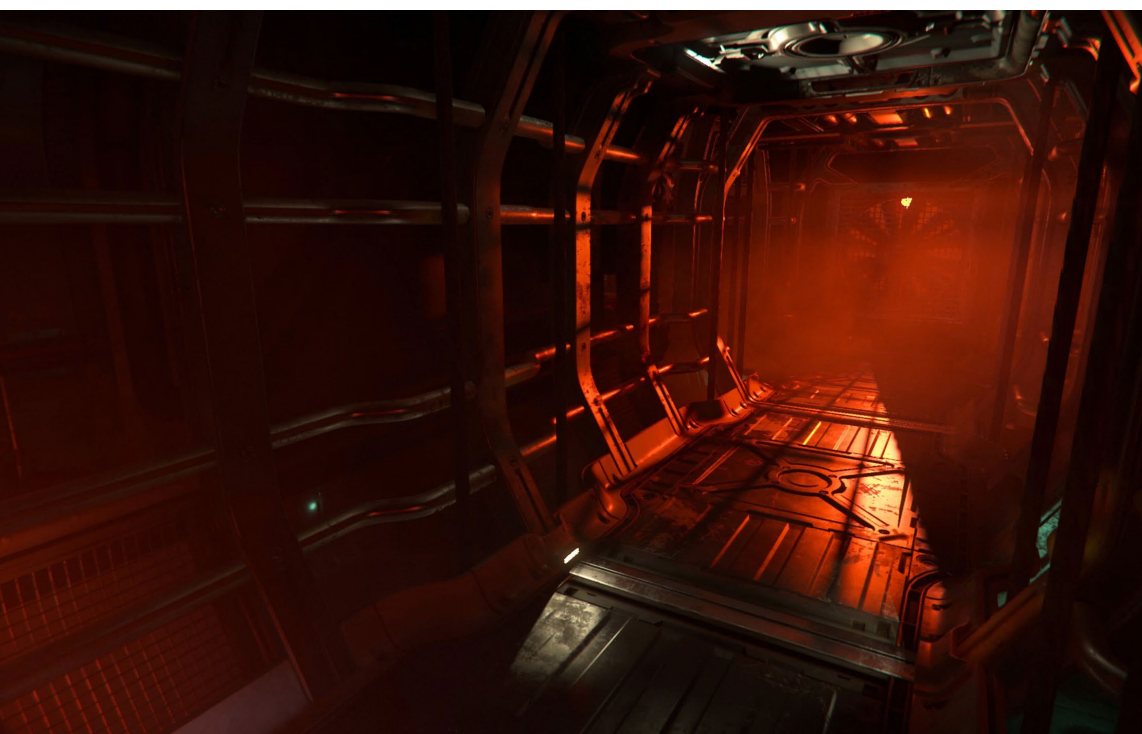
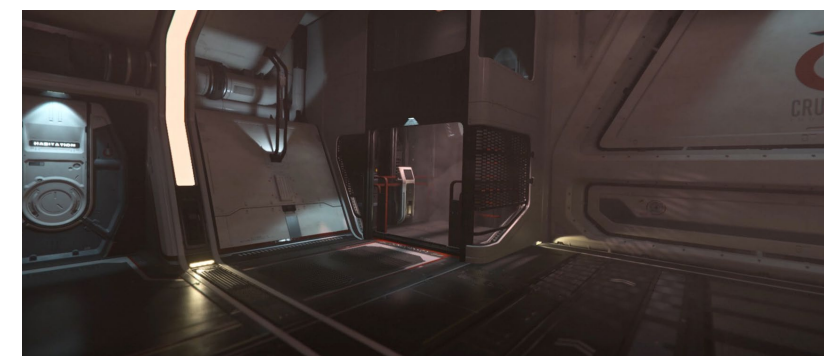
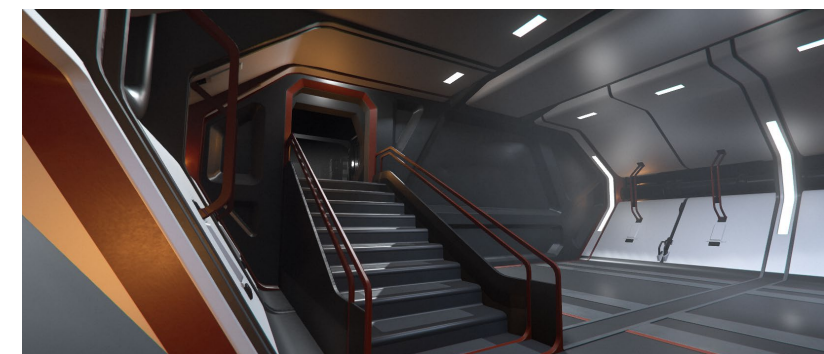
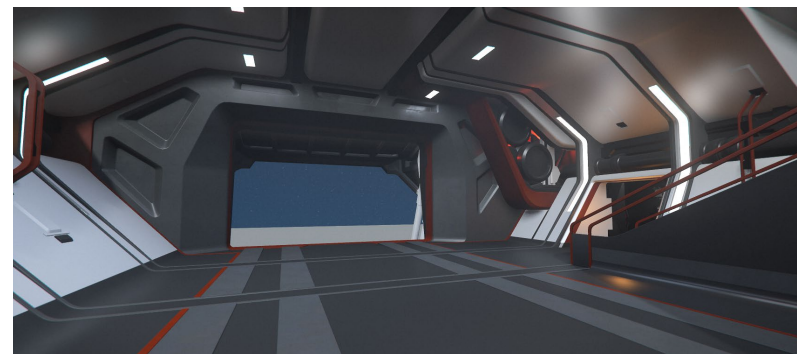
MS: It was just an effort to make sure all those changes were as positive as we could make them, more 'giving' and less 'taking away' as it was.



SH: Once you're able to walk around a ship and see it from the inside, flaws from the concept are exposed. For example, the player was originally going to traverse the crawlspace of the Mercury in the prone position, but once we got it in-game, we found that it worked better when the player was in a crouched position. That meant we had to make all of the vents taller.

JP: Do you ever find yourself having to change the original design to make a ship work correctly in the game engine?

JC: Frequently! Obviously the Mercury had some changes done to it from the concept and it's usually one small thing knocking onto another. The concept originally didn't support getting an Ursa Rover in it, but it was so close we felt we should adjust to have it fit, which in turn meant losing the central third engine to get the entrance space. Other changes included adjusting the turrets because, in the concept, there was one singular double access tube but, from changes to the cargo room, they no longer lined up so became split. These changes then knocked onto the interior layout and so it goes on...



JP: The Mercury certainly looks awesome in-engine! Is there anything you're especially proud of?

CS: This ship was a real team effort, everybody on the US team had their hands on it at some point as well as the UK! So, I'm really proud of the team and how it all came together in the end!

JC: I'm proud of the team delivering as always, but some nice new tech has come online with this ship as a trial for future ships, such as toggleable light switches per room and interactable door panels.

MS: Honestly, the whole ship. I love the Mercury from how it looks to its present and future systems. I'm glad to see the secret-door-style technology come into play and accepted as it means in the future we can try to do even more things like this where it makes sense (and where we can add much more complexity to it).

SH: I'm glad we were able to fit a rover into the Mercury. I'm also proud of all the little nooks and secrets we were able to sprinkle throughout the ship. It took a lot of coordination across the team to get them all working. It's also got a working chessboard, which is pretty cool.

AUDIO

JP: How do you determine what audio a new ship will need? Is there some sort of standard checklist?

JB: Ships generally do have a standard list of SFX that they require: they all have thrusters, cockpit sounds, ambiance, quantum travel, flybys, things that animate, cockpit tones, etc. We do have a robust checklist in place whenever we start work on a new ship to make sure we're covering everything, and then QA catches anything we might have missed.

JP: Did the Mercury require any special audio?

JB: As the first Crusader Industries ship we've made in-game audio for, we had a brainstorming session before starting our work so that we

could decide on a sonic vision for what this ship and Crusader ships in the future will sound like. We use the concept art and a walk-around of the ship in the editor to nail down some high-level concepts and words to describe the sound we're after. We sometimes gather references from other games and films too!

JP: When audio is needed, where does it come from? How do you record the inner workings of a spaceship from the distant future?

JB: Of course we can't record the actual sound of a spaceship from the future! We use field recordings from sound libraries, as well as our own recordings and synthesis, and then layer and process these with one another to create the sound of a ship. The aim is to get that perfect balance between grounded realism and more outlandish elements to

bring the sound into the sci-fi realm. The Mercury, being a Human-made ship, keeps itself more on the realistic and grounded side of the spectrum, but you can hear the sound design going in the other direction on ships like the Banu Defender or the Esperia Prowler.

JP: How do you 'hook up' a particular sound effect where it's needed in the game?

JB: For sounds that are on objects that animate, we use a traditional animation timeline method where we will implement 'notifies' on the animation timeline to trigger at specific points. For ambient audio, we simply place these sounds around the ship at points of interest such as electrical panels, fans, vents, pipes, etc. The really rewarding work is using our Ship Audio and Thruster Audio components. These receive

data from IFCS and translate it into useful audio parameters. We can access any parameter that exists in the flight model and use this to inform our audio from moment to moment.

JP: I'm willing to bet you do a lot of work that's never directly appreciated but that is also a huge part of what makes Star Citizen's world so realistic. What are the sound effects we hear every session but never think about?

JB: I think it's probably just how much detail we put into our ambient audio design work. There are also some other really subtle things that I think help sell certain things. One example is how your footsteps, when sprinting, slightly impact the sound of any UI elements on your visor.





THROUGH THE BLOCKADE

JP: Do you have any special message for the fans who are about to try out the Mercury for the first time?

JC: I hope you all enjoy it, it's certainly a ship the backers are passionate about (not quite Carrack tier though) so we hope you are happy with it.

CS: Hope you enjoy all the cool little nooks and crannies packed into this ship, it's quite different to what we've done before!

JB: Following what has sort of become *Star Citizen* Audio Team tradition, every ship toilet has a unique animal sound buried deep inside it somewhere, this time from Colin Howe. Give it a listen!

MS: The Mercury is a multi-purpose ship so go have fun, go do what you want to do, within reason of course. I would not suggest brawling or getting into a sustained fight, particularly with our larger ships!

SH: The Mercury took a lot of time and effort from a large group of people in order to bring it in-game. I hope that love and attention come through when you're flying it around the 'verse!

JP: Please let us know anyone else who should be mentioned in the credits for helping out with implementing the Mercury!

JC: A significant number of people worked on this ship, so I'll try and cover all of them but I apologies to those I miss! Art was led by Elwin Bachiller and Chris Smith, with Byungjin Hyun and Josh Coons helping out full time. Design was headed up by Stephen Hosmer and Michael Sizemore. A small group of UK artists helped out for a month to help close out: Graeme Palmer, Daryl Faron, Alberto Petronio, and Jonas Prunskus. Tech Art was headed up by Matt Intriери, Patrick Salerno, and Brian Chen, then the usual support from the VFX and Audio teams as well as QA to check the ship out pre-release.

CS: US: Daniel Kamensky, Jin Hyun, Elwin Bachiller, Josh Coons, Stephen Hosmer, Michael Sizemore. UK: Lars Laukens, Jonas Prunskus, Daryl Fearon, James Thirlwell, Danial Dexter, Ben Curtis.

JB: On the audio side: Colin Howe, Francesco Del Pia, and James Walker for their work on the animating objects and the ship computer!

MS: The entirety of the Los Angeles and Austin Ship Art teams, as there wasn't a single one of them that didn't touch this thing at one point!

SH: The design implementation was done by Michael Sizemore and myself with a lot of help from Calix Reneau.

END TRANSMISSION



VISUAL DICTIONARY: ALIEN SHIPS

From the fearsome Vanduul Scythe ambush in the very first trailer to Esperia's latest Tevarin recreation, Star Citizen has a long history of exploring alien cultures through the universal language of spaceship design. Over the years, we've learned about the Xi'an, the Banu, the Tevarin, and Vanduul by getting our hands on the same spacecraft they fly, learning how alike and how different they are from humanity along the way. This visual guide catalogs the strange spacecraft we've seen to date as we look forward to finding out what else the 'verse has yet to reveal.

AOPOA KHARTU-AL

The Khartu-al, previously known as the Xi'an Scout, is a nimble light fighter based on a design operated by the Xi'an Empire. A company called Aopoa manufactures the Khartu-al for export, modifying the military design to remove classified technology and adapting its seating and other functionality for Human life. The Khartu-al's distinctive vertical flight mode has become a major design element as Xi'an culture has developed. The ship was first offered as part of *Star Citizen's* \$23 million stretch goal in 2013, which

aimed to create both the "Xi'an Scout" and to expand the game's focus to alien races, something this inventory suggests has been well accomplished! The original concept design was developed by Eddie Del Rio, with an additional 2015 concept pass by Gary Sanchez. The design is in part a reference to the mysterious "red ship," a vertical spacecraft that appeared in *Star Citizen's* original landing zone mockup in November 2012. The Khartu-al became flyable starting in *Star Citizen Alpha 3.2* in June 2018.



PERFORMANCE

LENGTH: 30.5 meters
SPEED: 300 m/s
MAXIMUM YAW/PITCH/ROLL: 125/125/160 dps
MASS: 67,115 kg
SEATS: 1
CARGO CAPACITY: 0 SCU

Description: The Xi'an Aopoa corporation manufactures an export model of the Qhire Khartu, the Khartu-al, for sale to Human civilians. The export model features the same Xi'an maneuvering rig, but control surfaces are modified for Human use and armament is limited.

AOPOA NOX

The Nox is an open-canopy space bike offered for sale in Human space by Aopoa. The Nox is a sleek, futuristic bike that puts a lot of high-tech equipment into a tiny package. With lines that look unmistakably alien, the Nox truly stands out in comparison to Human bikes like the Dragonfly and Ranger. The Nox was conceived by the Vehicle Team in the UK, which aimed to answer a simple question: if Drake's Dragonfly was inspired by a touring

motorcycle, what would the 30th century's equivalent of a sports bike be? The Xi'an seemed like a good option for providing a totally alien spin on the original open-canopy concept. A limited-edition called the Nox Kue was available during the original sale presentation. The Nox became flyable in *Star Citizen Alpha 3.1* in March 2018, following in the footsteps of the Dragonfly.



PERFORMANCE

LENGTH: 5.5 meters
SPEED: 275 m/s
MAXIMUM YAW/PITCH/ROLL: 125/110/175 dps
MASS: 1,394 kg
SEATS: 1
CARGO CAPACITY: 0 SCU

Description: Hit the skids with the 2947 Nox. This speedy and maneuverable open-canopy racer from Aopoa is capable of zipping along planet surfaces or deep space. Available for the first time in Human space, the Nox has been specifically redesigned for Human pilots, so grab your ship and head to the racetrack today.

AOPOA SAN'TOK.YĀI

Try saying that three times fast! The San'tok.yāi is a Xi'an medium fighter designed to act as a big brother of sorts to the long-serving Khartu-al light fighter. Featuring an impressive system of thrusters and the punch of three laser repeaters and four missile racks, the San'tok.yāi is proof that it's best the Xi'an and Humanity remain cold warriors. The design is also proof that the development of extensive lore and other background detail for the Xi'an did not

go to waste, with everything from the look to the name carefully inspired by a mountain of established background on the species. The spacecraft concept was developed by artist Gary Sanchez, who had worked on the final form of the original Khartu-al. The ship was revealed in a concept presentation in November 2018 and is still in the concept stage.



PERFORMANCE

LENGTH: 24 meters
SPEED: 265 m/s
MASS: 106,566 kg
SEATS: 1
CARGO CAPACITY: 0 SCU

Description: Harnessing the power of next-generation Xi'an flight systems, upgraded dual-vector thrusters, and a daunting weapons package, Aopoa has crafted a fighter that retains the nimble dexterity and tight handling the brand is known for. All with the added ability to pack a serious wallop when the situation calls for it. Welcome to the future of spaceflight, courtesy of the Xi'an Empire and Aopoa.

DEFENDER

The Defender is a Banu light fighter with one major *raison d'être*: protecting Banu Merchantman ships that operate it as a dedicated interceptor. Emphasizing the alien nature of the design, the Banu is best flown by two pilots instead of one, with the pair working together to control different aspects of the ship (one typically hardening shields and the other controlling the thrusters and

weapons). The Defender was first conceived by Jan Urschel with two goals in mind: one, introducing an alien interceptor and two, prototyping the look and feel of Banu materials, processes, and controls that will eventually carry over to the larger Merchantman implementation. The Defender went live in *Star Citizen* Alpha 3.7 in October 2019.



PERFORMANCE

LENGTH: 33.5 meters
SPEED: 203 m/s
MASS: 78,406 kg
SEATS: 2
CARGO CAPACITY: 0 SCU

Description: Meet the Banu Defender, a multi-crew fighter whose patchwork design highlights technology from a variety of species. Featuring modest accommodations for its crew and easy access to components, the Defender gets its name from the role it serves: the first line of defense against enemy attacks. That's why the Defender makes the ideal companion to the Merchantman: one to do the heavy hauling and the other to perform the deadly dogfighting.

MERCHANTMAN

The Merchantman is a cross between a lumbering freighter and a trading platform in its own right. The prize possession of many Banu traders, Merchantman ships are unique, organic-looking transports that reliably move goods throughout the galaxy. Merchantman are typically protected by smaller Defender parasite fighters that tend to prevent pirates from hunting the Banu. Like the Xi'an Khartu-al, the Banu Merchantman was part of a 2013 *Star Citizen* stretch goal (\$27 million), aiming to expand the game's alien cultures. As with the Khartu-al, the

Merchantman helped introduce and define the Banu race early on before copious amounts of additional lore were developed for the species. The initial concept artwork for the Merchantman was developed by Emmanuel Shiu in 2013. As of publication, the Merchantman is still in concept, with the newer but smaller Banu Defender leaping ahead of it to help define Banu materials and other elements that will be necessary to build out the larger, more complex merchant ship.



PERFORMANCE

LENGTH:	160 meters
MASS:	9,635,000 kg
SEATS:	8
CARGO CAPACITY:	3,584 SCU

Description: Banu traders are renowned for their merchant prowess, traveling the spacelanes and trading with everyone from Humans to the Vanduul! Their sturdy, dedicated trading ships are prized beyond all other transports, sometimes passing from generation to generation of Banu.

ESPERIA PROWLER

The Prowler is an armored, bird-like Tevarin dropship used in the species' historical wars with Earth. While the Tevarin are no longer an antagonistic force in *Star Citizen's* present day, their past interactions with humanity and their involvement in the beginning of the United Empire of Earth are essential parts of the game's lore. By having Esperia, already established as the manufacturer

of replica spacecraft, recreate the Prowler, the team could both fill out an essential part of human history and provide the game with another unique spacecraft experience. The Prowler was first shown in a concept presentation in November 2016 in part of the very first in-game IAE event. The Prowler became flyable in *Star Citizen* Alpha 3.9 in April 2020.



PERFORMANCE

LENGTH:	34 meters
SPEED:	178 m/s
MASS:	171,700 kg
SEATS:	2
CARGO CAPACITY:	0 SCU

Description: Named after the UPE military designation, the Prowler is a modernized version of the infamous Tevarin armored personnel carrier. Esperia's astroengineers were given unmitigated access to study original versions of the ship recently discovered in the Kabal system to help meticulously reconstruct the vehicle.

ESPERIA TALON

Star Citizen's Talon is the second Tevarin ship to be recreated by Esperia for sale to Human pilots. The Talon is a light fighter upgraded to current combat standards that still boasts uniquely alien directional shield technology. Following the design created

for the Prowler, the Talon also features an avian-inspired hull design and particularly intricate external armor. The Talon was first shown in a concept presentation in August 2020 with implementation currently scheduled for Alpha 3.12.



PERFORMANCE

LENGTH: 20 m
SPEED: 250 m/s
MASS: 28,000 KG
SEATS: 1
CARGO CAPACITY: 0 SCU

Description: This ship is a recreation of the Tevarin Talon by Esperia. The Talon is the Tevarin equivalent of the Aegis Gladius or Vanduul Blade; a single-seat combat ship. The Talon is the perfect example of the Tevarin way of building a spaceship: maneuverable with powerful, directional 'Phalanx' shields but weak physical armor, as the Tevarin way of war was to strike first and strike hard, before using their Phalanx shields to cover their escape.

BLADE

It's the Scythe's little brother! The Blade is the Vanduul forces' light fighter, the rough equivalent of the UEE Gladius (though much scarier looking!). Fast and maneuverable with a still-effective striking power, Blades are a true challenge to deal with and can be something of a joy to fly. Flyable Blades in *Star Citizen* are

manufactured by Esperia, an alien ship-cloning company originally created as a way to let players have in-lore access to Vanduul ships. The Blade concept was first presented in May 2016 and the ship itself became flyable in *Star Citizen* Alpha 3.2 in June 2018.



PERFORMANCE

LENGTH: 16.5 meters
SPEED: 290 m/s
MAXIMUM YAW/PITCH/ROLL: 115/115/140 dps
MASS: 26,056 kg
SEATS: 1
CARGO CAPACITY: 0 SCU

Description: Vanduul light fighters, designated 'Blade', are often used as scouts and first wave assault crafts. Over the decades of conflict, they have been increasingly used to take out comm arrays and early warning systems. They have also served well as skirmisher units as their speed allows them to chase down ships attempting to flee. If engaged, expect the Blade to utilize its speed and agility to wear down your defenses.

SCYTHER

Did you know: the Scythe was the very first alien spacecraft developed for *Star Citizen*. The signature Vanduul medium fighter was there from the very beginning when Chris Roberts presented the first trailer and demo at GDC Next in October 2012, launching from behind an asteroid to ambush the player. The original, asymmetrical Scythe model was created by Jim Martin

for the *Star Citizen* demo presentation and it has been refined and made player-flyable in the years since that incredibly early version. Players who pledged for a limited number of Scythes during the original campaign have a version captured by the UEE, with later offerings being reconstructions by Esperia.



PERFORMANCE

LENGTH:	31 meters
SPEED:	285 m/s
MAXIMUM YAW/PITCH/ROLL:	105/105/150 dps
MASS:	59,573 kg
SEATS:	1
CARGO CAPACITY:	0 SCU

Description: Fast becoming the symbol of the Vanduul Race, the Scythe is the foot soldier in every raid and the target of every human fighter pilot. Featuring a hefty weapons payload, the Scythe's real asset is its maneuverability, found in the twin main and twelve maneuvering thrusters.

ESPERIA GLAIVE

The Vanduul Glaive medium fighter is something of a variant take on the standard Vanduul Scythe. The cockpit and superstructure are identical but the Glaive features two knife-like wings instead of one, resulting in a different set of specifications. In lore, Glaives are rarer and typically flown by more skilled opponents. Esperia replicas of

the Glaive have been offered to *Star Citizen* players as part of special events, starting with *Arena Commander* competitions that would unlock the ship when completed. Unlike almost every other *Star Citizen* ship, the Glaive was created without the standard concept process as it was a development of the long-existing Scythe assets.



PERFORMANCE

LENGTH:	31 meters
SPEED:	255 m/s
MAXIMUM YAW/PITCH/ROLL:	100/100/135 dps
MASS:	66,013 kg
SEATS:	1
CARGO CAPACITY:	0 SCU

Description: The Glaive is a symmetrical version of the Scythe. Generally flown by Vanduul with more combat experience, they are better armed and have two huge blades/wings as opposed to one on the standard Scythe. This model is a human reproduction created by the manufacturer Esperia.

GALACTAPEDIA

OPERA MUSHROOM

The opera mushroom is an artificially engineered fungus developed by a team of researchers at the University of Rhetor's (UR) Department of Genetics. It has a fleshy, violet, trumpet-shaped, fuzz-covered stem that amplifies a natural sound created by the expansion and contraction of the hyphae as water passes through it. Because the mushroom is easily grown on spacecraft, it became popular as an on-board plant shortly after its commercial debut in 2925.

DEVELOPMENT

In 2918, genetics graduate students Mauveine Senae and Phil Ektos started a project to create an edible version of the fast-growing purple chimney mushroom, a toxic fungus indigenous to Reisse (Rhetor III). Dr. Yuki Hexa, Senae's advisor, joined the project after Senae and Ektos presented their early results: a mushroom with a deeper funnel shape and slightly less toxicity. As the team made further modifications to the mushroom's genetic code, the toxicity failed to fall to levels safe for Human consumption, but the divot in its stem deepened. One night, Ektos heard a strange tone in the lab, and traced it to the latest generation of mushrooms.

The team agreed to reframe their project to bring out the new audio qualities of the mushroom. By the end of 2920, they had developed a stable breeding population of mushrooms that produced varying tones depending on their size. Senae created a personal garden of the mushrooms in her dorm room, arranged so they resembled performers on a tiny stage. Hexa suggested the name "opera mushroom" after seeing this display. In early 2921, Ektos and Senae submitted their work on

the opera mushroom to their dissertation committees and were awarded doctorates.

LIFECYCLE

After a four-week growing period, the constant motion of water through the mature mushroom causes ballistospores to slowly eject from the trumpet. After these spores fall onto a suitable substrate, they take root into a mycelium from which the mushrooms emerge. More and more mushrooms grow as the mycelium spreads underground, sometimes resulting in a widening ring-like pattern. Places where opera mushrooms grow can often be heard before they are seen.

COMMERCIAL DEBUT

Samples of the opera mushroom were made available to plant nurseries on Reisse in 2925. Thanks to its novelty and fast growth cycles, the fungus was an instant hit. It became a popular houseplant, especially for long-haul spacefarers in need of something low-maintenance to decorate their holds. Skilled gardeners can grow mushrooms in arrangements that produce harmonizing tones.

In 2926, a wild, self-sustaining population of opera mushrooms was discovered 11 kilometers from the UR Genetics lab. The mushrooms continue to grow in the wild on Reisse today. It's a Day of the Vara tradition for some social organizations on the UR campus to tell ghost stories in nearby woodland with known opera mushroom populations to try to trick first year students into believing the woods are haunted.



STANDOFF IN HADUR

In the nascent days of the Human and Xi'an cold war, Emperor Ivar Messer poured billions into developing a new military long-range scanner codenamed the TKL-2900. He boasted that the technology could find and track targets at significantly greater distances than the current generation of Human scanners and that it would surpass those used by the Xi'an. Despite the time and expense of the project, the actual scanner fell short of Messer's boastful claims when initially tested. Engineer Martha Agrawal, a notorious Messer supporter, was made the new lead in an effort to salvage the project. She quickly asserted that the issues could be remedied with a few modifications. Once the changes were complete, Emperor Messer received Agrawal's guarantee that it would work before ordering the TKL-2900 to be deployed to Hadur. Other scientists and engineers on the project begged for more field testing before its deployment, but Agrawal dismissed their concerns and made it abundantly clear that anyone opposed to the decision would regret it both professionally and personally.

Emperor Messer pushed for the quick deployment of the TKL-2900 because he believed the scanner would provide the UEE a clear

technological advantage in guarding the fledgling Empire against the burgeoning Xi'an threat. Intelligence reports from along the Perry Line, the buffer zone between Human and Xi'an controlled systems established in 2542 by the UPE Tribunal, were scarce at best and that lack of clarity into Xi'an military movements deeply worried Messer. Still fresh from the aftermath of the First Tevarin War, he believed that the Xi'an would not waste time in striking while Humanity was still recovering from one military conflict. Desperate to reestablish military dominance and with Agrawal's guarantee of superior performance, the scanner was delivered to the Perry Line unproven and untested.

AN UNEXPECTED EXPLOSION

On November 7, 2550, the Navy placed a TKL-2900 long-range scanner in Hadur near the jump to Baker. Upon activation, the experimental reactor powering the TKL-2900 suffered a sudden critical failure and triggered a massive explosion that lit up scanners across the system. The first Navy patrol on the scene found several Xi'an ships already scanning the debris. Their arrival drew no fire but also didn't

deter the Xi'an from their scans, as their ships remained singularly focused. When warning measures and bullying flybys yielded no reaction, Lieutenant Commander Polina Balmont fired warning shots to make their intentions abundantly clear. The Xi'an ships immediately disengaged. Balmont instructed her team to establish a perimeter and wait for the other Navy patrols to arrive. Then she made the jump to Baker to comm Admiral Hireche of the UEE Kennelly and leader of the battle group that the TKL-2900 had exploded and Xi'an ships were spotted at the scene.

Hireche relayed the message to Naval Command and then ordered UEE Kennelly to Hadur. Before making the jump, he instructed his entire fleet to converge on the Baker-Hadur jump point and await further instructions. UEE Kennelly arrived at the massive debris field in Hadur to find all the Navy patrols accounted for and policing the perimeter. He dispatched a ship to Baker to retrieve additional forces and lead engineer Martha Agrawal to help diagnose what caused the explosion. He also spoke with Lieutenant Commander Balmont and extracted a moment-by-moment account of her actions. While he deemed



the firing of warning shots to be justified and expertly executed, he worried it would prompt a Xi'an response. And, not long after his arrival on scene, scout ships in Hadur began registering heavy activity in Xi'an sectors.

Admiral Hireche knew time was limited and feared any further engagements would only make matters worse. Despite Agrawal's insistence that Xi'an forces were to blame for the TKL-2900's failure, Admiral Hireche wanted irrefutable proof before making the claim to Naval Command. He ordered a grid search of the debris field to find any surviving data recorders. Then he requested that every ship in his fleet still stationed in Baker join the action in Hadur.

The order gave his crew pause as their fleet included a new Aegis Nautilus-class minelayer ship that had not yet been authorized for field operations in Perry Line systems. The ship had been assigned to Admiral Hireche's fleet to be put through a series of simulations around a Xi'an incursion into Baker. Naval Command wanted to perfect its use protecting UEE systems before putting it into play on the Perry Line and announcing its arrival to the Xi'an. Seeing scans of a significant Xi'an force assembling across the system, Admiral Hireche knew his fleet would soon be outnumbered before reinforcements could ever arrive, so he disregarded the usage edict and confirmed his order to bring the Nautilus into Hadur. If he couldn't have the numbers advantage, then he would take the tactical one.

DECLASSIFIED DEFENDER

With his entire fleet in Hadur, Admiral Hireche ordered the Nautilus to reinforce their perimeter by strategically laying mines to funnel Xi'an ships into a limited number of approach angles. Then he positioned his forces to defend these flight lanes. Admiral Hireche had hoped the Nautilus could lay the mines and return to Baker before the Xi'an

arrived, but it was not to be. A massive Xi'an force appeared near the UEE perimeter as the Nautilus crew rushed to complete its objective. Yet, instead of engaging, the Xi'an force halted and held their position. A few of their ships that Admiral Hireche assumed contained their most advanced scanning tech followed from a safe distance, carefully observing the Nautilus. Once the mines were laid, Admiral Hireche ordered the Nautilus back to Baker to restock and potentially repeat the process on the other side of the jump.

Meanwhile, a tense standoff between UEE and Xi'an forces lasted until the grid search of the wreckage was complete and two data recorders were found intact. As Martha Agrawal began to analyze the data, Admiral Hireche organized a swift and safe withdrawal from the debris field and returned his fleet to Baker. No Xi'an ships stalked their retreat, but a subsequent investigation of scans from a nearby UEE station showed a small team of Xi'an ships inspecting the debris field before their forces vacated the area.

Back in Baker, Admiral Hireche commended Naval Command to disclose his use of the Nautilus as a deterrent. Admiral Hireche and engineer Martha Agrawal were ordered back to headquarters to provide a full account of the incident. Initially incensed over the use of the Nautilus, Emperor Messer would eventually praise Admiral Hireche's swift and decisive actions once analysis of the data recorders revealed the explosion to be a critical system failure and not a secret Xi'an attack. While engineer Agrawal fell out of favor with Emperor Messer for her failure to deliver on her promises for the TKL-2900 and attempts to blame the Xi'an, Admiral Hireche became a trusted confidant, who would eventually be elevated to oversee all forces along the Perry Line. When asked about what he believed was the highlight to his Navy career, Admiral Hireche referenced the Hadur standoff, saying "one of the toughest decisions a commander can make is when to walk away from a fight."

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