

# JUMP POINT

A ROBERTS SPACE INDUSTRIES PUBLICATION

ISSUE 05.09

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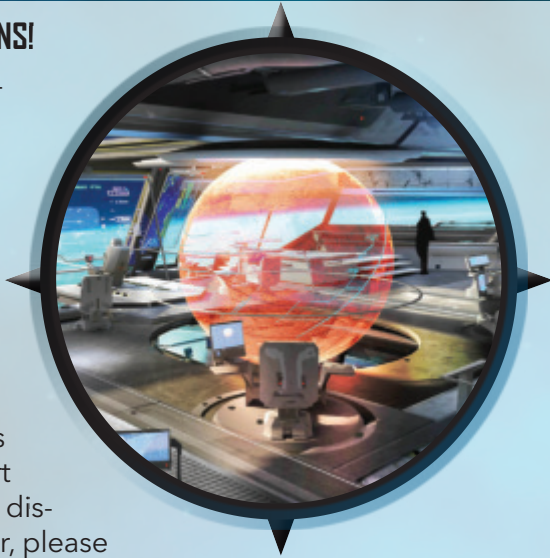
## GREETINGS, CITIZENS!

First things first – thanks for all the feedback over in the Subscribers’ Den. We are seriously considering changes in the look and content of **Jump Point**, and all of your suggestions are definitely part of the mix in that discussion. However, please realize that a juggernaut like **JP** doesn’t turn on a dime, so it will likely take a few months to make it all happen – whatever “all” turns out to be. (And it may take even longer for me to cut back on the parentheses, Pliat!)

To Boraxx and ...m... and all the others who thought it but didn’t say it, I have not forgotten about the long-promised third Idris issue. I will ask again to see if this ship is any closer to a reveal, but I suspect it will still be a few months before we can display the rest of its development.

This month’s title is “Adventures Accidental and Intentional,” and while it doesn’t strictly connect all of our articles, it does reflect most of them. The history of RSI and the experiences of our QA team at Gamescom definitely fall into the category of intentional adventures, while the discovery and development of Tohil system and the wayward trip of Yela, Daymar and Cellin in “A Gift for Baba” are certainly accidental adventures.

Meanwhile, the WIP article doesn’t cover a single long development sequence, but rather updates the trail of four ships we’re making ready for 3.0: the Aurora, Constellation Aquila, Cutlass and Prospector. I feel credit should be given where credit is due, and I try to acknowledge each artist significantly involved in a WIP article.



However, one unfortunate side-effect of the method we used this month is that I don’t know whether I’ve been able to collect the names of all the artists involved in these updates. I do want to apologize, both to you and to any artists who were overlooked, and I’ll try to have a better handle on this in future issues.

I’ll end with an answer to SokoSplat, who asked about an index to all the issues so far. I maintain a spreadsheet listing all the articles in every **JP**, and while it isn’t alphabetical, it does make it fairly easy to scan, say, the Portfolio column to see which corporations and organizations we’ve covered, and to locate which issue covers the corporation I’m trying to track down. On the other hand, I know what it takes to create a true index, and the thought of creating an index for **JP** actually sends a shiver down my back. For example, the judgment calls on whether to include each staff member ever mentioned, and (if so) going through and finding every mention of that person ... it would be a logistical tangle for over 3000 pages.

Back to the first hand: if what you’re asking for is a list that includes all the article titles, I probably can get permission and find a way to post my spreadsheet, and keep it updated. And one thing I just realized – you can search for a specific word in the **JP** website, if you already know what you’re looking for ... as long as I keep those entries updated.

*Hold on, it’s gonna be a wild ride!*

*David*

David.Ladyman@cloudimperiumgames.com

**EDITOR: DAVID LADYMAN, INGAN MONKEY GOD STUDIOS**  
**ROVING CORRESPONDENT: BEN LESNICK**  
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**COVER: ELWIN BACHILLER**  
**PAGE 43: CLINT SCHULTZ**  
**PAGE 61: ALEKSANDRAS AKSTINAS & MARCEL VAN VUUREN**  
**PAGE 65, 73: SEAN ANDREW MURRAY**



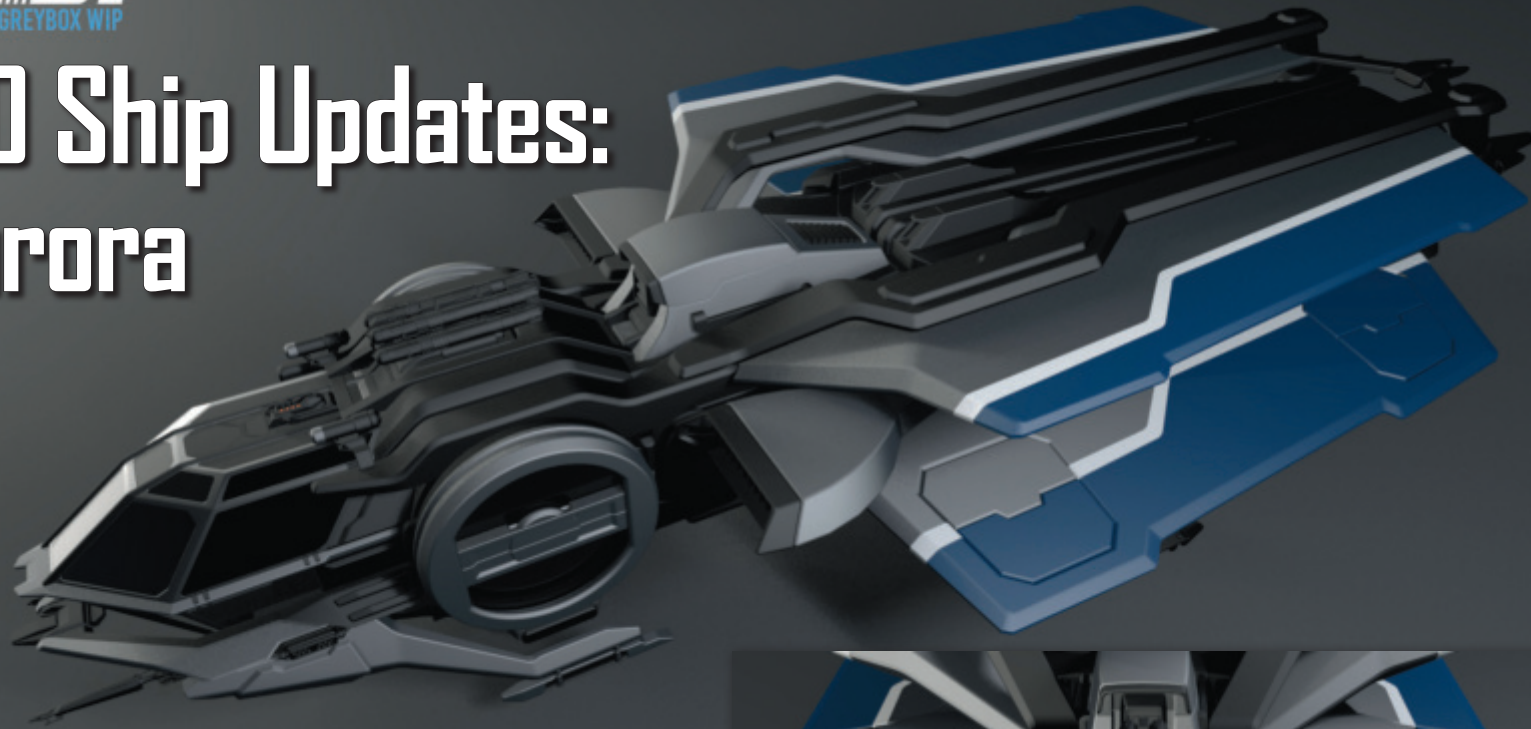
**FROM THE HICKPOT**



A CLOUD IMPERIUM GAMES PRODUCTION. A STAR CITIZEN NEWSLETTER.  
PART OF THE STAR CITIZEN/SQUADRON 42 UNIVERSE.

**RSI**  
AURORA GREYBOX WIP

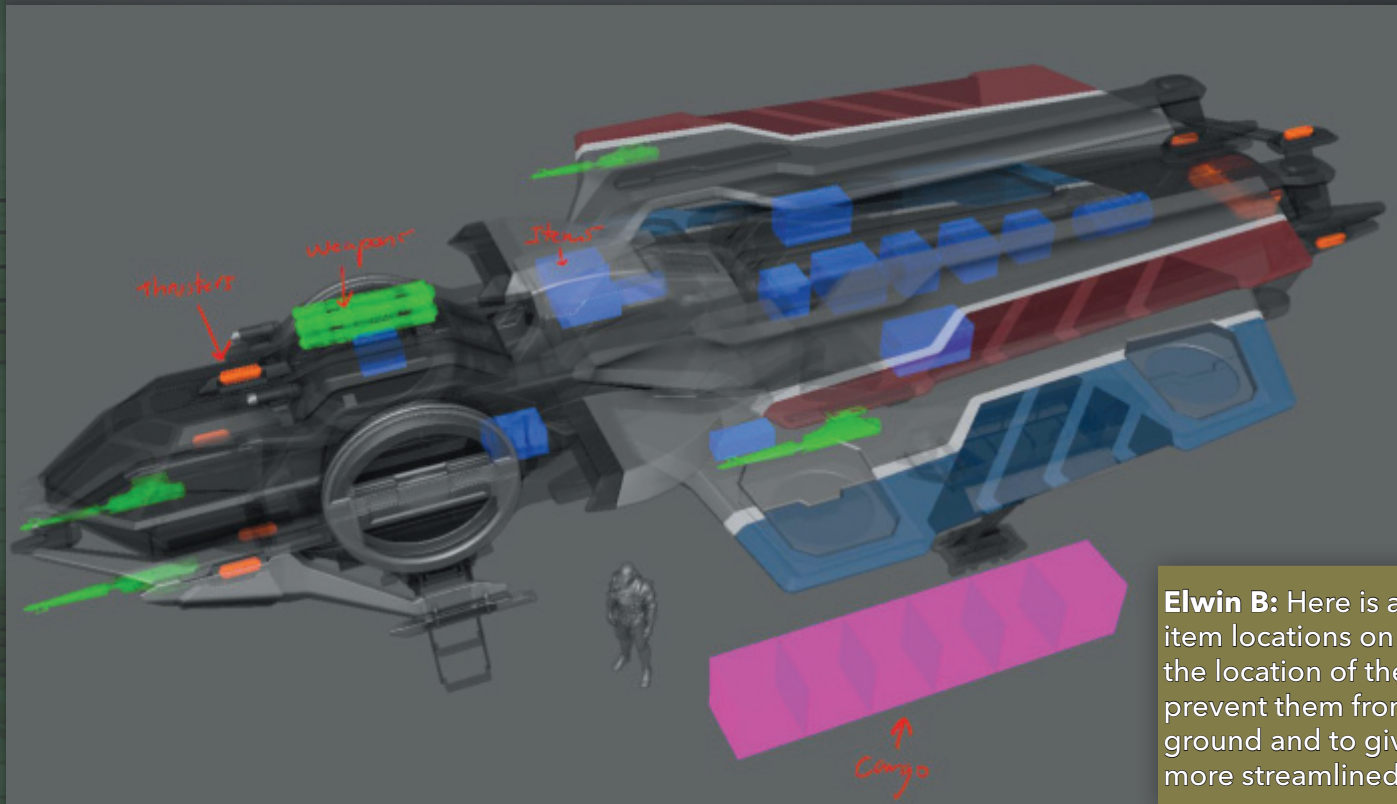
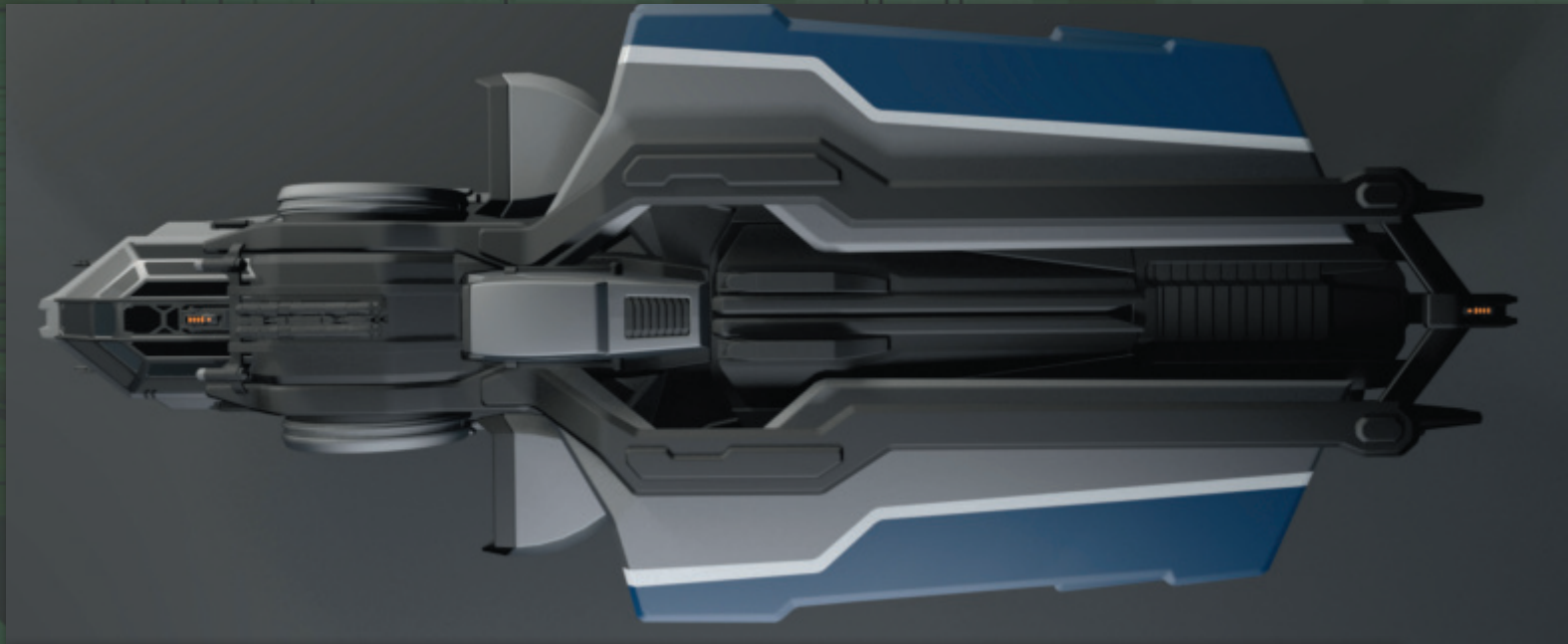
# 3.0 Ship Updates: Aurora



WORK IN PROGRESS

**Elwin Bachiller, Lead Vehicle Artist (LA):** Aurora Greybox Modeling Update

**Chris Roberts:** Looking much cleaner! Looking forward to seeing the interior update, too plus new materials & damage! Have we done any adjustment on itemports that may be needed now we have proper metrics for them?



**Elwin B:** Here is a view of all the item locations on the ship. I adjusted the location of the whisker guns to prevent them from colliding with the ground and to give the silhouette a more streamlined feel.

WORK IN PROGRESS

**RSI**  
AURORA UPDATE WIP



**Elwin B:** Close to final exterior, will move on to doing damage followed by the interior redo. *[this page and next page]*

**Chris R:** Looking really GOOD, Elwin! Nice work – folks will be super happy and our most common ship can hold its chin up next to the newer kids!

**RSI**  
AURORA UPDATE WIP



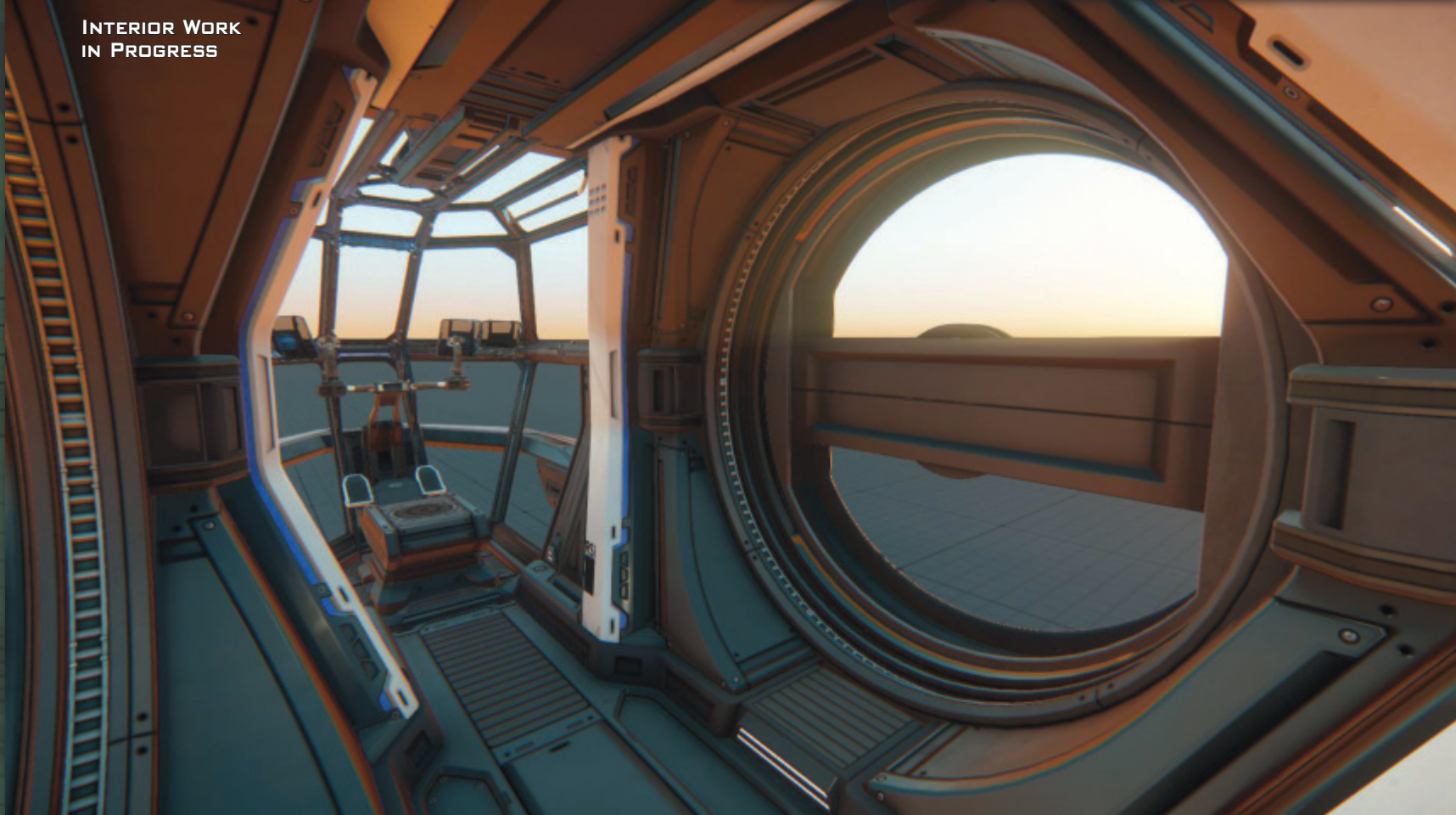
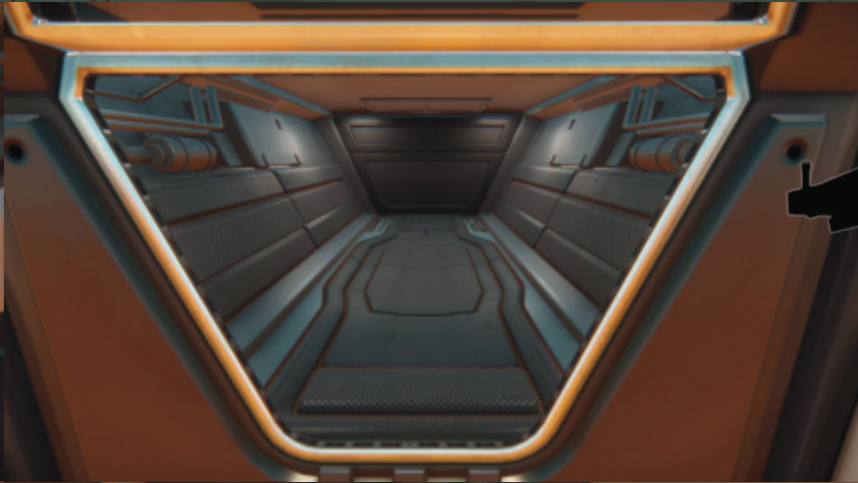
**RSI**  
AURORA UPDATE WIP



WORK IN PROGRESS



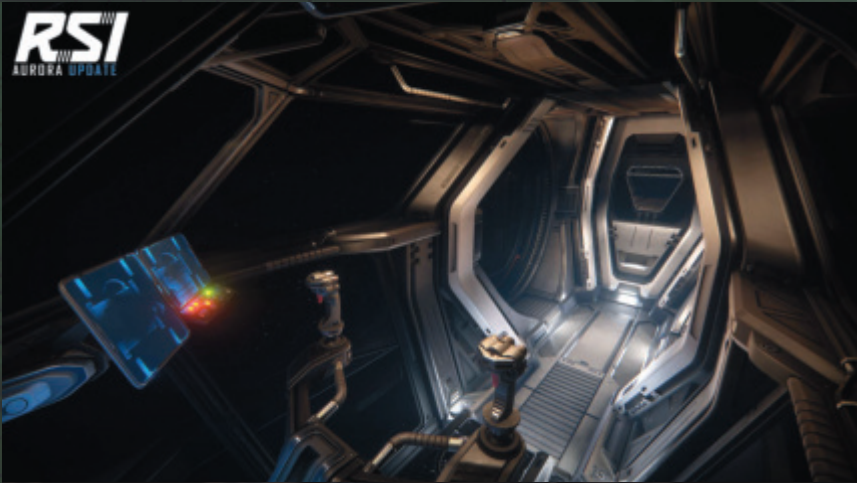
WORK IN PROGRESS



INTERIOR WORK  
IN PROGRESS

WORK IN PROGRESS

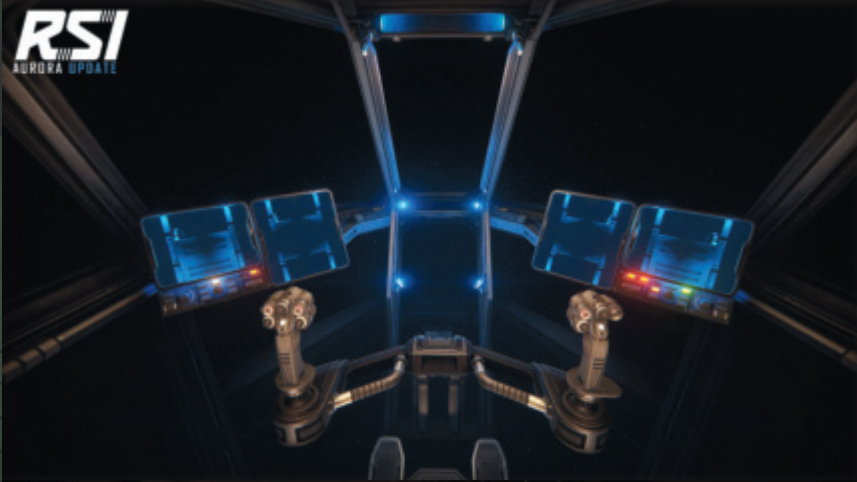
**RSI**  
AURORA UPDATE



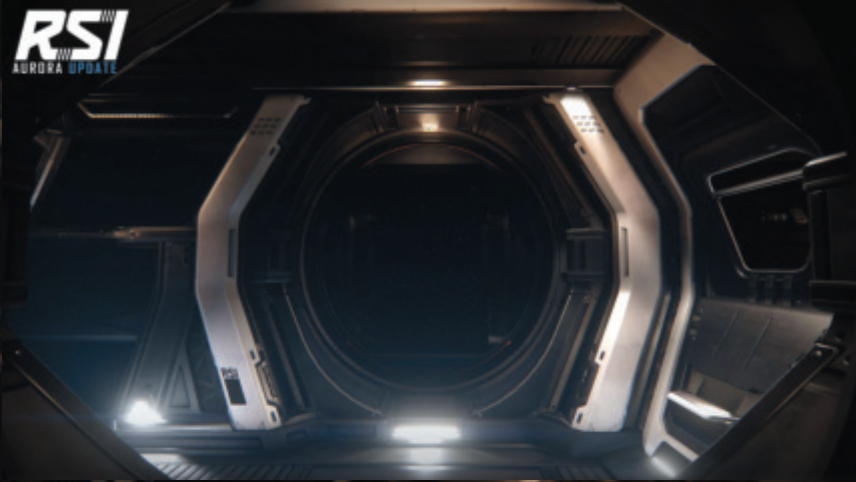
MORE INTERIOR WORK  
(PILOT SEAT REMOVED  
IN THESE SHOTS FOR  
VISIBILITY)



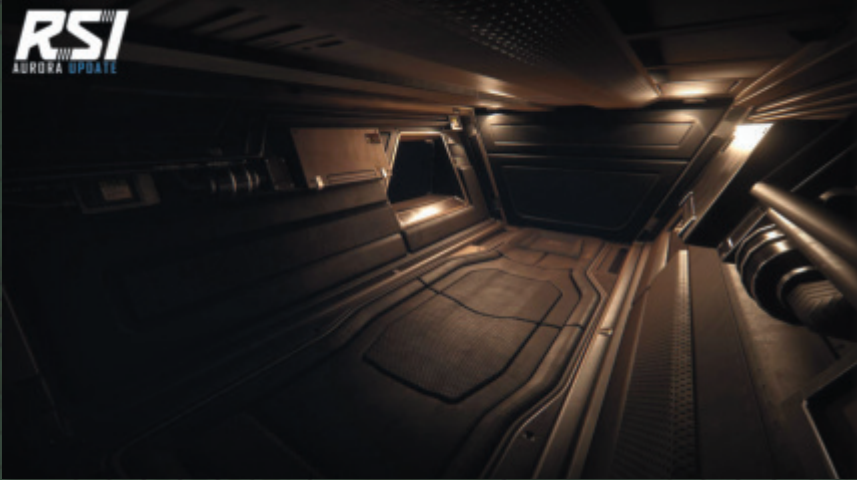
**RSI**  
AURORA UPDATE



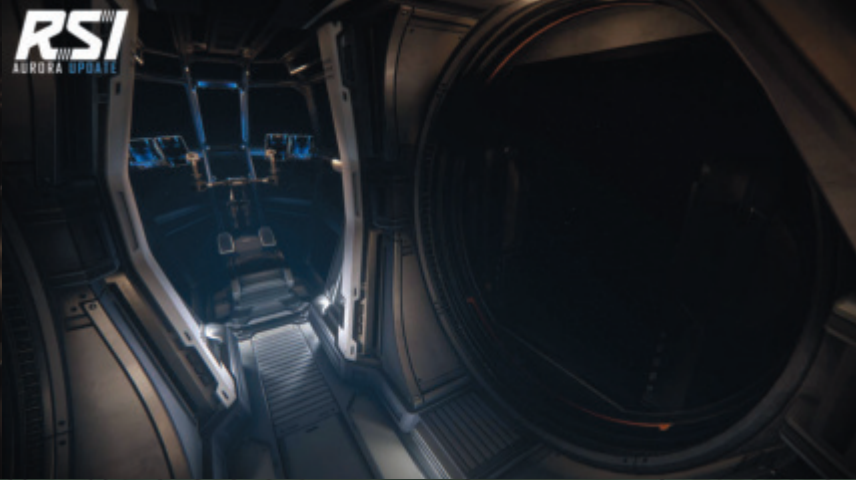
**RSI**  
AURORA UPDATE



**RSI**  
AURORA UPDATE



**RSI**  
AURORA UPDATE

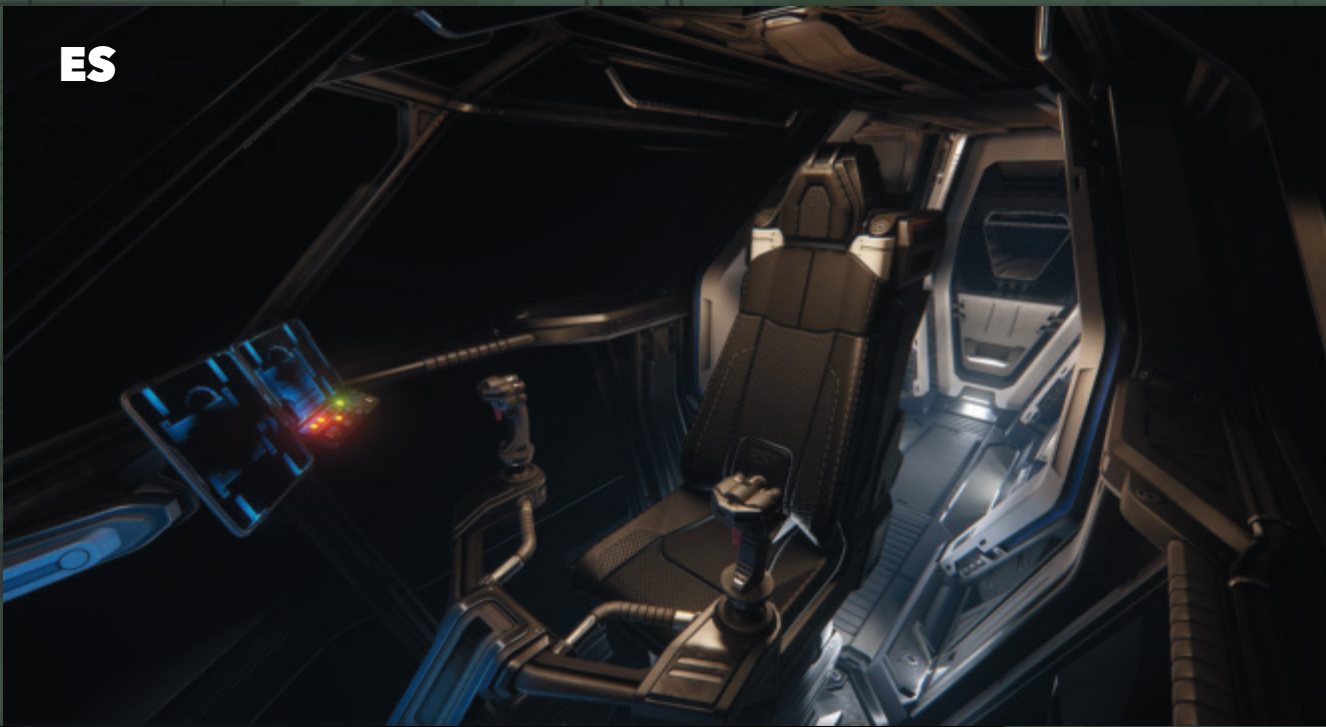


SYSTEMS  
WORK IN PROGRESS



**ES**

ECONOMY (ES)  
AND LUXURY (LX)  
PILOT SEATS



**LX**



WORK IN PROGRESS

LOD 0

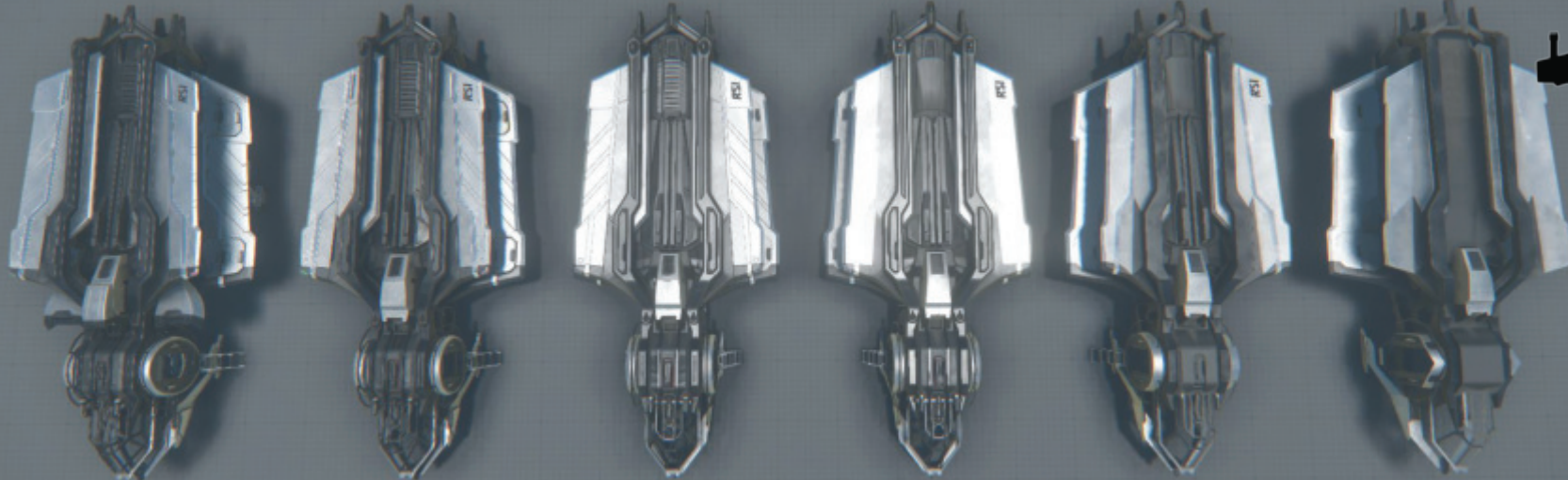
LOD 1

LOD 2

LOD 3

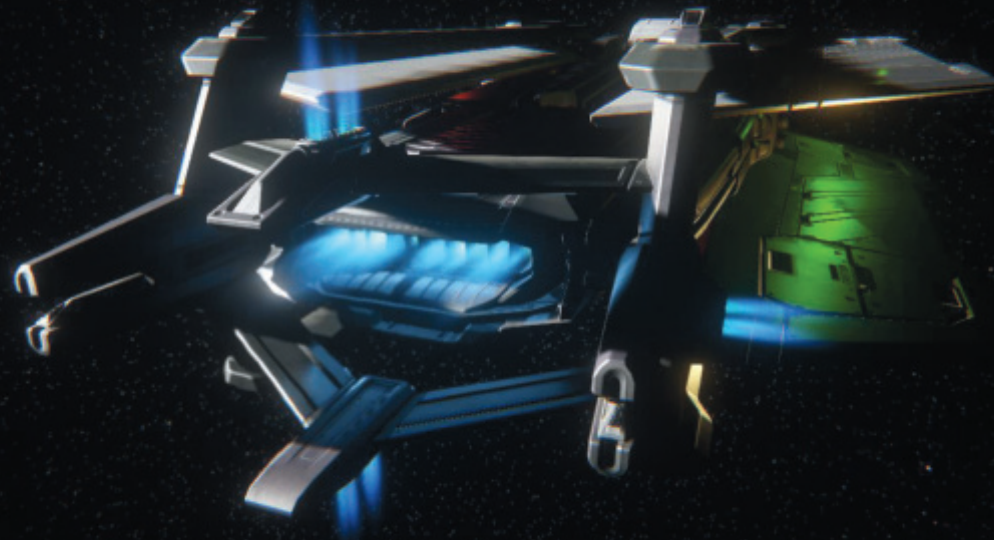
LOD 4

LOD 5



LEVELS OF DETAIL (HIGH TO LOW)

ES LIGHTING



WORKING IN THE DARK



ENGINE WORK IN  
PROGRESS



WORKING IN PROGRESS

# Current Versions & Liveries ...

ES



WORK IN PROGRESS

MR



WORK IN PROGRESS

CL



WORK IN PROGRESS

LN



WORK IN PROGRESS

LX



WORK IN PROGRESS



Big Benny



Crash  
Test



WORKING IN PROGRESS

Midnight



Operation  
Pitchfork



WORKING IN DARKNESS

Pirate



Signature



WORK IN PROGRESS

Star  
Kitten



UEE Navy



WORKING IN DARKNESS

# 3.0 Ship Updates: Constellation Aquila



**Chris Smith, Lead Ship Artist (ATX):** I have the front pretty much fleshed out. I'm also playing around with some alternative color schemes (slight teal main color with orange stripes as of now).



Next, I'm moving on to the radar station which will take the place of the top turret (or the turret will be converted to a radar station itself).

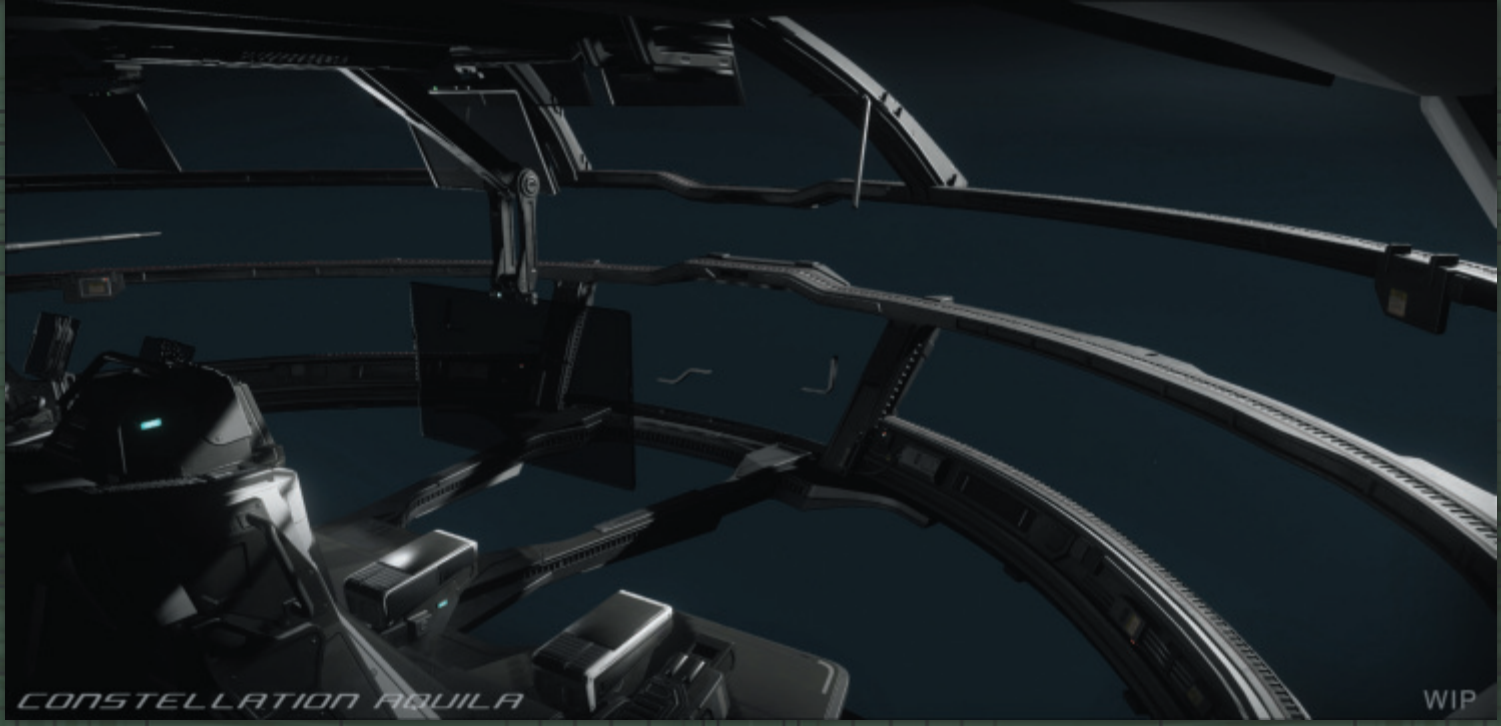


WORKING IN PROGRESS



CONSTELLATION AQUILA

WIP



CONSTELLATION AQUILA

WIP



WORKING IN PROGRESS



CONSTELLATION IN QUANTUM TRAVEL



AQUILA VFX



23

WORKING ON THE FRONTIERS

**Chris S:** Current shots for the Connie Aquila. [this page and next page]



WORKING IN PROGRESS





WORKING PRIORITIES



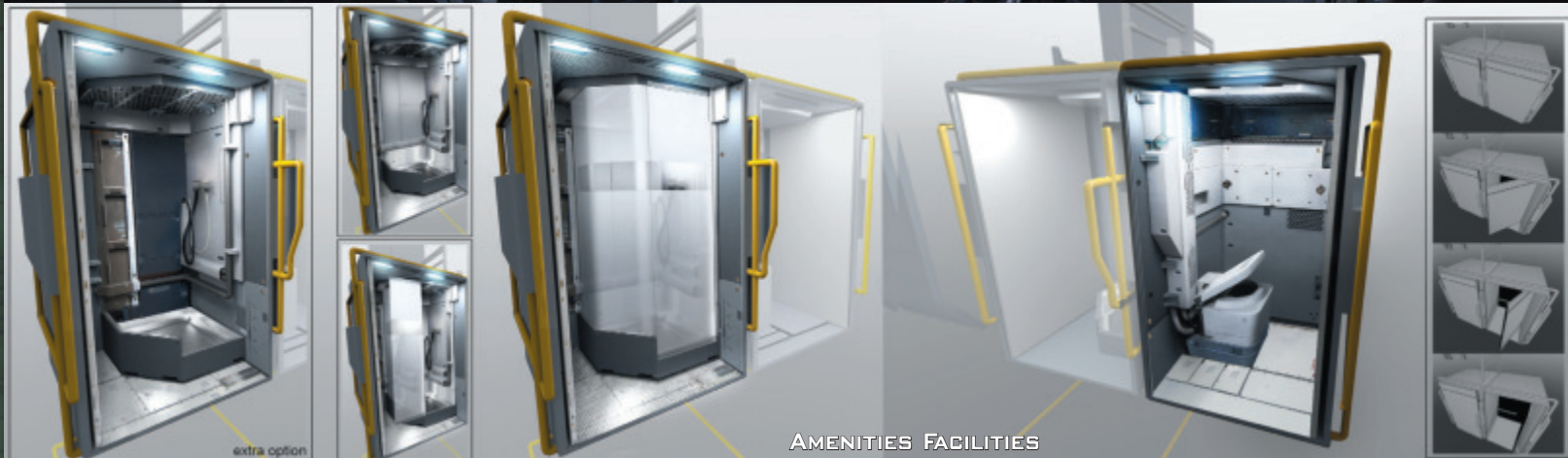
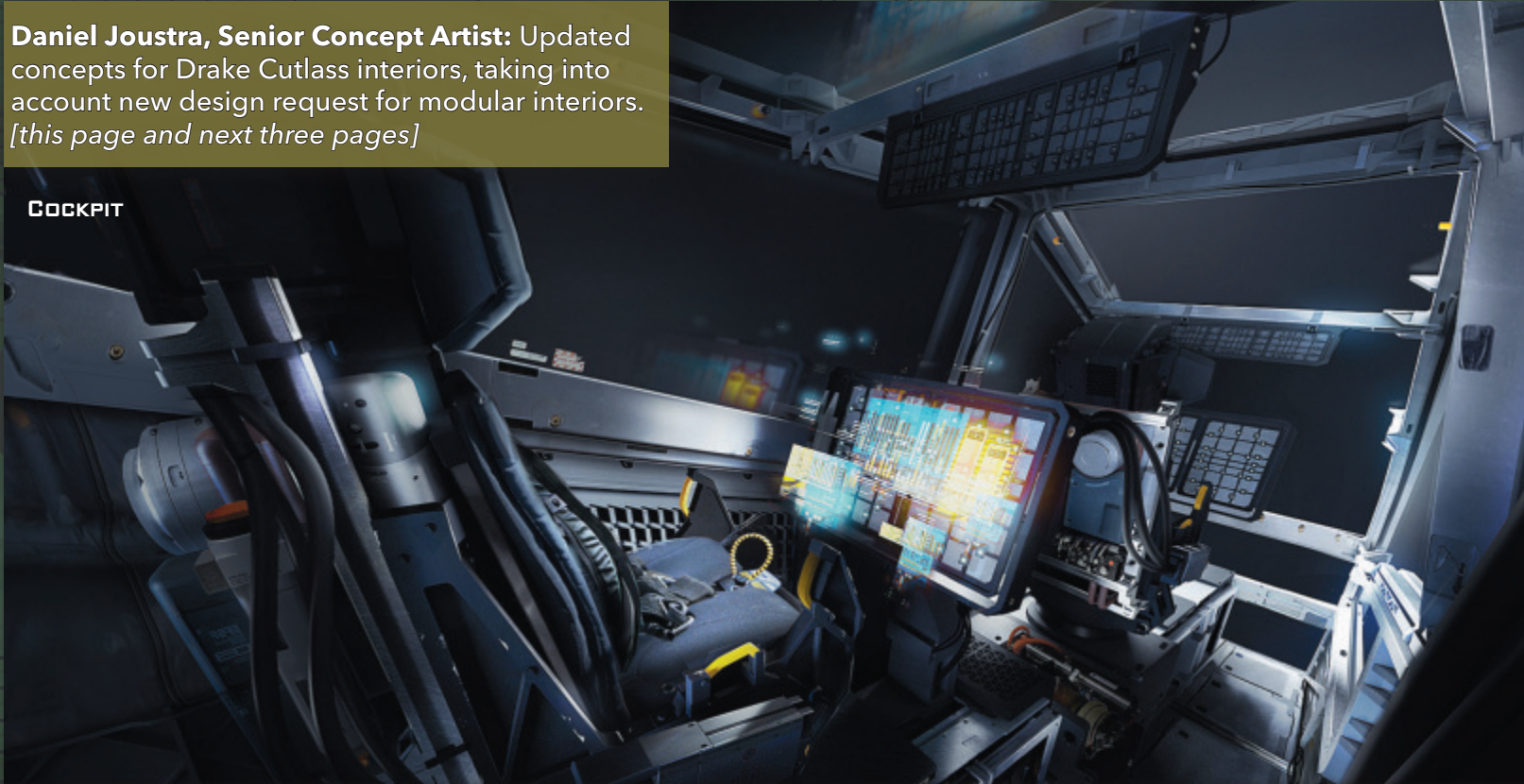
CONSTELLATION  
AQUILA

CURRENT AQUILA

# 3.0 Ship Updates: Cutlass

**Daniel Joustra, Senior Concept Artist:** Updated concepts for Drake Cutlass interiors, taking into account new design request for modular interiors. [this page and next three pages]

COCKPIT

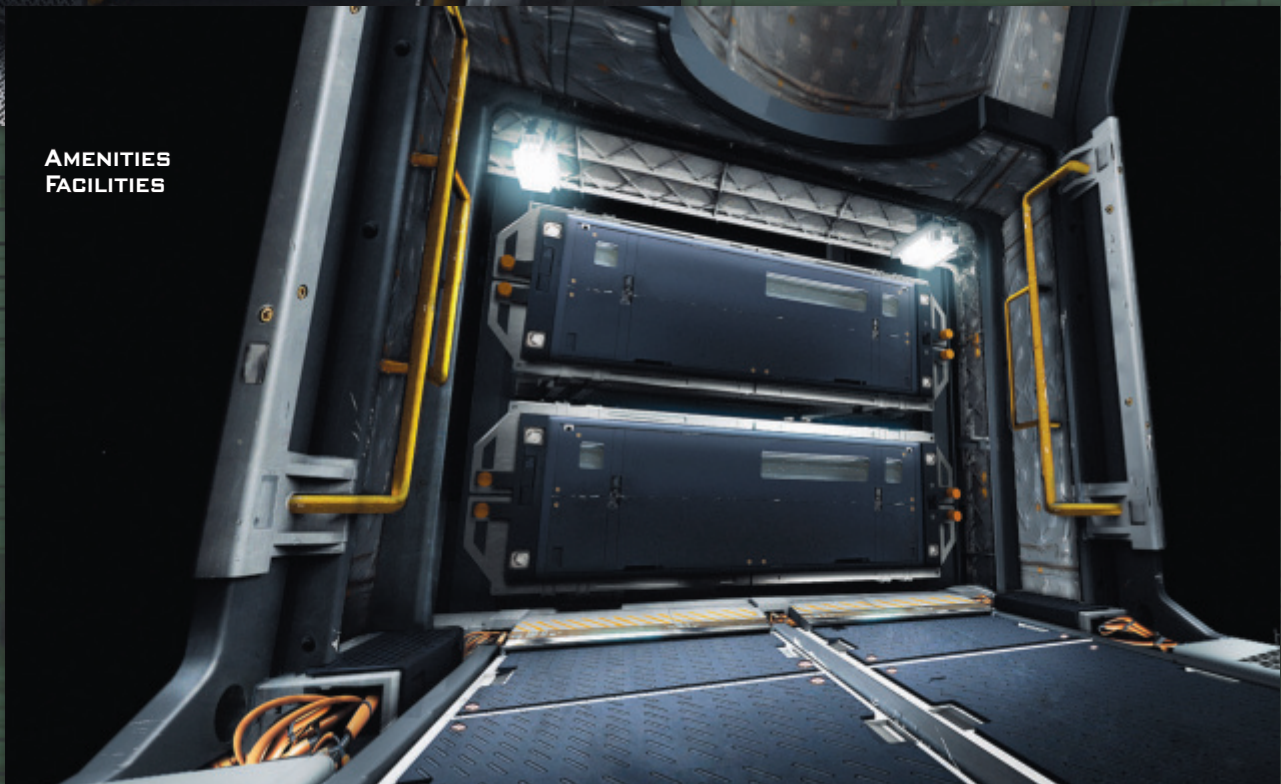


WORK IN PROGRESS

AMENITIES FACILITIES



AMENITIES  
FACILITIES



WORKING PRIORITIES

CARGO HOLD



CREW QUARTERS



WORK IN PROGRESS



CREW QUARTERS CEILING



WORK IN PROGRESS



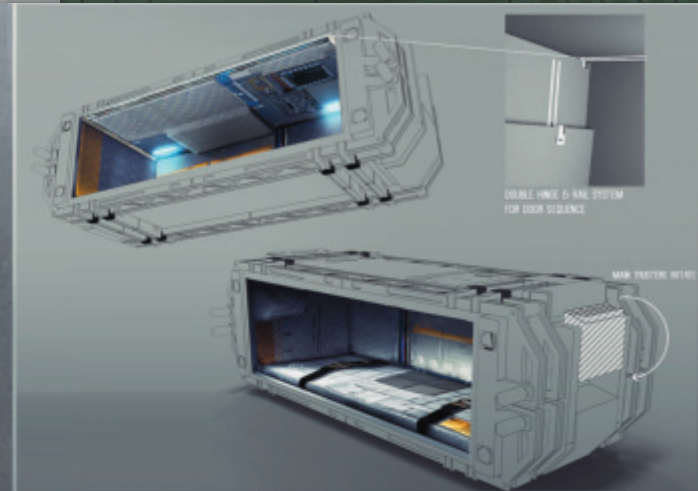
ESCAPE POD

ROW 1 LIGHTS

HEAT DECORATION

OPEN CLOSE BUTTON

SECONDARY / NAVIGATIONAL THRUSTERS



DOUBLE HINGE & RAIL SYSTEM FOR DOOR SEQUENCE

MAIN TRACTOR MOTOR

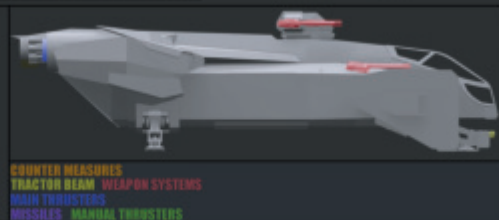


PLUNGE SEQUENCE

OPENING SEQUENCE - SHARPEN PARACHUTE IN UP POSITION - CANCEL JETTISON



**DRAKE CUTLASS BLACK**  
V:2



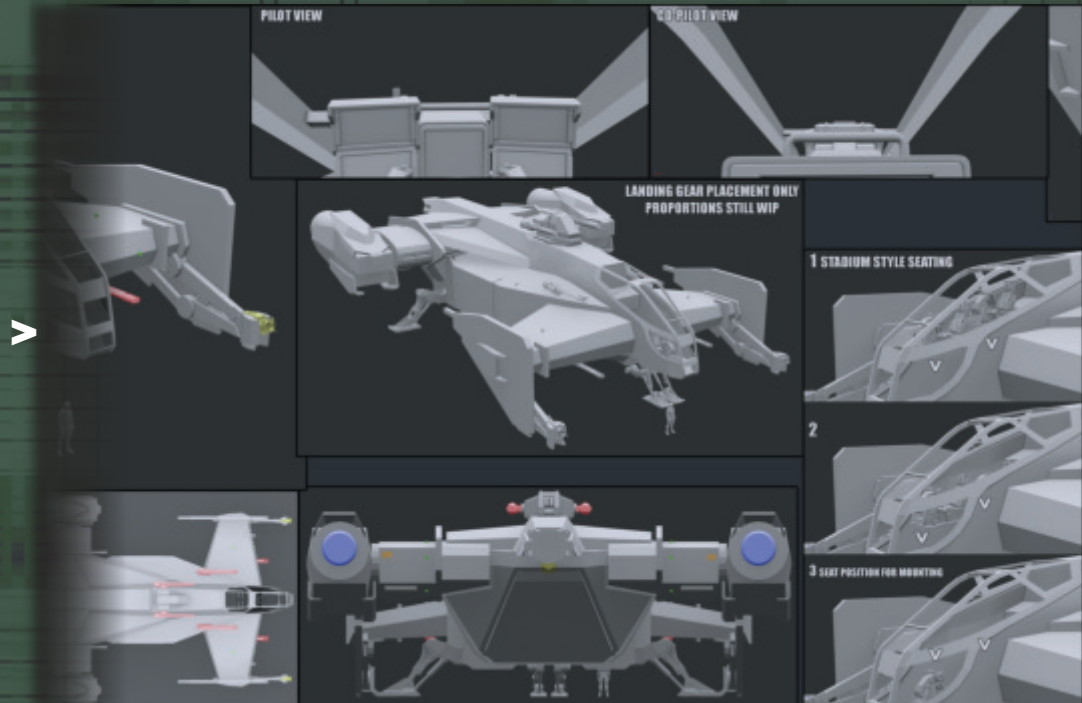
COUNTER MEASURES  
TRACTOR BEAM  
HIGH THRUSTERS  
MISSILES  
WEAPON SYSTEMS  
MANUAL THRUSTERS



**Josh Coons, 3D Modeler:** Here is an overview of the Drake Cutlass Black whitebox. I have pushed the ship's proportions back to the original concept.

I blocked out general locations for the ship components. Missiles for the Black moved to the top to make all variants share the same location. Landing gear is location only.

I will be tweaking the geo to fit better with the ship, front wings provide a static skid for support. Pilot and copilot may now enter/exit their seat from either side and now raise from the floor into a stadium-style seating arrangement for a better view.



WORK IN PROGRESS



**John Crewe, Lead Technical Designer:** Do we have any plans to fix up the wonky mav [maneuvering] thruster placement from the current one? I had to shoehorn some extra lateral ones in on the front wing sides to make it even fly, which weren't accounted for in the original concept or here. Especially with the lack of the central thruster, there seems to be no way to strafe left/right.

The missile racks being integral is fine, but means we lose the ability to swap them out with the modular racks we've made to give more options in terms of size/load-out and restricts it to just swapping between sizes.

**Matthew Sherman, Technical Designer:** The integrated racks should still be able to break down to the standardized sizes for racks that were designed, so we shouldn't lose any options there, but it's something that'll be kept in mind with the build out.

Mav thruster placement is definitely getting reworked, once the revised sizing of the whitebox is signed off on. I'll be going through and doing a pass to add a few along the mid-body to compensate for the removal of the side-can thrusters.

One other note on the mavs, at least on the front wings, instead of placing all 3-4 into a single clump, we'll be spreading them around the full area of the wing, so it'll be far less likely to have a single lucky shot take out a full bank of thrusters on the ship.

**Chris R:** Main engines feel like they have shrunk compared to the concept.

I wouldn't make the front wing be quite so thick. I assume we would round / smooth out the edges as we further develop the model?

I think you'll need a little more clearance on the landing gear from the bottom of the hull to give enough room for the side fins on the front wing – although perhaps don't have the side fins drop as low?

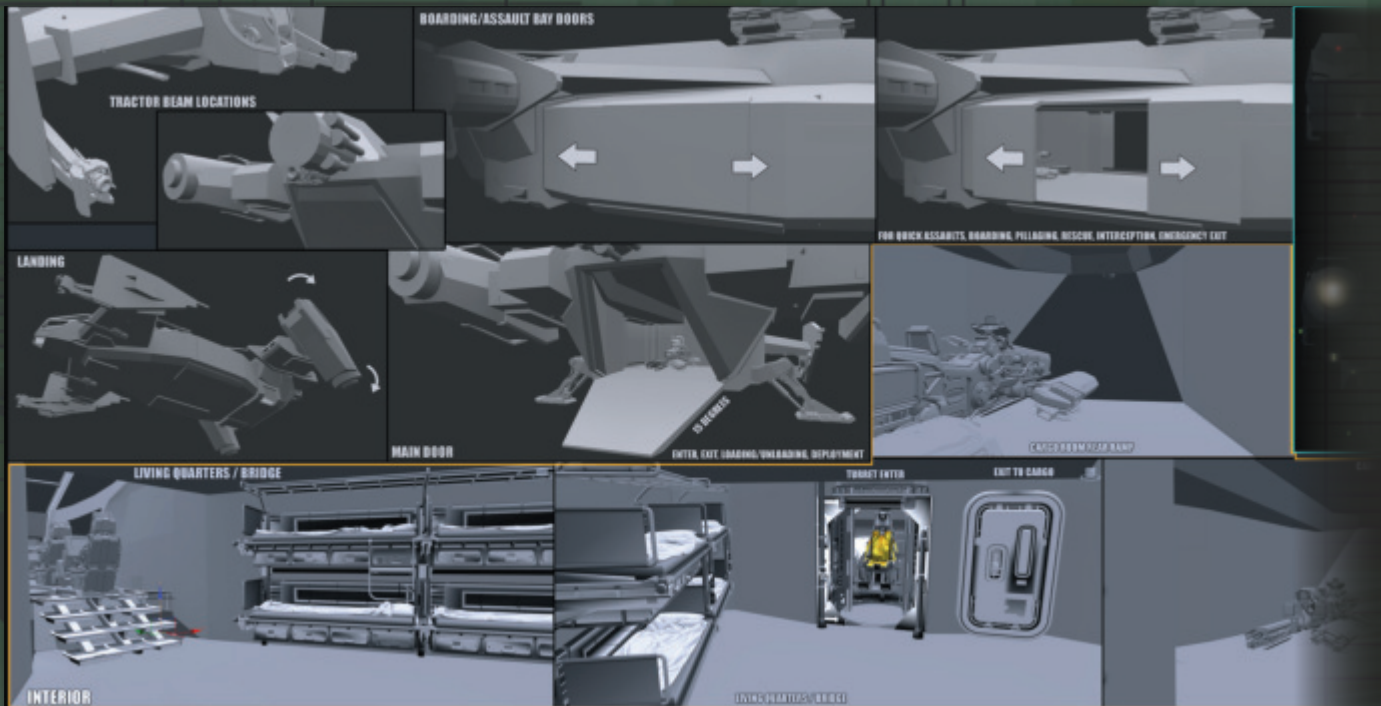
**Josh C:** I haven't put as much work into the engines yet. They do VTOL right now. Currently the end nozzle is flush (with some clearance) when in landing mode. I'll push them to make them more beef.

Roger on the wing thickness, ill deform it down.

Oh, it gets so smooth! That's what I'm doing now.

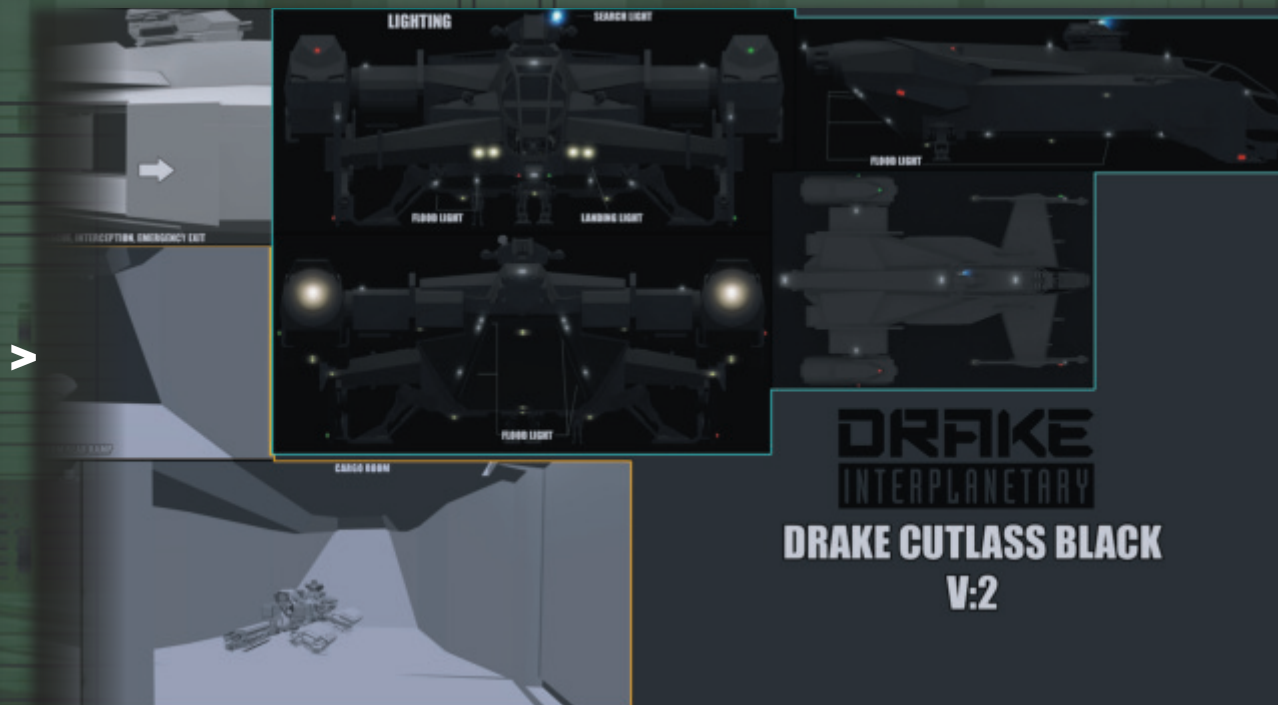
I intended for the side front wings to serve as support skids for landing. If you don't like that idea, I can totally give it more clearance. I'm trying for a dynamic, less flat shape with those front wings. They arc down slightly while the rear end arcs up till it hits the engine attachment point.

**Hannes Appell, Cinematics Director:** For landing gear clearance, it might be good in general to have a test terrain to test landings on. Saw this with the Connie too, in Homestead. Both will have difficulty touching down somewhere that is not flat.



**Josh C:** Main bridge and living space quarters separated by bulkhead. Intent is to have living quarters/bridge the same across the variants. The cargo area will serve as the swappable section for variants.

Rear door set at 15° and serves as main exit/entrance. Side doors used for boarding/assaulting/rescue/interception/evacuation and general piracy. Lots more space to play with interior wise. Base lighting locations with floodlights for ship when on the ground.



**DRAKE**  
**INTERPLANETARY**  
**DRAKE CUTLASS BLACK**  
**V:2**



**WORK IN PROGRESS**



## DRAKE CUTLASS BLACK WIP

UV/SMART NORMALS IN PROGRESS



GRAY BOX



**Josh C:** Drake Cutlass Black Greybox Update

UV/smart normals, materials and modeling still in progress.

**Chris R:** Shaping up nicely! Cutlass owners will be very happy!

**Josh C:** Ty, ty! Really digging this ship.

## CONTRAILS

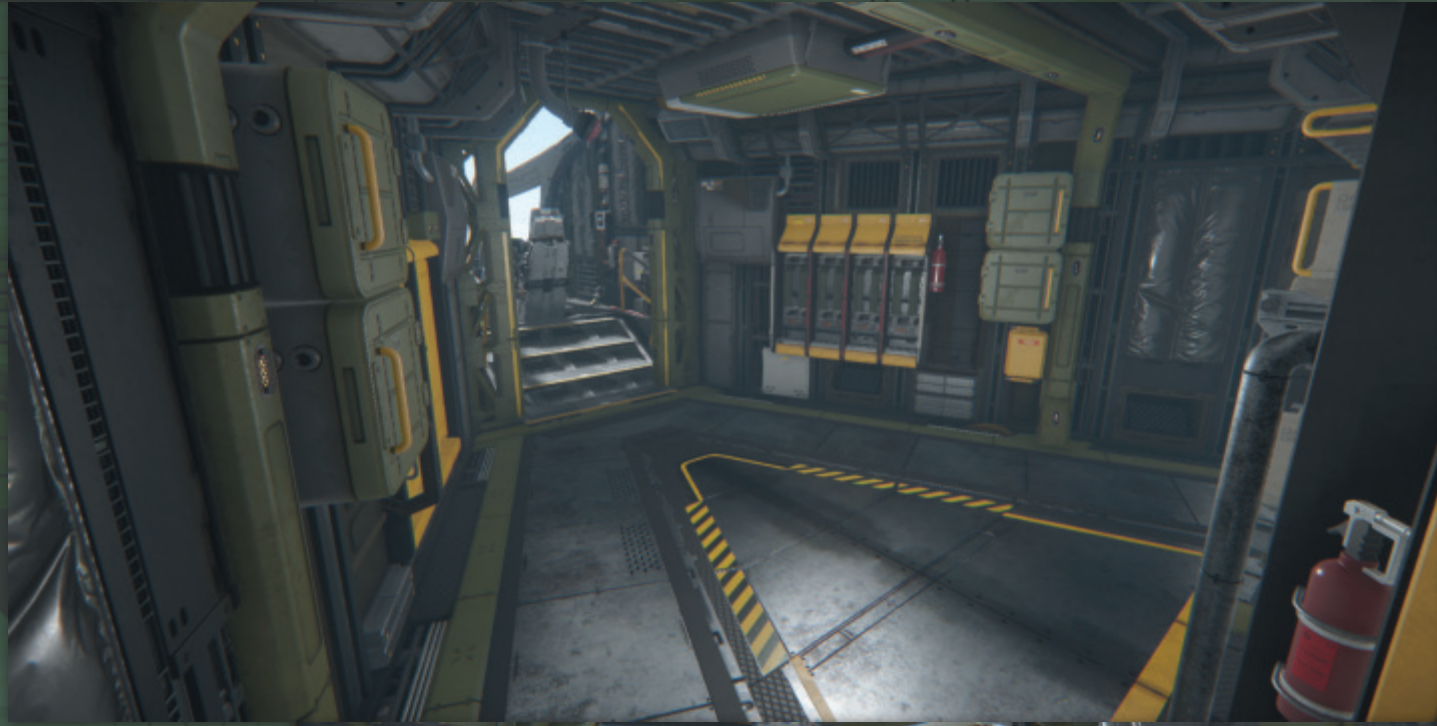


## THRUSTERS

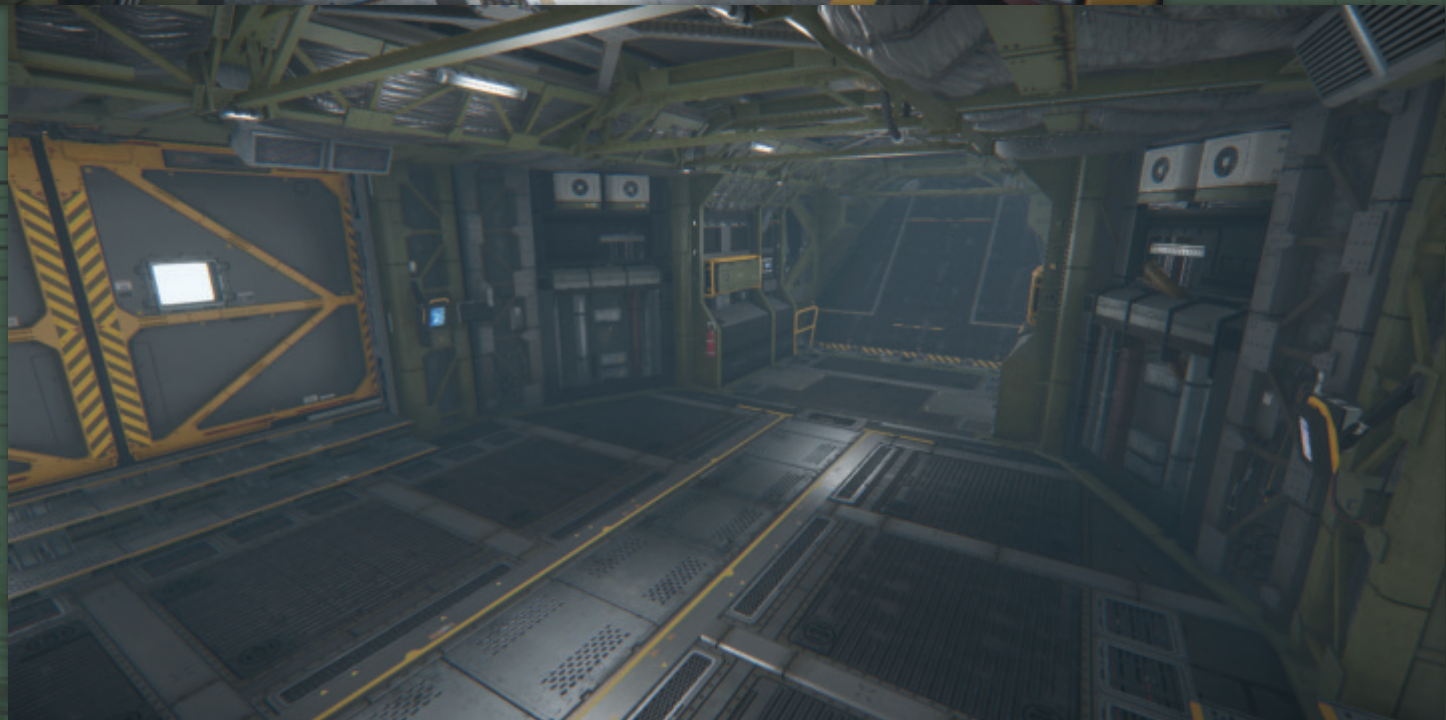


See Game 33 - 100% complete and polished!

WORKING IN PROGRESS

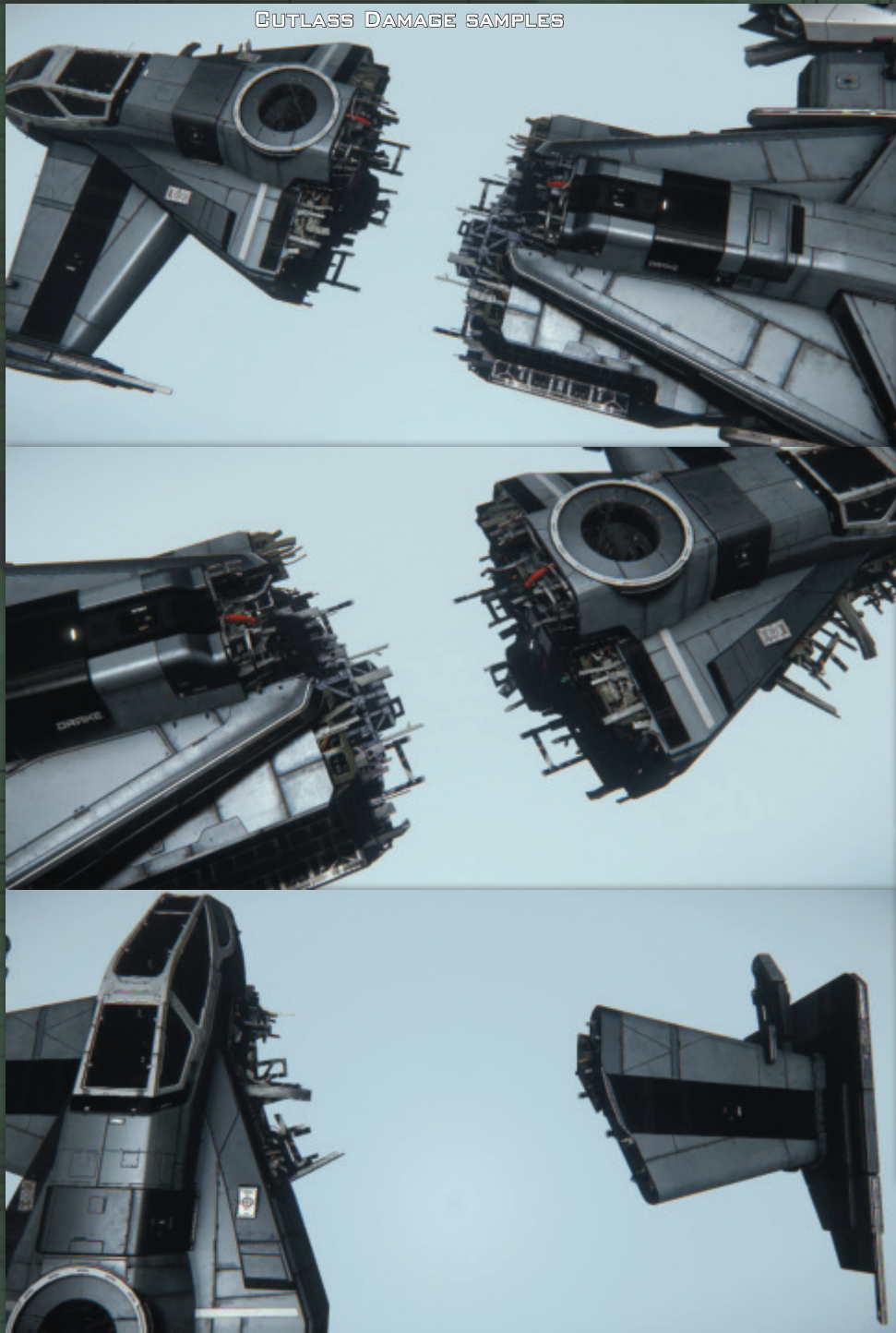


INTERIOR

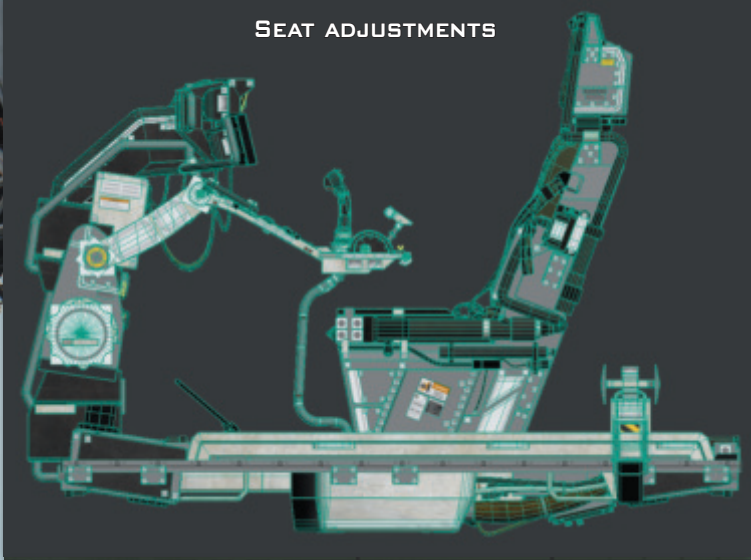


WORK IN PROGRESS

CUTLASS DAMAGE SAMPLES



SEAT ADJUSTMENTS



WORK IN PROGRESS

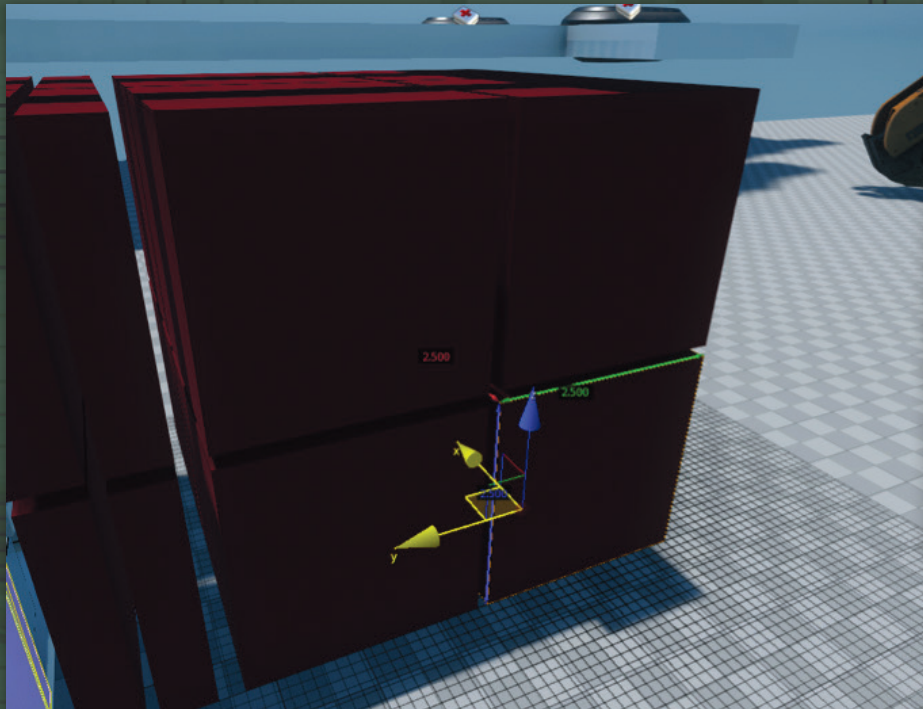
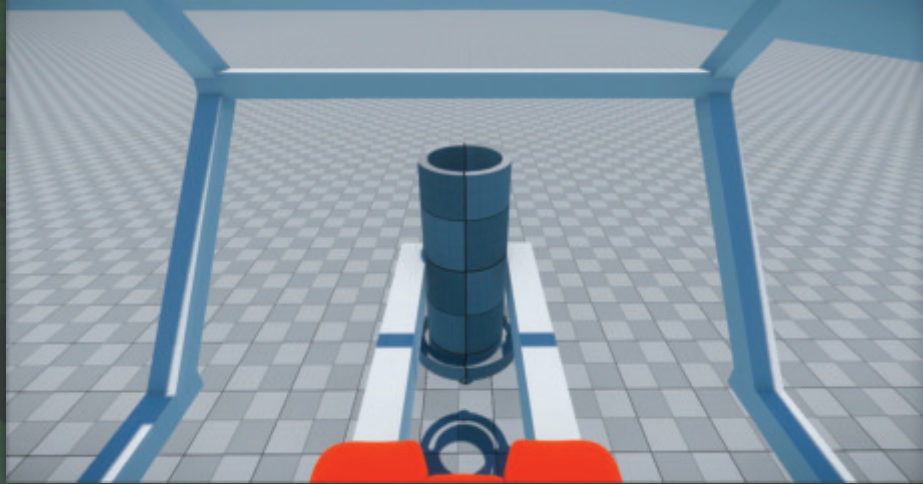


WORKING IN THE DARK

CURRENT CUTLASS



# 3.0 Ship Updates: Prospector



## COCKPIT REQUIREMENTS

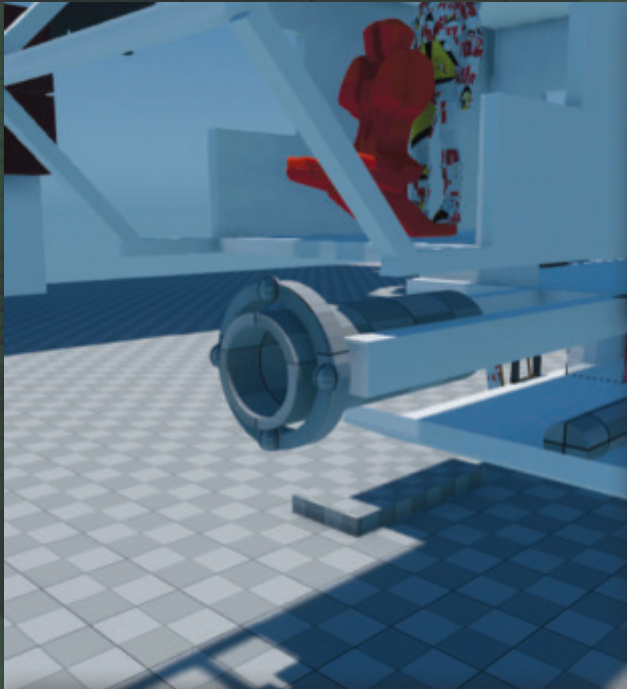
- Needs very good visibility in a 180° arc.
- Seat partially suspended above a glass floor – enough to be able to see the mining laser hitting the ground.
- Seat must be able to rotate 180° in unison with the mining laser arms.
- Good ground clearance – enough to mine planetside and give the mining laser a good couple meters of clearance.
- Ability to look (maybe tilt) forwards and view the laser mining down into the ground.
- Sealed cockpit, no ejection.
- Space for extra mining screens.

## CARGO REQUIREMENTS

- Ability to pipe the ore from the mining laser to eight (2.5m x 2.5m x 2.5m) crates that are exposed (not contained internally, like the Starfarer) on the ship.
- These crates should be able to be detached both planetside and in space.
- Needs storage for eight spare “collapsed” crates (currently 2.5m x 2.5m x 0.5m). These will unfold and move into place where the old crates were if they are detached.



WORK IN PROGRESS



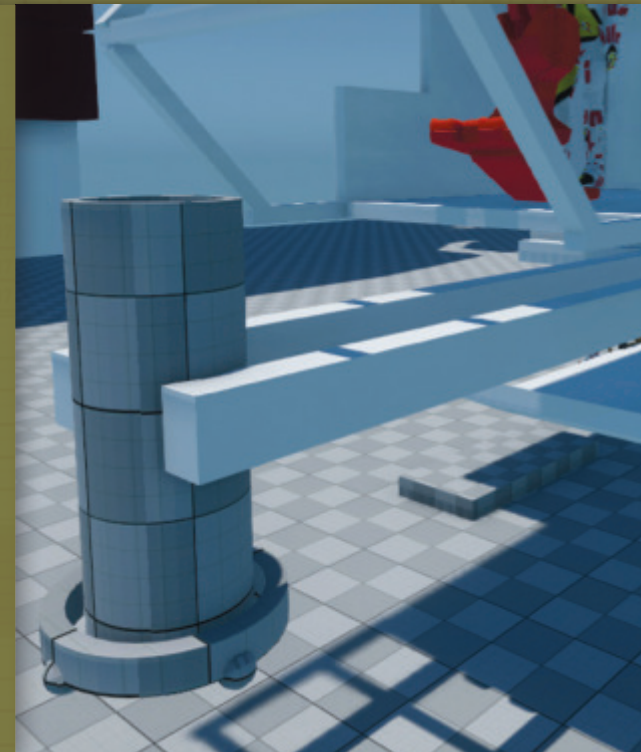
## MINING LASER REQUIREMENTS

- Default state should be retracted for mining in space. *[upper left]*
- Second state should be with the arms extended and the mining laser pointed to the floor for deep mining planetside. *[lower right]*
- Mount should allow it to gimbal slightly.
- Arms should have pipes on them for collecting ore from the laser's tractor beam.
- Arms should be able to pivot left and right while in planetside mode.
- Mining laser design spec (below).
- Suggestion: perhaps have some blast shielding that can slowly extend to protect the ship/cockpit as the beam power is intensified?

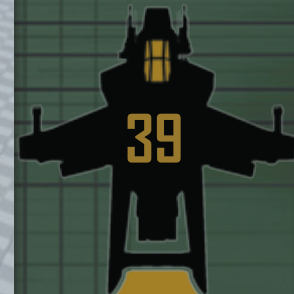
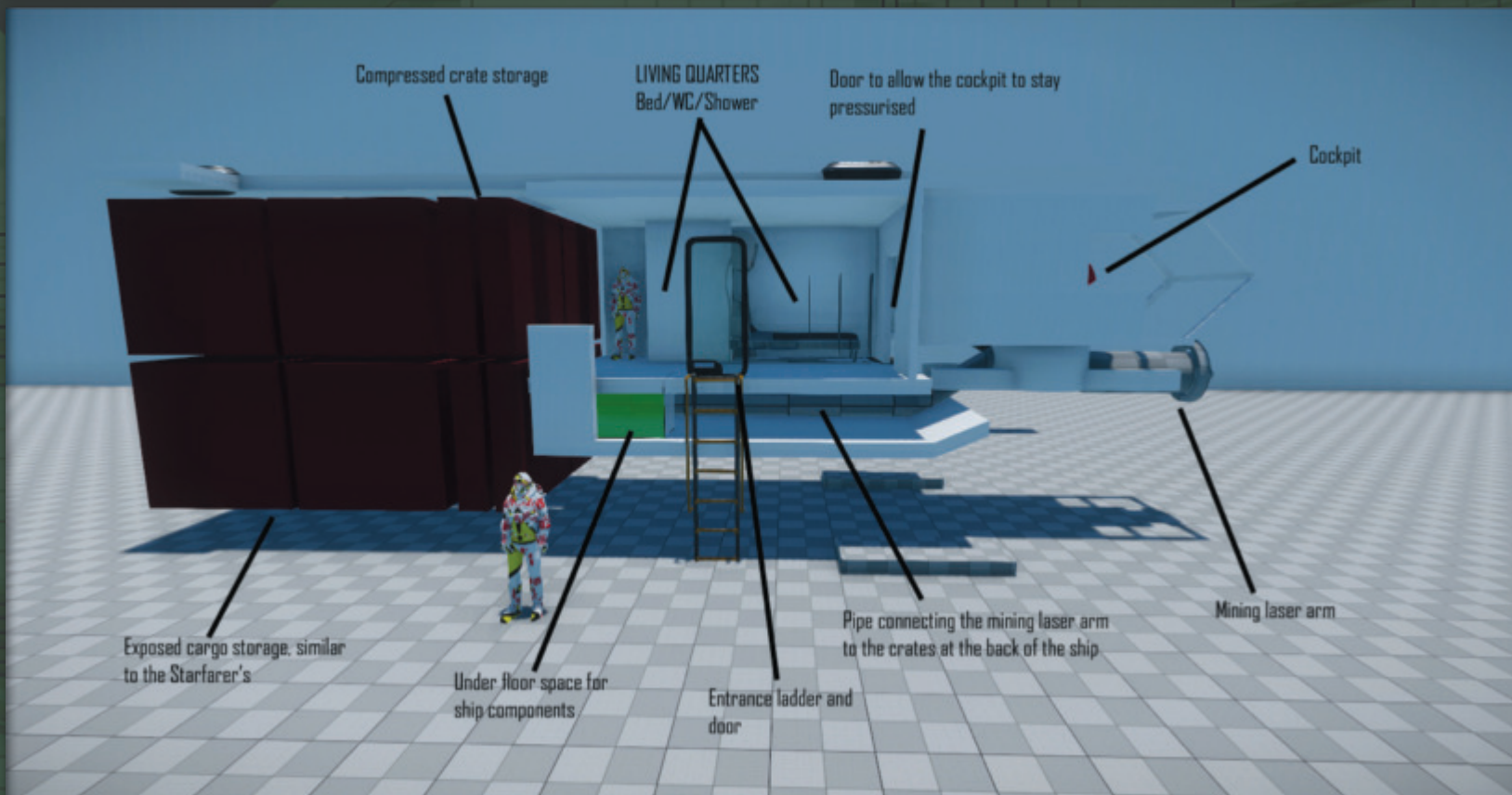
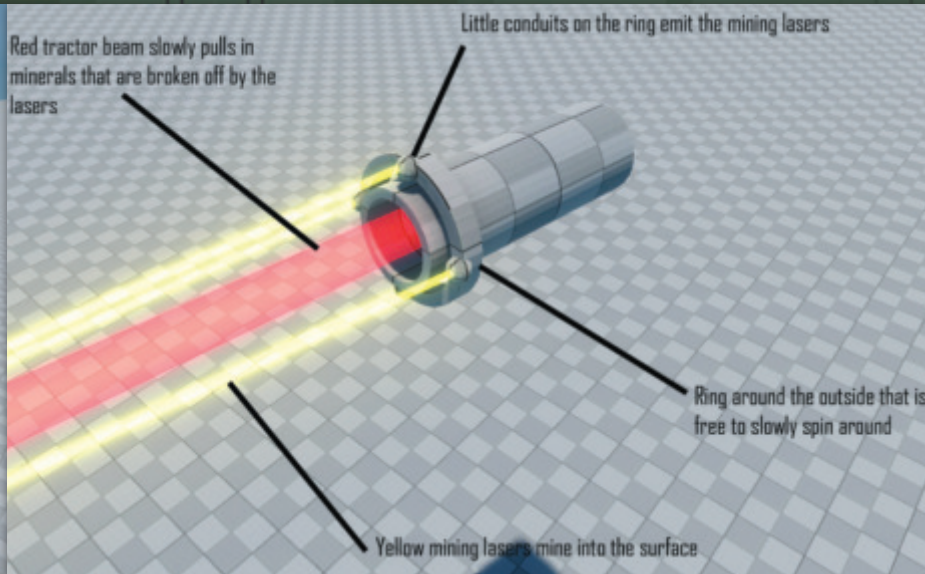
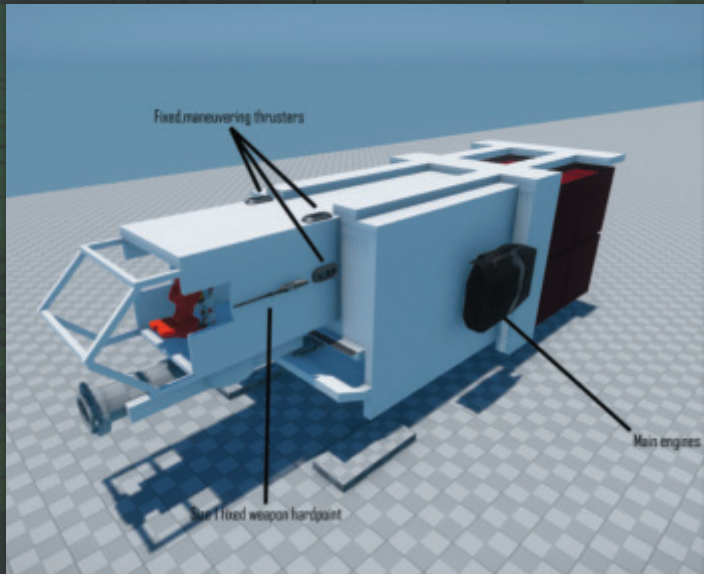
## MINING LASER OBJECTIVES

**Jonny Jacevicius, Technical Designer:** A device used to break down asteroids and planet surfaces, then tractor in valuable minerals, liquids and gases.

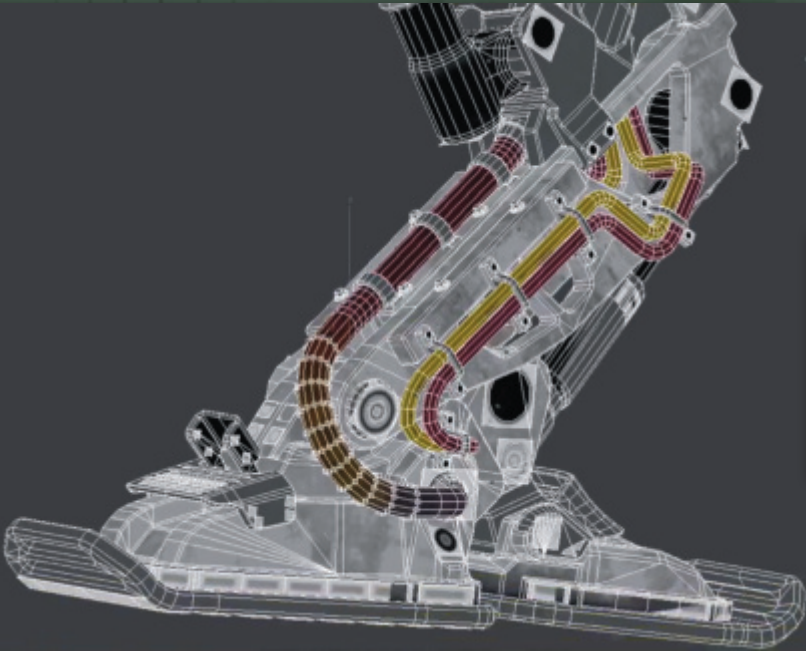
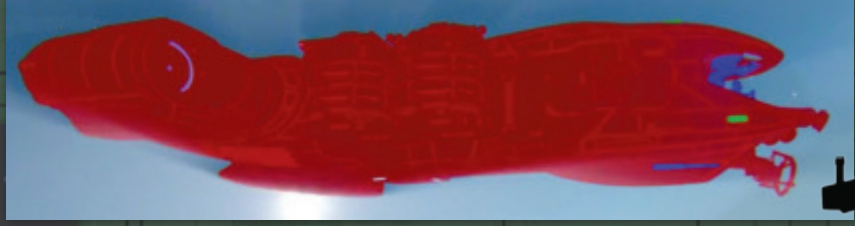
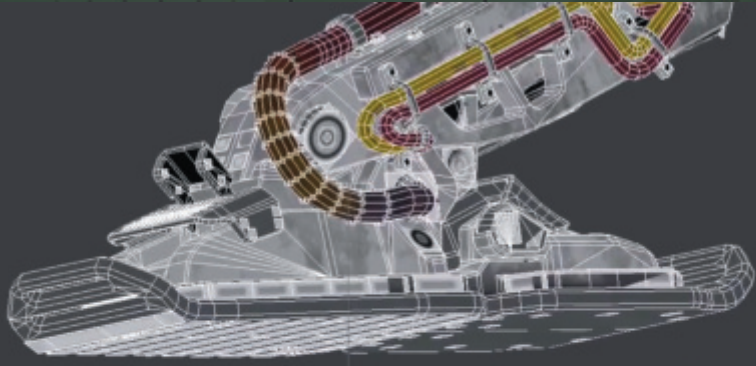
- Ideal use case
  - \* Used for surface mining in space, or deep core mining when landed
- Key Beats
  - \* Combines both mining lasers and a tractor beam
  - \* When the ship is in a landed state, can be powered higher to mine deeper into surfaces
- Special Functionality: new code required for:
  - \* General mining mechanics (breaking apart asteroids/ore)
  - \* Tractoring in broken-up minerals
  - \* Two states or modes, one for planetside and one for in space
  - \* Laser convergence on point of impact
  - \* New power & heat balance mechanic – have to change the amount of power the laser is using depending on what you're mining (it'll either be ineffective or overheat often)
- Animation Callouts
  - \* Rotating outer circle that houses the mining laser beams



WORKING PROGRESS

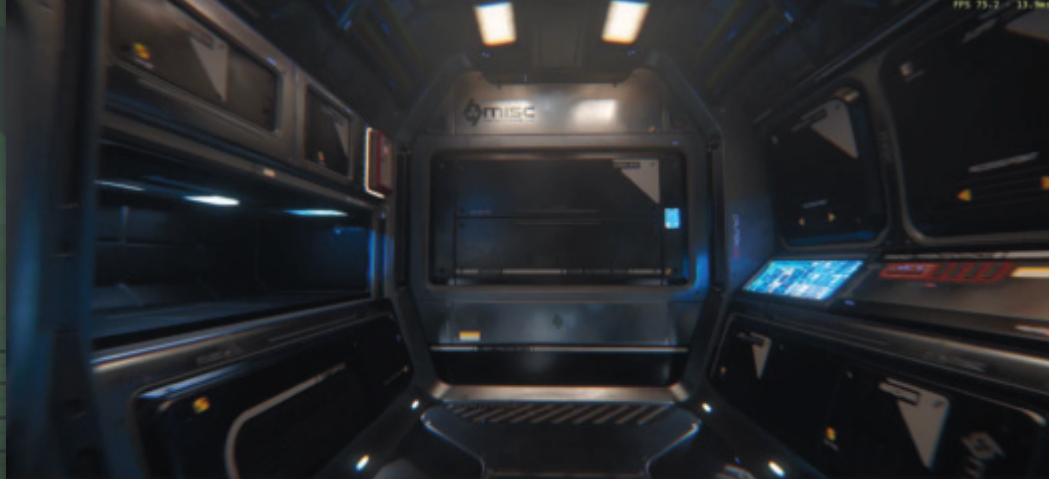


WORK IN PROGRESS



WORK IN PROGRESS





### Explosion

This ship is using the high tech explosion effects set, giving the more high tech ships a more futuristic feel.



WORKING IN PROGRESS



WORKING IN THE DARK

CURRENT PROSPECTOR





**ROBERTS SPACE INDUSTRIES**



In the pantheon of enduring corporate entities, one would be hard pressed to find a company that has become as entwined with Humanity's development as Roberts Space Industries. Whether sailing through the cosmos or walking down your average street, RSI's contributions to our society are everywhere, but not many know the origin of this institution of innovation.

## The Beginning

While most corporate endeavors begin with a dream and a single product, entrepreneur Chris Roberts' dream was to create a culture that would foster creativity and inno-

vation – one that would change with the times and continue to look to the future. His goal was nothing less than a company that would stay consistent and relevant in the marketplace regardless of whether it was next week or a thousand years down the line.

The great irony was that although the company became synonymous with a wide array of spaceships and terraforming, the 'Space' in Roberts Space Industries was an aspirational reflection of where Humanity could evolve to, rather than the company's actual focus. The first product RSI released in 2043 was actually a hyper-efficient battery converter for ground-based civilian vehicles.

THE BEGINNING

Officially formed in 2038, Roberts Space Industries' founder, a young and enterprising inventor named Chris Roberts, established the core tenets of the company's philosophy long before he began working on his first creation:

*Learn from the past*

*Reach for the future*

*Fuel innovation*

*Cultivate talent*

*Always be relevant*

The Earth of the 21st century was a vastly different world than we know today. Although Humanity had travelled to space, it was a rare event and so cost-prohibitive that it was only possible for a few of the various ruling provinces of the era. The truth was that Earth was reaching a critical mass of overpopulation. Numerous wars erupted across the planet as the populace faced food, water and energy shortages.

Roberts looked for innovators from a variety of disciplines to join his team in an attempt to alleviate some of issues of the day. Some of RSI's initial products ranged from a compact water-purification system to an energy-efficient power network. There was even a small expansion into cricket farming.

Although his company found modest success in these endeavors, Roberts refused to be complacent and continued to seek out greater innovations. In 2061, while studying a recent crop of doctoral dissertations from a prestigious engineering school, he came across the work of Dr. Scott Childress, whose thesis envisioned exciting work in the field of more affordable engine systems for spacecraft.

The prospect of making space travel more accessible re-awakened a lifelong dream. Roberts quickly met with the fresh graduate and put together a team to help translate

this dream into the real world. Although the process was not without its setbacks, in 2075 Roberts Space Industries unveiled their prototype Quantum Core Engine.

Suddenly, space travel didn't seem that fantastical anymore.

## Building Worlds

The implications of this technology were immediately recognized around the world. Exploration missions were suddenly feasible, as piloted vessels could now push further into the solar system. Various states (called 'countries' at that time) that previously couldn't afford space travel were suddenly able to embark on missions of their own as well.

Roberts knew that although making space more accessible was a giant leap forwards for our species, it still didn't solve Earth's teeming population, which was reaching a critical mass. He pulled together a dedicated team from RSI's various subsidiaries to create their most ambitious technology yet: terraforming a planet. This scientific conundrum became Roberts' obsession until he passed away in 2108.

Though terraforming remained elusive in Roberts' life, the new CEO continued to practice his corporate philosophy of seeking out innovators and finally, though it would take two generations of team members and almost forty years, RSI unveiled a technological breakthrough on 2113:04:21 that would lay the groundwork for terraforming a world. With a potential solution in sight, governments of the world, corporations and scientific minds came together to create a global collective focused on terraforming Mars (which at the time was completely uninhabitable). Finally, there was hope of relieving Humanity's desperate population problem.



This project lasted decades and faced an incalculable loss when an accident, known as the Mars Tragedy, caused the deaths of nearly five thousand early settlers. During the glacial pace of this project's sprawling scope, the Chairman's policy of project diversification yielded another spectacular achievement. Responding to issues faced by the terraforming division's efforts to transport resources to Mars, RSI's Astro Development Team created the Zeus, the first commercially available spacecraft.

With Roberts Space Industries now at the forefront of spacecraft and terraforming tech, the company had firmly bound itself with Humanity's development. As decades turned into centuries, terraforming technology would continue to be refined and RSI would expand further into ship development. It seemed like the company was incapable of going anywhere but up. However it turned out that the biggest threat wouldn't come in the form of alien wars or maintaining market relevance.

It would come in the form of Human nature.

## The Dark Age

For many, the ascension of Ivar Messer to Prime Citizen was a welcome change. At the time, the UPE had well-documented scenarios where endless bureaucratic debate completely stalled the government's ability to do anything, so cutting through the dialogue in a single direction wasn't seen as particularly ominous.

Unfortunately, Ivar consolidated his power over the years and subtly removed any checks that could challenge him, making it difficult for most people of that time to realize exactly what was happening. As his son took over the title of Emperor, the Second Tevarin War provided a perfect opportunity to remind the public why they needed decisive leadership.

As the Messers became more and more ensconced in their position, RSI lost their military contracts to Aegis Dynamics, the manufacturer that created the weapons of war favored by Ivar Messer. Several of RSI's divisions still worked closely with the scientific bureaus and terraforming oversight committees, but as a whole, the company converted into a primarily commercial and civilian corporation.

That wasn't to say that RSI was immune from the Messers' wrath. In 2757, the shocking death of Anthony Tanaka reverberated through the Empire. Although the event was never mentioned in any news cycles, footage of the twelve-year-old boy's refusal to work and subsequent execution on a factory floor still made its way through underground activist channels.

RSI CEO Avel Gedima was one of the few prominent public figures who not only acknowledged the sad death, but ordered a complete evaluation of all RSI facilities to make sure that they were adhering to all health and safety standards. A few months later, Ulysses Messer X released 'damning and incontrovertible evidence of corporate malfeasance' to the NewsOrgs, claiming that Gedima had embezzled imperial finances for personal use. The case languished in the courts for years, but the constant barrage of 'evidence' forced Gedima to step down.

## After the Fall

In the wake of the revolution that toppled the Messers, the Empire experienced a period of free fall. The newly installed Emperor Toi and the restored High Advocate and High Secretary were busy trying to ferret out the rotten elements of the government, while the various planets seemed to turn on each other. For awhile, accusations of having collaborated with the Messer became the weapon of choice. Some of these charges were legitimate, but



the unscrupulous used the accusation to escape debts or finally resolve feuds with their enemies. While Aegis Dynamics felt the brunt of the people's fury and were commonly cited as symbols of tyranny, they weren't the only ones to suffer from these witch hunts.

As a company, RSI hadn't exactly prospered under the Messer's rule, but they had maintained their status as a prominent company. Several historians of the era asserted that while RSI didn't actively promote the Messer agenda, they consistently failed to use their considerable influence to decry it.

In response to these allegations, RSI established the Future Foundation, a specific division of the company devoted to charitable foundations and grants, and announced that for the first time since the founding of the company they were going to add a new tenet to Chairman Roberts'

original list of corporate philosophies:

*Stand for good*

## The Modern Age

From their civilian ships like the Aurora all the way up to cutting-edge military vessels like the Bengal carrier, Roberts Space Industries continues to be a constant force of innovation in the vast corporate landscape. Meanwhile, the Future Foundation awards millions of credits a year to help promote education, fund new research and even provide housing opportunities.

By sticking to the core concepts outlined by a visionary entrepreneur almost a thousand years ago, it's clear that RSI is going to be a fixture in Human development for a long time to come.



MEMORIAL

# CITIZEN



L TO R: BENJAMIN ANDERS, GLENN KNEALE, MELISSA ESTRADA, JAMES STEVENS, JAMES BALLANTYNE, JOHN LANG, SAM CHILD, MARK GIBSON, WILLIAM WALLACE, WAYNE OWEN, (CHRIS ROBERTS), ETIENNE ROCIPON, GRÉGOIRE ANDIVERO

## GAMESCOM DEMO

As we might have mentioned a few times before, Gamescom, in Germany, is a really big deal, perhaps the biggest video game convention in the world. Cloud Imperium has developed the habit of not just attending each year, but of giving a special presentation for all the players we can fit into a large ballroom. And that presentation includes a live demo, with all the potential hazards you can imagine when pushing still-in-development software to the furthest extent of its abilities.

The demo this year included twelve brave (foolhardy?) souls from the UK and German studios, and once they'd had a chance to get back to their office and catch their breath, we sat down for a discussion of their experiences in Cologne.

**JP:** Let's start with the usual: please give me your title, how long you've worked for CIG, and your role in the demo.

**Grégoire Andivero, Senior System Designer:** I've been working at CIG for almost 2 years. I was Player 6, aka the good Idris Captain.

**Wayne Owen, QA Team Lead:** 18 months, UKQA Gamescom Lead. I was Player 12/Cutlass pilot/Buccaneer pilot.

**Jimmy Stevens, Senior Tester:** 8 months with CIG. Player 4, aka Gladius pilot.

**Melissa Estrada, QA Technical Lead:** I have been working for CIG since August 2014. I was Player 2, aka the person



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who demonstrated a lot of the VOIP and Faceware in the demo and I was Player 1's partner. :)

**JP:** *Yeah, your voice coming out of that tall black dude created a little cognitive dissonance, since I know you and you're not tall, you're not black, and you're not a dude.*

**James Ballantyne, QA Tester:** I've been with the company for 6 months. In the demo I was Player 5, one of the courageous Gladius pilots who came in to save the day.

**Glenn Kneale, QA Lead:** I started October 6th 2014, and I was Player 1 in the demo.

**John Lang, QA Tester:** I have been at CIG for 6 months. I was Player 3 – the Constellation pilot and enemy Idris 'external camera view.'

**Ben Anders, System Designer:** I've been working at CIG as a System Designer for 1 1/2 years. I was Player 12, aka the turret gunner on the Badris and the server. Or was it Player 10? I don't remember.

**JP:** *What does "and the server" mean?*

**Ben A:** I basically had two PCs, one where I ran the game client as a player and one that hosted the local server for everyone to connect to.

**JP:** *Ah ... I wasn't sure if it was something like that, or if you played a server in the restaurant.*

**Will Wallace, QA:** I've been here at CIG for 6 months as QA, and I was Player 11, enemy Idris captain / pilot.

**JP:** *How did you all get involved in this – hours of grueling auditions, or were you just sitting in the wrong place at the wrong time?*

**Grégoire A:** I did it last year, had fun, volunteered again this year.

**Jimmy S:** Volunteered.

**James B:** We were asked in the UK to throw our hats into the ring. Can't speak for the others but I wrote up something akin to a "Let me go to Gamescom" proposal. I also guess I haven't displayed any worrying personality traits in my time here.

**Will W:** I volunteered.

**Ben A:** The Design Lead asked for volunteers. I've done a couple of Gamescoms for my previous company so I knew the drill (or so I thought). No one else wanted to do it, so yeah.

**Wayne O:** I was requested to lead things from the QA side by our production team, which I gladly accepted.

**JP:** *Greg, remind me what last year's scenario was, and what role you played in it.*

**Grégoire A:** Last year was a 4-player piece where a smaller crew used a Freelancer to scour a Starfarer wreck for valuables and got ambushed by pirates on their way. I was one of the pirates

**Melissa E:** For DE QA, since Gamescom is in Cologne, Germany, and we had done the Gamescom demo last year – naturally we were asked to participate in the Gamescom demo again this year by Brian. Alex was hesitant at first since that was going to leave CIG DE without any in-house QA, but it was ultimately decided that since we had been practicing the demo together it would make the most sense to send us together as a team, along with Greg and Ben (in Design) who we also work with on various tasks in-office.

**JP:** *Here's an ignorant American question: how far is Cologne from the studio in Frankfurt?*



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WITH THE  
DEVELOPERS



**Grégoire A:** 1h train. ;)

**Glenn K:** I've worked on both GamesCom2015 & GamesCom2016. With that experience I've ended up as Player 1. I was tasked with helping Todd Papy [Design Director] make a flow for the GamesCom2017. I know how Chris works and how unpredictable he can be at the events, which helps.

**JP:** *I want to talk about the event, of course, but let's start before that. When was this year's concept first conceived, and by whom?*

**Grégoire A:** I think it was mainly Todd sitting down with Chris and getting a picture of what he wanted to show, then coming up with the actual flow. At that point we weren't involved yet.

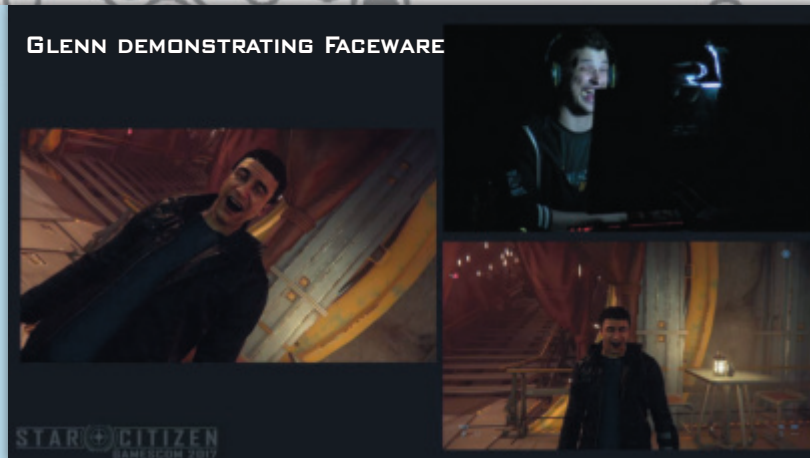
**Glenn K:** Todd made the flow roughly 4-3 weeks before the event. I helped host a server for Todd so he could scout locations. I also informed him of the current state of certain things like ships and locations, as well as provided my own input to the flow, based on past experience.

**JP:** *What were the key elements that we wanted to demonstrate in the demo? Another way of asking that: what did we show in the demo that we had never shown before?*

**Glenn K:** This demo showed the current state of 3.0, with the addition of Faceware technology and the huge flagship, the Idris.

**Grégoire A:** It was the first reveal of Faceware, as well as Levski properly populated with full-fledged AIs. The scale of the Idris was also a key beat, I think.

**Melissa E:** Faceware and VOIP for sure. We also showed the new player character speed variation control, Idris functionality, and the new inner thought system which is part of the new item 2.0 ships.



**Glenn K:** With the addition of volumetric lighting in Levski.

**Melissa E:** We also wanted to do a demo with 12 players, which is more than usual, and there were also a lot of optimizations done to improve overall frame rate.

**John L:** Not to mention the ability to go from Levski to orbit, QT [quantum travel] to somewhere else and then fly down to the surface seamlessly.

**JP:** *Faceware was something I had not known about at all. Was I just being unaware, or was it that much of a surprise to everyone else watching?*

**Ben A:** It was a super secret, we even had to use a code-word when talking about it.

**Glenn K:** I found out 5 days before leaving for Cologne as to what it was, haha.

**Grégoire A:** Pretty much same here.

**Will W:** We're kinda in our own little bubble a bit here, but we were using it a couple weeks before the show in prep. But for everyone else, I imagine it was a pretty big surprise.



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**Melissa E:** When the demo flow was coming together, we heard it mentioned a few times, and it was being referred to as FOIP. We noticed the characters' faces were moving while we practiced the demo flow when we were back in the office in Frankfurt, but we were mostly making silly faces with it. We didn't know how exactly we would be presenting it, or how it fully worked pretty much up until the first day of B2B.

**JP:** *So you were just getting used to it yourselves as you prepped for the demo?*

**Melissa E:** Yes, definitely. Since it's still early in development, we had to sort of figure out which movements would translate the best in-game when using Faceware. We also had to practice how loud or soft we should be speaking to make sure we could be heard with the VOIP.

**JP:** *Melissa, you definitely were working the software with a lot of expressions. Knowing your face, seeing your expressions on a character who didn't look much like you was ... interesting.*

**Melissa E:** Yeah, I had to remind myself that I wasn't playing as me. I was playing as another character so it was going to be okay to be a bit over the top. :)



**Wayne O:** We had been testing Faceware for a few weeks earlier in the UK, mainly for the audio department who were very closely working with Faceware so we had the most experience with it on our end. It was tricky to work with at first, due to lighting and people with large thick beards (of which there are many amongst the QA minions), but we had so much fun with and often broke down laughing at some of the expressions on players' faces. It was super enjoyable.

**JP:** *I hadn't thought about that. Do beards prevent it from working?*

**Wayne O:** They did at first, but it got better over time. Like any kind of facial recognition software, there can be issues with certain facial hair, skin colour or even the size of your eyeballs! My relaxed eyes are fairly closed over and so my character in game reflected it, much to my own amusement. It's something you don't really notice much until you're looking at someone doing an impression of you, live.

**Glenn K:** It was interesting too, as the different characters felt different. By that, I mean some expressions worked better for one character than for another. You had to really mess around to know how you would need to smile to portray a good smile for the character.

**JP:** *Glenn, when you mention that Chris can be unpredictable ... it seemed like he spent more time on Faceware than originally planned. Is that the sort of thing you were referring to?*

**Ben A:** Well, like, "Ok, how about you do the final battle all over" – we didn't know that was coming at all, even though we should have guessed, I think. :D



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**Wayne O:** ^ This is totally legit, I had a cigarette in my mouth and was heading for the door when we got the message to go again. :D

**Ben A:** I was looking for the beer. :D

**Glenn K:** No, haha, Chris explains how the build was buggy and as QA we know this very well. Sometimes we like to avoid any WIP areas as we in QA are unsure as to how that would play out. However Chris is very proud of the work being shown and when he's on stage he gets excited to show things off and that sometimes includes things that cause QA to hold their breath, ha. On the flip side though, Chris believes this shows the public that what we are doing is not scripted or fake and that it is real. Not many game companies take such a risk on showing something WIP.

**JP:** *Yeah, there were times when those of us watching were a bit antsy as to whether it would hold together or crash, when we knew things were being pushed to the limit.*

*Speaking of new features, the player speed feature is neat – I don't recall seeing it in other games. Is it totally new?*

**Wayne O:** The on-foot speed throttle is definitely new to me, I don't ever recall being able to have such control over a character's movement speed outside of analogue sticks.

**Grégoire A:** The graduality of it, and the amount of control you get over it, is definitely pushing it further than the games I know.

**Melissa E:** The player speed feature was new to me as well. I like how it gives the player more control of their character movements.

**Ben A:** I don't think it's new, it has been done in games before (*Deus Ex* if I'm not wrong), but games rarely do it

INITIAL SETUP (L TO R): CAMERON WILKIE, MARK GIBSON, WILL WALLACE, SAM CHILD, WAYNE OWEN



and frankly I don't know why because it's an amazing feature. Normally it's just walk or run speed.

**Glenn K:** As a player who uses GamePad it's nothing new to me. HAHA

**JP:** *When you were first using it, did you have trouble remembering not to run full speed at all times? That's one of the things that can really destroy the immersion for me in a massive online game – having all the PCs around me sprinting all the time.*

**Wayne O:** It's another one of those features that doesn't blow people's minds as far as innovation goes, but as part of the larger package, it is appreciated that the time was taken to make it happen. I'll be honest and say I wasn't overjoyed by it being announced – I was the controls specialist for a time and more controls made my life harder – but now it's in, I very much enjoy it.

**John L:** It's strange to think it isn't done more often in PC games, especially in MMOs. It's been a thing for years that NPCs run or walk at speeds not possible for player characters, and you have to awkwardly run/walk to maintain the same speed as an NPC. It's a really nice feature that adds a lot to immersion.



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**Glenn K:** For me, this is my third time on stage for GamesCom and when we do this I feel it's important to move slowly and allow the public to take in the hard work that's being shown. Previously, I would use a Gamepad to do this, but now we have the new movement system it was more like hitting two birds with one stone.

**JP:** *Meaning that you didn't have to use a Gamepad any more?*

**Glenn K:** Exactly. Once I demonstrated the movement speed I used it to move back down to a walking speed and began to show off the volumetric lighting and AI of Levski.

**JP:** *With everything else to discuss, I was forgetting about the Inner Thought system. Remind me how that works.*

**Glenn K:** Simply hold 'F'. :)

This highlights areas of possible interaction.

**Melissa E:** Hold 'F' to get the options to populate, but you click the option you want with a left mouse-click – you can cycle through available options using the mouse wheel.

**JP:** *So Inner Thought gives you possible thoughts, like "I want a drink" or "it's time to find a room for the night," and you can choose whether to select and act on one?*

**Grégoire A:** Not that; it gives you contextual interactions with your immediate environment. If you're looking at a door, bringing up Inner Thoughts will offer you the possibility to open it, if there is a seat, to sit down, if there is a box, to pick it up etc. ...

**JP:** *So by the time you activate it (press and hold 'F'), you have a pretty good idea of what the option(s) will be for any particular item or location?*

**Grégoire A:** For simple options, yes. But later on, we



anticipate having more advanced gameplay with some of those seemingly simple objects, like breaching or repairing doors for example. So while you have a good idea of what you want to do before you bring Inner Thought up, sometimes it's also good to bring it up to get a clear picture of what you could do, and choose from there.

**JP:** *That makes sense. Let's talk more about Levski for a minute. We didn't see nearly as much of that as I wanted to, but there was only so much time. Were there any player characters in that part of the demo besides Player 1 and 2 (and Player 3, when they left and met the Aquila)?*

**Melissa E:** Nope, for this particular demo it was just players 1-3 at Levski on Delamar. Players 4-12 were on the server as well, they were just on a different planet :) or more specifically they were on a moon.

**Wayne O:** We were waiting patiently. :D

**JP:** *So the guy who gives you your mission is totally programmed? I assumed so, but he comes much closer to lifelike than most NPCs I've ever seen.*

**Glenn K:** That's because it's Phil Meller.

**Phil Webster, QA Manager, F42:** A bit too much of Phil Meller got through the programming, I think.



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**Grégoire A:** Eckhart is actually a case of a very scripted behavior and dialog layered on top of a systemic behavior. That is, he is delivering his own specific lines in a very specific mission context, but he's also using a barstool and having a drink like everyone else in this bar.

**JP:** *What triggers him to appear? I got the impression that that was one of the elements that were a bit shaky going into the demo.*

**Grégoire A:** In the case of the demo, he was just meant to be there. But as far as future design goes, our AI will have schedules that handle what the NPCs are doing with their days. In the case of mission givers such as Eckhart, I'm expecting them to spend a lot of time sitting on one place and actually giving missions.

**JP:** *The pushy salesperson was also an NPC?*

**Grégoire A:** Yep.

**James B:** Both shops at Levski are currently run by twins too, if I recall correctly.

**JP:** *I don't know how much of those characters' movements*

*were unique mocap, but they were all pretty believable. Meanwhile, one or two of you have mentioned the volumetric lighting in Levski. What's that?*

**John L:** A good example of Levski's volumetric lighting was when you could see the sun beams coming through the windows. And volumetric fog was recently worked on, which is how the light interacts with things like smoke or fog.

**Wayne O:** Also known as crepuscular rays, according to Wikipedia.

**Grégoire A:** "Crepuscular rays" sounds better.

**JP:** *Does it mean lighting that doesn't have a specific point source?*

**Grégoire A:** Yeah, it's what gives you this kind of "God-ray" feel in some halls of Levski.

**Phil W:** A recent ATV segment talked quite a bit on this, starting about 13 minutes in:

<https://www.youtube.com/watch?v=xKRX0ZwXqk>

**Melissa E:** I've attached some examples of the volumetric lighting used in Levski, from Chris Campbell (our Lead Lighting Artist).

**JP:** *Was there anything else new in Levski, or should we move on to the mission?*

**Wayne O:** Was that the first time we showed the rear area of Levski, where we spawned the Rover?



SEVERAL EXAMPLES OF VOLUMETRIC LIGHTING AND FOG



BEHIND THE SCENES

**ENTRANCE TO THE LEVSKI MARKET WHERE YOU MEET ECKHART  
(MORE VOLUMETRIC LIGHTING & FOG)**



**Glenn K:** Not so much Levski, but Delamar itself was different from when it was shown in 2016. Originally it was much like Daymar, but now Delamar (which houses Levski) is a giant asteroid in a pretty large cluster of asteroids.

**Wayne O:** There were definitely some new shops where we saw the ship parts for sale, etc.

**JP:** *Yeah, those were all neat. All part of the "I wish we had had more time to wander around there." Actually – still in Levski, but at the beginning of the mission: loading the Ursa on the Aquila. Was that as tight as it looked?*

**Wayne O:** Yes. Yes it was. It was all done manually too, no auto landing or trickery going on. It was skill that got the rover in there ... and practice.

**JP:** *You got it successfully loaded twice – originally, and then again after the crash. What would have happened if it wasn't parked in that precise position?*

**Melissa E:** Well for one, the cargo ramp would not be able to close fully.

**Wayne O:** Yeah and either the Ursa, the Aquila or both could've taken damage and been a disaster. We don't make things easy in our game, we make things awesome.

**John L:** The rover could get stuck and the physics would cause the rover or the Aquila to blow up, or the rover would be forced to clip through the ramp and fall out.

**JP:** *I'm assuming it'll be a bit easier in the final version?*

**Wayne O:** I hope not; it's not as cool when things go together by themselves and it removes the sense of achievement. This kind of thing could easily see an autoland/docking function if there were enough concern around it, but I personally hope we keep that kind of thing to a minimum.

**James B:** Agreed. As long as things go wrong in a way they're intended to, I think that element of error adds some reality to the game.



CAREFULLY LOADING THE URSA ROVER



BEHIND THE SCENES

**John L:** Perhaps not easier, but the ship would hopefully handle a mis-aligned rover without crazy collision bugs and simply reopen the bay to let the driver reposition.

**James B:** Exactly. A dent and some scraped paint, not the physics engine collapsing in on itself. :)

**JP:** *That would work for me. So now we're off to another world, and we run into the only actual crash. What happened, and what caused it?*

**James B:** A lot of heavy sighs and gasps of horror from our end.

**Grégoire A:** It was the network code for quantum travel I believe, but you'd have to ask more tech-savvy people who know more. ^^

**JP:** *Was that the debut of quantum travel?*

**Grégoire A:** No, quantum travel has been live for a while, but it's been going through a lot of refactoring to keep up with new systems being put online.

**John L:** The crash was a nightmare scenario made real. I'd been able to QT in the practices hours earlier, and that was one thing we weren't expecting. I was more concerned with making sure I didn't crash the ship into the ground of Daymar and kill Glenn and Melissa. When it happened, I couldn't believe it. haha

**James B:** I think, with the melee that was Gamescom prep, there was a certain level of instant-acceptance. At least from me. I can recall thinking something akin to "Yeah. Okay. Why not?"

**JP:** *From what I could tell, it wasn't actually a crash so much as the Aquila pilot disappeared during the jump, leaving the ship un-pilotable (and thus effectively stopping the mission) – correct?*



**John L:** The moment the Constellation exited quantum travel, my client crashed. I briefly saw the moon and then I was gone. I believe the 'camera' was on a different player, which is why it looked so strange and jumpy. And yes, the problem then was my crashed client was still 'in charge' of the ship, which caused problems for the others.

**JP:** *But then it took about 5 minutes to rerun the mission up to that point, and you were able to continue with John safely in the pilot's seat after the jump.*

**Grégoire A:** Yeah, even though it was pretty much a worst-case scenario, everyone was quick to recover and re-setup everything.

**Melissa E:** I think ultimately the issue was that John didn't like Glenn and me touching his co-pilot seats. :P

**JP:** *Safely out of quantum travel, is this the point where all twelve of you came into play?*

**Ben A:** I think like ten of us?

**Wayne O:** This was the first point where all twelve players were close to one another. They weren't all involved in gameplay together at this point, but they were all in close proximity.



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**James B:** Lots of moving parts at this point.

**JP:** *Were any of you playing multiple roles, or did you each have a single assignment?*

**James B:** Single roles that saw multiple use, if I recall correctly.

**Wayne O:** I had two roles to play throughout the demo, and this was the first time I came into action as one of the bad guys piloting the Cutlass chasing the Ursa.

**Grégoire A:** Some of us had different roles between Daymar and the final Idris Showdown, but in any one encounter, everyone had one job each.

**JP:** *How scripted were the battles? Did you know beforehand who was supposed to win?*

**James B:** Just like wrestling, but with spaceships.

**Grégoire A:** The results were scripted yes, as well as some of the camera angles we had for eye candy.

**Will W:** Yeah, we knew I was gonna die. We had a rough idea how the fight was gonna go.

**Grégoire A:** Except for the second Idris battle, where the best people won fair and square.

**Will W:** "Fair and square" ...

For the record, my controls locked up. They won on pure luck.

**JP:** *It's been a few pages; remind me of what role each of you were playing at this point.*

**Will W:** I was the Enemy Idris captain / pilot.

**Wayne O:** Cutlass pilot.

**James B:** Player 5: Gladius pilot both on Daymar and in the two Idris battles.

**Glenn K:** I was still player 1.

**Grégoire A:** I was captain on board of the rescuing Idris on Daymar.

**JP:** *Gladius = good, Cutlass = bad?*

**James B:** Aye.

**Jimmy S:** Player 4 – Gladius pilot both on Daymar and the two Idris battles.

**Melissa E:** As for the way we reached those intended end results ... that was pretty open-ended. Glenn (Player 1) getting out of his seat to use the railgun was not initially planned at all, lol. As Player 2, I also had a rough course to follow while driving the rover, and I more or less stayed in the general area, but it was not exact at all.

**Wayne O:** I was in the Cutlass that was shot down with the railgun from the back of the rover.

**Grégoire A:** For example, we knew how Wayne was supposed to die from the start of the demo, although (as Melissa stated) the railgun shot from the back of the rover came as an addition to the original flow.

**JP:** *But it was all live ammo, so varying from the script outline still gave the intended results?*

**Grégoire A:** For a lot of cases, using missiles guaranteed clean shots and kills but yeah, the railgun shot had some extra power.

**Glenn K:** You ... you mean it wasn't my expert marksmanship?

**Grégoire A:** Sorry, Glenn, it's time you knew.

**Wayne O:** I'm sure we shot down the Cutlass using the railgun in practice, but you had to fully charge it.



BEHIND THE SCENES



## GLENN SIGHTS HIS RAILGUN ON A CUTLASS



**Melissa E:** We have to be realistic in this case – it's going to take more than a single shot from a railgun to take down a Cutlass ;) but as James said – it definitely has the ability to destroy a ship, it just didn't work out with the time frame we had.

**James B:** Aye. Multiple shots wouldn't have the same showmanship.

**JP:** *12 players at once – I know we plan on many more than that in the final production, but how many times have we had 12 at once before this demo, especially for that long?*

**James B:** Large server sessions are actually part of our day-to-day in the UK so it's something we're familiar with.

**Grégoire A:** I seem to remember that a couple years back we had something with 2 multicrew ships fighting, around 8-10 people?

**JP:** *Do you typically run a mix of multi-crew, single pilot, land vehicle and walking PCs?*

**Wayne O:** We've done plenty of 12-player tests in the PU and I'm sure we've exceeded that cap too, just never live, with like a few tens of thousands of people watching with ships five times the size of CoD levels hovering above. :P

**Melissa E:** We tend to have large-scale playtests with our QA teams on the other side of the pond. These usually involve the ATX and UK QA teams since their teams are much larger than DE or LA QA. The test cases themselves will vary, and we try to mix it up every now and then between PU and *Arena Commander*. We try to keep it pretty controlled so that when we encounter an issue we can figure out what may have caused it as it starts to get difficult to debug/replicate an issue with 12+ players in a server.

**JP:** *Speaking of scripting, I got the impression that some of the dialogue was scripted, but that some of the chatter was off the cuff. True or not true?*

**Melissa E:** Definitely ... not true. I wish that it was scripted because that would have been A LOT easier for me, lol.

**Glenn K:** In honesty it was all made up, haha. There was a script for some dialogue in the Idris, but it got to us too late for us to properly take it in and perform it naturally. What we had was mainly improvised from what we did in the B2B area.

**JP:** *What is the B2B area?*

**John L:** B2B was the business-to-business booth. Approximately every hour over two days, different Press would sit down in front of a big TV with Chris Roberts and we'd run through a cut-down version of the Gloria demo.

**Grégoire A:** What you got was basically stuff that was practiced for the 2 B2B days plus some on the fly improv.

**Melissa E:** The script they gave us a few minutes before the demo was primarily for the last dialogue we had just before the Idris battle, and like Glenn mentioned we ended up not using it because it was a bit too late to be able to memorize it all. However, all the dialogue from Levski



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up until Player 1 and 2 were on board the Idris had no script to be used as a guideline.

**JP:** *So you're saying you all have fallback careers in improv, if game dev doesn't work out?*

**Melissa E:** Potentially, yes. :)

**Grégoire A:** Maybe game-dev is my fallback career. You don't know me. :P

**Phil W:** Just a regular day in QA.

**Glenn K:** Not sure it's a good fallback, but I've got a pretty good Chewbacca impression.

**JP:** *The cap ship battles were over more quickly than I expected. I figured there would be multiple heavy punches between the two Idrises before one was defeated. (Of course, time was a factor by the time we got to that point.) Is that likely to change in the future?*

**Will W:** It should have been the case in the demo. Unfortunately we encountered another new build issue and I lost all control during both battles. We were at the mercy of Mark's mediocre accuracy to extend the battle length.

**James B:** You should consider using "unfortunately we encountered another new build issue" as the article's title.

Originally I was supposed to dog fight with him a bit – do some loops and broadside attacks – that's what we had done in all the practice runs, and it looked amazing. The build had other ideas, unfortunately.

**JP:** *So you didn't just have bad-guy bullets, you had an entire bad-guy ship?*

**Will W:** Yes, sir. You're speaking to the one and only pirate Idris captain.

**Grégoire A:** We in the Good Idris certainly felt the hits though, no blank shots there, and Will took us down during practice, too.

**Will W:** Along with my minion crew.

**Melissa E:** It also didn't help that the Idris ships did not have their shields on. The old shield effects were not visually suitable for a ship of that size, so the call to disable them was made. Unfortunately, its new shield effects didn't make it into the build in time for the demo. :(

**JP:** *Yeah, I can see that shields would have made a difference. That's one of the things I was wondering about. :)*

**John L:** As with most things, the Idris will likely be having balance passes done and subject to changes. An Idris fight in the future will play out differently.

**JP:** *Talk to me about Gamescom, and about how you prepared for the demo. What was being at the show like?*

**James B:** Like having a LAN party in a friend's hot and sweaty basement. :P



THE FINAL BATTLE: IDRIS VS IDRIS



**JP:** *Were you actually in the basement?*

**James B:** Yup. Under the earth with the creatures and dirt.

**Grégoire A:** I prefer underground HQ, but yes.

**Wayne O:** We reviewed a build of the game each day with directors and heads of departments calling out issues and then QA would write them up if they were new, regress them in the following build, and then repeat on an appropriate build that QA would recommend.

That happened for a few weeks before the show and continued until about an hour before the demo began, but we were more frequently reviewing the builds as time went on.

**Glenn K:** I didn't feel I needed to prepare; I felt pretty ready for what was about to occur. The only difference for me this year was I was alone on stage. That was a little weird, but the reality is no one is looking at QA Lead Glenn Kneale when Chris Roberts is on stage, haha. I had a light on my face also for the Faceware cameras to pick up my facial movements. The light was causing me to sweat something fierce.

**John L:** Basement? I thought it was a mold factory and sauna combo?

**JP:** *And how long had you been in your basement quarters by the time the demo successfully ended?*

**James B:** Time was no longer a concept we could grasp.

**Wayne O:** Two (of the longest) days (of my life). :)

**John L:** Friday was like 8am to 12:30am?

**Grégoire A:** Yeah, excluding smoke, bathroom and food breaks, about two days.

**Wayne O:** Which all took place in the same area. We grew closer to one another than we had anticipated.

**JP:** *I can tell you we enjoyed the end result back in Austin. The demo was the middle of the day for us, and so we watched it together and cheered each time you got past a potential crash.*

**James B:** I didn't realise how many of my friends outside of work were fans of the game until they started telling me they saw me on the stream. :)

**Glenn K:** It was very tiring, but I'd do it all again easily. I get a real good feeling from seeing the crowd's reaction. People were telling me their experiences with the game and how good the work we've all done looks. Makes me proud and happy. Also that very 1st post-demo beer never gets old.

**JP:** *I really appreciate the time you've given me (and the subscribers) today. Any final words?*

**James B:** Can I give a shoutout to my partner, Georgina Minns? She's my space-port in a tiring and constant space-storm. :)

**Ben A:** Shoutout to all the backers should be obligatory. :D Also a shoutout to all the volunteers who offered their help for free. Without them it would not be possible to do such a show. And to Monster Energy Drink – whatever the studies say, 8 a night didn't harm me in the slightest!

**James B:** And you and the subscribers are more than welcome :) Happy to help and remove the barriers between us and the people who make it possible.

**Grégoire A:** Big thanks to the volunteers that were around at the Gloria and the B2B. They helped a lot, and a special one to my man Eddie among them. And obviously big up to the other CIG studios that worked around the world and around the clock.



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WITH  
MONSTER  
ENERGY  
DRINK

And finally, a shoutout to Paul Reindell who was calling the shots when it came to camera angles and cues during the demo. AND the IT guys who set up the basement. AND Phil for the sound and bringing the thunder.

**Ben A:** What Greg says.

**Wayne O:** I'd like to give a shoutout to the whole CIG team, and backers we have worldwide. Without their constant support and love provided, we surely wouldn't have been able to make any of this happen. I'd also like to give a shoutout to my wife and son, Helen and Teddy, who mean more to me than anything in the world.

Last words: Smoke us a kipper, we'll be back before Christmas!

**Glenn K:** A shoutout to the backers and fans. As QA, we see an ugly side to the game, as it's our job to break it and put it in that state. It's a sight we can get used to, and it's not always pretty. When we work as hard as we did and saw the reactions on your faces in the crowd, it quickly reminds us of the beauty in what we do and it keeps us extremely motivated. Thank you to everyone and for your continued support.

And thanks to Melissa for putting up with my terrible improv. HAHA

**Will W:** Thanks to all the rad backers keeping our spirits up at work, and Jenn and the parentals keeping up spirits at home.

**John L:** Thank you to the volunteers, audio, IT, Faceware guys, all the devs and countless others who worked crazy hard so we could show off the game. Thanks to the backers for their continued support and to Debbie and my cats Nibbler and Moxxi.

**Melissa E:** Huge thanks to everyone who was at B2B and at Gloria to support us and ensured we were well fed and comfortable. We could not have had the final result we had without everyone that was involved. In particular it was really nice to have Brian, Inez and Moritz there from home, which helped me feel at ease. Shoutout to Greg and Glenn, we were 3 of the 4 veteran players from last year, and I would be more than happy to do another demo with you guys again. Also thanks to Greg for taking charge at Gloria when I had to focus all my energy into working the Faceware tech to its fullest potential. :) Thank you as well to our sister QA teams in UK, ATX and LA for chasing up issues when we called them out and getting info back to us as quickly as possible. And of course to Chris and Erin for putting their trust in us to help present the demo to the best of our abilities.

Also shoutout to my cat TenTen, because he put up with my late night overtime hours and still somehow loves me. :)

**JP:** *Thanks again, guys!*



THE 3.0 MOBIGLAS, WITH JOB SCREEN OPEN



BEHIND THE SCENES

# TOHIL SYSTEM TOHIL III



The early 28th century was a tumultuous time for the UEE. Almost two centuries of increased military tension with the Xi'an had exhausted the Empire and stretched the Navy dangerously thin along the Perry Line. Far away on the opposite side of the UEE, the military was also dealing with the emergence of the Vanduul. Meanwhile, cracks in the Messer regime's grasp on power were becoming clear. Emperor Samuel Messer VIII, notorious for his penchant for brutality, was assassinated in 2715. His sickly older brother Galor ascended to become Messer IX amidst much controversy and concern that he was in no condition to run the Empire.

During all this uncertainty, the Tohil System was discovered in 2716. The chaos of the era kept the UEE from establishing a presence in the system, and few could have predicted how strategically important the system would become. In the meantime, however, that lack of presence allowed outlaws to gain a foothold in the system, and it established a reputation as a smuggler's haven that exists to this day.

Today, Tohil III's important place in history and its unique ecosystem make it a fascinating destination for more adventurous travelers.

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# THE ACCIDENTAL EXPLORERS

In 2716, two small-time smugglers found themselves adrift in Nyx. Aadya Firmino, the daughter of a prominent Terra-based construction magnate, had left her comfortable upbringing to seek adventure. She escaped her entitled ennui in a Constellation and eventually hooked up with Oisha Suen, a skilled pilot and mechanic. Together, they ran low-level smuggling missions out of Levski until the People's Alliance's discovery of Aadya's increasingly brazen attempts to expand their criminal enterprise led to their exile.

Unsure where to head, they allowed their Constellation to slowly drift through Nyx's dark nebula as Aadya strategized their next play and Oisha tested a scanner she'd just fixed. At first, Oisha assumed the strange scanner readings were due to an error on her part. Further investigations revealed that wasn't true; she had discovered a new jump point that took the ship into what would become Tohil.

Aadya and Oisha reveled in their good fortune and debated what to do with their discovery. Aadya claimed to have trustworthy associates with serious scanning gear that could help them assess what riches might be in the system. They agreed it'd be best to know what they had discovered before figuring out what to do with it.

The two traveled to the Bremen System to rendezvous with these associates, and the night before the meeting, Aadya and Oisha celebrated in style. Oisha awoke the following day with an insufferable hangover to discover that Aadya had disappeared. Soon reports that a new system had been discovered flooded the spectrum. They all credited Aadya alone for the find and portrayed her as an explorer who left a luxurious upbringing only to make the discovery of a lifetime.

**TRAVEL WARNING** Miners hoping to hunt resources in Tohil's dense asteroid belt must exercise caution. The belt is replete with hiding spots frequented by smugglers and outlaws, who have been known to set traps and deploy fake distress beacons to lure ships into an ambush.

Devastated by the betrayal, Oisha went to the *Terra Gazette* for a lengthy, tell-all interview. She described her role in discovering the system and presented evidence, including numerous spoofed regtags the Connie used on smuggling operations, that undercut Aadya's narrative. The scandal became a spectrum staple, as Aadya first denied the accusations and then attempted to escape scrutiny when her story fell apart. The story eventually lost steam and a subsequent investigation by the Department of Transportation and Navigation awarded credit for the system's discovery to both Aadya Firmino (since it was her ship) and Oisha Suen (for being the first pilot to successfully navigate the jump point), while the Advocacy issued warrants for both their arrests.

Meanwhile, military pathfinders entered Tohil and scanned the system. They discovered it was light on resources and lacked any easily habitable planets. Another negative was that the system could only be entered through the unclaimed Nyx System. With more pressing issues concerning the Empire, the UEE passed on claiming the system.

## HEARD IN THE WIND

"You could just tell that something was seriously wrong. Usually, it was easy to forget that you weren't standing on solid ground, but during the island's final days, you could feel it give a little with each step. Plus, the smell was just awful, like the entire place was rotting ... which, I guess, it actually was."

- Dustin Wiltzie, former Amidon Island resident, 2847



EMERGENCY

## PULLED INTO THE PERRY LINE

A few years later, a Navy recon patrol of the Oya System discovered a jump point leading into Tohil. Suddenly the system was connected to the Perry Line, a series of systems that formed a no man's land between the UEE and Xi'an Empire during the cold war. The military deemed the system vital to the Empire's security interests, and in 2721, it was formally claimed by the UEE. The military named it Tohil after an ancient god of war to officially align it with the other Perry Line systems. Forces were moved into Tohil in preparation for a possible Xi'an invasion or to be used during any potential offensives in the Oya System.

Military activity within the system eventually led to the discovery of another jump point. This one connected Tohil to the Virtus System, which already had a Xi'an presence. Following the discovery, the military ran the numbers and determined that they lacked the resources to establish and maintain a presence in the system that would be able to guard both jump points. Complicating matters was the fact that reinforcements were two jumps away and would have to pass through Nyx before responding to any threat. Surrounded by uncertainty on all sides, the military pulled their forces back to Castra and set up a network of proximity sensors near Tohil's jump points that they monitored and maintained.

### HEARD IN THE WIND

"My hope is that we can find a way to bring our two great species together rather than keeping them apart. Both of our cultures would benefit greatly by having a friend on the other side of the Perry Line instead of an enemy."

- Senator Terrence Akari upon meeting Emperor Kr.ē, 2789

## SMUGGLER'S PARADISE

The military's reduced footprint opened the door to outlaws. Those who didn't feel like blending in with the Levski revolutionaries flocked to the system. In particular, smugglers flourished after discovering that the floating botanical biomasses on Tohil III were strong enough to use as landing zones. The system's connection to Virtus even became the safest smuggling route between the UEE and Xi'an Empire. Untold amounts of contraband and even anti-Messer revolutionaries flowed through Tohil.

By 2789, the system was considered safe enough from the Messer regime's prying eyes that it was the location of a secret meeting between Terra Senator Terrence Akari and the young Xi'an Emperor Kr.ē. The two negotiated a peace treaty that promised an alliance if Messer and Earth decided to make a military move against the Xi'an, showing just how toothless the ruling regime had become. It was a crippling blow the Messers would never recover from, and three years later, the outrage over the Massacre of Garron II finally ended the despotic regime.

## TOHIL I

Tohil I sits a scant 0.064 AU from Tohil's K4 main-sequence star. This proximity has turned the small, tidally locked world into a lava planet that's completely uninhabitable.

## TOHIL II

Settled into an orbit just inside the system's green band, this rocky, mesoplanet is subject to intense solar winds that scientists theorize have slowly stripped away its atmosphere over many millennia.



## TOHIL III

Tohil III is a naturally habitable ocean planet that lacks any significant landmass. This made UEE bureaucrats question whether populating it was worth the effort and expense. It also lacked the wealth of natural resources that made Nemo so appealing. These factors ultimately played into the UEE's original decision to not claim the system.

What Tohil III does have is one of the most interesting and unusual ecologies in the known universe. The water is dotted by massive botanical biomasses that are essentially floating islands. Flora flock above and below these moving masses, while numerous epiphytic species anchor themselves along the island's tangled roots and branches. The plants that comprise these gigantic tussocks are unlike anything discovered elsewhere. So far, all experiments to get these biomasses to grow in a lab or on another world have failed.

Legend has it that it was a damaged smuggling ship that first attempted to land on one of these "living islands." Word quickly spread in the smuggling community that these plants were strong and sturdy enough to support ships and even structures. Smugglers kept the secret to themselves and used these islands for dead drops or as hideouts for years.

The rest of the Empire finally learned about this planet's incredible ecology in 2789 when Terran Senator Akari secretly met with Emperor Kr.ē on the island known as Lemuria. Images from the meeting portrayed the location as a tropical paradise sans the sand. Following the fall of the Messers, tourists flocked to the planet and

upset the outlaws who preferred the planet's previous anonymity. As the UEE's footprint expanded, most outlaws were forced to shift their operations elsewhere.

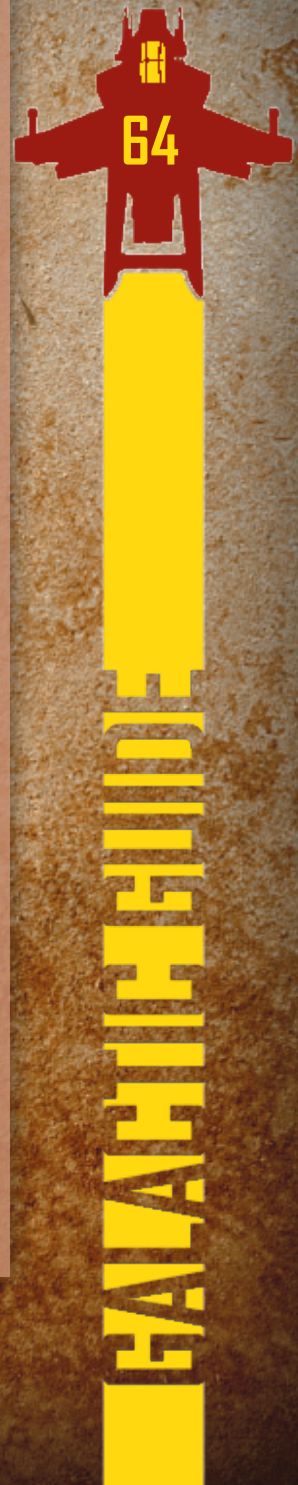
Though Tohil III is not a recognized planet, the UEE has imposed strict construction restrictions following the destruction of Amidon Island in 2847. At the time, it was one of the planet's largest and most populous landing zones until the plants that supported it quickly withered and sank into the sea. Since so little is known about the life cycle of these plant islands, there's still vigorous debate within the scientific community over whether our presence was a significant factor in its destruction.

## TOHIL BELT ALPHA

Initial scans of the asteroid belt ignited hopes that it would be a mining motherlode, but subsequent scans dashed that dream. Small pockets of valuable resources can still be found here, but the consensus among larger-scale mining operations is that extracting them is more trouble than it's worth. Today, this dense asteroid belt is best known as an excellent hiding spot for outlaws.

## TOHIL IV

The system's final planet is a frozen Super-Earth that sits well outside the green band. The planet's most notable feature is a surface pockmarked by frequent meteor and asteroid strikes. Few take the time to visit this world, which has reportedly made it a favorite among some smugglers who'd rather not venture into more populated parts of the system.





# A Gift for Baba



## Part 2

*She was going to get in so much trouble for this,* was the first thought that ran through Yela's head as the large hauler they had mistakenly become trapped on pulled away from Banaru Station. Staring up at the towering stacks of cargo containers surrounding the three children, she wondered, *how could things have gone so wrong?* All she had to do was get her two siblings safely aboard their connecting shuttle and instead, here they were rocketing to some strange location aboard a strange ship.

The next thought Yela had was, *this is just like that time when Annabelle Reynard accidentally boarded Lord Falton's ship when he was posing as the pirate king and the two of them dueled until they realized that both were secretly attempting to –*

"Come on."

"Huh?" said Yela, snapping out of her *House of Ashen Grey* daydream. It seemed that no matter what was going on, she could always lose herself in one of her books, even when she wasn't actually reading it.

"We need to stop this ship," Cellin said as she grabbed her sister's sleeve and pulled her towards the exit on the far side of the cargo hold.

"You're right," said Yela, freeing her arm and taking the lead. "If we can get the captain to take us back to Banaru right away, we can try to get on the 19:45 flight to Europa. Maybe they will even let us comm Baba and tell her what happened. She'll be worried when our shuttle arrives and we're not on it."

Yela felt better. They had a plan now. If she just focused on that, there was less room in her head for the doubt and worry.

Though Baba would probably scold them at first for missing their flight, when she found out about their adventure and how well Yela had handled the situation, their grandmother was sure to give one of the little smiles she gave whenever they were particularly brave or clever. As Baba said, "A good adventure is always worth getting in a little bit of trouble for."

"Do we have to leave so soon? I've never been on a hauling ship before," Daymar asked as he walk alongside his sisters. "Wait!"

Cellin and Yela froze in their tracks as Daymar dropped to his knees and ripped open his rucksack. "What? What is it? Did we lose Baba's gift?" Yela asked.

"No, I have it right here," said Cellin, showing her older sister.

Yela was relieved to see the precious gift still safely tucked into Cellin's bag. After working so hard to get a replacement for the first gift they lost, she didn't even want to think about the chance of losing this one. Even the dim lighting of the cargo hold did little to hide how beautiful its craftsmanship was. It had clearly been well used over the years, but carefully cared for. Exactly the sort of thing that Baba loved.

Part of Yela was still amazed that the stall owner had agreed to give the gift to them in exchange for only partially opening her Banu lockbox. Yela supposed that after years of trying to open the thing, even making that little bit of progress must have seemed well worth the trade. The stall owner was probably sitting with the lockbox right now trying to open it the rest of the way, but Yela had a sneaking suspicion that when she returned to Station Banaru on their way back to Mars, the stall owner and the box would be in very much the same state they were in when the children had left.



CHRONICLES

“There it is,” said Daymar as he pulled out a worn, bright yellow cap and secured it on his head. “Now I look like a real hauler. Maybe the captain will even let me fly the ship. Oh, maybe I can fly us all the way to Baba’s house!”

Cellin was consistently amazed by her brother’s ability to find the bright side of any situation. If she was a storm-cloud as her father liked to say, Daymar was the ray of sunshine that poked through it. “Maybe,” said Cellin with a half-smile. “But first we have to hurry up and go talk to them.”

“Then let’s go!”

With that, Daymar let loose an even bigger grin and sped up, leading the way through the cargo stacks.

“It’s this way, Daymar.”

Without losing a step, Daymar stopped, turned, and followed his sisters in the correct direction.

\* \* \*

It turned out that the hauling vessel not only had one of the biggest rooms they had ever seen on a ship, it also had one of the messiest. After heading out of the cavernous cargo hold, through the deafening engine room, and past whatever it is you call those rooms that are almost completely full of pipes and valves, they had come to the crew quarters.

Even though there were two beds, it was clear that only one was in use since the other was completely covered in an assortment of items, the bulk of which could most easily be described as ‘junk.’ The small kitchenette on the side of the room housed a museum’s worth of dirty dishes, the work desk was covered with dozens of small vials, and the floor itself only had the narrowest of navigable paths through the flotsam accumulated there.

“Woah. Look at all this stuff,” exclaimed Cellin, impressed. Her own personal choice of living conditions hovered slight-

ly around disaster area, but even her sleep-hab back on Mars paled in comparison to the sheer magnitude of chaos that filled the small crew area.

“It’s disgusting,” said Yela.

“It smells like dad’s feet,” said Daymar, crinkling his nose.

“You still sure you want to be a hauler?” Asked Yela.

“Yes,” said Daymar, but not that confidently.

“Look, it’s not trash. It’s a collection,” said Cellin, stooping to pick up a small rock off the ground. “Dad showed me one of these before. It’s a flint arrowhead.” She cut across the mess to hold up a large loose piece of fabric from the floor. “And this. I learned about this flag from school. It’s from Port Renatus’ first election when they formed the Mars Union.”

Cellin’s eyes narrowed and she protectively pulled the flag close to her. “You shouldn’t put the Martian flag on the floor. Even if it is an old one.”

Daymar was looking unhappily at the bottom of his left shoe where there were clear signs of him having stepped in something sticky and quite unpleasant. “Are you sure it’s a collection and not just trash?”

“It’s both.” Yela was surveying the room with new appreciation. “I couldn’t see it under the mess, but whoever lives here definitely loves history.” She turned her head sideways to look at the books that lined the packed shelf along the wall. “Look at all the books. This one’s about the Mars Tragedy. That one’s about ancient Rome. There’s Nick Croshaw’s biography. There’s even three books about the Stanley Mutiny.”

“What’s the Stanley Mutiny?” Daymar and Cellin both asked.

“When the UNE formed, a bunch of starmen didn’t like it, so they captured their captain and took over their warship.



It's what started the Unification Wars," said Yela. "But we're getting distracted. Right now, we still need to figure a way to get to Baba. Come on."

Carefully stepping around empty mealbar wrappers, crumpled cans of boost, dirty clothing and the surprisingly ill-treated collection of artifacts, the trio arrive at the bridge bulkhead. Yela, took a deep breath to calm herself, immediately regretted doing that because of the smell, and then pressed the button to open the hatch.

When the bridge door slid back, the three siblings were hit by a wave of gutter rock music. Daymar quickly slapped his hands over his ears to try to drown out the noise, but he could still feel the deep bass causing his heart to beat faster and faster.

"Excuse me?" Yela said to announce their arrival, but the heavy guitar riffs swallowed up her voice.

"Hey!" Cellin tried shouting over the din, to little effect. Marching forward past the two utility terminals that populated the back of the room, she approached the pilot's chair at the nose of the ship where a narrow band of thick-paned cockpit-glass provided a cramped view of the nearby jump point beacons.

When Cellin was close enough to see past the bulky thrust-padding that lined the back of the seat, she stopped in her tracks, confused. Yela and Daymar caught up with her and saw for themselves what had perplexed their younger sister. The pilot's seat was empty.

No one was flying the ship.

Suddenly, the music switched off, and the silence that followed was almost as deafening.

"All right. Here's what's going to happen," said a deep, melodic voice. "You're going to slowly raise your arms and turn around. Try anything else and you'll regret it."

Doing as they were asked, the three turned to see a very tall woman standing in an alcove next to the door, her head almost touching the ceiling. They must have walked right past her when they came in. However, more concerning at the moment was the massive rifle she was aiming at the floor by their feet.

"Is that a real gun?" asked Cellin.

"You don't want to find out," said the woman. "Now, who the heck are you?"

"I'm Daymar, and I'm going to be a hauler."

"Fantastic, kid. You definitely got the hat for it. But I meant what are you doing on my ship. You," she said, gesturing the rifle vaguely at Yela. "Talk."

Yela nervously stepped forward. "We accidentally got on your ship at Banaru. We didn't meant to, but before we could leave the door closed and we were stuck. If you could take us back, we could —"

"Anyone know you're here?"

"No, we're traveling by ourselves, but our grandmother will be worried when —"

"Here's what's going to happen. I'm going to lock you three in the hold and you're gonna sit there not touching anything until I can get someone to pick you up."

"You're going to comm our Baba?" asked Daymar.

The woman gave a smile, "Something like that. First things first. Take off your bags and put them on the ground."

Daymar and Yela did as they were told, but Cellin held firmly onto her pack. "No."

"What do you mean, no?" demanded the woman.

"You can't have Baba's gift," said Cellin, clutching the bag tighter to her chest.



Yela reached out her hand for her sister to give the bag to her. "Let's give it to her, Cellin. We don't want to make her angry."

The tall woman took a step forward, and use her full height to tower over the kids.

"Your sister's right. I don't think you're grasping the full ramifications of your situation here. You three picked about the worst ship possible to stow away on. See, this isn't just any ship. I'm an infamous smuggler. I mean, you ask anyone who knows about such things if Rose Bryer is to be trifled with and they'll tell you under no uncertain terms that I am not one to cross lightly. Either that or they'll say they have never heard of me. Both answers show just how good of a smuggler I am, clear?"

"You're like a pirate?" asked Daymar, his eyes so wide they looked like they were about to fall out of his head.

"Close enough," said Rose.

"Woah. That's even better than a hauler."

"Not for you. Now this is the last time I'm going to say it, hand over the bag or else."

"Or else what?" asked Cellin.

"Or else this." With lightning speed, Rose reached down and yanked the bag from Cellin's grip. "Didn't see that coming, did you?"

"Hey! That's stealing!" Cried Cellin.

"She knows, Cellin. She's a pirate," explained Daymar.

\* \* \*

A little bit later, Yela, Daymar, and Cellin stood once again inside the cargo hold, except this time a thick power cord had been wrapped around them, binding the trio face to face in sort of an awkward prisoner hug. It had taken

forever to shuffle from the bridge to the rear of the ship bound in this configuration, but Rose patiently followed them with that menacing rifle of hers at the ready just in case.

"There. Now you three just cool your heels in here and behave yourselves. We should be in Croshaw soon enough."

"You're taking us out of Sol?" asked Yela, rotating her siblings around so she could look at the smuggler.

"That's usually what going to Croshaw means," replied Rose.

Yela felt her mouth go dry. She had always wanted to go through a jump point, she just hadn't expected to do it today. Much less as a prisoner. This really was turning into something straight out of *House of Ashen Gray*.

Rose studied the children for a second. "Let me guess, you've never jumped before?"

The sibling's silence was all the answer she needed. Rose took a few strides to a nearby storage locker nested in the wall, and keyed opened the coded latch. From inside the small chamber she pulled out a well worn EVA suit and tossed the helmet with a clatter next to them. "Here, if you get sick use this old helmet as a bucket."

Rose turned to leave.

"Wait. What if we have to use the bathroom?" asked Daymar, his feet already dancing back and forth a bit.

"The suit has a recycler in it. Might still be working. You can use that."

"And if we get hungry, are we supposed to eat the suit too?" said Cellin.

Rose rolled her eyes. "There's a ration kit in the locker too. I would recommend waiting till after the jump to eat or it's all just going to wind up in the helmet."



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Rose stepped into the bulkhead separating the cargo hold from the rest of the ship.

“Wait, what about untying us?” asked Yela.

“No.”

And with that, the smuggler sealed the cargo hold behind her.

Not wasting a second, Cellin sucked in her breath and slipped easily from her bindings. Heading to the exit, she stopped and picked up the helmet off the floor. “Daymar, bang on the door and beg her to come back. When she comes in we can hit her on the head.”

“Okay,” said Daymar, lifting the loose cord away and following after Cellin.

“Wait, what do you think you two are doing?” asked Yela as she stepped out of the cord and hurried to catch up.

“We’re mutiny-ing,” answered Daymar. He began to pound his fists on the sealed hatch. “Help! Help! There’s a monster!”

Cellin grabbed a crate from the bottom of the storage locker and dragged it next to the door. “Once we take over the ship, we can fly to Europa ourselves.” Climbing on top of crate, she raised the helmet over her head ready to attack whoever came through.

“Have you gone crazy? Get down from there. We can’t attack Rose.”

“Why not? She attacked us.”

“For one thing, she has a gun. For another, you have to listen to me. Dad put me in charge of keeping you safe.”

“And look where you being in charge has gotten us,” Cellin muttered as she shifted her grip on the helmet. “We’ve lost two gifts, missed our flight, and got kidnapped. Maybe I should be the older sister from now on.”

Yela felt her stomach drop out from beneath her. *Maybe Cellin was right again.* Her heart beat faster and the room began to swim around her. *Maybe their dad shouldn’t have trusted her.*

“I don’t feel so good,” said Daymar, clutching his stomach.

As Yela watched Cellin puke into the helmet, she finally realized why she felt like her insides were being stretched and squashed at the same time.

They had entered a jump point.

\* \* \*

Cellin laid with her head in Yela’s lap as her sister gently ran her fingers over her back.

Daymar sat nearby riffling through the rations in the box that Rose had left them.

The three were finally starting to feel normal again after their trip through interspace. Yela still couldn’t quite wrap her head around the idea that on the other side of the hull was an entirely new star system, and had instead chosen to focus on taking care of Cellin, who had experienced the worst of the jump symptoms.

“It’s like dad picked these out,” said Daymar as he dumped the last of the box’s contents onto the floor. “All the meal-bars are mushroom ragu, and there are only two flavors of boost to drink, bitter melon and coffee. Blech.” When he reached the bottom of the box, he pulled out a spiral bound book that had been stored there and quickly held it out to his sister. “Here, Yela. A reading thing.”

“What does the cover say?” asked Yela. After Daymar’s mishap with the docking port lettering she was determined to help her younger brother improve his reading skills.

Daymar studied the cover for a moment, and then began his attempt. “E-meer-gen-ki Praht-o-cowls. Emeergenki Prahtacals?”



“Right, *Emergency Protocols*,” said Yela.

“What does that mean?”

“It’s probably a guide on what to do if the ship catches fire or loses pressure or something. Like that vid they made us watch before the transport ship took off from Mars. Do you want to read the first page?”

“No,” said Daymar, putting the book down near his sister. “I want to see if the storage locker has some not-gross food in it.” Getting up, Daymar went to the crate Cellin had dragged out of the locker earlier and opened its lid.

“There’s a bunch more pressure suits in here,” said Daymar as he began to empty them out. “Now we can all go bathroom if we need to.”

Yela picked up the *Emergency Protocols* manual and began paging through it. “Seems this ship was built in the shipyards near Deimos and it is over one hundred meters long. Oh, you know that room with all the pipes we walked through? Turns out that’s the life support controls. Handles all the oxygen and the water and stuff.”

“Maybe we could poison her,” said Cellin as she sat up from Yela’s lap. “Not enough to kill her or anything, but like maybe next time she took a shower the water would make her sick and then we could mutiny.”

“Even if we could find a way out of this room and a way to poison the water, do you remember how filthy her room was? Who knows how long we would have to wait for her to actually take a shower.”

“I don’t hear you coming up with any better plans.”

“That’s because there are no good plans. We’re locked in here and that’s all there is to it. Sitting and waiting quietly is the best way for all of us to get out of here safe.”

Cellin looked down and worried her finger at the small tear in the top of her shoe. “But what if we don’t?” Only the

wet spots on the cargo hold floor revealed that she was crying.

Yela opened her mouth to promise her sister that they definitely would be all right, but before she could say the words, she realized that she wasn’t sure anymore. She didn’t know where Rose was taking them or what else might happen. Yela suddenly felt helpless.

Here she was actually living an adventure that would fit perfectly into one of her books, and it felt nothing like she imagined. The characters in her stories always seemed like they were having so much fun when they were in danger. But then again, she never read about people like Annabelle Reynard and Lord Falton sitting around and quietly waiting either. Maybe this is what Baba meant when she would tell them that, “it’s hard to get anywhere if you’re not willing to take a single step.”

“Maybe instead of poisoning the water,” Yela began, to the surprise of Cellin, “we can use these emergency ventilation controls to flush the atmosphere out of the ship and knock her unconscious.” She pointed to the corresponding diagrams in the manual.

“Yeah! That could totally work!” agreed Cellin, wiping her eyes. “And we can use those pressure suits so that we stay awake.”

“Yes! We just need a way to get out of here.”

“I can’t open this box,” said Daymar. The two girls started, having temporarily forgotten that their brother was still there. “And it won’t move either,” said Daymar, tugging on the handle of a crate in the storage locker. The number pad on the front latch glowed red, showing that it was sealed.

“You could try the code she used to open the locker door,” suggested Yela. “2380.”



“How do you know what code she used?”

“She opened it right in front of us. It was kind of hard not to see.”

“I don’t understand your brain sometimes.”

“Same,” said Yela, playfully shoving her sister.

“The code worked!” exclaimed Daymar, lifting up the lid.

“Oh. There’s nothing in it. Not even a bottom.”

“What?”

Yela and Cellin rushed over to look. There was little light in the locker, but there was no denying that the inside of the crate was much darker than it should have been. Yela reached a hand in and as far as she could and met no resistance. “There’s no bottom.”

“That’s what I said,” reminded Daymar.

“I wonder what’s down there,” said Cellin.

“It’s too dark to see anything,” said Yela.

“I have an idea,” said Daymar before he left the locker and came back with one of the pressure suits. He fumbled for a moment and then all three siblings were suddenly blinded when the suit’s flashlight turned on. Not wasting a moment, Daymar dropped the suit down into the box. It fell for a few meters before coming to a stop in what appeared to be a crawl space located below the floor.

“It’s a secret tunnel.”

“Where does it go?”

“Let’s find out,” said Daymar. He pulled himself over the edge of the box and hooked his feet into a small indentation there. The box had a ladder built in! Daymar climbed down into the subfloor and crawled out of sight. “There’s a whole room down here.”

Not wanting to be left out, Cellin and Yela quickly followed down.

Automatic lights kicked on as they reached the end of the tunnel, revealing a small alcove lined with shelves.

“We found the pirate’s treasure,” said Daymar, looking at the various items on shelves with wonder.

“This must be where she hides all the stuff she smuggles,” said Yela. She delicately picked up a flat engraved stone from the shelf and lightly ran her fingertips over the markings. “I saw one of these during our school field trip to the Moscow History Museum. This is a cuneiform tablet. It’s thousands of years old.”

“Look at these goggles,” said Cellin, sliding the dark, oversized bug-eyed optics onto her head. “They’re just like the ones the settlers use in those old frontier shows Dad likes to watch.”

“This stuff is really valuable,” realized Yela. “I think Rose must specialize in smuggling rare historical artifacts. That explains all the books and stuff in her room.”

“Hey, cute little fella,” said Daymar, tapping on a transparent glass box. “What’s your name?”

Inside a hairy, slug-like creature crawled along the side, its underside undulating in a display of multicolor ripples where it glided along the surface. Daymar slid the lid of the box off.

“Careful, don’t touch it,” warned Yela.

“Don’t worry, it’s friendly,” assured Daymar as he very carefully put his hand into the box. “It’s a sniblet. They’re from Aremis. I learned all about them on *Kid Kadets*.”

“So what’s it doing in here?”

“That’s easy. Sniblets are treasures too because people in Vega tried to wipe them out. There’s not very many of them left.”

“I thought you said it was friendly.”





"Friendly to people. Sniblets eat metal though. Look." Daymar placed the sausage-esque furry creature on top of a bronze sculpture of two people kissing. As the creature crawled along, the metal practically vanished and within seconds there was nothing left of the torsos of the young lovers.

Yela checked the tag on the sculpture. "He just ate a Rodin. Whatever that is."

"I guess he was hungry," said Daymar. "Maybe that could be his name." Daymar lifted the sniblet up to his face. "How about it. Do you like the name Rodin?"

"How much metal do you think Rodin can eat?"

"They can eat a lot. Why?"

\* \* \*

"These bitter melon drinks are pretty good," said Yela, taking another sip. "Sort of like a lemon apple flavor. You sure you don't want to try?"

Daymar shook his head no, and focused on guiding Rodin back onto the path they had drawn. The little sniblet had already eaten his way along a good chunk of the cargo hold's exit hatch.

Cellin fidgeted inside the baggy pressure suit she was wearing. All three siblings had put on the suits so they'd be ready to flush the ship's atmosphere the minute the little creature had finished munching their escape route.

"I shouldn't have let you drink that coffee boost," said Yela to her sister. "Look how jumpy you are."

"How much longer is this gonna take?"

"Shouldn't be much longer. Rodin's making really good progress," said Yela.

"No he's not," said Daymar.

The sisters came to look. Sure enough, the noticeably fatter sniblet was no longer moving.

"I think he might be full" Daymar gently picked up and prodded Rodin but it had no effect.



"How about it. Do you like the name Rodin?"

"I guess we'll just have to wait for him to wake back up," said Yela.

"No, I can fit through," said Cellin. Taking off the large pressure suit, she put one foot through the partial hole in the door and then the next foot. She pushed herself through up to her hips, and then sucking in her breath, twisted and wiggled until she managed to only just barely squeeze all the way through. There was no way that Yela or Daymar were going to be able get through the same way as their younger, more flexible sibling.

"Fantastic! Now you can open the hatch for us!" said Yela.

Cellin tried the control panel, but the door stayed firmly in place. "It's locked on this side too. Says I don't have permission."

"That means the only way to open it is the security controls on the bridge."

"Give me my suit and I'll get you out."

"What? Let you go alone?"



“You two are too big, and we can’t risk waiting for Rodin to wake up. Who knows what might happen or how long sniblets nap for,” said Cellin. “Just tell me what to do and I can flush the air.”

Yela’s instinct was to argue and protect her sister, but after everything they had been through that day . . .

“Here.” Yela handed her sister the crumpled pressure suit and helmet through the small opening, and using the diagrams in the manual, proceeded to explain what Cellin would need to do in order to trigger the emergency ventilation controls and open the cargo bay hatch.

Once their younger sister was out of sight, Yela and Daymar put on their helmets and waited.

It was probably only a minute or two, but standing there, hearing her own heartbeat inside the helmet, Yela had a much deeper appreciation for when her science teacher had tried to explain to them how time was a relative concept.

“Do you think Rose found Cellin?” asked Daymar, gently stroking his gloved finger along Rodin’s back as way to calm himself.

As if in reply, there was a loud clunk, followed by the rushing sound of wind. The atmosphere was being sucked out of the cargo hold!

“Rodin, look,” said Daymar. “Cellin did it!”

*Rodin!* Yela had been so worried about Cellin that she had almost completely forgot about the little sniblet. “Daymar, Rodin won’t be able to breath,” said Yela. “We have to get him inside a suit.”

If she had stopped to think, there was no way she would have done it, but right then, as all the air drained out of the room, it seemed like the obvious choice. Yela sucked in a deep breath and took off her helmet.

The wind rushed past her face so hard that she could barely keep her eyes open, and then a split second later the wind stopped. The atmosphere was all gone. Leaning forward so that Daymar would be able to reach her suit’s opening, Yela hoped that he would understand. Her lungs were burning as Daymar reached forward and slipped Rodin into her pressure suit. Not wasting another moment, she snap her helmet back into place, and sucked in a deep breath.

As she panted heavily, Rodin began to crawl across her faceplate.

“He’s awake! You did it!”

It was then that the cargo hold door slid open.

“Come on,” panted Yela. “Let’s find Cellin.”

As they entered the engine room, they heard the rush of wind again. Designed to put out fires and flush toxins, the ship’s emergency ventilation protocols were already pumping atmosphere back in.

Crossing through life support, they arrived at crew quarters to see Cellin standing above the unconscious body of Rose and holding Baba’s gift proudly above her head.

“Mutiny! The ship is ours!” cried Cellin triumphantly.

*To be continued*



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