

# JUMP POINT

ISSUE: 06 11



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## FROM THE COCKPIT

### GREETINGS, CITIZENS!

Happy anniversary! By the time you read this, I'm sure you will have thoroughly lost yourself on Hurston, our very first planet. We took a look at some of the incredible work that went into building it in last month's edition of **Jump Point** and now you can study all of that work up-close yourself! It's thrilling to land on a brand-new planet rendered in such detail and to see *Star Citizen* evolving so quickly.

We've got an exciting issue this month that centers around some of the big in-game changes happening right now. On the ship side, we're going the whole space hog on the Xi'an San'tok.yäi medium fighter, which was announced just two days before this issue went to print. We've got the usual in-depth 'Behind the Scenes' detail of its design and concepting along with a special edition of Whitley's Guide covering the United Empire of Earth's first experiences with the ship.

While putting together this issue, I was reminded of an old question that always came to mind when I was outside the building of a great fictional universe: is the lore that a player (or reader) enjoys something creators consider especially important, or is it a case of something that simply needs to be done? We can all think of times when our favorite worlds 'let us down' in small ways that matter to truly hardcore fans: phasers fired from torpedo bays, parsecs used as a measure of time and the like... and we wonder

how much conscious thought goes into world building or if it's just a case of having something that needs to be done for a deadline.

I'm pleased to say that, in the case of *Star Citizen*, I can confirm that the world building comes first. From the moment I started looking at the making of the San'tok.yäi, I was inundated with an incredible amount of thought that has gone into creating first the Xi'an culture and then the nuts and bolts details of not only how the ship works, but how it works as part of our universe. From making sure the name and all the components work in the existing alien language to checking that the animations make sense for Xi'an physiology, the work that went into it is a microcosm of the dedication that goes into everything in *Star Citizen*. Seeing our designers and lore creators talk through things that could only matter to the most dedicated fan is a great reminder of how much the team believes in not just the game, but the universe. It's humbling and it makes me proud to be involved in it all!

With that, we have some exploring to do. You have a **Jump Point** to travel through... and an entire new planet to make your own!

Until next month, I'll (literally!) see you in the 'Verse,

*Ben*

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# DEVELOPER INTERVIEW

## THE IN-GAME ECONOMY

There's a lot to be excited about in *Star Citizen* today, from entire planets to explore to the steady development of new ships, weapons, missions, characters, and other game elements that are coming online with each patch. Another very exciting (but much more difficult to quantify) change is the fact that the game's design is beginning to incorporate ship acquisition into the game universe. It's the first realization of some very important work and, for anyone who has been following the project for a while, is something you've likely been waiting to see. The 2948 Intergalactic Aerospace Expo is a great sign of things to come as ship pledges which previously only took place on the website are now implemented into the game's growing economy system now includes the ability to buy ships in-game with in-game currency, as opposed to pledging for them on the website. Getting to this milestone has taken a great deal of planning and thought on the part of *Star Citizen*'s designers...

BEGIN TRANSMISSION →

**JUMP POINT (JP):** What was the impetus for adding ship sales into the game world?

**JAKE MUEHLE (JM):** It was always the intention to implement the purchasing of ships within the PU, as Chris Roberts has a strong desire to make most items in the game purchasable through the in-game shops. Having things obtainable through the RSI site was always a stop-gap until we could build the technology to do it in-game.

**JP:** Walk me through the process of pricing a new ship.

**JM:** Currently, we compare each ship to the ability and potential of several other ships that have come before it. We look at things like hardpoint count, ship item sockets, maneuverability, crew count, hauling capability, and others. We then judge the potential of each new ship against the future vision of *Star Citizen* and the unique role each

ship will have in the game. While we develop the wider economy as a whole, the best way for us to value incoming ships is to compare them to each other.

As we continue to make a fully-functioning, dynamic economy, these judgments will be replaced with firm values of component, technology, and labor costs along with the expected manufacturer markup.

**JP:** How did you account for older ship designs like the Aurora and Constellation?

**JM:** As we haven't yet moved to full economic fidelity with the ships we create, we use the existing ships as relative points with which to compare new ones. This is a pretty important approach; we don't want the pledgers of existing ships to feel like their ships have devalued as we introduce new ones, so we try to make sure they are priced relative to what their current or projected capabilities will offer in-game. If anything, we want players who supported early to feel the benefit with a great deal on an otherwise expensive ship, not the other way around!

**JP:** How do ship sales tie into the rest of the game's economy?

**JM:** Ship sales are the end-product for so many things in *Star Citizen*. Ships are made of parts that can trace their materials all the way back to the rocks they were mined from. In the future, we designers won't set the price of things at all, we'll only set the location and difficulty of gathering, refining, and manufacturing materials, the effort needed to transport goods, and the demand for the end product. The dynamic economic simulation will relate vehicle prices to the in-game effort of bringing them to market.

If we need to change the value of an item, the design team won't change the price directly, but will instead introduce a new deposit of an important material needed for the product, or a new wormhole between systems that makes transport less hazardous.

On the other end, ships and items provide the demand for most of the gathering and processing of raw materials in the *Star Citizen* universe. As players and NPCs require certain performances out of their ships, the required materials will increase in demand, and the price of materials, items, and ships will all adjust to match.





**JP:** We have ship sales, component sales, and missions that pay in-game credits and commodities for cargo now... what else does Star Citizen's economy need to add?

**JM:** Tons of things, but most importantly the dynamic content for how missions, prices, items, and content are generated. The economy is so much more than just the prices of individual items - it's a system for the value of goods and services compared to each other. With that in mind, the economy is concerned with almost every new feature we plan to add to the game. New ship systems like the recent RSI Apollo's medical system or the Drake Vulture's salvage system have a huge impact, and they need to fit together with things like the value of land bases from the Pioneer, or how field repair systems are intended to work. *Star Citizen* is about creating unprecedented reality in the way the economy works, so each thing you buy needs to reflect the effort that would go into making it.

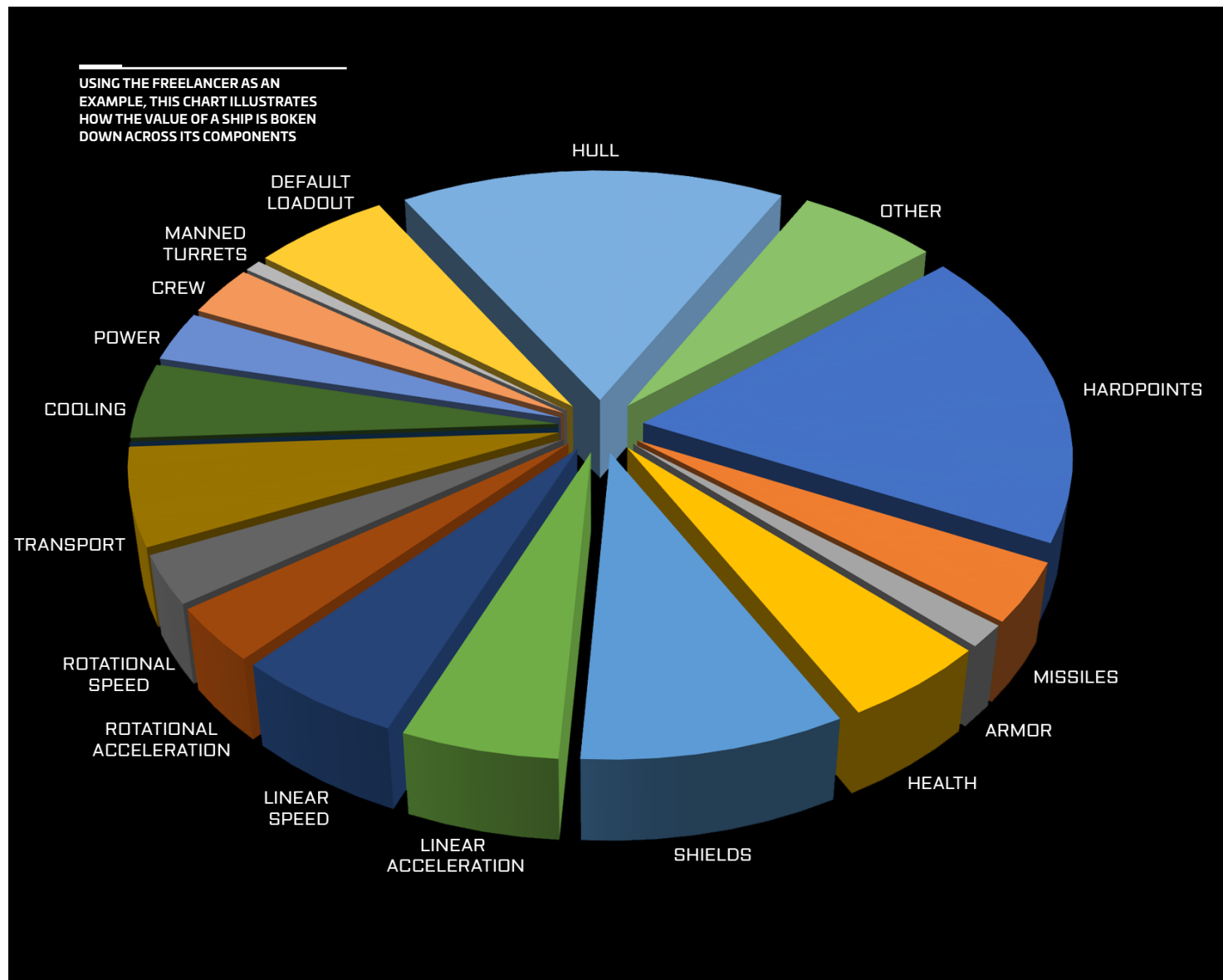
It's an exciting project to be a part of. At this point, what we really have is a proof-of-concept that sales and mission rewards can work. The next step is making these values reflect the actual market influences in the game. That's easier said than done, and it's going to take a lot of time and a lot of iteration.

**JP:** Will outside factors impact the price of ships over time?

**JM:** Absolutely. The price of a ship reflects the effort and cost of all the parts, labor, and technology that goes into making it possible. For instance, an increase in the price of aluminum would cause an increase in the cost of hull plating, which directly affects the price of the ship. Like







all things in *Star Citizen*, the value of ships will be dynamically based on the supply and demand of the resources required to make them.

The statistical performance of a ship (or item) also plays a large role in the price. Like the real world, higher-performing items indicate higher-levels of craftsmanship, which will be reflected in the cost of the ship or item.

**JP:** Are ships a limited resource? Does the fact that there might be a lot of Cutlasses but very few Idrises factor into their price beyond their comparative abilities?

**JM:** The actual cost of an Idris is always going to be higher than a Cutlass by a significant margin due to the sheer volume and value of parts going into it. The biggest factor in price isn't how many or how few ships there are, but the demand for the resources and labor that each ship requires.

However, ships are a limited resource in the sense that manufacturers will only be able to make ships as fast as they have the production ability and materials to do so. As players buy more of a

particular kind of ship, we fully expect to see the universe adapt to be able to provide more of them.

Even with all the necessary resources, each ship will always account for the construction time to build it. As a player, you can expect some type of wait for ships that are in the upper-end of the spectrum. For instance, each Idris might be built-to-order, so you'll have to wait for it to be constructed before you can take possession of it. Conversely, an Aurora might have little to no wait time if they are mass-produced and constantly rolling off the production line.

**JP:** Will there be a variable market for used ships? How would that connect to the system you've already built?

**JM:** This is something that Chris definitely wants. A common design mechanic in games is to see account-bound items and equipment that are quite inflexible in terms of being able to resell and leverage economically. The goal for *Star Citizen* is to get rid of the artificial limitations of other games and have an economy where you can buy, sell, trade, steal, or even lose the things that you own.

We want to have an economy where players can take calculated risks that pay off according to what you put in. *Star Citizen* is a game of real, meaningful choices and the economy is absolutely going to reflect that.

**JP:** How did you 'test' this work internally? How does that compare to the feedback you get from the PTU?

**JM:** An economy is very systemic, so we have to test it differently than most other game systems. For instance, when a ship designer tests how a ship handles, they open the game and fly it in several scenarios, mentally comparing how it responds to previous ships they've made. In the economy, such an approach wouldn't work: a designer's singular experience is always doomed to be anecdotal, and the economy needs to take into account the entire universe at the same time.

To test the economy properly, we need a lot of visualization tools that we have to write ourselves. We're currently working with the team that did the *Star Map* to see a dynamic simulation of what the *Star Citizen* economy will look like across multiple star systems and vastly accelerated periods of time. A good portion of the work we do is developing the visualization tools that enable us to balance the artificial supply and demand of the game.

Our theories are tested by analytics and the hundreds of players who diligently test the economic changes in the PTU. When we look at player feedback, we very rarely only consider a single player's experience, for the same reason that we don't trust our own anecdotal

experiences while testing. The best feedback comes from lots of voices helping us confidently identify the economic trends actually taking place as a whole.

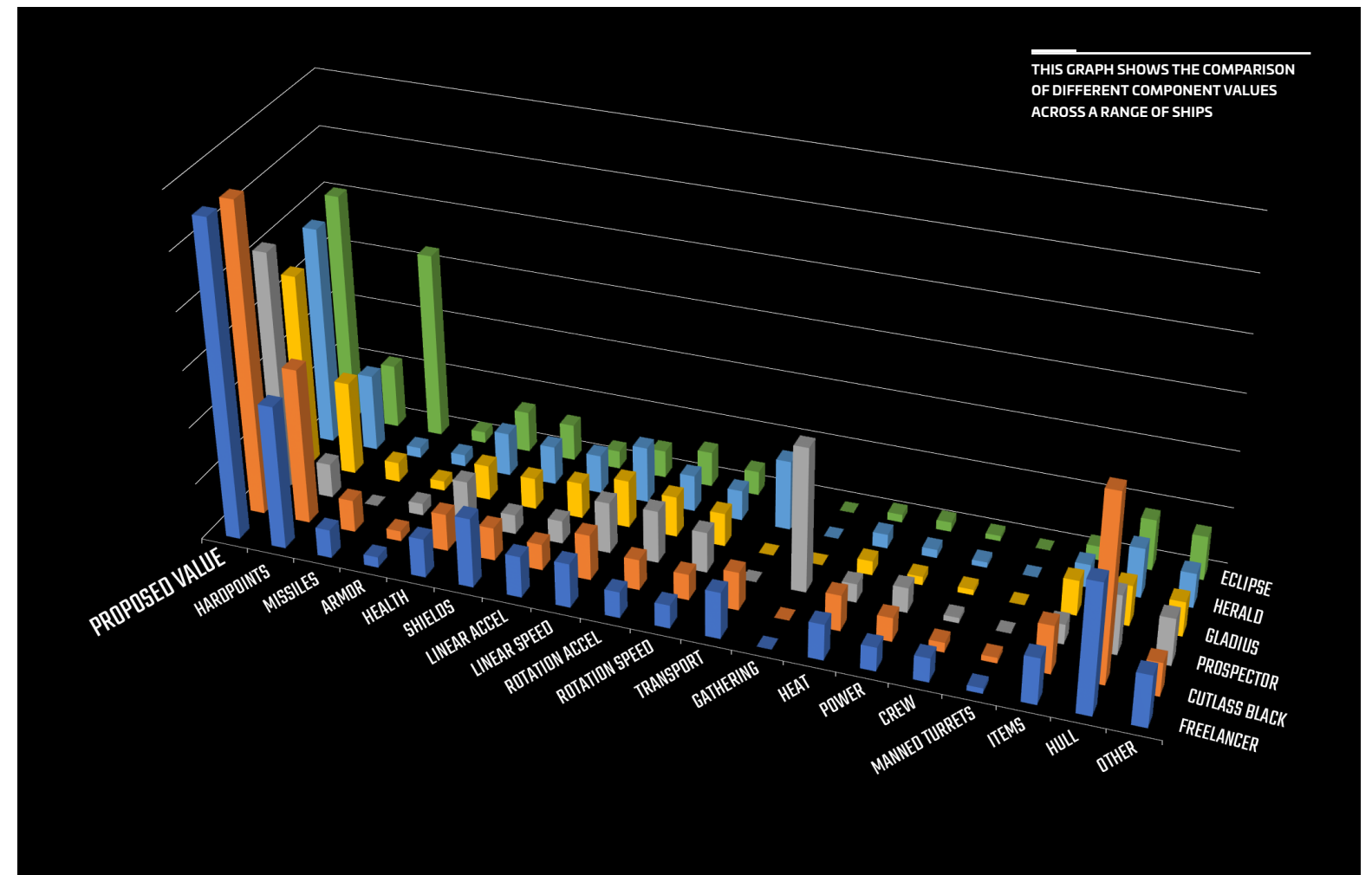
I can't emphasize how helpful community feedback is while we balance changes. Giving us your personal experiences and adding your voice to the forums helps us to tune the economy much more than theory does. We really are regularly humbled by the community's excitement that helps make this game possible.

**JP:** Did you run into any unusual problems developing this system?

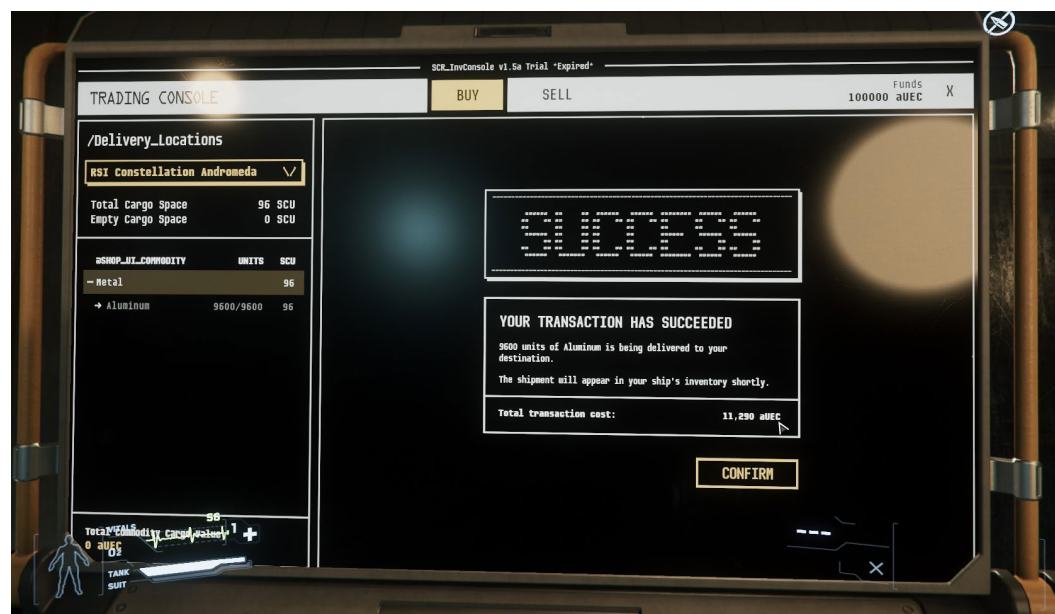
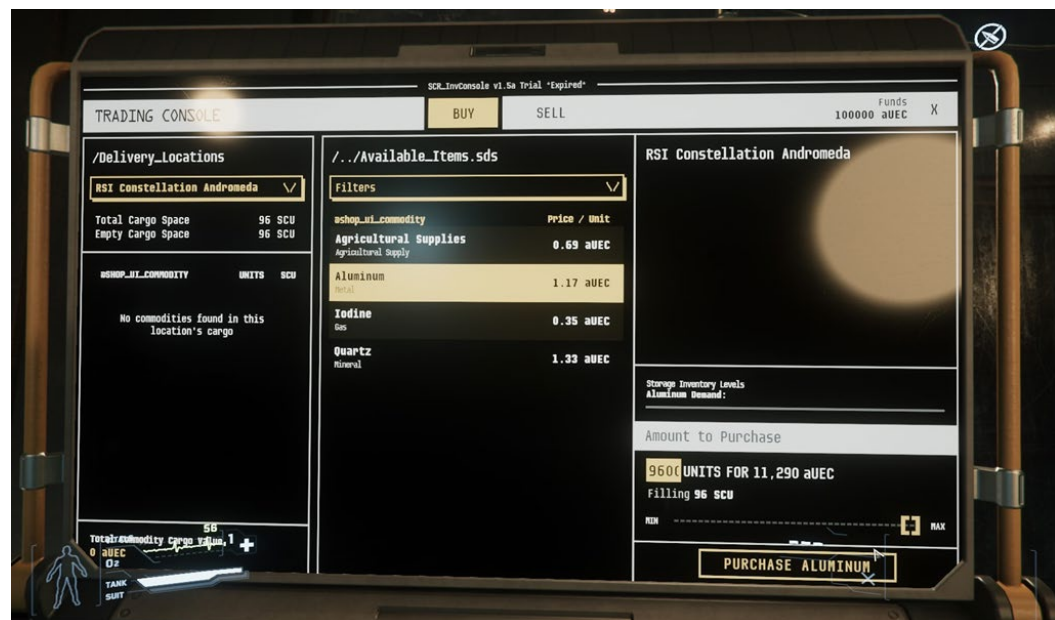
**JM:** Chris never settles for less and always demands complete logical consistency with any of the systems presented to him. Sometimes we'll present our progress to Chris and he'll immediately point out an assumption that we made early in the process that's so ingrained in modern game design that we didn't bother challenging why it was there in the first place.

That said, even though *Star Citizen* brings more logical consistency to any game before it, at the end of the day it's still a game. We constantly have to remember fairness, progression, and compelling gameplay in a way that ultimately makes sense. It's very challenging but also very rewarding.

**JP:** What's next for your team? Will we see additional work on in-game ship sales or are you moving on to another aspect of the game's design?







**JM:** The economy will be an ongoing balancing act as we move forward adding new game systems to *Star Citizen*. As a player, I would expect that this will continue to be tweaked all the way up to launch and beyond. We will be striving to make things feel more and more consistent with each release, but it's a hard thing to ever really consider to be 'done'.

In the near future, we will be looking to get item values completely transitioned over to encompass their stats and compositional make-up. In addition, we are really putting an emphasis on how the progression 'feels', so I would expect this to be a big ticket line item as we move forward. First and foremost, we want it to feel fun to progress through item and ship upgrades and right now we're simply not there. We want to get this in place ASAP before complicating the economy with too many more variables.

**JP:** Have you been following player feedback from the system? It seems like people are very happy to see this!

**JM:** We always follow community feedback very closely, even

if we don't have the time or resource to respond as frequently as we'd like. The presence of the feature certainly did appear positive, but the feedback about the actual prices was more divisive than expected.

To be honest, I expected feedback to be overwhelmingly focused on the ships being too expensive, but I was surprised that a sizable minority actually thought that they weren't priced high enough. The ships were designed with the prices that they might finally be upon the release of the game, which means that many of the money-making abilities that will eventually be available to players aren't currently implemented.

The Stanton system is a relatively safe system with little room for high-risk/high-reward business opportunities, so the income in the game right now is much less than will eventually be available once other parts of the universe open up. We're currently looking into the best way to relieve some of the burden of these end-game ship prices without disrupting the rest of the game.

**JP:** Do you have any messages for the *Star Citizen* community?

**JM:** The Economy Team really appreciate the fanbase's feedback and support as we work through making one of the most realistic economy systems ever seen in gaming. Chris' vision is incredibly deep for this game and there are a lot of fundamental design philosophies that we need to question and re-think in order to make it happen.

Something as important and as complex as the *Star Citizen* economy takes a lot of internal agreement and a lot of discussion. We don't take this lightly. Occasionally, we need to make our best guess for what something will end up being or how a system will function so that other teams can continue working, but that doesn't mean that this will be the final answer for the release of the game.

We look forward to your continued feedback and understanding as we undertake this massive responsibility!

END TRANSMISSION ←



# WORK IN PROGRESS... AOPOA SAN'TOK.YÄI

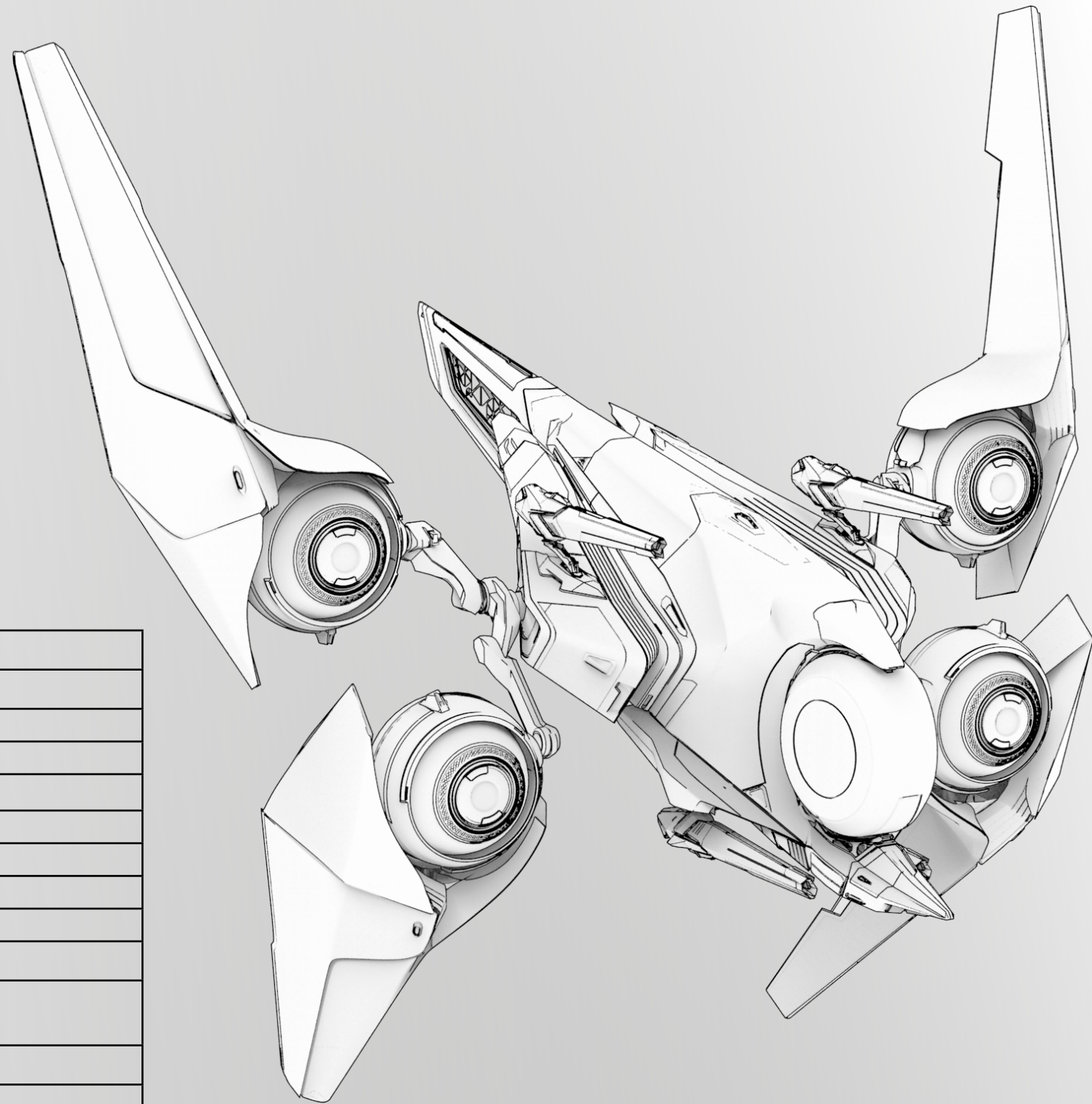


## AIMS

- A step above the Khartu-AI, this medium fighter is dedicated to combat.
- Meant to go toe-to-toe with a Super Hornet or Sabre. Along with strong offensive capabilities, also contains advanced shield technology providing it with extra defenses.

## AESTHETIC

- The design will expand and continue to refine the uniquely alien Xi'an spacecraft style initially developed for the Khartu-al.



<b>Length</b>	24m (Landed)
<b>Width</b>	23m(Landed)
<b>Height</b>	10m (Landed)
<b>Mass</b>	106.566 kg
<b>Speed</b>	265 mps
<b>Crew</b>	1
<b>Powerplants</b>	Small
<b>Shield</b>	2 x Small
<b>Armour</b>	Small
<b>Weapons</b>	4x S3 X'ian Laser Repeater
<b>Missiles</b>	4x S3 - BEHR MSD-322 Missile Rack •8x S2
<b>Thrusters</b>	4x S1
<b>Countermeasures</b>	1x S1 CML Flare •16x Flare 1x S1 CML Chaff •16x Chaff
<b>Cargo Capacity</b>	0 SCU

The vehicle depicted herein is undergoing concept and design as of the release of this publication. Specifications and appearance are subject to revision during development.

### KEY CONTRIBUTORS :

DESIGNERS: JOHN CREWE & STEPHEN HOSMER  
CONCEPT ART: ALEX AKSTINAS  
INITIAL CONCEPT WORK: GARY SANCHEZ  
ART DIRECTOR: PAUL JONES



## ALIEN COMMANDER

From the outset, *Star Citizen's* 'verse has included a selection of distinct alien races, including the Tevarin, Banu, and Xi'an. Chris Roberts believed that establishing the overall geography and political status of the 'verse early on would create a springboard on which to build an increasingly complex universe. Narrative Director Dave Haddock went to work immediately creating a rich lore for these races. As the project continued, the wider lore team would go on to develop a fully-functional Xi'an language, unique architecture and technology, and all sorts of other elements designed to make the mysterious Xi'an Empire seem completely distinct from the United Empire of Earth. Concept artists established a look for the race and ways with which to present their culture. With the \$23 million stretch goal reached, the idea of making Xi'an ships flyable in the game was pursued for the first time. This first ship, announced in November 2013, was the famed Khartu-al, commonly referred to as the 'Xi'an scout'. The Khartu-al would be something of a trial balloon, allowing elements of the team to determine what Xi'an ships look like and how they work. What kind of animations would need to be recorded, what kind of components would need to be designed, and what kind of game systems would need to be altered or expanded to give players the option of taking the seat of a Xi'an ship? Today, the Khartu-al is fully-flyable and the team have turned their eyes to building additional Xi'an spacecraft.

## ONE FIGHTER, MEDIUM WELL

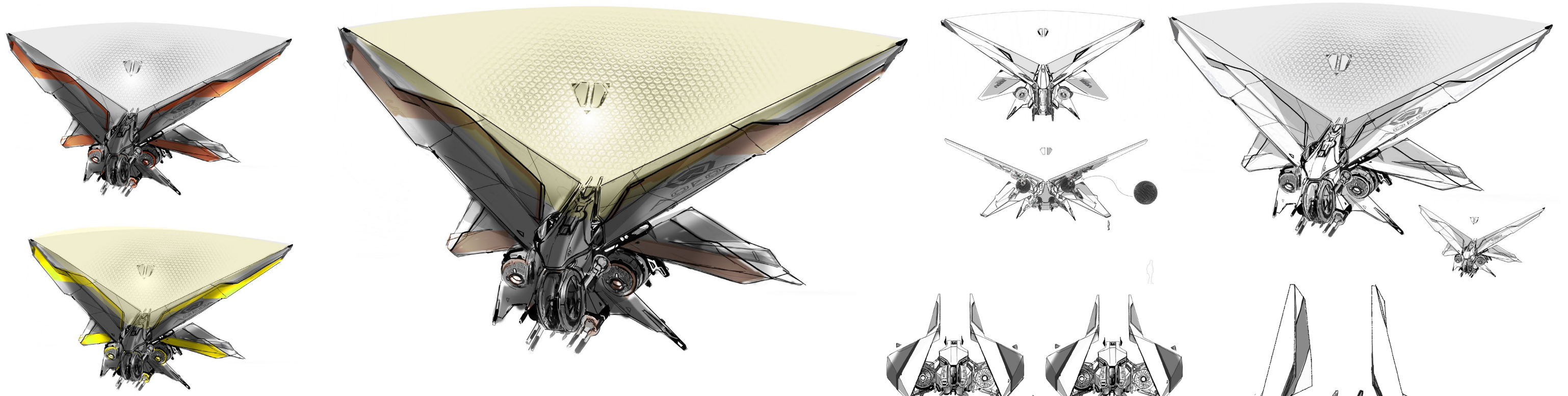
That next step? Expand the Xi'an lineup, working from the Khartu-al to build out the standard Xi'an 'medium fighter'. Where the scout was intended for reconnaissance and could be used for a variety of tasks that call for a lighter ship (like racing and interception), the new design would be the alien equivalent of the Super Hornet or Sabre. This particular medium fighter design would prove an interesting challenge all around, as it would be the first time revisiting the Xi'an aesthetic in quite some time. And while it might function in a role already established by other fighters, its unique alien nature would mean that it would need to stand out in unexpected ways. As usual, the concept ship would be either a completely new role or a variation on an existing one... the later named San'tok.yäi would be both. Designer Stephen Hosmer identified several important points in the standard brief workup that would help make the Xi'an interpretation feel different from what had come before:

- Animation: A custom enter/exit animation should be considered as the current Xi'an scout animation is the only one that transitions to/from the orb's sitting position.
- Shields: To represent Xi'an tech, we would like to create a custom generator that gives resistances to certain types of damage. No engineering would be needed.
- Landing State Transition: This is not required but may be needed if the ship flies in a vertical state.
- Thrusters Note: Lore indicates that the Xi'an have 'dual-vector maneuvering thrusters that rapidly provide thrust in multiple directions, allowing for a unique degree of agility'.

Deciding the fighter's name was also an ongoing discussion. Unlike the previous concept, the Drake Kraken, the ship began life with only its role: XI'AN MEDIUM FIGHTER. During the design phase, it was referred to as the Matok, with the final choice being provided by the lore team: San'tok.yäi, a name with meaning in the already-established Xi'an language.







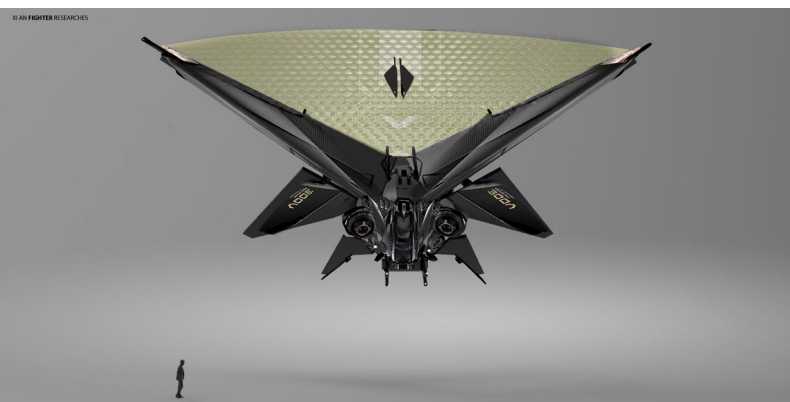
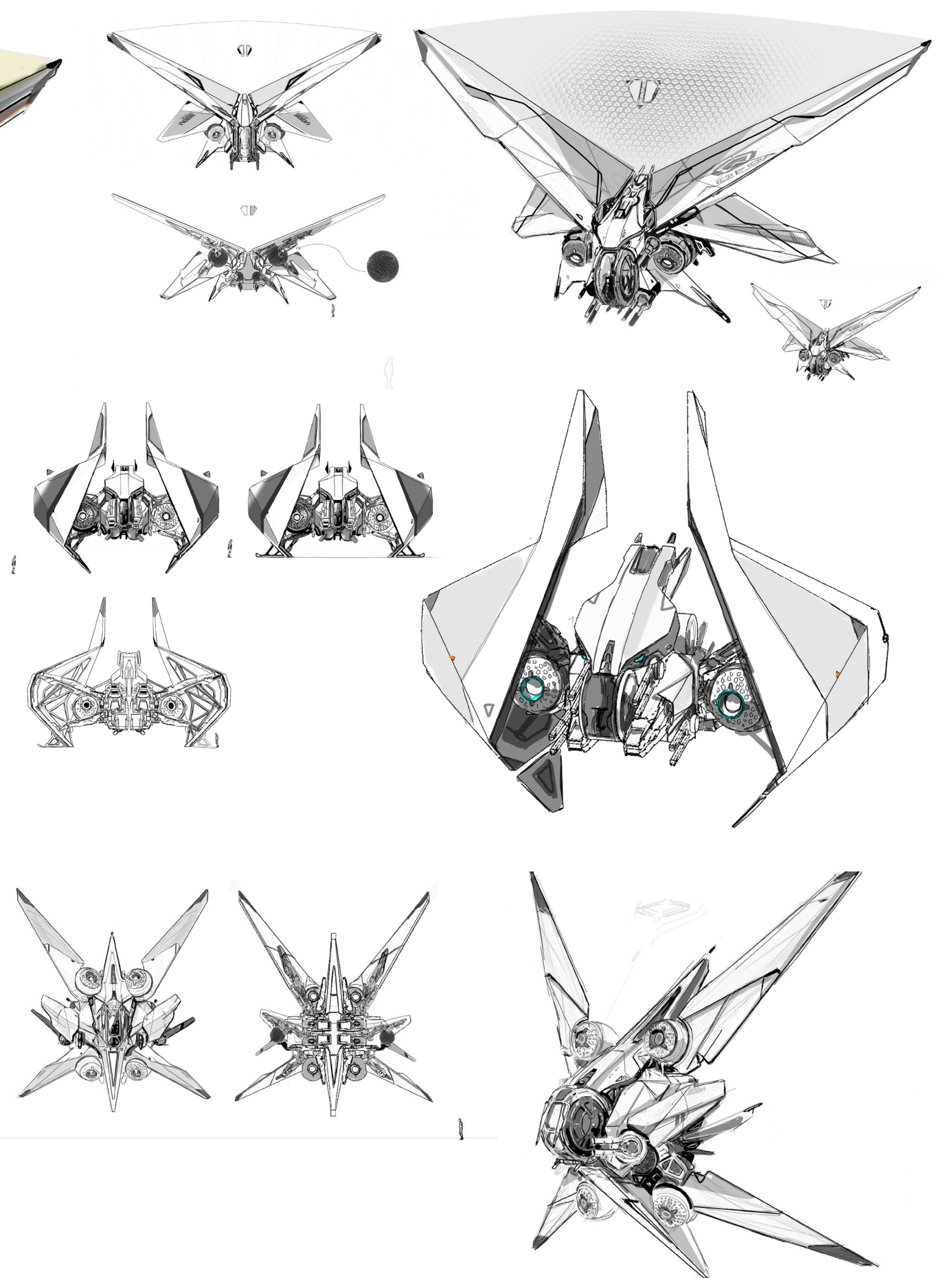
**SHIELDS UP! OR OUT?**

The job of further developing the Xi'an medium fighter and determining any need for new animations moved to the ship concept team at Foundry 42. Art Director Paul Jones notes it was the first time in quite a while that his team had picked up the Xi'an banner, with the most recent work being a revision to the Khartu-al scout by artist Gary Sanchez. Sanchez was not available to fully concept the new fighter but luckily was available to help work out the initial direction. For the initial lookdev, Jones first focused on ways to spice up the design and make it stand out from the Khartu-al. With so few 'active duty' Xi'an ships in service, the shape and lines of this new fighter would need to help define how future vehicles could expand on early ideas.

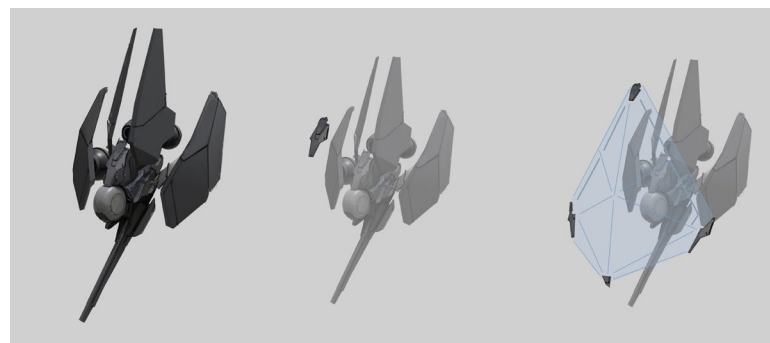
One element of the brief stood out in particular: the interest in outfitting the fighter with a distinct shield technology of some sort. The artists initially connected this idea with some of the very early anti-gravity technology

implied by the scout's floating entrance steps. The result was a series of experimental designs with seemingly detached components that sometimes generated distinct, visible shields. Early concepts attempted to diverge from the vertical appearance of the scout ship, with some featuring a sort of ornithopter-like design. To reinforce the idea that the fighter included advanced shield technology, these early versions featured distinct generator points as part of their overall silhouette. The goal was to come up with possible directions that might spark Chris Roberts' imagination during the initial review.

With Sanchez's early lookdev complete, concept artist Alex Akstinas took over the concept assignment. Akstinas had cut his teeth on the Drake Vulture salvage ship and would now make his first foray into the world of alien design. His first take on the concept was a mix of earlier







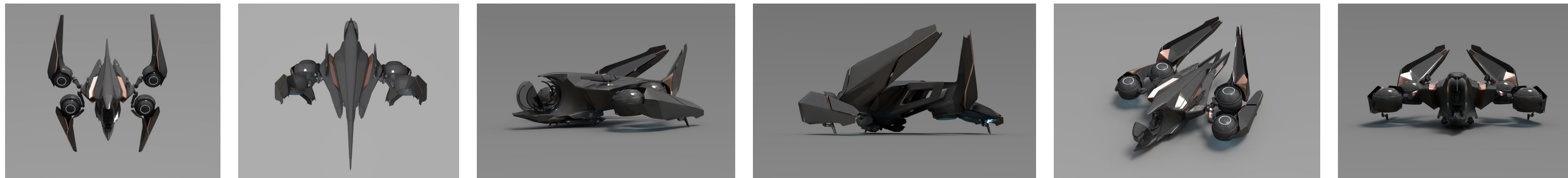
ideas, working up the verticality Roberts was keen on associating with the Xi'an while maintaining a horizontal element. Again, the concepts at this stage were varied, ranging from an idea that was based on a wasp, to a 'big brother' to the existing scout with heavier, spikier forms and another that was entirely vertical. While waiting for feedback, Akstinas completed a round of concepts for Xi'an weaponry that would outfit the ship, highlighting the need for the ship to be able to integrate an array of distinctly alien components. He also dove further into the shield concept, including a version that included detached parts and another with many tiny generators on the back of the ship. Tiny shield drones were also investigated. However, these drone-based shield generators weren't to be; the idea would have required additional code and tech work and did not fit with the existing Xi'an lore.

Chris' initial feedback was to go with the 'big brother' concept, building strongly on the lighter scout ship. Jones agreed that this was a good base to work from and began looking at the general volume of the ship and the base for the body. From that general orientation, the artists

would then decide how to proportion different areas to make the ship look as distinctly alien as possible. A wide variety of options were studied: a longer nose with larger pods, a smaller nose with larger vents, and bigger vents with a larger body and pods. One version lost its nose entirely, resulting in a much lighter look that said 'interceptor' rather than 'medium fighter'. With each iteration, the general form of the finalized San'tok.yäi came into being. Further feedback was to reduce the overall weighted look of the ship to create something slimmer. Jones suggested that Akstinas add more negative space. From there he looked at the wing angles, overall proportions, and cockpit size as he continued to drill down. Another wave of concepts further dialing in the idea was pursued, as was one more attempt at integrating separate maglev components. The final decision to switch to connected components was made here, though Jones notes that he remains hopeful that the idea could be applied to another concept in the future. One version for the final review kept the negative space while another made sure all the items were physically connected. The artists completed preparation for the review by creating landing animations that would show the ship changing shape.



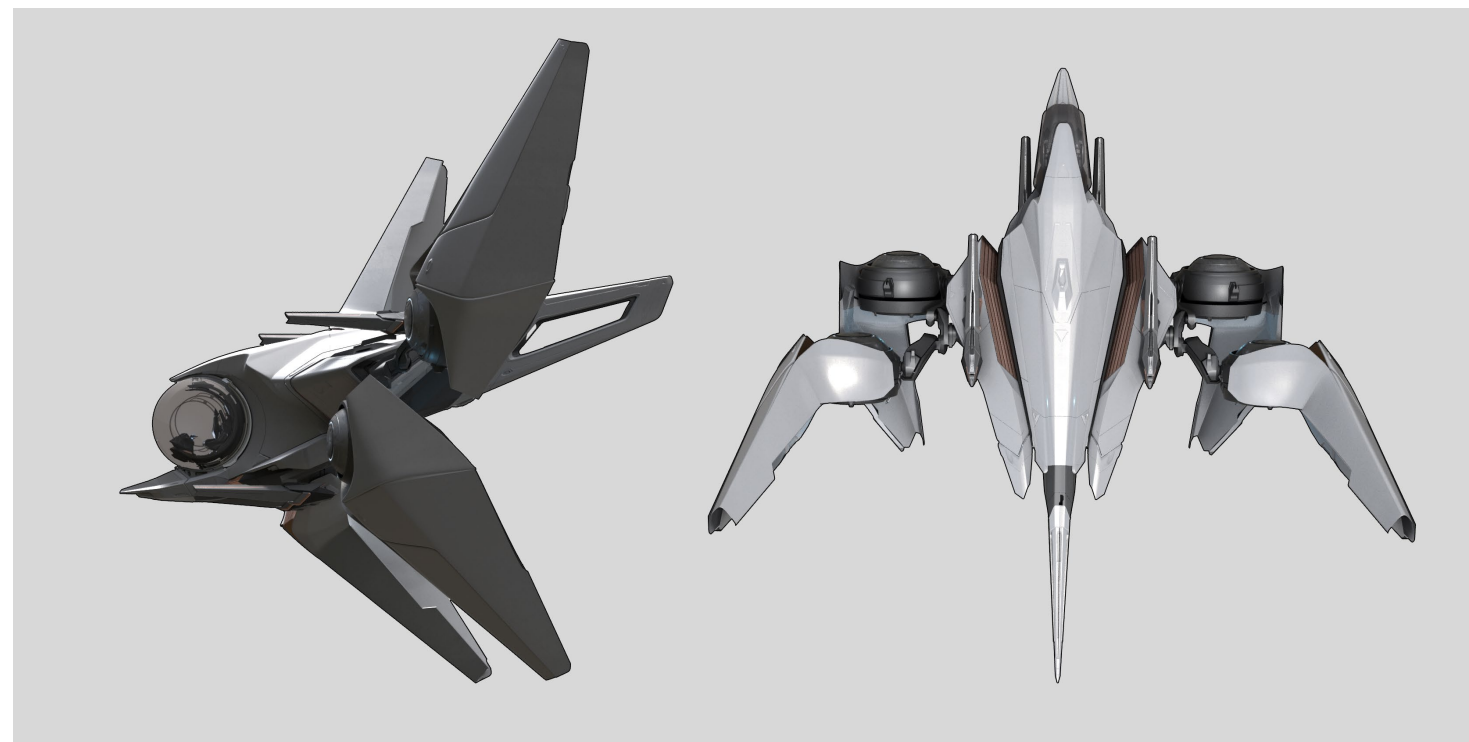




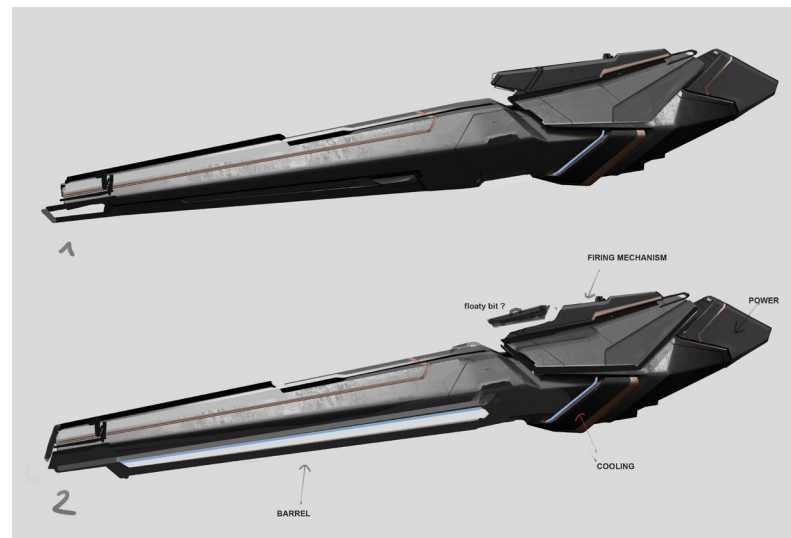
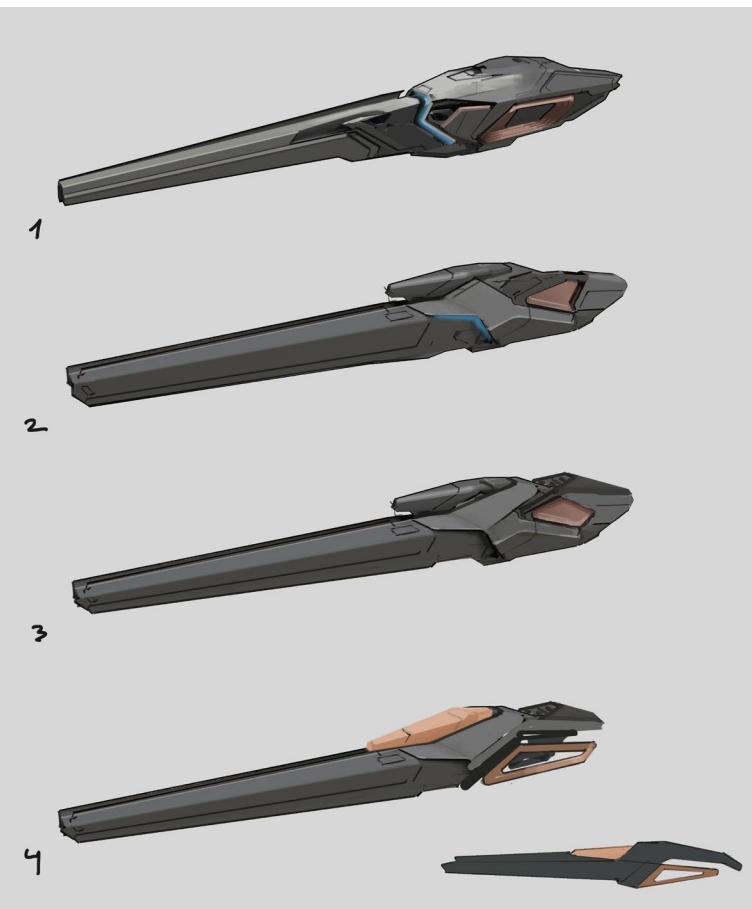
**SECOND LOOK**

The developing San'tok.yäi faced its first opponent: a formalized review stage that would cover all bases, including the dimensions, cockpit shape, field of view, comparative component placement, and how the pilot gets in and out. The concept passed through the process well, with feedback focusing on looking for additional chances for player interaction and to establish a sense that things were being presented to you. The thrusters would be kept maglev and an additional exterior locker for storing FPS weapons would be added to improve the versatility of the ship. Imagine landing on an alien planet, getting out of your ship, and then accessing a hidden panel to arm yourself with something more powerful than your standard sidearm!

Stage two of the concept process started after the review, with a focus on lighting up various areas of the ship correctly, figuring out the interior cockpit area, and adding additional points of interest and animation opportunities. Artist Alex Akstinas and Art Director Paul Jones added more complexity to the wings and tail to make the ship feel more alien and then went on to refine the overall shape. Getting a ship to look alien from a particular cinematic angle or two is easier than creating a ship that feels alien no matter how you view it. Feedback on the landing gear suggested that it seemed too delicate for a medium fighter; Akstinas beefed them up with an additional pass.







A further issue was discovered with the ship's surface - the narrow physical struts that connected elements to the fuselage looked great in concept images but were found to be troublesome in-engine. Tests showed that the struts were too narrow, causing them to alias badly in flight. A surface pass solved these issues and Akstinas continued refining the shape, working on the weapons and components, and looking for small opportunities to visually remind players that this is a uniquely Xi'an spaceship. To arm the ship (and allow future customization), the team



would need to develop unique weapon concepts beyond those done for the Khartu-al. Akstinas worked up a sheet of options which was well received, with feedback saying to mix and match them going forward.

Developing a proper livery was the next challenge. The Khartu-al had a distinct red appearance - would the San'tok.yäi follow this trend or introduce a more significant range of colors for Xi'an technology? The initial liveries looked at modern aircraft like the F-16 and F-22, plus items of



historical interest like the Fokker Dr.I Triplane. The overall feeling was that this first set was too human. Dave Haddock and the lore team provided guidance and a second set of alien liveries was developed, with the favorite being a dichroic 'beetle green' polish. Jones did several liveries of his own, some alien, some racing inspired, and some just wacky. The final choice was the green model, though others may be picked up again in the future. From there, the artists moved the ship into KeyShot, working piece by piece to finish materials, surfaces, decals, and glowing components.





**INTEL INSITE**

As a single-player fighter, the San'tok.yäi would need only one seat and an associated entrance and exit animation. However, the team knew from experience that that was not such a simple task, as the Khartu-al required a good deal of work to develop the cockpit. As Akstinas continued to dial in the final concept, refining split lines and shapes, perfecting missile openings, and improving surfaces, he began to visualize the final take on the interior. Art Director Paul Jones notes that, for a medium fighter,

the San'tok.yäi is a very complex ship with many compartments to take into account, including a newly-added trunk that allows you to access to a small amount of storage. As a final extra, Akstinas worked up all of the visually-distinct components of the ship and broke them out to help the artists build the game model. The team hoped that this additional step would reduce guessing during the next stage and keep the ship as close as possible to the concept presentation.





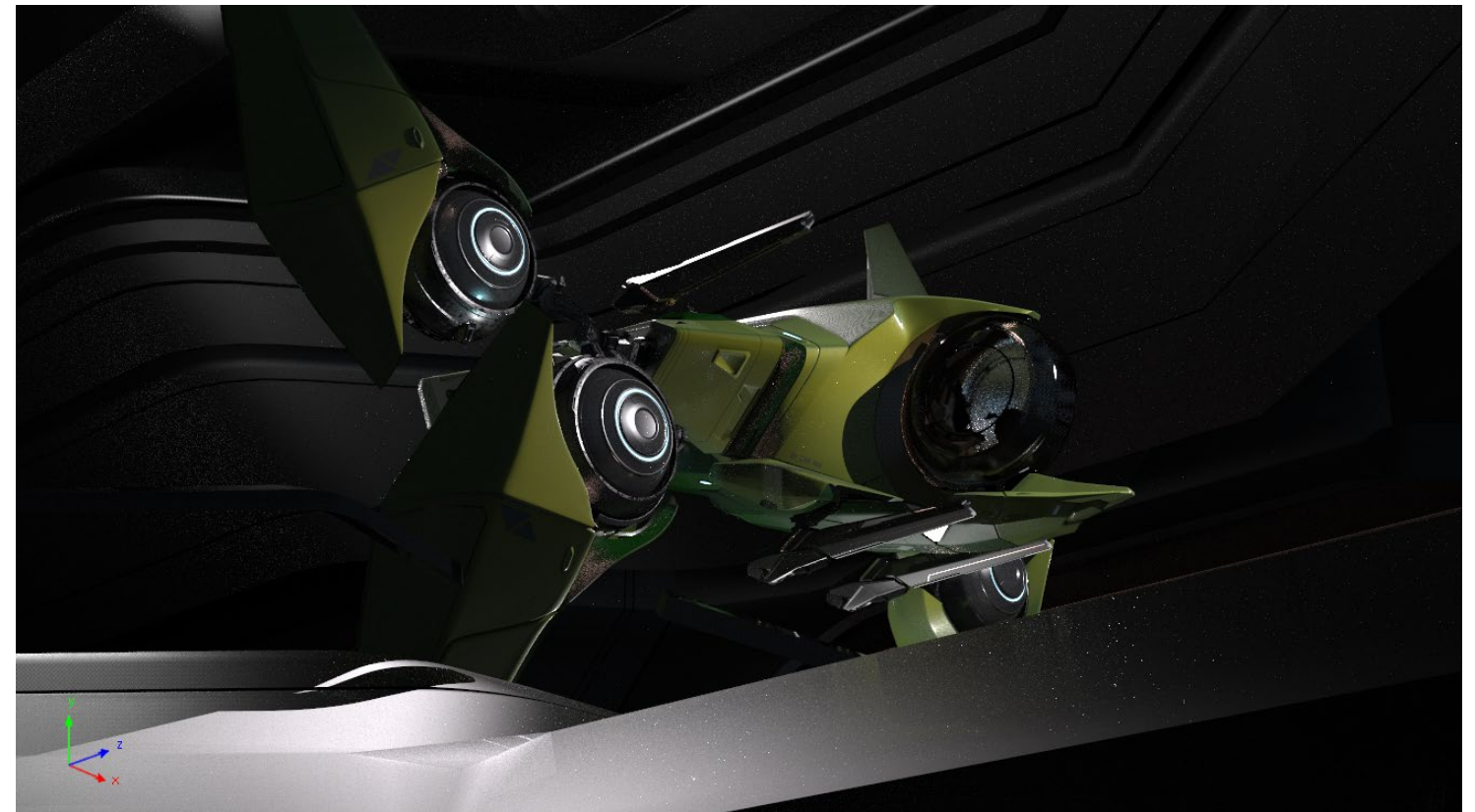
**XI'AN MARKS THE SPOT**

The final step for the concept artists was creating the array of marketing art needed to reveal the ship to the world. The ship was to be given a place of honor at the 2948 Intergalactic Aerospace Expo event planned for *Star Citizen's* anniversary. For the first time, the annual ship expo would be presented not just on the Roberts Space Industries website, but within the game universe itself, with a special pavilion full of interactive experiences created on the newly-launched planet Hurston. The San'tok.yäi was scheduled to be the event's concept reveal, launched midway through the event.

Paul Jones and the concept team began with a series of pre-viz images for the promotion. They identified the biggest challenge: how do you best show the ship in action while taking into account the alien design? How do you make sure the alien look comes across but also that players appreciate how it will work with the systems they already understand? In the end, the much-discussed shield technology wasn't included in an image as it had become a standard, familiar component instead of a more complex presentation. Given a wide latitude to develop scenes of the fighter in action, the art team worked on a series of scenarios

that show the ship from different angles. From there, it was a matter of creating individual component images, blueprints, and other breakouts that would populate the presentation page and associated brochure.

The official rollout for the San'tok.yäi began in mid-November 2018 with the slightest hint hidden in a lore article in the Subscriber newsletter: 'Aopoa's headquarters, where any number of Human test pilots, engineers, press agents, and more are working on the next release of Human-converted ships like the Khartu-al, Nox, and San'tok.yäi'. Citizens began speculating immediately and, armed with already-established information on the Xi'an language, were able to begin to translate the ship's name. San was already known to mean vehicle and the tok.yäi was recognized from an established creature, the Ma'tok.yäi, meaning 'animal that creates fear'. With that, the community was able to deduce that it would be a combat ship... but guesses ranged from imposing battlecruisers to high-tech hover tanks. A second tease stoked speculation further, coming in the form of an obscured version of the first landed composition that was presented during the first day of the Aerospace Expo. From there, the San'tok.yäi's curtain call was only days away.



**REFERENCES:**

**SHIP PAGE**

<https://robertsspaceindustries.com/pledge/ships/aopoa-santokyai/Santokyai>

**CONCEPT PRESENTATION**

<https://robertsspaceindustries.com/comm-link/transmission/16877-Aopoa-Santokyai>

**Q&A**

<https://robertsspaceindustries.com/comm-link/engineering/16872-Q-A-Aopoa-Santoky-i>





THE  
AOPOA  
SAN'TOK.YĀI

INTELLIGENCE HISTORY



**SAN'TOK.YĀI MEDIUM-CLASS FIGHTER - INTELLIGENCE HISTORY**

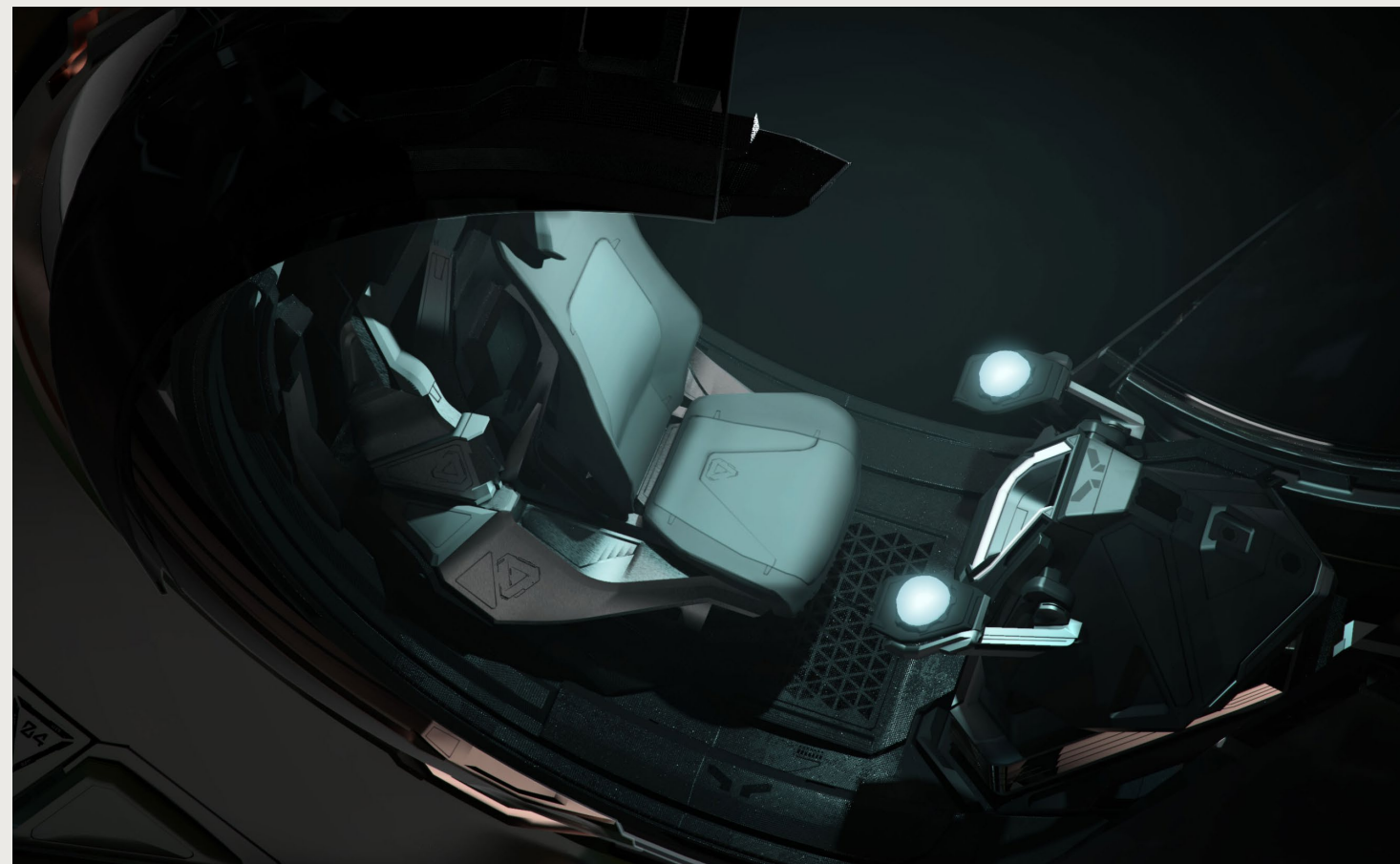
On 2948-11-28, the Aopoa Council sent shockwaves through industry watchers with the announcement that their San'tok.yāi medium-class fighter was available for purchase in an export model. This decision took the Human civilian and military authorities by surprise, undercutting years of effort to learn more about the Xi'an's notoriously secret aerospace program. While it is not possible for a Human publication to properly catalog the Xi'an medium fighter development due to the limited amount of information available, it is possible to track the United Empire of Earth's efforts to gather their own intelligence on the spacecraft and its precursors.

Analysts agree that the current generation of Xi'an medium fighter was introduced to replace an aging prior design around 2934, although it is believed that off-production-line military conversions began significantly earlier. Under this theory, Xi'an home guard units could have a new medium fighter design as early as 2915, with the Empire only choosing to reveal the design to Earth in 2934 in response to the previous summer's minor trade dispute. Human signal intelligence began noting unexpected movement among Xi'an units stationed along

the old Perry Line, with many existing medium fighter squadrons that were previously believed to have been on permanent assignment leaving after years on station. In December, secondhand reports began to filter back suggesting that sightings of older-style Xi'an dogfighters had dropped sharply and that a new design had begun to appear. This was in line with what was known about the highly regimented manner in which the Xi'an Empire had deployed new spacecraft in the past. Unlike Human units, which typically slowly transition to new designs, the Xi'an has always taken an all-or-nothing approach, manufacturing spacecraft to a long-term schedule and replacing designs en masse in a given theater so as to reduce the need to continue providing duplicate service and support processes.

The UEE military was immediately concerned with both the overall political meaning of upgraded mainline dogfighters along their border and the potential threat offered by this unfamiliar fighter. The Navy, concerned about the development of its next generation of 'space superiority fighter', was especially keen to gather intelligence on the new Xi'an ship. The fighter was given the intelligence reporting name ARES and assets in the Xi'an sphere of influence were issued a memo instructing them to gather information wherever possible.

INTELLIGENCE HISTORY



The first reliable military accounts of the Xi'an medium fighter in service came in 2937, when a Hornet on a training mission came within scanner range of a group of six on patrol. Information gathered in this encounter regarding the speed and maneuverability of the medium fighter confirmed existing theories that it operated an upgraded version of the dual-vector maneuvering thrusters found on the earlier Khartu-al. In April 2938, a remote sensing outpost recorded a pair of Xi'an medium fighters coming to the rescue of a transport besieged by raiders outside of visual range. The sensor recording confirmed secondhand reports about the improved dual thrust array and, most importantly, spectrum analysis revealed for the first time that the ship's centerline energy weapon was a model of laser repeater not yet encountered. Additional encounters with the Xi'an medium fighter were recorded throughout the late 2930s, each providing small clues as to its overall capabilities, with other unspecified intelligence assets filling out the picture. Recently declassified military reviews from this period believe that the ship was a rough parity with the F7A Hornet or the civilian-model Super Hornet.

In 2941, the military had their closest encounter to date with enigmatic medium fighter. On the morning of September 24th, a manned reconnaissance outpost in the Yā'mon (Hadur) system detected a major explosion which was quickly traced back to the orbit of one of the system's dwarf planets. Sensors indicated that a debris field had formed at the site of the explosion, with metallurgical analysis revealing that it most likely consisted of metals processed by the Xi'an. Further observation revealed that in addition to the debris field, now believed to have originated from an explosion aboard a larger Xi'an packet ship, there were four tracks on the snowy planet itself consistent with soft-landings by fighter-sized ships.

The outpost's crew concluded that an accident aboard a Xi'an transport had stranded several short-range escort fighters, forcing them to crash land on the planet as onboard oxygen supplies diminished.

The planet in question was particularly distant from both Human and Xi'an settlements. No distress call had been received from the packet ship or her escorts. Analysis suggested that even if Xi'an authorities knew the rough location of the crash, it would take some time for the ships to be declared overdue and for a capable rescue party to be deployed. Meanwhile, elements of a UEEN escort squadron were conducting space trials within communication range of the covert reconnaissance outpost that performed the initial study and analysis. The base commander made the decision that the possibility of rescuing survivors from the crashed spacecraft was valuable enough to risk revealing the location of his outpost. He dispatched all available information to the destroyer group, prompting them to move into range of the crash sites.

A pair of Argo spacecraft dispatched from the UEES Eagle's Talon found that the ships in question were indeed Xi'an medium dogfighters. Two of the four escorts had not made controlled descents at all; they had suffered heavy damage in the initial explosion and had been completely destroyed in the crash. Survey teams transmitted scans of the wreckage and moved to locate the other ships. The third fighter was found in better condition: the ship had skidded to a stop on an icy plain. Crew from the escort began de-icing the wreck site to quickly reach the pilot. The work ended in tragedy when the industrial heating units set off what is believed to have been a still-armed munitions package on the ship's wing destroying the entire site. All members of the first rescue team and the fighter's pilot were killed in the blast.





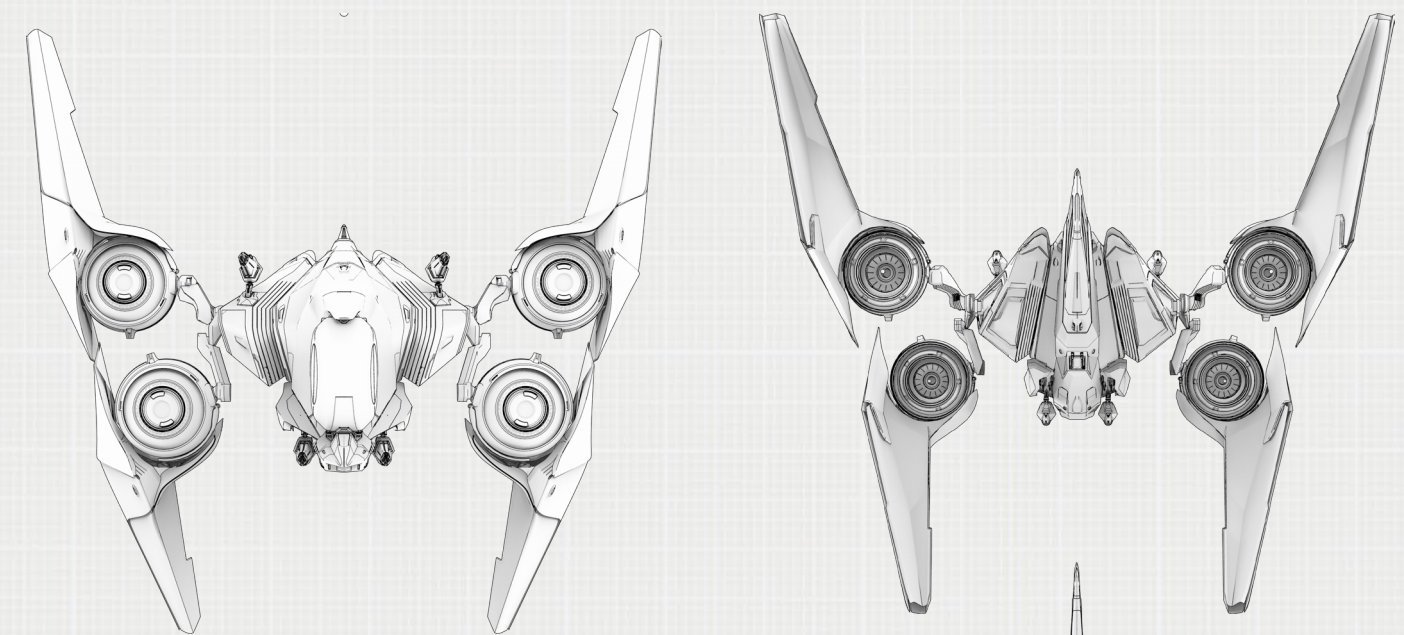
Meanwhile, the second Argo discovered that the final escort had not crashed at all: it had landed safely on a stable plane. Tracks in the snow confirmed that pilot had survived and was heading to reach his wingman. The surviving pilot was located by air and taken aboard the escort where he was treated for exposure and ultimately repatriated to the Xi'an Empire. Despite the casualties, the incident was seen as a net positive for Human-Xi'an relations with the safe rescue of the surviving pilot. Military intelligence officers were not as happy about the incident as they gained only a limited amount of usable information from the initial crash site scans of the medium fighter. It seemed the UEE would never get its long-desired look at the Xi'an medium fighter in action.

However, the 2948 Intergalactic Aerospace Expo rendered years of intelligence gathering obsolete with the stunning announcement that the company was making a civilian-spec medium fighter part of their export lineup; Aopoa's decision had seemingly been made after almost three decades of increasing Khartu-al sales to Human concerns. The spacecraft, named the San'tok.yāi, was revealed at an opulent invitation-only gala which broadly celebrated Xi'an culture and was centered around an unabridged presentation of āluo'a Thasyu se Xo'ma. What the public saw was an impressive new Xi'an design, the military already knew as a development of the frontline medium fighter they had studied for over ten years. As an export model, the San'tok.yāi is not an exact match for any of the mil-spec spacecraft observed previously, but is similar enough in both design and capabilities that it can be said with certainty to have been derived from them. The overall fuselage and flight configurations closely match recorded encounters with frontline medium fighter models.

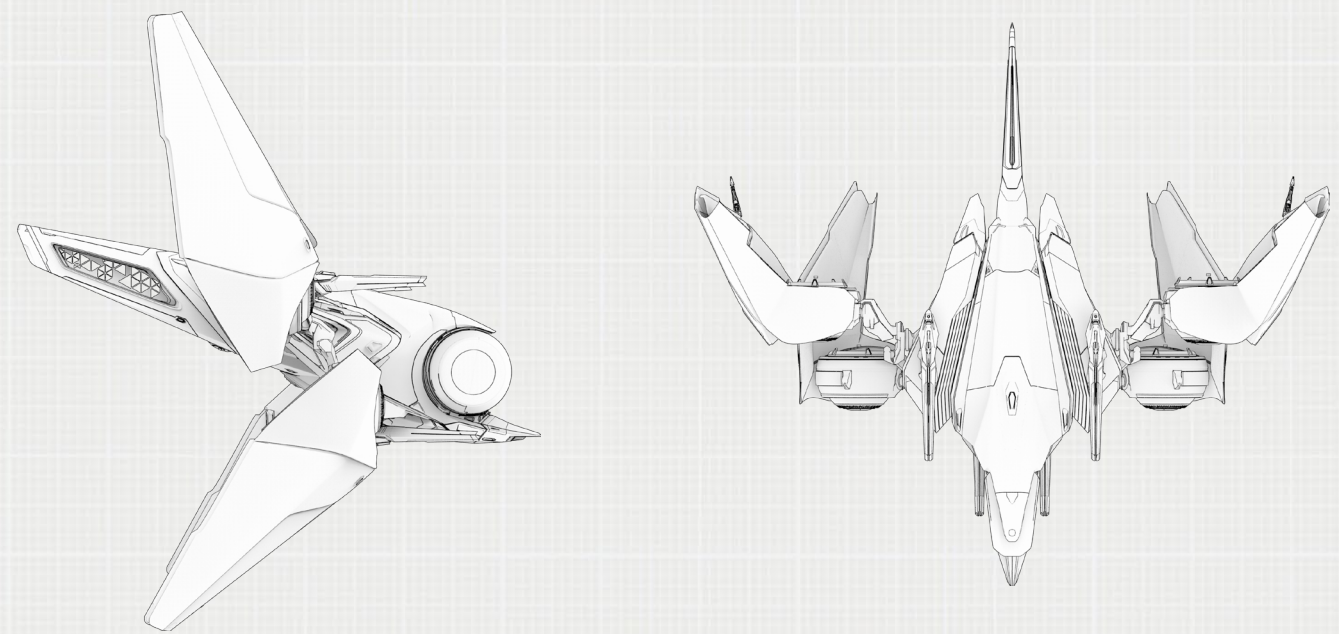
The dual-vector thrusters and Yeng'tu Laser Repeaters, included with the base civilian model, also conform to what was already known about the ship. Additionally, all footage of the San'tok.yāi maneuvering has been within the limits of previous military observations. Analysts have noted with some concern that the San'tok.yāi's capabilities are so close to what is known about the Xi'an medium fighter that this sudden reveal strongly indicates that the military must have access to a more advanced model that has not yet been seen - a potential roadblock for the recently-commissioned F8 Lightning.

The United Empire of Earth Navy will, unsurprisingly, be among the first San'tok.yāi customers. Per the Naval Office of Budget and Planning, the military has been approved for the requisition of nine of the spacecraft. If these examples follow the pattern of previous alien designs requisitioned by the military these San'tok.yāi will be divided between engineering study artifacts for disassembly and for aggressor training (the Empire does not formally acknowledge that it operates Xi'an or simulated Xi'an spacecraft in combat training, though it has purchased Khartu-al for unspecified research projects regularly since it was introduced to Human space).

Whitleys' partners at Sabre Defense have also joined the waitlist for a San'tok.yāi and will conduct a full suite of testing and a complete engineering and component breakdown once a production model becomes available. For further information, watch out for the Q4 2948 addendum of the 2949 edition of Whitley's Guide to Spacecraft for the complete, hands-on flight analysis.



<b>AOPOA SAN'TOK.YĀI</b>	
MANUFACTURER	AOPOA
MAXIMUM CREW	1
MASS	106,566 KG
LENGTH	24 M (LANDED)
BEAM	23 M (LANDED)
HEIGHT	10 M (LANDED)
ROLE	COMBAT/FIGHTER
EJECTION SEATS	1
CARGO CAPACITY	0 SCU



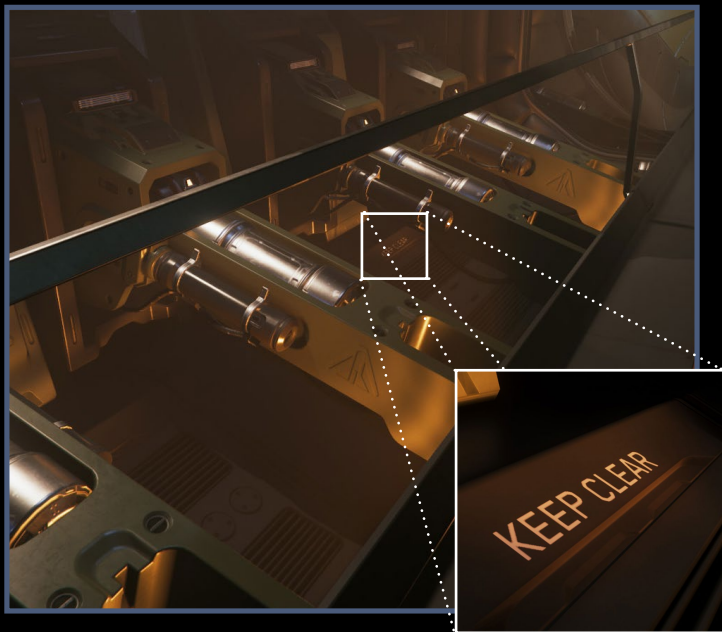


# WHERE IN THE 'VERSE?

Every month, we post a close-up image of something in the universe.  
All you need to do is tell us where you think it was taken.

[JumpPoint@Cloudimperiumgames.com](mailto:JumpPoint@Cloudimperiumgames.com)

We'll reveal the answer next month, and share some of the best responses we received.  
This month's image is courtesy of Ray Warner, our Assistant QA Manager in the UK.  
Where in the 'Verse did he find it?



BEGIN TRANSMISSION →

It looks like we stumped you this week! No Citizens were able to locate our challenge target this time around.

That "KEEP CLEAR" was hidden in plain sight in the corridor of a Hammerhead. Better learn your warships if you're going to take on the Vanduul! Here's hoping you have better luck with December's challenge. Fight well, Citizens, and be warned: it will only get harder. After all, the launch of Alpha 3.3.6 means that the 'verse now has a lot more places to hide new secrets! Can you find them?

← END TRANSMISSION

Please remember to send us a screenshot of what you find, so that I can give partial credit if what you've found is close to the actual image.

# ONE QUESTION

We asked the CIG staff to answer one question for us this month. Here's what they had to say.

## WHAT ARE YOU THANKFUL FOR THIS YEAR?

### **GLENN KNEALE, LEAD QA, DE**

Melissa's Mom purchasing and sending me cowboy boots to wear live on stage at CitizenCon.

### **GERARD MANZANARES, PROJECT MANAGER DEVOPS & IT, ATX**

Family, friends, and life!

### **MATT LIGHTFOOT, PRODUCER, UK**

I'm thankful for being able to celebrate my first ever Thanksgiving with American and British friends, who were the guys that originally got me into Star Citizen. The prospect of being able to eat my own weight in turkey is quite exciting, especially when spending it with my friends from the Armstrong Aerospace Org!

### **DANIEL BAKER, DESIGNER, UK**

That the coffee machine worked in the CitizenCon demo.

### **SCOTT HOLLAND, ACCOUNTING DIRECTOR, LA**

My wife and son, and good friends.

### **DAVID COLSON, GAMEPLAY PROGRAMMER, UK**

It may seem super trite, but making games has been my hobby for much longer than it's been a job and, honestly, it still baffles me that I get to do my hobby and get paid. It's madness and I'm thankful for it every day.

### **JAKE ROSS, PRODUCER, ATX**

This year I'm thankful for the newest citizen added to my family, now 10 months old. He has been a blessing and complete perspective changer on my life.

### **JAMES JOHNSTONE, EMBEDDED AI QUALITY ASSURANCE, UK**

I'm thankful of the fans, for their continued support in our ambition to succeed! And also for my Nintendo Switch.

### **JUSTIN BINFORD, QA DIRECTOR, ATX**

I am thankful to have such a highly-skilled and great QA team. Also, I'm thankful for our backers. Without them this wouldn't be possible. Thank you!

### **MICHAEL SIZEMORE, SYSTEMS DESIGNER, LA**

I'm thankful for this year being the first year I go from backer to fully working on Star Citizen, as well as the wonderful people I work with.

### **CHRISTIAN SCHMITT, COMMUNITY SUPPORT AGENT, DE**

I am thankful for my family and my friends, including my crazy and beloved colleagues that I fully count as part of both.

### **MICHAL PIATEK, SENIOR VFX ARTIST, UK**

Well, I am grateful for having a chance to be one of the speakers at CitizenCon. It was my first time in the US (it was awesome!) and the first time I gave a speech in front of such a huge audience.

### **GRAHAM ROBINSON, MARKETING JR. GRAPHIC DESIGNER, UK**

Well, I started working here!

### **NATHANIEL FISHER, GAME SUPPORT SPECIALIST, UK**

I am thankful for the opportunity to help connect our players with the amazing results of our developers' hard work!

### **BEN PARRY, SENIOR GRAPHICS PROGRAMMER, UK**

I am thankful that it's nearly over.

### **RAY ROOCROFT, PLAYER RELATIONS MANAGER, UK**

I'm thankful for working in an amazing company that has given me the chance to meet great people, both inside and outside of the office, and for a supportive wife who I married this year. And we bought our first house together!

### **SAM CHILD, PRODUCTION ASSISTANT, UK**

Them Black Friday deals (I got a new TV).

### **KYLE CUNNINGHAM, JR. SYSTEMS ADMINISTRATOR, UK**

I'm thankful for waking up healthy everyday and coming into a workplace as awesome as this made possible because of the backers.

### **HASSAN KAMRAN, IT MANAGER, UK**

Getting another member of staff for the IT team in the UK and more space for users on 2nd floor.

### **EMILY SHERATON, PRODUCTION ASSISTANT, UK**

After 4 years studying Biology at university, and a year working in editing, I realised that I wasn't interested in following a career in that industry, and that where my heart longed to be was actually in the games industry. I'd known what my true interests were for years but I didn't think it was ever possible to gain a position given my science background. So I guess when I finally decided to take the risk of swapping career paths completely, I'm thankful to Luke as a Producer for giving me the opportunity to work in this industry, for such an awesome game, and company. Now I'm here living my dream, and happier than ever!

### **BEN PARR, ASSOCIATE PRODUCER, UK**

That I have a job.

### **MICHAEL ALDER, MARKETING SENIOR. GRAPHIC DESIGNER, UK**

Am thankful to the new start and to being part of such a great team!

**Do you have one question you want to ask the staff?**

Send it to [JumpPoint@Cloudimperiumgames.com](mailto:JumpPoint@Cloudimperiumgames.com) and we might choose your question for next issue.