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FROM THE COCKPIT

GREETINGS. CITIZENS!

Jump Point activated! Welcome to the October 2018 Of course, we couldn't skip the Drake Interplanetary issue of *Star Citizen*'s subscriber-only magazine. Kraken carrier for our monthly shipbuilding segment.

We have several articles ready for you this time around... but of course, nothing in these pages could possibly be as exciting as the show in Austin earlier this month. By all accounts, CitizenCon was a rousing good time; it's wonderful to see the community coming together and celebrating what they love.

It's also wonderful to see so many things that were distant dreams when we started all this coming into their own, from the star-studded *Squadron 42* trailer to the newest Persistent Universe content.

Happily, that's a common theme with this month's topics. I was lucky enough to be involved in developing the original description for Hurston and the Stanton system back in 2012 and it's positively otherworldly to see what it has become. Back then, we imagined building only small maps for each of the starports or landing areas we were busy describing... we certainly didn't dare to dream we'd someday have the technology and talent to build entire worlds! This month's interview goes behind the screens with some of the many incredible developers who contributed to turning Hurston from a little thought into an incredible and complex environment. And one you'll soon be exploring, to boot!

Of course, we couldn't skip the Drake Interplanetary Kraken carrier for our monthly shipbuilding segment. The Kraken is a ship with a very interesting history and one that's especially tied to the *Star Citizen* community. I can't remember the first time we used the term 'pocket carrier' when talking about possibilities for ships... but it sure struck a chord. Backers have been dreaming about and debating over a ship like this for quite some time (the results of one poll notwithstanding!). It was thrilling to see the Kraken made real for CitizenCon, and in more ways than one, thanks to some talented model-making skills from our community. This month, you'll find out the interesting background that went into making the ship a reality... or is it two ships mirrored?

Finally, enjoy learning a little more about another recent release: the Constellation Phoenix, another early dream made reality. It's a ship we've watched people theorize about for years and years and now it's here for you to do with as you please! Check out the latest addition to Whitley's to learn how RSI found themselves in the unlikely position of building a luxury spacecraft.

I hope you enjoy this issue of **Jump Point**. Please continue telling us what you want to see, we're always happy to hear it. And keep your eyes on the 'Verse, there are great things ahead for *Star Citizen* right now... it's the adventure of a lifetime being part of it all.

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DEVELOPER INTERVIEW
HURSTON & LORVILLE

HURSTON & LORVILLE

Hurston will be Star Citizen's first full-scale planet when it premieres in the game's next major update. Backers at CitizenCon were treated to a first look and everyone is excited to begin exploring one of the worlds imagined at the very start of the project. So, how do you create an entire planet? We sat down with some of the team members who are making Hurston a reality to find out...

BEGIN TRANSMISSION →

JUMP POINT (JP): Let's start with introductions. Tell us who you are and your role in creating Lorville/Hurston.

FRIEDRICH BODE (FB): Hi, my name is Friedrich, but everyone just calls me Fred. My title is Senior Level Designer. Basically, my job is to

make sure that the location meets all goals from the design side, but also serves the needs of art, narrative, and other departments. I act as a liaison between the different disciplines, but most importantly try to make sure that the level (or 'city' in this case) is enjoyable from a player's perspective.

MICHEL KOOPER (MK): Hi, my name is Michel Kooper. I'm the Lead Environment Artist in the Germany office. I'm responsible for leading the art team that has been hard at work on both the planet Hurston and city of Lorville.

JP: How does the process for designing something so big start? I remember when Hurston was first thought up, but that was a short

paragraph-or-two description years ago... how do we get from there to what you've built today?

MK: For the planet, I think the important thing is to think from big to small. So, it's polluted, its ecosystems are damaged, and there's a lot of mining going on. Using that as a starting point, we figured most of the surface would be a wasteland. Then we started to think of the other things we'd want to represent. For example, the mining pits, the trash mesas, and the coast. These are tied together and form the main theme for Hurston.

As an accent, we wanted spots that represent what Hurston originally looked like before the industry came in, so we introduced the savannahs. Finally, we wanted to add some little points of interest







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and visual diversity, like the acidic fields. With Hurston being rich in ore and minerals, it was important to represent it in more ways than just the mining pits.

With these ideas in mind, we gathered references and created a range of paintings to figure out what these different areas would look like, how they differ from each other, and what makes them unique. After this, we had our concepts signed off and moved to translate them into actual 3D versions on the planet.

JP: Now our planets are very, very big. How do you make sure such a large area stays interesting?

MK: I think the key for us is to make sure we break up the planet surface enough with the different biomes we have available. You'd want to see interesting mountain ranges when you're in the wasteland for example. And although the wasteland area can and should be really big, you also want to make sure players find it interesting.

JP: Tell me about Lorville in particular. How did it differ from the rest of the planet in terms of your work?

JUMP POINT MAGAZINE //



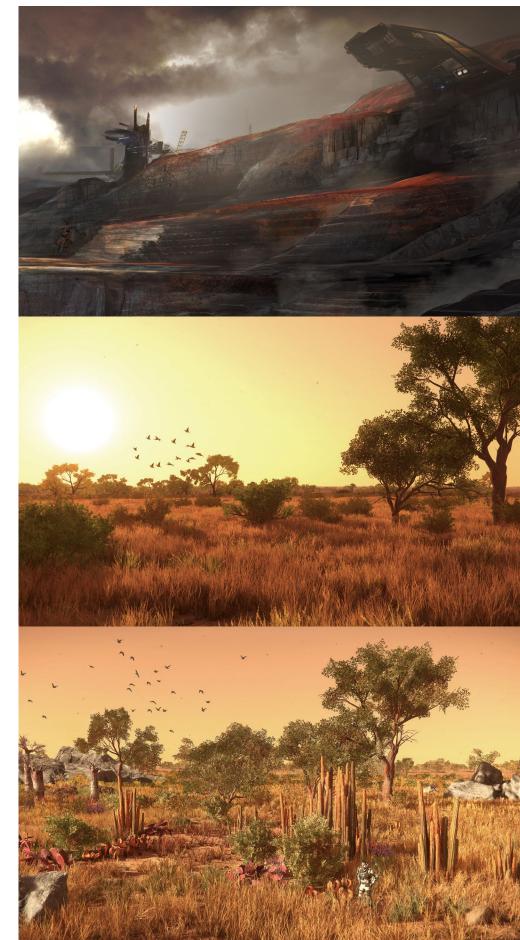


MK: In terms of art, it's a very different approach. Instead of creating terrain, rocks, and vegetation assets, we have to deal with architecture, city planning, man-made objects, and all the elements that keep a city alive.

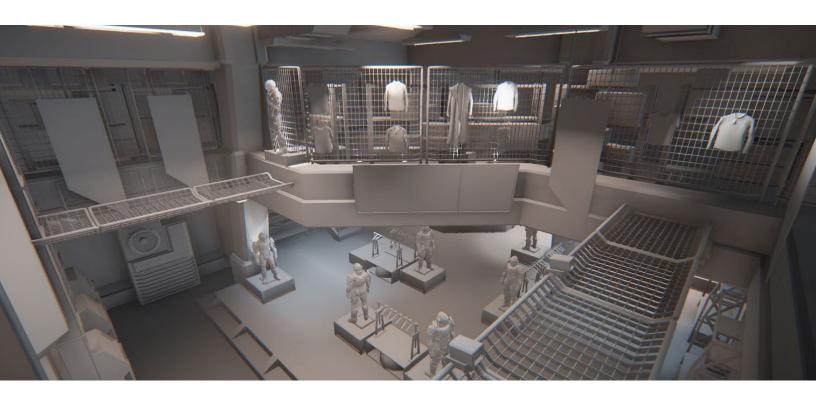
JP: What kind of design ideas did you reference making Lorville?

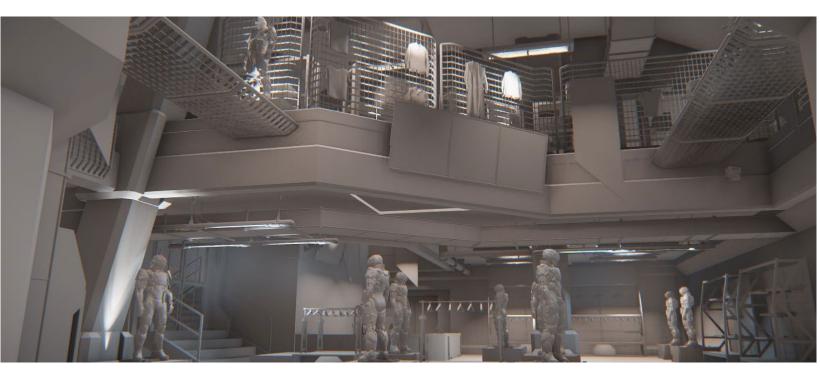
FB: When I started work on it, there were some design ideas already available, such as lore written by the narrative team, concept art, and even a first layout built by an earlier team. However, it took us several attempts to find a layout that we felt ticked all the boxes for each discipline. Once we had 'L19' (the worker's district) nailed down, the other pieces fell into place much faster. Of course, crafting an area that players can explore in first-person requires a lot more detail and effort per square meter than the large, inaccessible areas. Looking back, it's quite cool to see how the city has grown from a few small cubes to this giant location.

JP: It's certainly impressing the backers. Everybody is eager to visit! When that happens, are there any Easter eggs they should look out for?



HURSTON & LORVILLE DEVELOPER INTERVIEW





MK: Sometimes Easter eggs go in and are only known by those who put them there, so I can't really answer that. But regarding special props, look out for the vents and machines that try to get rid of the dirt and dust falling from the sky. Also, there are a lot of security elements spread throughout the city, things like cameras, security checkpoints, and such.

JP: Are the props specific to Hurston or will we carry them forward when building new planets?

MK: Because we use props to help theme locations, a lot will be exclusive to Hurston. However, we might reuse some in other areas if they fit the location or lore.

JP: Hurston is our first planet. How does it compare (in terms of content and work required) to the previously released moons?

MK: There was easily four times more work than we had done on any moon. We made some substantial improvements to the planet tech,

plus we introduce a large range of new assets (plants, grasses, bushes, and trees).

FB: I guess the closest comparison to Lorville is Levski, but going from there to a location that looks and feels like a big city is still a huge jump in size and complexity. Hurston and Lorville came with their own unique set of challenges that we had to overcome. Beyond that, we'd like to have additional man-made structures and points-of-interest like the underground facility that you could see in the CitizenCon demo.

JP: What kind of design work goes into a complicated location like Lorville? Do you use any special software or processes to keep track of it all?

FB: It's pretty similar to how it's being done on other projects - the different level design steps move from documentation and design 'on paper' to the layout being blocked-out and marked-up in the engine.

However, one slightly unusual part of the current workflow is how we build locations using 'object containers.' The analogy has certainly



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DEVELOPER INTERVIEW

been used by others on the team before, but Lorville is built like those Russian nesting dolls. Only here, instead of wooden dolls, it's levels of decreasing size placed inside another. This is something that increases the complexity a bit, but it's a technical necessity when realizing a location of this size.

From a practical development perspective, the areas of the city that will be used in other locations with slight deviations (hangars, train stations, security checkpoints, etc.) are necessary, because otherwise it would take even longer to put out all the landing zones we have planned.

JP: Did Lorville/Hurston require you to build any new systems or is it all built on the moons we've seen in the past?

FB: As Michel mentioned, there is new tech that the coders developed for the planet and the biomes on Hurston that has not been seen on any of the moons released up to this point. We also had to design a reliable, easy to set up transit system for the trains and everything else that comes with them. Lorville also has the first implementation of the 'no-fly zones' that keep players from areas of the city we don't want them to access along with Al-controlled ships that land and take-off from the spaceport.

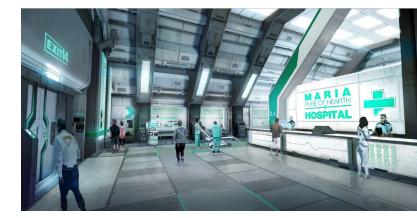






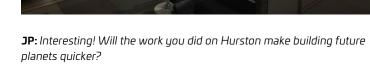
HURSTON & LORVILLE











MK: Yes. With every new location, we improve our pipeline and tech as well as expand our library of available assets. So, as this library grows, we can go faster and faster.

JP: What's next for your team? Will you move on to another planet or environment?

MK: There is still work going into Lorville, but the artists working on the planet will move onto one of the other locations in the Stanton system soon.

FB: One big remaining task worth calling out is the business district that will be patched in later this year. Even after that, I'm sure there will be more content added to Hurston - hopefully more quest givers, missions, points-



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JP: What kind of reference material did you use when developing the look and plan for Hurston (and Lorville specifically)?

FB: When I created the designer block-out for Lorville (using primitive shapes in the editor to build the basic layout) my lead, Andreas Johansson, pointed me to reference images of brutalist architecture, which is characterised by massive, raw, grey concrete structures. It lends itself well to the kind of place that we imagined Lorville to be: dystopian, oppressive, and cold (but not hopeless).

JP: Is there more work to do on Hurston?

MK: I think it's safe to say that we'll continue to add to and improve each location in the PU as the game develops further. For example, when our mining system came in, we went back to our Alpha 3.0 locations and added all the new gameplay features.

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of-interests, etc. But, there are also many other cool planets and cities that need to be built!

JP: Do you have any message for the backers who are about to start exploring your work? Is there anything they should look out for?

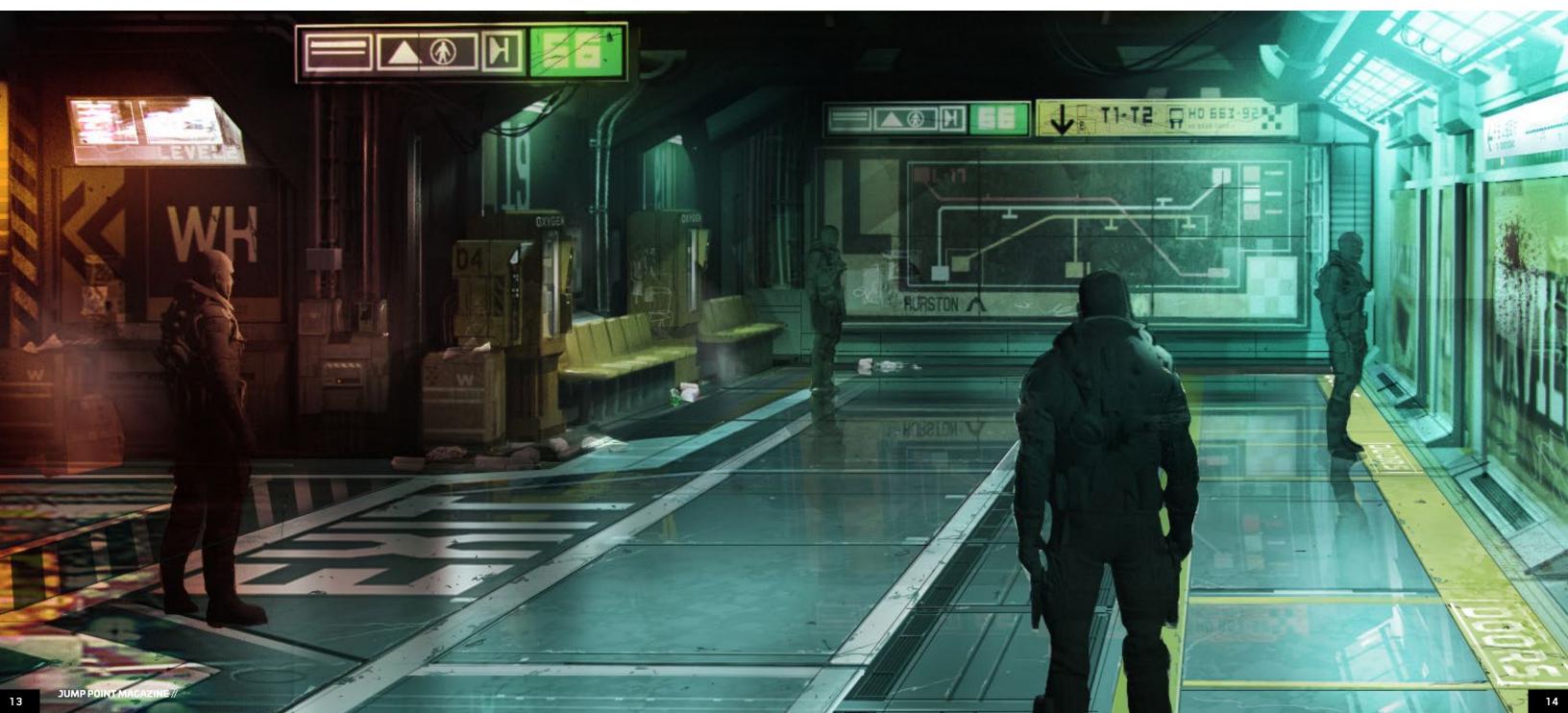
FB: Taking a ship is the fastest way to get in and out of Lorville, but sometimes I like to take a train to one of the city gates, spawn a Cyclone, and just take a ride along the city's edge or head out into the wastelands. I'm looking forward to seeing players explore the planet for themselves.

JP: Who else was involved in creating Hurston?

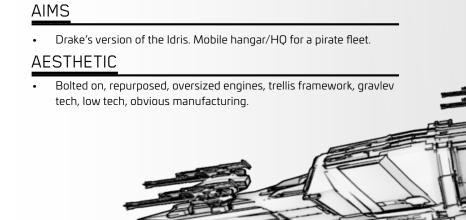
MK: To be honest, at this point the list would be so big. Most dev teams have touched Hurston at some point, so pretty much everyone!

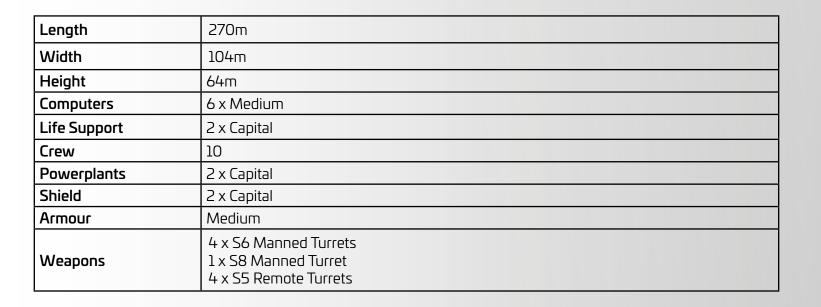
FB: It's a long list of people who have done fantastic work... too many to mention them all. But, I'll do a quick shout-out to Jussi, Boy, and Stephan who have been working with me on Lorville for the longest period of time and been through the ups and downs of bringing a location of this size from early pre-production to a first release.

← END TRANSMISSION



WORK IN PROGRESS... DRAKE KRAKEN



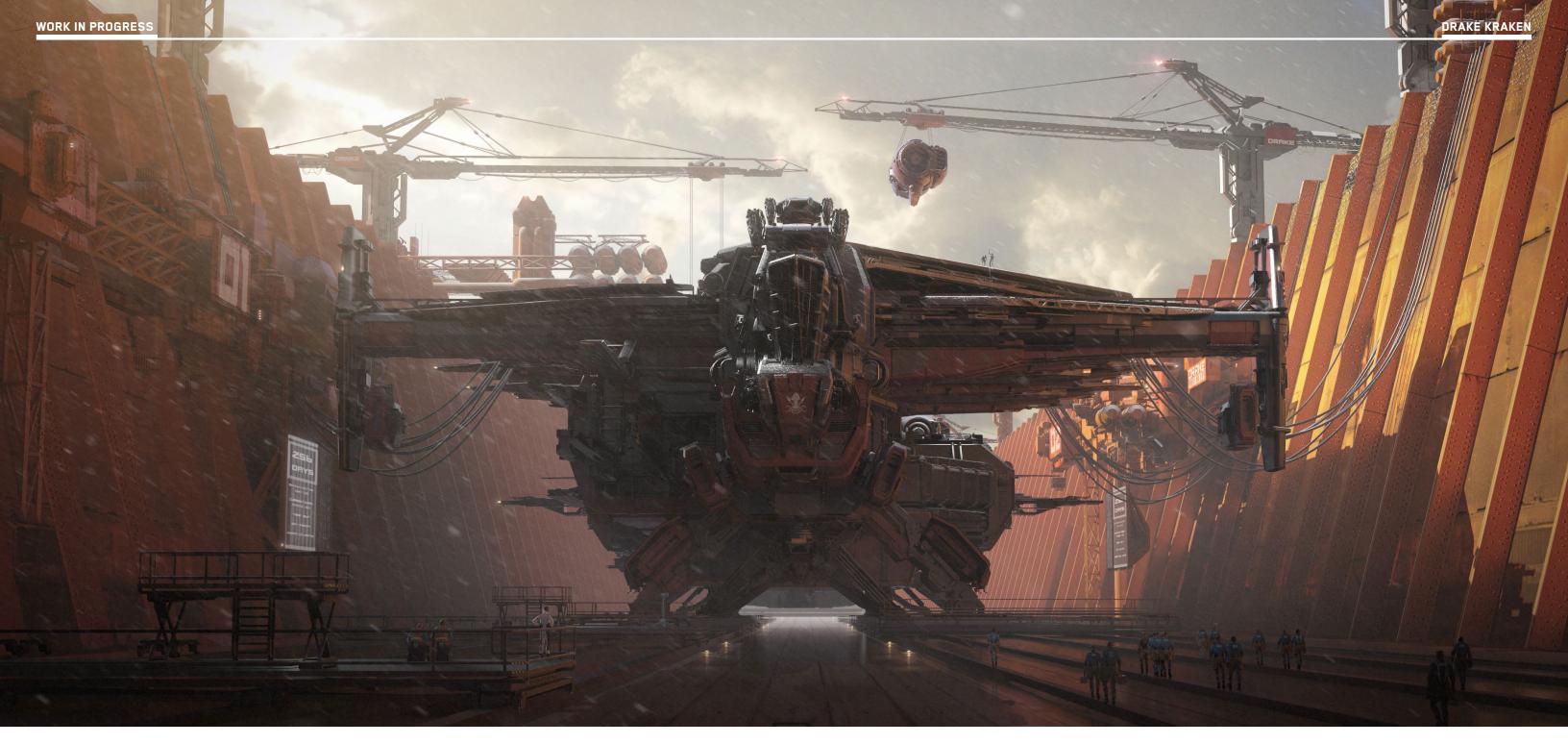


Thrusters	8 x Capital Main 6 x Capital VTOL 2 x Capital Retro
Rooms	6 x External Landing Platforms (4x XS, 2x S) 2 x Internal Hangars 16 x Guest Hab Rooms 2 x Cargo Bays 1 x Dragonfly Room
Cargo Capacity	3792 SCU

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 & ADAM PARKER
CONCEPT ART - GAVIN ROTHERY
ADDITIONAL ARTWORK - GARY SANCHEZ & SARAH MCCULLOCH
ART DIRECTOR - PAUL JONES



DRAKE KRAKEN

In December 2017, the *Star Citizen* ship teams decided to end the year with a bang: a panel of designers announced on a special episode of Happy Hour Game Dev that the community would be responsible for choosing the next Drake Interplanetary ship design. In a Comm-Link titled 'YOU Pick the Next Drake Ship,' the community was given three options:

A. ENTRY-LEVEL DRAKE SALVAGE SHIP (CODE NAME: VULTURE) A one-man salvage starter ship, no drones but plenty of onboard storage to help with EVA salvage operations (space for cutters, charges, etc.) and space in a separate area to store/process the recovered salvage. Mostly designed for the player to EVA out and do the salvage, rather than sit inside and do it with tractor beams/lasers. Small enough to sneak into

hostile areas unnoticed to recover fresh salvage.

B. MULTI-CREW DRAKE EXPLORER (CODE NAME: CORSAIR)

Drake's competitor to the 600i and Constellation - a rough and ready multi-crew explorer. Differs from the 600i by its crude basic construction and from the Constellation by its lower missile count, but with a third turret to make up for it. Able to transport a vehicle and cargo (think extended/up-scaled Cutlass rear area), faster and more nimble than the others, but pretty paper-thin like all Drake ships.

C. DRAKE SCOUT CARRIER (CODE NAME: KRAKEN)

Drake's capital ship entry, space to park and store a few medium ships

(up to Freelancer-size) and transport them around the 'verse. Serves as a mobile truck stop in function with a small hub of stores (some less than legit) to help restock a fleet.

Interest in a 'personal carrier' goes back to the very beginning of the *Star Citizen* story. When plotting out the initial set of five ships, Chris Roberts imagined a new feature for the highest-tier Constellation: the ability to carry a smaller ship, the P-52 Merlin. The idea was a hit and it started a fire in the imaginations of future space captains everywhere. If the game was being designed so that the Constellation could carry one ship, could we command larger ships with multiple snub fighters? Or even military carriers like the Bengal seen in the first trailer?! As

Star Citizen's ship roster diversified, backers theorized about the idea. Could the large, modular Caterpillar be adapted to carry smaller ships? Does the addition of the Dragonfly and other space bikes mean that they could be carried en masse aboard existing ships? As larger ships came online, the first question was always 'how many smaller fighters can it store?' The next step, everyone reasoned, was surely to give the community a civilian carrier spacecraft of its own, and thinking inside the company going into the poll was that there was going to be a clear winner: the long-awaited Kraken. There was just one problem. When the voting ended and the dust had settled, the Vulture had beaten the Kraken 44% to 37%. The people had spoken and the salvage platform became the priority!

KRAKEN IN OUR BOOTS

With the vote in, the team moved on to developing out the Vulture salvage ship. Luckily, the newly streamlined ship pipeline meant that the Kraken didn't have long to wait. In early 2018, designers Adam Parker and John Crewe set about putting together the numbers for what they imagined to be "Drake's Idris." The ship they proposed was a dream come true: a massive civilian ship that would stand tall in complexity next to the military frigates being built for Squadron 42. The first iteration of the Kraken was imagined at 200 meters long, with a huge cargo hold, a ten-player crew, and nine huge turrets for defence. To fulfil the carrier requirement, it would include exterior landing pads capable of supporting two Freelancer or Cutlass-sized ships or four smaller ones plus internal hangars and refueling areas capable of supporting Buccaneer or Gladius-sized ships. The designers put together rough metrics for the art team and an enormous list of internal requirements needed to support such a ship: two powerplants, four coolers, four shield generators, six computers, three fuel tanks, six batteries, a docking ring, and more. The initial ship would weigh in at 1.6 million kilograms and support a full gunnery and engineering crew responsible for four capital engines, twenty-two thrusters, and two capital power plants. In short, the team was proposing what would be the most complicated capital ship project since the previous year's Pioneer. The designers went on to block out their vision for the interior and deck storage using 'designer

art,' an untextured level shaped sort of like an Idris. In the end, there was no worry that the Kraken would be too much starship: the concept was approved by the design review and moved to the Art Teams.

UNRAVELING THE TENTACLES

"Relatively smooth" is the expression Art Director Paul Jones uses to sum up the Kraken's art concepting phase. The ship concept team took possession of the Kraken's impressive specifications in mid-March 2018 and went right to work. The lengthy process of perfecting the ldris frigate had taught the team exactly what was needed for building large ships, so the Kraken would ultimately be concepted and sketched more quickly than anyone would have thought possible five years earlier. The first job was, as always, to determine the shape language for the ship. Several concept artists assisted Jones at this point, including Gary Sanchez, who is perhaps best known as the man behind the Xi'an Nox space bike. The overall concept artist assignment would go to contract artist Gavin Rothery, best known for his work on the Aegis Sabre.

The team gathered a great deal of reference material, which included everything from real-world freighters to the entirety of the existing Drake ship canon. The tiny Dragonfly and the massive Caterpillar took











center stage for reference, though the team also studied the Buccaneer, Cutlass, and others. As the Kraken would be the centerpiece of the Drake fleet, it was important to consider how it would function and appear alongside the other ship types.

Jones began the task of roughing out an overall look for the new concept, something beyond the ldris-shaped placeholder used by the designers. He had a short list of watchwords to act as a quick guide to capturing the Drake look: bolted on, repurposed, oversized engines, trellis framework, gravlev tech, low tech, and obvious manufacturing. The initial look was influenced by one unlikely decision: the fact that the name 'Kraken' had been decided so early in the process. In many cases, ship names are not decided until very late on, sometimes even after the marketing artwork has already been created. But the Kraken came with an already fan-favourite name attached, so Jones was able to take it into consideration when developing the shape language.

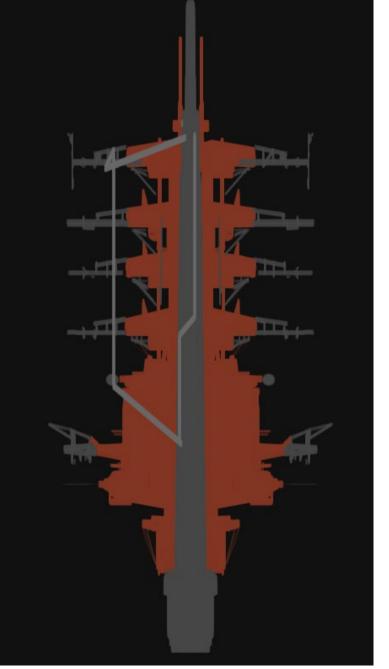
DRAKE KRAKEN WORK IN PROGRESS

To match the name, Jones began experimenting with solar panels and similar offshoots designed to approximate tentacle-like appendages in the silhouette. From there, he examined a number of options for landing areas. Could the pad be on the side or top instead of the front? He looked for ways to use negative space to make the ship's silhouette distinct. The inspiration for that silhouette came from an unlikely place: Jones' mirroring an image of a modern ship lengthwise. With this unlikely choice, the direction of the Kraken was decided: something that was at once nautical to capture the 'carrier in space' aesthetic, utilitarian to capture the Drake style, and tendrilled to honor the ship's namesake. Next, he studied the lines on the Dragonfly and

Vulture, considering options that would repeat the twin spar design. Jones did not want to do a traditional 'forward facing' ship straight off and so studied several different options. Sanchez provided a photo bash that hinted more at aircraft carriers with multiple VTOL pads and a conning tower.

For the initial review, Rothery developed a number of rough concept variants which were developed back and forth with the team. Three versions, A, B, and C, were presented to Chris Roberts for his early thoughts. Option A had more of a vertical hull similar to an Aegis warship, B featured the bike-inspired twin boom look, and C was asymmetrical with deployable

solar panels. Roberts liked the overall direction and the Drake styling but wanted there to be more of an immediate aircraft carrier sense to the ship. Rothery continued to refine option B based on feedback but ultimately determined that the twin booms weren't right for the carrier. So, he developed version D, featuring eight Kraken fins and a raised control tower center, plus a flat area to suggest a modern aircraft carrier. A new attempt, version E, attempted to add more of a 'boat' look to the design, maintaining the exterior panels alongside a more distinct landing deck angled similarly to a present-day supercarrier. Roberts was very happy with this look, even adding a "woot woot!" to the review.



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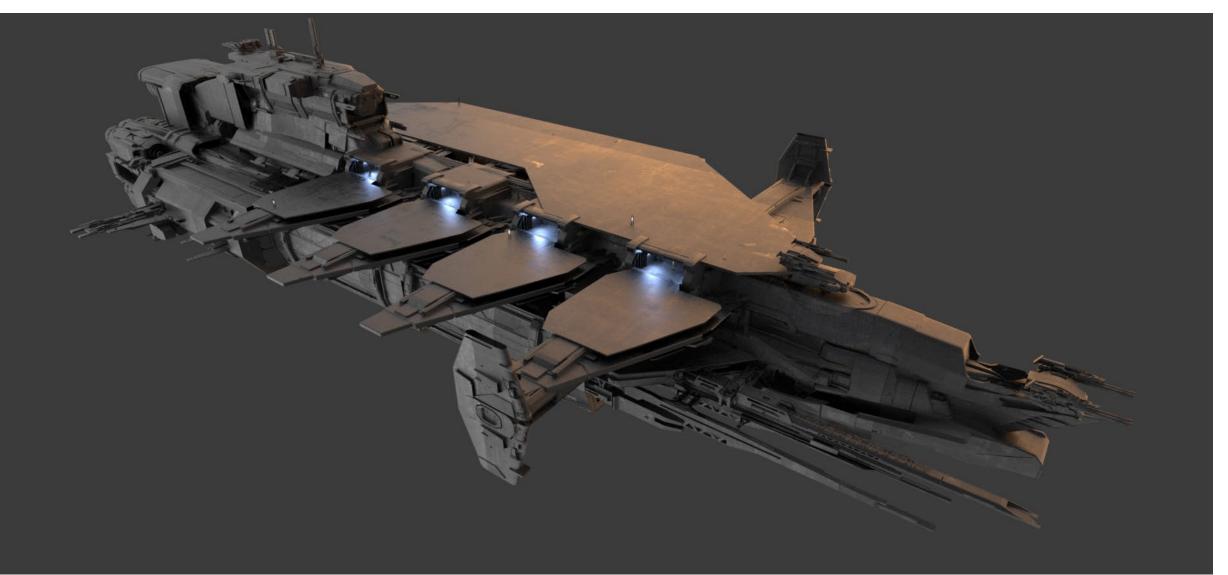


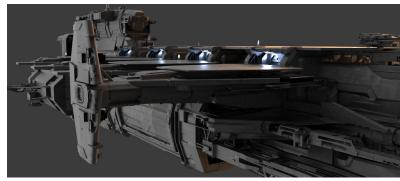


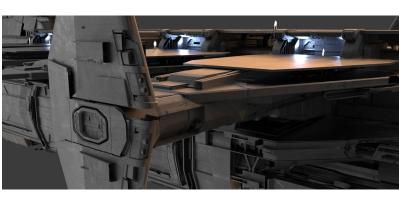
VERSION B

























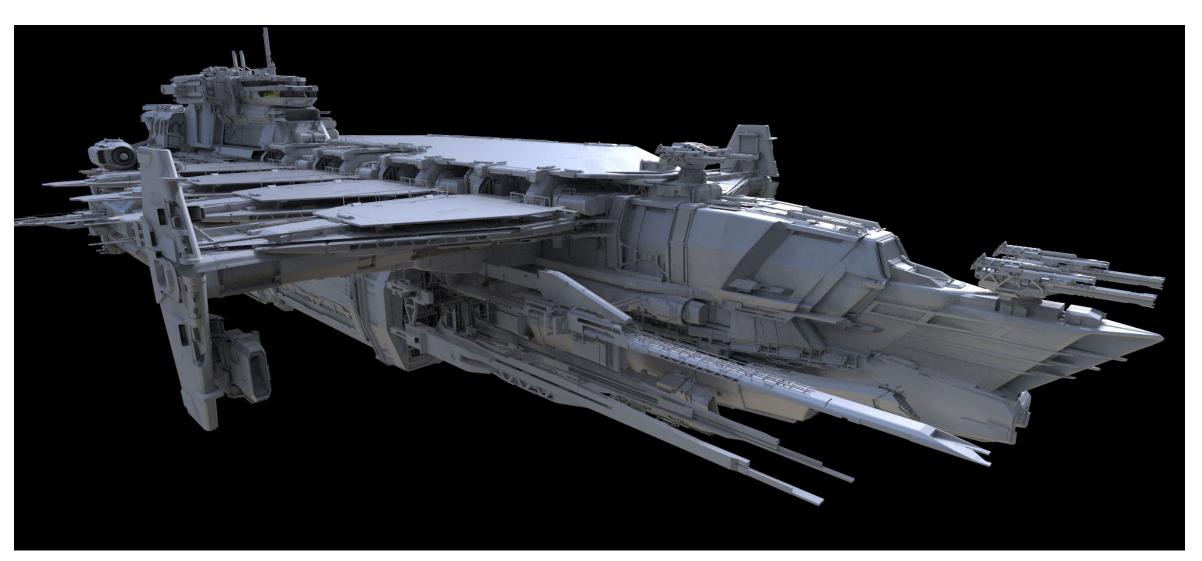
ONE PASS MAKES YOU BIGGER...

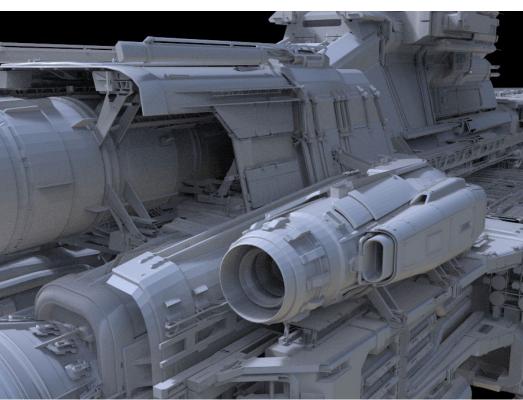
Feedback from the first review was extremely positive. Chris Roberts suggested adding more antennae and requested that design E be updated to add four internal bays where smaller ships could dock. Other suggestions covered the docking collar placement and the addition of smaller exterior landing bays. Paul Jones went to work alongside the environment team to discuss hangar metrics. There wasn't enough space on the existing ship to fit their predetermined sizing for the hangar and several approaches were considered. The first was significantly expanding the size of the Kraken from 220 to 470 meters, which would allow it to have four full-sized bays. That solution would have made for some happy Drake captains, but it would have made it a much larger ship to develop. Instead, the decision was made to compromise: instead of four full-sized bays, the ship would have two and the environment team would make an exception to allow them to be slightly smaller than the default. From this point forward, developing the look of the Kraken was a straightforward process of refinement based on feedback until the exterior was ready to move to the marketing artwork stage. The overall size of the ship wouldn't change so significantly again, though it would go up to 270 meters as scaling tweaks and other nips and tucks were performed.

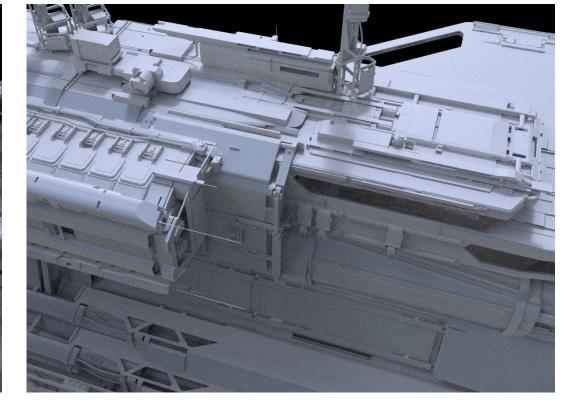
Next was the refining stage, going through the heavy mesh to resolve surfaces and make sure everything makes sense. A number of grey renders were created for general styling, allowing reviewers to see the ship and how the shapes involved interact with each other. Is it too noisy, too quiet? This process allows reviewers to spot issues that aren't visible with glossy renders.

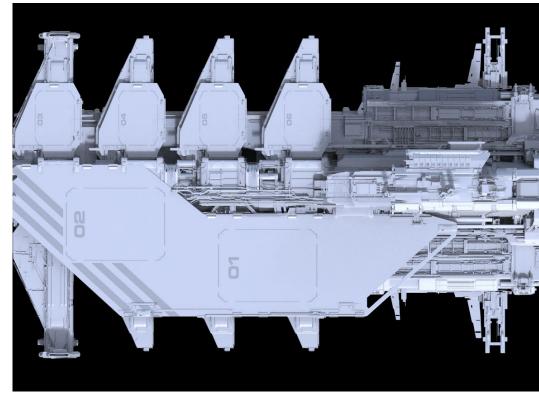
Jones also performed an unofficial test to see if a Caterpillar would 'fit' docked across the two upper pads. The results were inconclusive, though: while there was technically space to make the docking work, designer John Crewe warned that it will not 'officially' fit. We expect a daring Caterpillar captain to find out for sure as soon as the Kraken goes online!

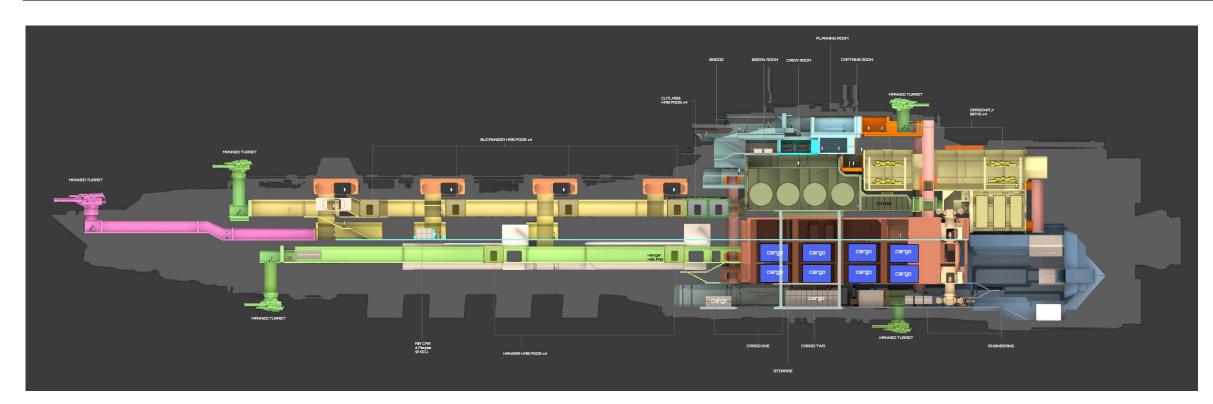


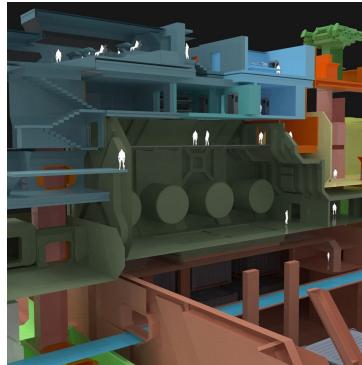


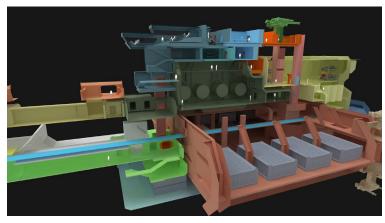


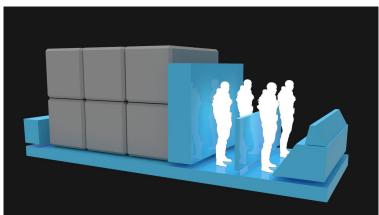


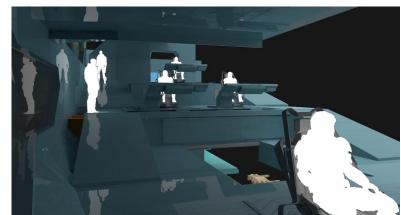


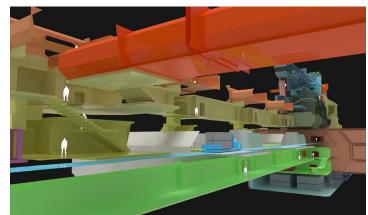








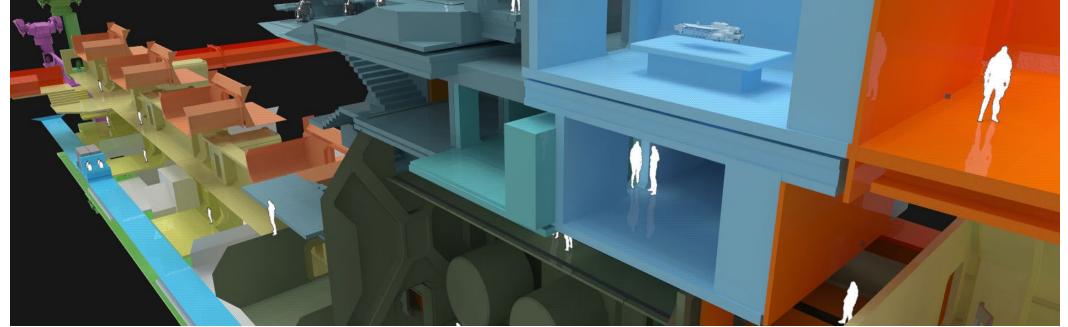


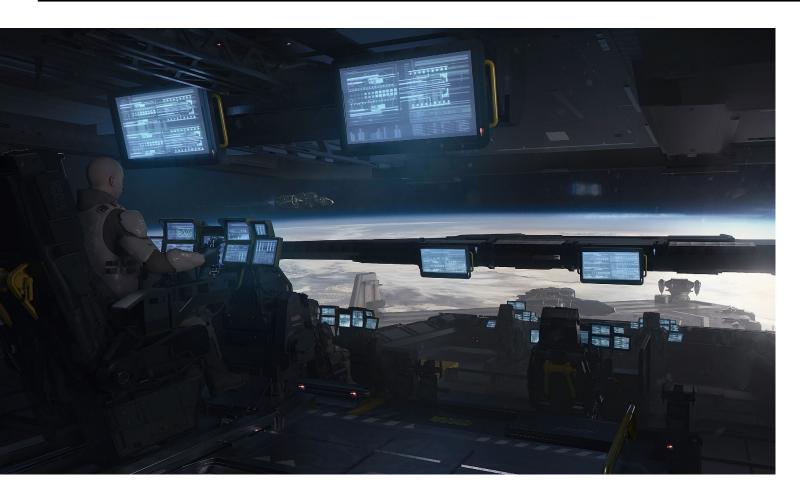


I JUST HEARD THERE WAS GOLD IN YER BELLY

A big ship means a big interior... with a lot of design to follow! Gavin Rothery and Paul Jones started blocking out the Kraken's interior early on, realizing that there would be quite a bit to prepare for the release.

They began with a very basic interior to make sure ships could fit, that bays all had air shields, and that doors had proper clearance. Next, they added the docking collar to the exterior and continued with the external flow to make sure that corridors were blocked in and turrets were accessible. Since the ship featured so many turrets (both manned and unmanned), a color-coded chart of their locations and coverage was prepared. Getting the landing bay doors and their relationship to the ship right was a special challenge, as was making sure there was 360-degree weapons coverage from the turrets.







Next, Rothery started work on the bridge. The first pass was too sporty, similar to a scaled-up caterpillar. Jones pushed the direction towards that of an aircraft carrier. Further feedback added space for ejection pods to the area. The interior air car, now beloved by the community, appeared at this stage as the team did basic interior blockouts and worked up the cargo dimensions. By the time the first pass review was conducted, all the turrets had been worked out, the turntables finished and the landing gear added.

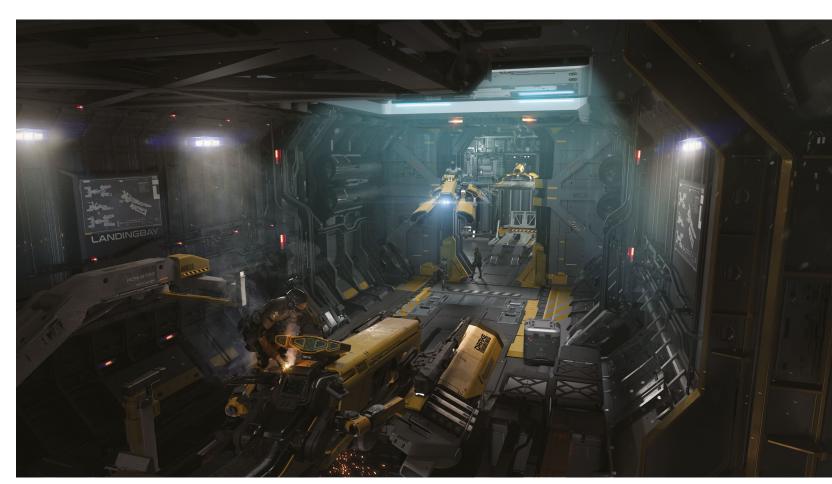
The landing gear for the Kraken was inspired by the Caterpillar, harkening back to the industrial Drake look. The first review went well, with the most significant change being a request to make the largest turret manned instead of remote. Other feedback included the addition of more VTOL thrusters for landing and the addition of a more complex grav generator room. The artists ultimately discovered they had more space than expected on the top of the ship and decided to use it to add a Dragonfly bay!

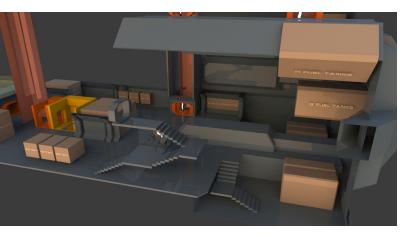






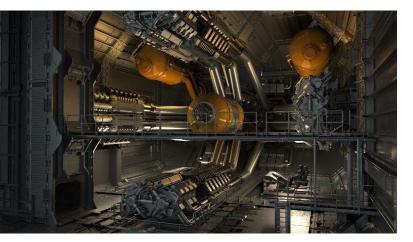






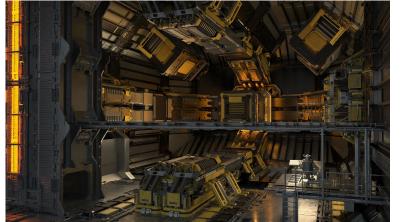












For the second interior pass, Jones broke out meshes from the Caterpillar to work from. He also collected a series of reference photos from factories, container ships, and other industrial interiors. He watched walkthroughs of large ships and studied their engineering stations. During this detailing work, Rothery and Jones took several passes at working up the engineering section. The first pass didn't quite sell the look and Jones changed the direction, ultimately adding an array of pipes to better capture the seagoing references. Jones notes that additional work on refining engineering will be done before the ship is finished.







UNLEASH THE... YOU KNOW

The marketing stage for the Kraken was a the Kraken at work, including three action different kind of challenge. The Kraken was intended to premiere at CitizenCon 2018 complete with a printed brochure, commercial, the Dragonfly bay. and even a physical model to be put on display. That meant that the normal timeline for marketing materials had to go out the window. By the time the mesh was clean, the deadline Paul Jones and Sarah McCulloch for the promo work, creating a variety of situations to show

shots, two landed renders, one in flight, and a variety of interiors including engineering and

One shot was ultimately changed with time to spare: the initial Dragonfly bay angle was felt to be off and the render reworked. Several of was looming and there wasn't time to redo the the other items required for the reveal meant marketing shots. Gavin Rothery was joined by that the model needed to be in a roughly finished state much earlier. Physical brochures would need to go to print early and the group

building the enormous physical model for the show floor would need access weeks in advance of the show. There were no end of special deliveries needed to prep the Kraken's reveal, including a 37k render of the interior for print that Jones needed to create! The team worked smart, focusing on how to detail the ship to show as much of its purpose and functionality as possible. At the end of the day, the hard work paid off: the Kraken was ready for perhaps the most spectacular ship reveal

DRAKE KRAKEN RESOURCES:

DRAKE KRAKEN PRESENTATION:

https://robertsspaceindustries.com/comm-link/transmission/16772-Release-The-Kraken

DRAKE KRAKEN SHIP PAGE:

https://robertsspaceindustries.com/pledge/ships/drake-kraken/Drake-Kraken

Q&A:

https://robertsspaceindustries.com/comm-link/engineering/16813-Q-A-Drake-Kraken



The following extract is from the 2947 Whitley's Guide to Spacecraft's 300 Series Development History. Reprinted with permission. Whitley's Guide is the property of Gallivan Publishing, 2860-2948, all rights reserved.



ROBERTS SPACE INDUSTRIES CONSTELLATION PHOENIX

SERVICE HISTORY



CONSTELLATION PHOENIX-CLASS LUXURY SHIP - DEVELOPMENT HISTORY

The Phoenix is a variant of the standard Constellation platform developed as Roberts Space Industries' first luxury-market spacecraft. When the development of the Phoenix variant was first announced in 2935, it seemed to be an unusual direction for Roberts Space Industries, a company that had made its name offering affordable spacecraft "to the people". The Phoenix's origin story is appropriately unusual: the variant project began following the brief success of a Spectrum series called *Spacecraft of the Elite*. The series premiered in 2932 and showed off toptier luxury spacecraft owned by the rich and powerful, which spawned a 'custom interior' design trend for spacecraft. This led to the creation of numerous luxury brands dedicated to enhancing more common spacecraft designs. It also landed at exactly the time Roberts Space Industries' Astro Development Team (ADT) was studying options for a fourth production variant of the time-tested Constellation.

The development team (led by longtime RSI designer Jules Parliegh),

began by taking a stock 2934 model year Constellation Mark III chassis and outfitting it with new interior supports. The final prototype seems unrecognizable when compared to what would ultimately become the first Phoenix, but this test was focused solely on under-the-deck modifications that would go on to support the eventual overhaul. The major challenge at this point wasn't so much the luxury styling as it was adapting and reworking the ship's design to support a wider variety of changes. Incorporating the hot tub, later made famous by the variant's marketing campaign, required a major revision of the stock plumbing and waste disposal systems. The makeshift prototype was also outfitted with improved shields and privacy systems in the expectation that a luxury spacecraft would likely need such protections to stand out in its much more specific role.

BUILDING PARTNERSHIPS

With a prototype in hand, Roberts Space Industries turned to another major challenge: how to redefine their workman-like multi-crew vehicle as a luxury object that would appeal to those who would traditionally

SERVICE HISTORY



choose an Origin design. Their solution was as much marketing as design. To make the Phoenix work, the ADT understood that they needed to partner with long-standing luxury brands instead of simply presenting their vision as the ultimate in high-class space travel. To that end, the company brought in a roster of household names known for producing the best of the best:

- Designer Emil Quast, best known for his decadent design of Terra's
 'Flowhaus' public assembly building was brought in to design the
 Phoenix's luxury interior. ADT designers had initially constructed their
 own concept plan featuring plush leather furniture and extreme soft
 lighting. Quast threw out the existing designs, refusing to even look
 beyond the first page of the plan and instead created the first iteration
 of the elegant cabin the Phoenix is known for today.
- The Wintle Design Company, most familiar for offering high-end luxury craft goods, was given the task of equipping the master suite and the first version of the hot tub. Wintle spent 18 months researching the creation of what they called a 'complete sleep system' to replace the standard Constellation fixtures, aimed at adding every comfort possible to the typically utilitarian process of sleeping starside.
- Kruger Intergalactic was brought back to create an updated version
 of the P52 Merlin bundled with standard-model Constellations. Their
 team developed the high-performance P72 Archimedes to replace the
 Merlin, although tooling delays caused initial production Phoenixes

- to ship with a Merlin instead. While the Merlin was purchased under license, RSI opted to buy exclusive rights to the Archimedes in order to prevent its use by other manufacturers.
- Atuvo, creators of the Foodsparce System, provided a licensed reworking of their signature Atuvo state table and kitchen system.
 Atuvo's engineers spent months refactoring their existing food technologies to fit into the small area allowed on the Phoenix due to a contractual obligation to make sure the resources available aboard the Phoenix were identical to those found in the finest kitchens.

One partnership did not work out as intended: luxury vehicle builder Kremner Ltd. was charged with developing a replacement for the RSI Ursa Rover. Kremner Ltd. declared bankruptcy in the middle of the development process, forcing the team to scramble to find a replacement. RSI's own vehicle team ultimately developed the Lynx Rover variant specifically for the Phoenix.

To make the first production prototype possible, RSI gathered all the involved licensees (over one hundred in total) at their development facility on Earth. Representatives from each company were incorporated into the ADT process for the remainder of the Phoenix's development cycle, allowing them visibility over not just their area of the ship's design, but to provide feedback on everything else being built. The prototype construction stage took roughly two years and concluded with space

CONSTRUCTOR: RSI 35 CRAFT: CONSTELLATION PHOENIX CONSTRUCTOR: RSI 36 CRAFT: CONSTELLATION PHOENIX



trials for a unique variant of the then-current Constellation Mark III. The Mark III Constellation had fewer hull changes for variants than the Mark IV, allowing more custom experimentation during the prototype phase.

The Phoenix development team was also given unprecedented access to the work of the much larger Constellation Mark IV team, with the expectation that the variant would premiere as part of the launch planned for 2942. Delays relating to the Mark IV rework moved the launch to 2944, giving the Phoenix team an opportunity to soft launch the design. Starting in 2941, Roberts Space Industries' representatives were allowed to offer interested parties Mark III conversions that introduced the Phoenix concept. The Mark IIIs were upgraded to Phoenix status in the lab at Valatie using factory-fresh base Constellations. Only a handful of conversions were constructed, with most purchased by RSI's trusted In 2948, Roberts Space Industries premiered a variant-of-a-variant, the partner corporations for executive operations.

Production of the Phoenix variant of the Constellation Mark IV began in earnest in June 2944 alongside a media blitz intended to remind buyers of Roberts Space Industries' prestigious history. The company produced advertisements featuring their original model Quantum Drive and sponsored multiple documentaries focusing on mankind's early interstellar expansion. All production model Phoenixes are constructed to base specifications alongside the other model Constellations at RSI's Albany plant and then ferried to a special facility at Luna for the installation of their interiors and other unique features.

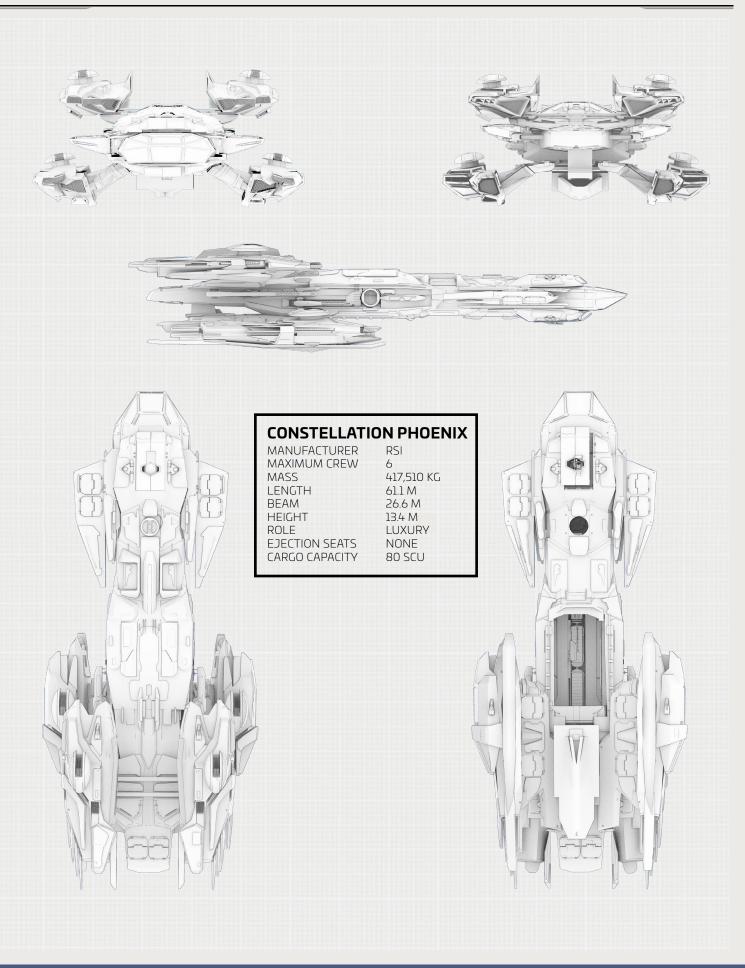
The first Constellation Phoenix sold went to rock star Ellroy Cass. The ship was commissioned by the then-head of RSI Outreach, Thar Obson, and personally delivered to Cass. Orders for corporate executive fleets and private citizens seeking a luxury experience came in quickly, selling out the first year's production allotment of Phoenixes in a matter of days.

A single 'centennial' Constellation Phoenix has been constructed in honor of a 2946 production milestone for the entire Constellation range. This unique Phoenix features a metallic gold livery and an interior exhaustingly detailed in 24 karat gold. This Phoenix was not offered for sale and the only example remains owned by Roberts Space Industries, who have occasionally used it for trade shows and other marketing pushes.

Constellation Phoenix Emerald, as competition with Origin's new model of 600 series spacecraft became more serious. The Emerald featured a 'lucky' green paint scheme and a variant interior cabin design. Emeralds were produced in extremely limited numbers and have not become part of the normal production process.

Market analysts believe that Roberts Space Industries is happy with the positioning of the Phoenix despite increased competition from Origin and others. Less than one percent of Constellation fuselages become Phoenixes, and although the model generates between five and seven percent of the total profits for the line depending on year, it is expected that the company will continue to produce Phoenixes for the foreseeable future.

SCHEMATICS



ONE QUESTION

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

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.

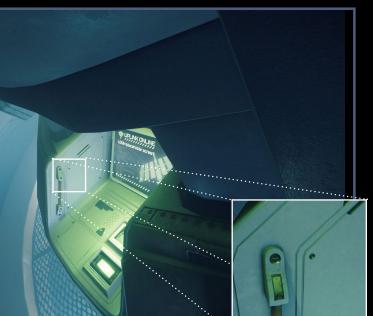
JumpPoint@Cloudimperiumgames.com

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?





Ray also gave us last month's image. But Where in the 'Verse did he find it?

Our winner this month is Harley Urquhart, who correctly identified the image first even though they thought they were late:

GIN TRANSMISSION →

"I knew where this wheels location was as soon as you released Jump Point,
I just didn't head over there until today."

END TRANSMISSION ←

Congrats, Harley Urquhart! You get this month's coveted Jump Point no-prize. Thanks for playing along at home... the 'Verse is only getting bigger, so there'll be more to search for in coming issues!

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

EDWARD FULLER, PRINCIPAL LIVE DESIGNER, UK

I helped out the main designer who owned the surface relay mission to maintain its overall flow. The mission spanned from the moment Clovus invited the player to visit him to the point of picking up the prototype blade and having somewhere to deliver it to.

DANIEL BAKER, DESIGNER, UK

I'm an S42 designer, but I was able to spend some time giving usable support to the PU team as well as set up the player's bed, the coffee machine, and the workzones that engineers use to fix things in the environment.

DAVID PENG, SENIOR ANIMATOR, ATX

I worked on the motion capture for the CitizenCon demo. I was the performer for the prospector miner pilot in the Kraken commercial, the armed guards at Hurston, and the bar patrons and bartender. I was the character animator for the prospector miner pilot in the Kraken commercial and also the Kraken 3D display team, who figured out where to place all those tiny deck crew characters.

GERARD MANZANARES, PROJECT MANAGER/DEVOPS/IT, ATX

I was running publishes from my laptop below the stage!

TOM WOODWARD, 3D SHIP ARTIST, UK

Leading up to and during CitizenCon I worked on designing and modelling the upper floor, cockpit, and marine seating room, along with the lighting, for the new Valkyrie dropship.

CHEYNE HESSLER, CHARACTER ARTIST, LA

For CitizenCon I worked on the Navy Pilot Flight Suit worn throughout the trailer and Bishop's hair.

GLENN KNEALE, QA LEAD, DE

The on-stage surrogate player. The guy who fell twice...

MATHEW GANT, QA FPS SPECIALIST, ATX

I worked at the Merchandise booth and helped stamp business cards for the scavenger hunt.

DAN WHITING, SENIOR ANIMATOR, UK

Combat Artificial Intelligence.

BENJAMIN MCMONNIES, PRODUCTION ASSISTANT, ATX

Backstage manager.

GRAHAM ROBINSON, JUNIOR GRAPHIC DESIGNER, UK

I created the motion graphics for the Valkyrie commercial and the lower thirds that display the names of on-stage speakers during presentations. I also made the starry backdrop displayed on the Dell Hall screen during intermissions. The

map, schedule, some of the signage and leaflets were other parts of CitizenCon I had worked on too.

ROB REININGER. LEAD SYSTEM DESIGNER. ATX

WHAT PART OF CITIZENCON DID YOU WORK ON?

For Citizen Con this year, I was responsible for a few key things. First, I set up the 'Tammany and Son's' shop where the player bought their armor and multitool from for the mission. This required all sorts of new shop displaus and mannequins to be set up for things like the new Odyssey flight suit and the TruDef armor that was revealed in the playthrough. After that, I had to set up the 'New Deal' ship dealership for the upcoming in-game ship purchasing feature that we're rolling out in Alpha 3.3. Additionally, I worked on the new mission giver, Clovus Darneely who was located in the Reclamation and Disposal salvage shop. Both Darneelu and Recco Battaglia in Levski are the first mission givers running on the new global behavior, so we were excited to see them in action. Previous mission givers had a bespoke behavior that was very time consuming to make, but I have to give a shout out to Robert Gaither who started the bulk of the global behavior work and animation setup. Well done sir! It's always exciting to see our work displayed at shows like CitizenCon and experience the fan's reactions. It's a big part of what keeps us striving to make the amazing game that Star Citizen is becoming. All in all, everything went over very well (aside from Glenn falling to his death during the demo of course... We'll start working on those bionic implants to replace your legs. R.I.P. Glenn!)

JARED HUCKABY, CONTENT MANAGER, LA

I was the 'Show Director.' I worked on all aspects of the primary and secondary stage shows, from the earliest programming and scheduling decisions to things like set and lighting design, coordinating with the venue and A/V staff, and managing the day-to-day setup and rehearsal schedule prior to October 10th. If it happened in one of the two theaters, those were the parts I worked on. On the day, I hosted the livestream and coordinated various 'on-the-fly' decisions that happen at every event, including starting on time (a first!) and then managing to put the show back on schedule after the demo ran late (another first!). For me, CitizenCon is the toughest three months and the most rewarding week of every year.

BOY SICHTERMAN, ENVIRONMENT ARTIST, DE

I worked on Lorville and was tasked with doing areas of L19 and creating the Hurston Dynamics building. It was very challenging and loads of fun!

DAVID COLSON, GAMEPLAY PROGRAMMER, UK

I worked on the flight experience panel, planning and producing the whole thing along with the needed preparations. I also helped out in preparing the Drake virtual training facility where people could try out the new flight model.

MICHAEL ALDER, SENIOR GRAPHIC DESIGNER, UK

I created the new identity and styling that was applied to posters, banners, presentations, etc. that appeared throughout the show and on the main stage. I also designed the manufacturer and UEE booths, postcards, business cards, CitizenCon brochure, and the Release the Kraken graphic that was used on the t-shirt and tote bag, as well as loads of other merchandise items.

Do you have one question you want to ask the staff? Send it to JumpPoint@Cloudimperiumgames.com and we might choose your question for next issue.