

JUMP POINT

A ROBERTS SPACE INDUSTRIES PUBLICATION ISSUE 01.07



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GREETINGS, CITIZENS!

This month we return to the 300 Series, but to forestall complaints about *been there, done that*, let me point out that this month's Work in Progress article starts where the last one left off (in early conceptual development); everything after the first couple of pages is entirely new to **JUMP POINT**. The 300 Series is certainly not as big as the Constellation, but the details of the four different models were interesting enough to fill almost as many pages.



Meanwhile, we've got Terra and Origin Jumpworks from Ben, the inside scoop on the new website from John and Zane, and the final episode of the first half of Doug Nile's story, *The Void Rats*. We'll pick up with the second half of the story in October, but in the meantime, I think you're gonna enjoy the new three-parter we have for you over the summer.

I've noticed various suggestions for what ships you'd like to see next in **JP**. We'll keep your wishlists in mind, but please realize that for the most part, you're getting what we have available; we're not holding out on you (well, not much). You get the 300 Series this month because we just completed it; you're not getting the Freelancer or the M50 because they're not ready to display yet. Another entirely reasonable suggestion is that we run a small update on

300i STATS

Builder: Origin Jumpworks

Length: 24 meters

Crew (max): 1

Mass (empty): 20,000 Kg

Focus: Touring

STRUCTURE STATS

Upgrade Capacity: 6

Cargo Capacity: 8 tonnes

Engines: ACOM StarHeart III

Main Thrusters: Hammer Propulsion HE 5.3 (TR3)

Maneuvering Thrusters: 12 x TR1

Shield: Gorgon Defender AllStop

HARDPOINTS

2 x Class 1 (outer wings): 2 x A&R Omnisky VI Laser Cannon

1 x Class 2 (nose): nothing equipped

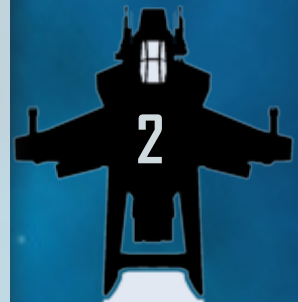
2 x Class 3 (inner wings): nothing equipped

each ship every month. That's reasonable, but not the way we've decided to present the ships in **JP**.

An interesting note regarding the 300 Series: while you can see the way it developed (and became four distinct models), you can also see how its name(s) developed, beginning with 300i and continuing into the eventual "300 Series," including the 315p, 325a and 350r. (Well, interesting to me, but then I'm an editor.)

One request that should be possible is to deposit all images in **JP** into the Vault, so you don't have to extract them from the PDFs yourself. Please nudge me when we forget to do that within a couple of days after each issue.

(Continued on back page)



FROM THE HICKORY

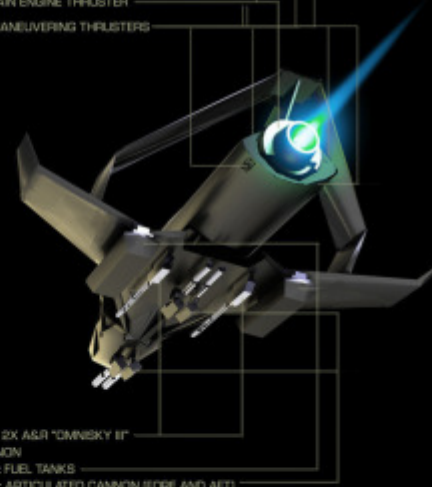
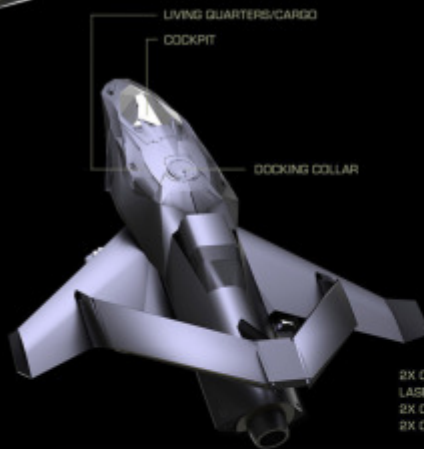
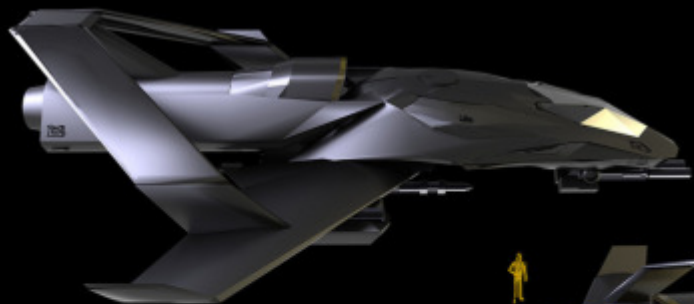
300 Series

ORIGIN JUMPWORKS GmbH
300i

This month's Work In Progress returns to the 300i (which we first explored in the initial **JUMP POINT**, six months ago, and which has now become the 300 Series) and chronicles the completion of ORIGIN Jumpworks' speedster. Kemp Remillard, senior concept artist with Massive Black, created five concept images, and Chris Roberts se-

lected the fifth. We'll repeat a couple of the images from that **JP**, to catch you up, and then continue from there.

In the following discussions, **CS** is artist Chris Smith (with an assist from Elijah McNeal, **EM**), **CR** is Chris Roberts and **CO** is art director Chris Olivia. (Federal requirements are that 20% of the staff be named Chris.)



OPTION #5



Kemp: Chris liked the overall design on option #5 but felt that the nose looked too much like an F-22. So the look was altered with a flatter nose and a tilt-down to give the pilot more visibility from his view-port

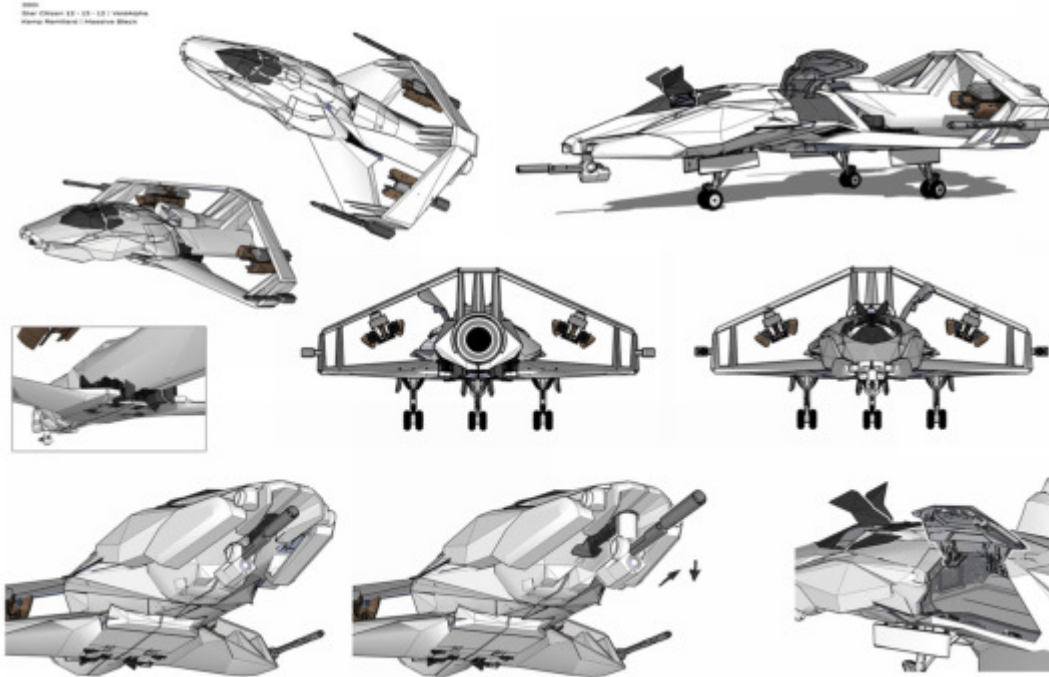
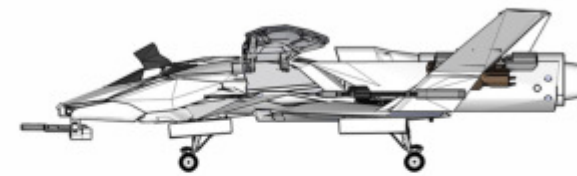
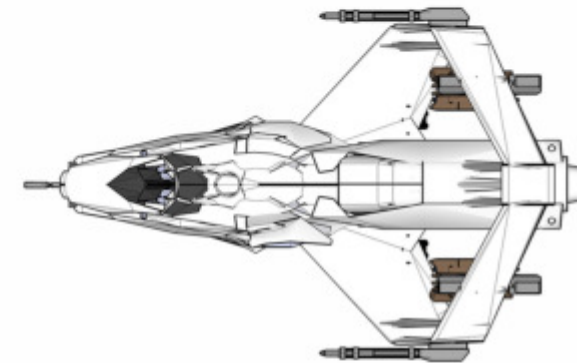
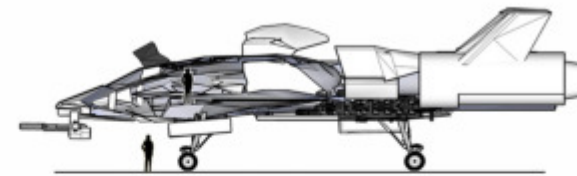
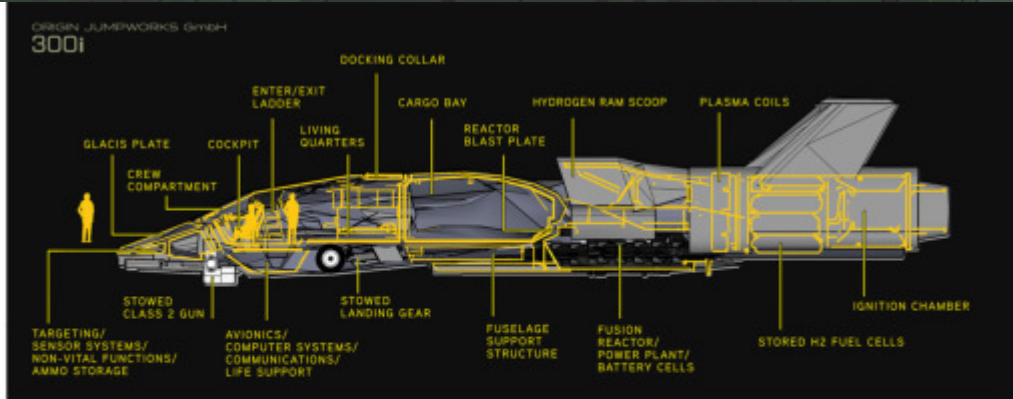
and steer away from too much of a fighter-jet look. The class 2 weapon was mounted on the front under the nose, and a rough interior was sketched out to work out some of the interior spaces.



WORK IN PROGRESS

Kemp: This brings us to the current configuration for the 300i [ed.: @ December 2012]. Some additions and changes of note are cargo bay doors (this will likely be one but possibly two), retractability for the class 2 gun mount, removal of the frontal nose canards (don't really need them

in space), placement of the class 3 mounts, and reinforcement of the engine mount. At this stage I thought I'd get creative and try to work out some of the fictional details of the interior layout, along with locking down the proportions of the spaces compared to people.



SYSTEMS
WORKING
IN PROGRESS



CS: Some WIP renders of the high poly 300i model. I'm almost done with the exterior and will probably move on to the interior tomorrow.

CR: Progressing nicely!



WORK IN PROGRESS

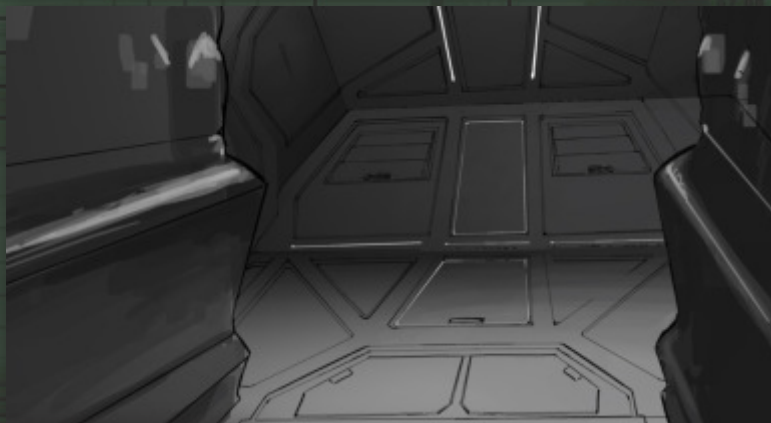
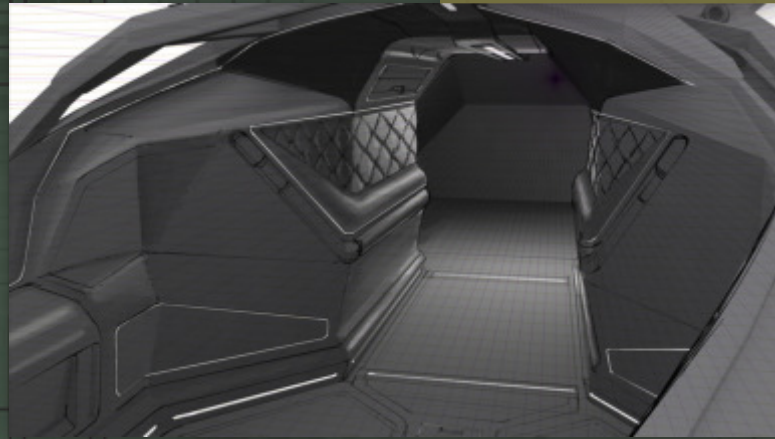
EM: 300i interior. Aft Cockpit and Forward Cargo spaces.

CR: Looking pretty good. My big note is that I think the luxury "Padding" feels like it should be more leather — think leather inlays in a BMW or a Jag — maybe with some nice chrome edging? Current padding is cool, but feels more Rolls Royce, if you know what I mean.

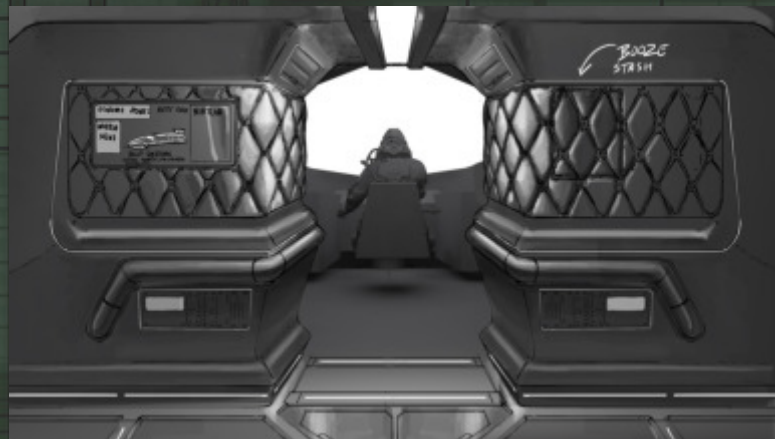
Cockpit lighting



From Cockpit looking back to Forward Cargo space.



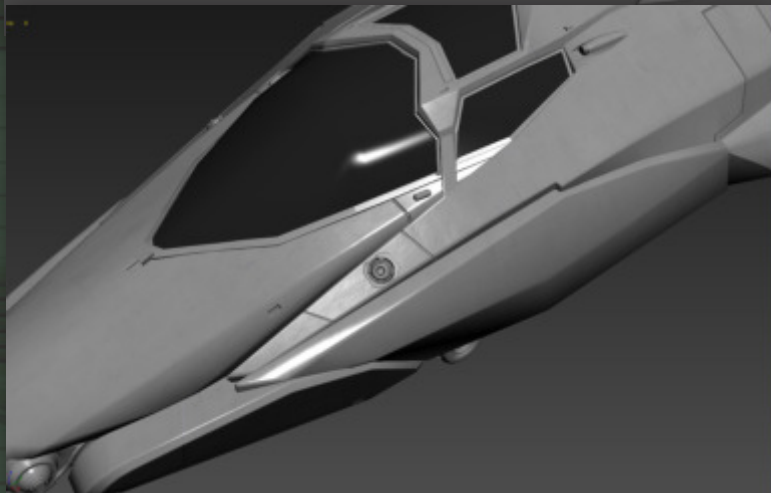
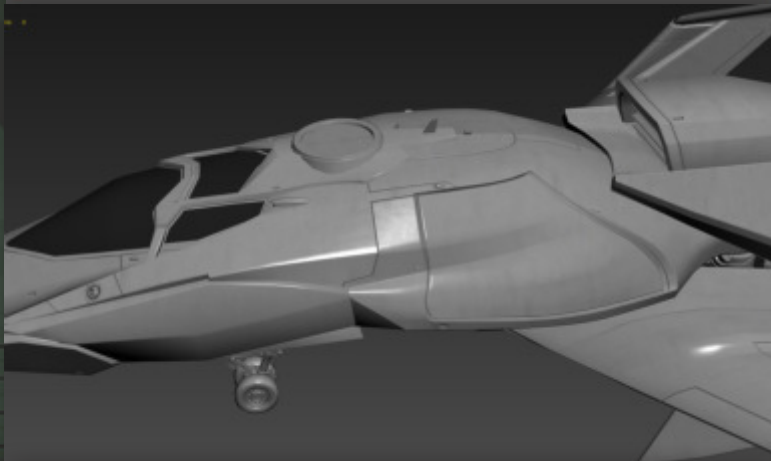
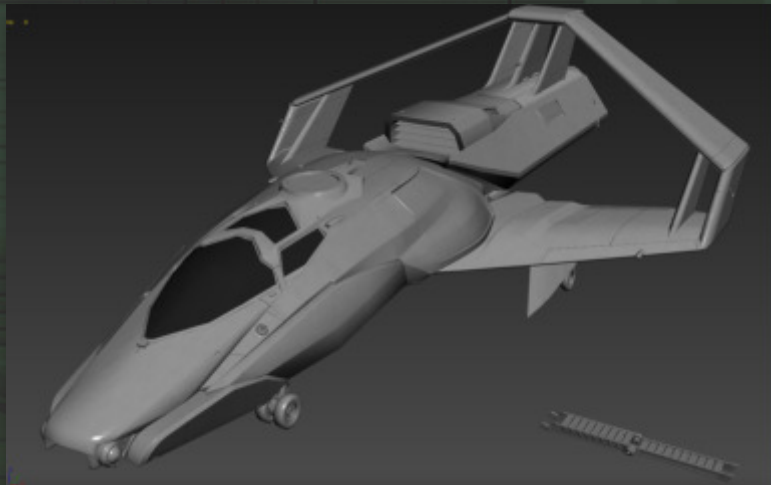
Cargo



From Forward Cargo space looking toward Cockpit.

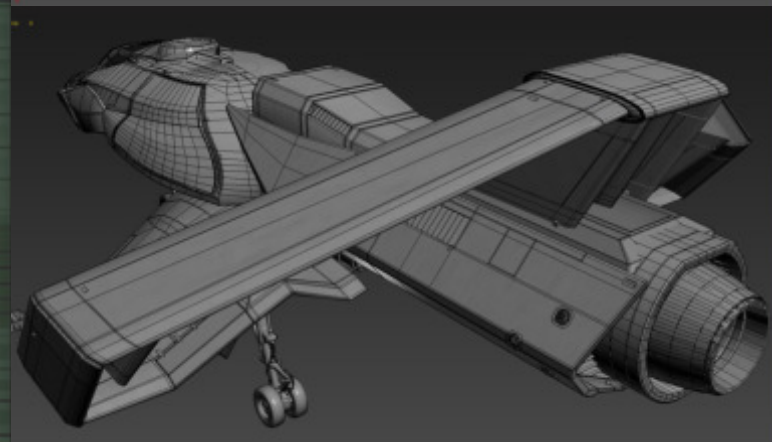
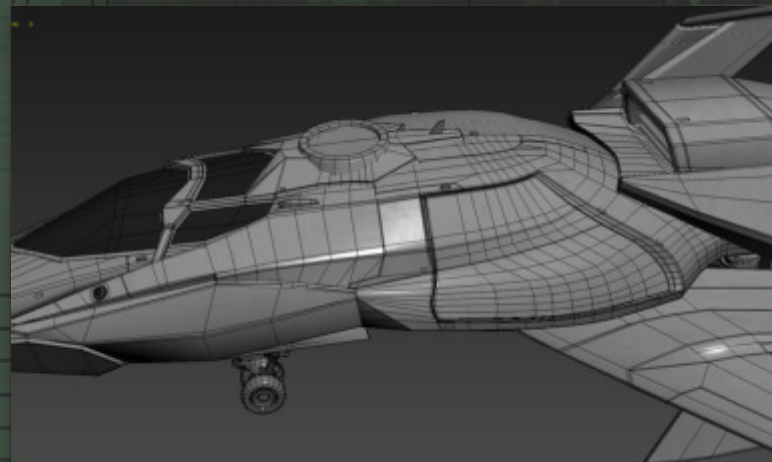


WORKING IN PROGRESS



CS: Model currently stands at 65k tris, has a 4096 texture for all the mechanical parts and a 1024 tiled texture for all the main hull shapes. Interior is in progress.

CR: What's our estimate on face count for the cockpit of other parts (like weapons)? 65k tris is very low — budget for LOD 0 fighter size ships can be 200-300K tris (including cockpit / interior). If there are any areas that need more surface / shape resolution then we have plenty of room, but should only be if needed, though.



WORKING IN PROGRESS



CS: Here are some renders with textures. I put it in the game yesterday and will finalize the variation of the hull texture in the engine. All the mechanical parts are using a 4096 texture and all the hull parts are tiled and utilize a 1024. The poly count is at 69.000 tris without the interior.



CR: Exterior paneling feels low res to me; same on the canopy. Maybe add more faces and do some more details / cut-ins? 69K is about 1/2 the face count of the Hornet exterior.

Also I would like to see decals (signage / markings, burn marks, etc.), plus a dirt layer. Some color from this would be good — right now we're rather plain.

Is this set up to rig easily and animate for things like the deploying ladder, hatch, docking ring, landing gear, front game, etc.?



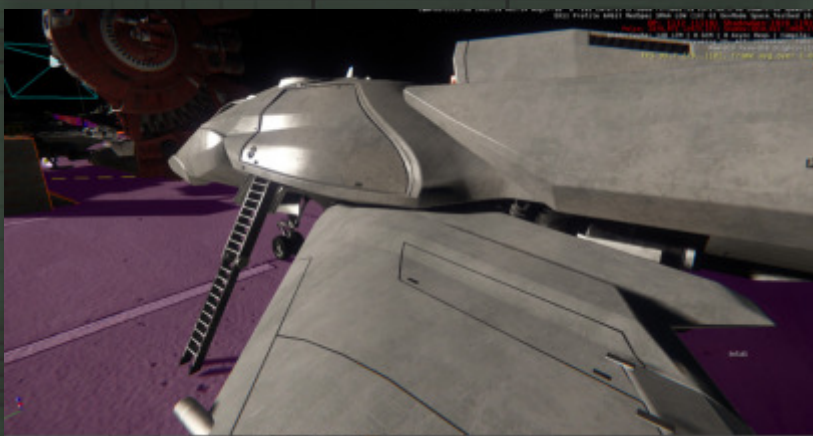
WORK IN PROGRESS



WORK IN PROGRESS

CS: More renders with textures.





CS: Some quick in-game shots.



WORKING IN PROGRESS



WORK IN PROGRESS

CS: Here are some paintovers I did last night with how I would imagine the 300i to look like on the outside after applying decals and paint jobs. I added a little paneling into the tiled texture underneath, and it works out pretty nicely in giving some extra interest and detail.

Also, since the description states the 300i is silver, I'm

going toward a more silver direction with the base texture (in the paintovers, the tiled texture was still more on the white side; it's more silver now).

A couple areas in the front and the big shape in the back will also be broken up by adding vertex color to make those parts darker.

CS: A few progress shots of the 300i in the engine. I've been playing around with the material shaders to get a silver metallic effect. I've also added some vertex coloring to certain parts to get some more breakup in the hull, but I'm still tweaking those values. Also, the windshield is not final for sure. Next is a test on how do implement a paint job which I think will set this vehicle off nicely.

CR: Starting to look good! Windshield definitely needs more

love — maybe a lot more faces to make a proper bubble canopy?

Are there any dirt textures on this?

The decals don't feel as integrated as they do on the Hornet. (On the Hornet, the dirt textures and slightly transparent decals helps.)

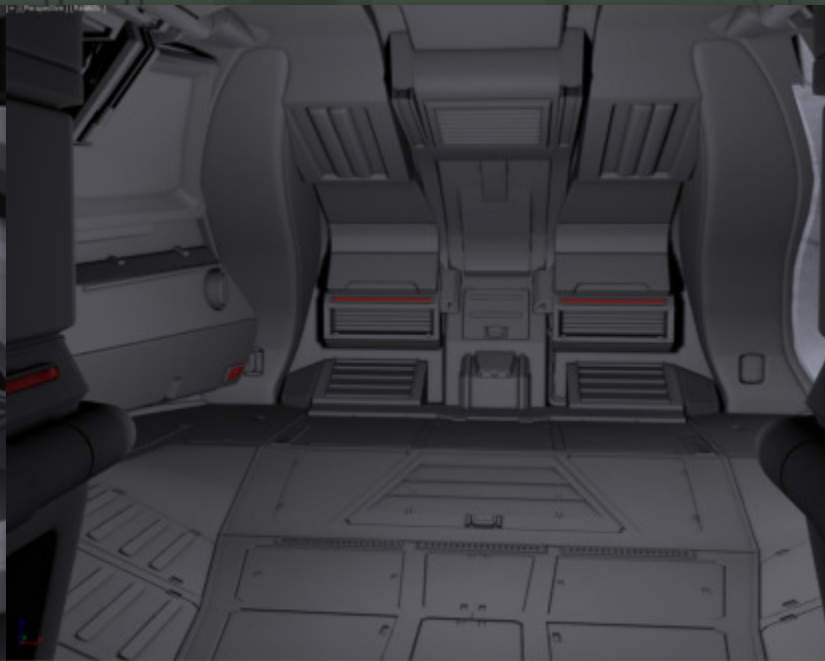
There could be more signage / decals.



CR: What about rigging/animation?

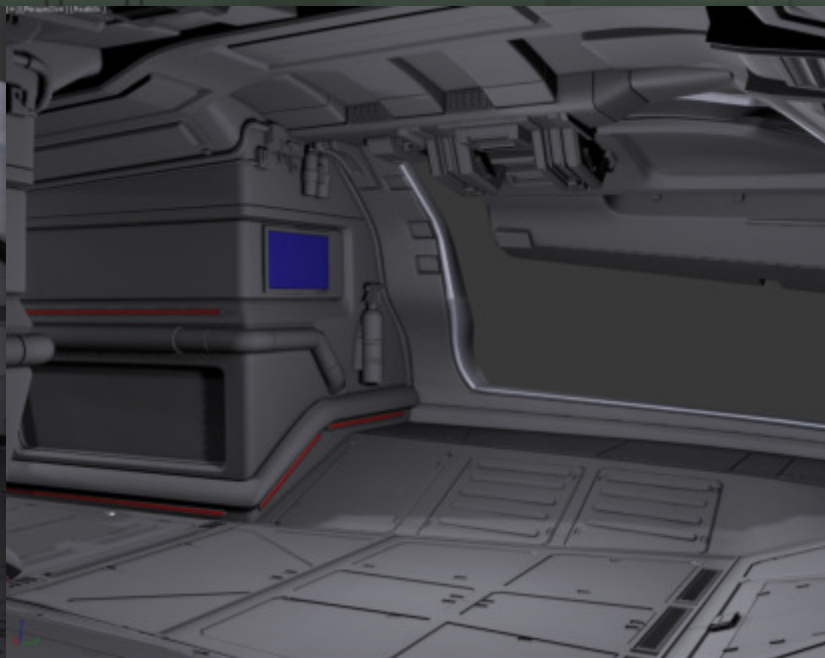
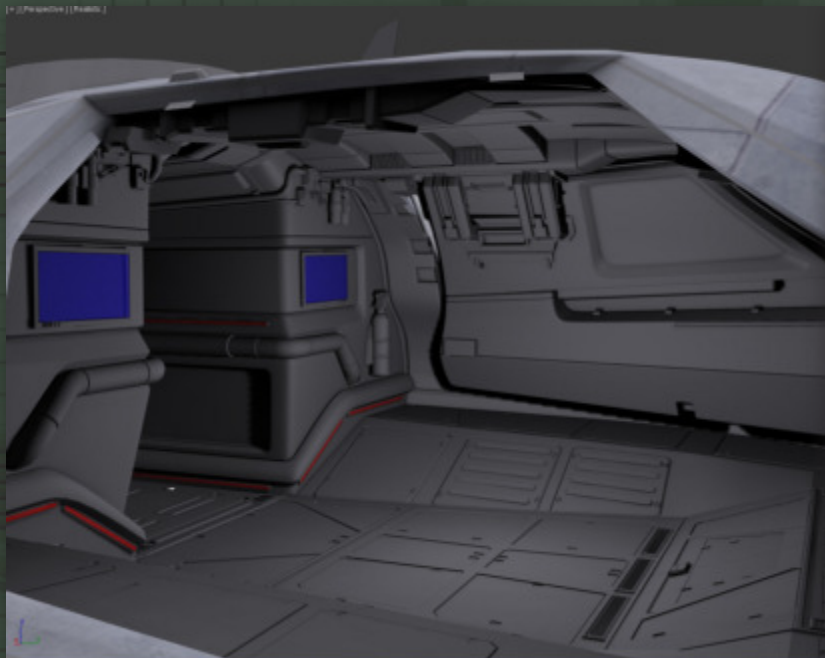


WORKING IN PROGRESS

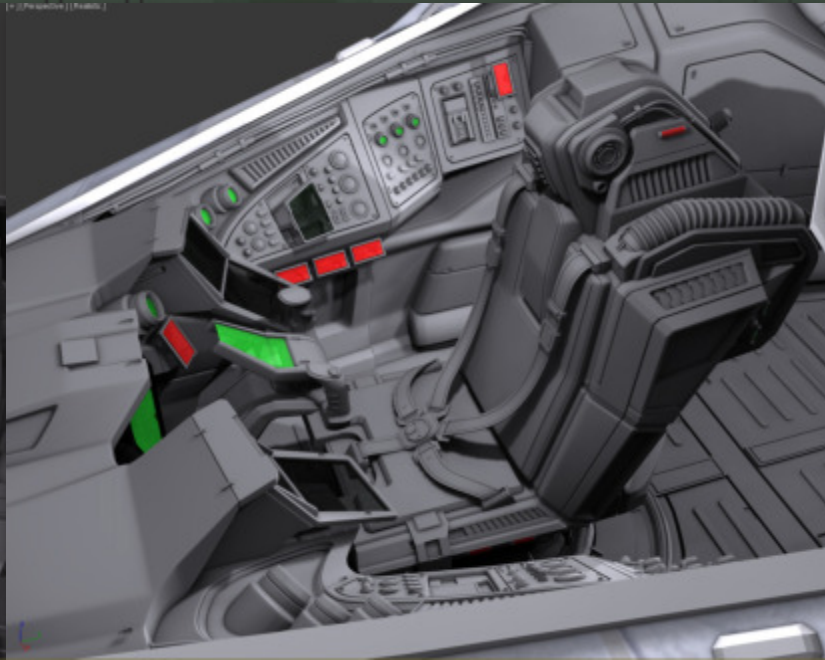


CS: Shots of the interior modelling.
CR: Wow. bad ass!

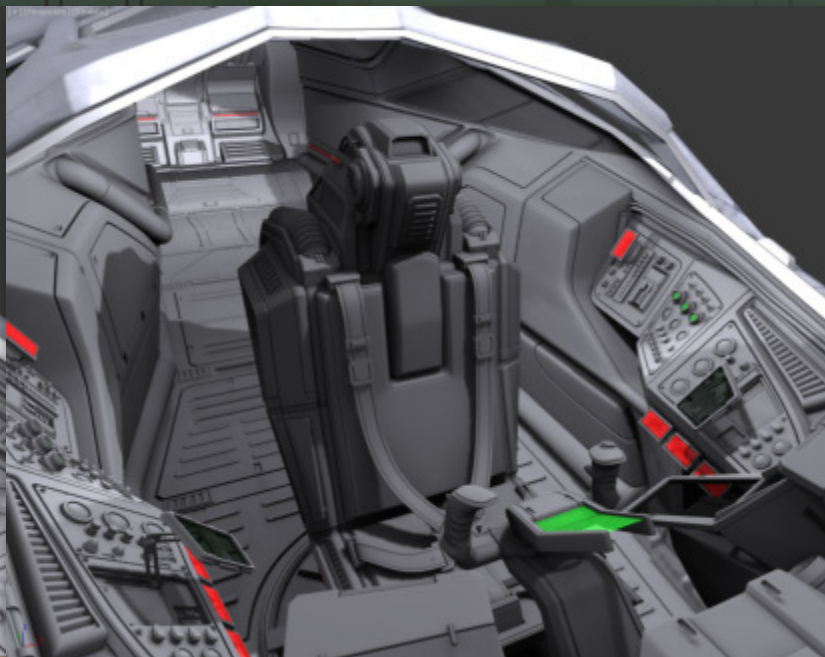
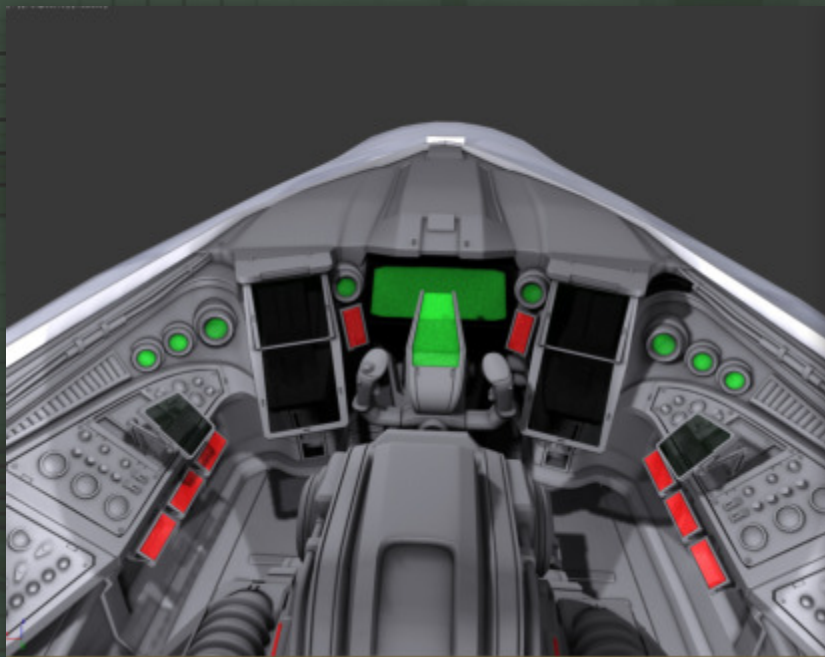
What kind of animations / equipment deployment / moving chair, etc. are you planning on?



WORKING IN PROGRESS



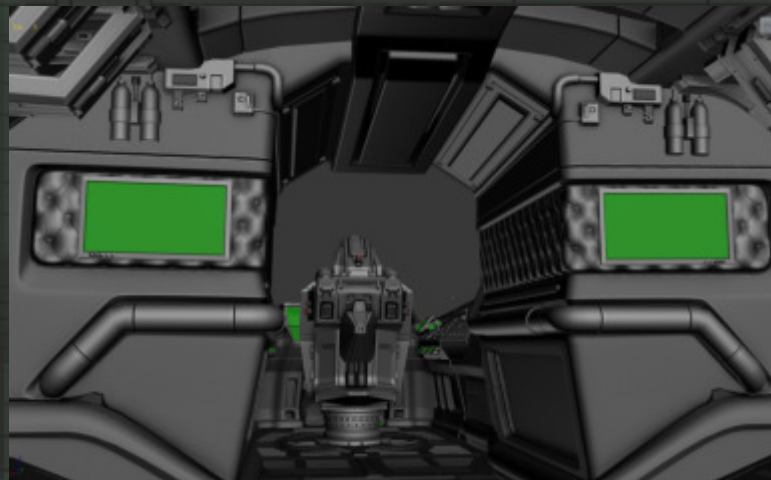
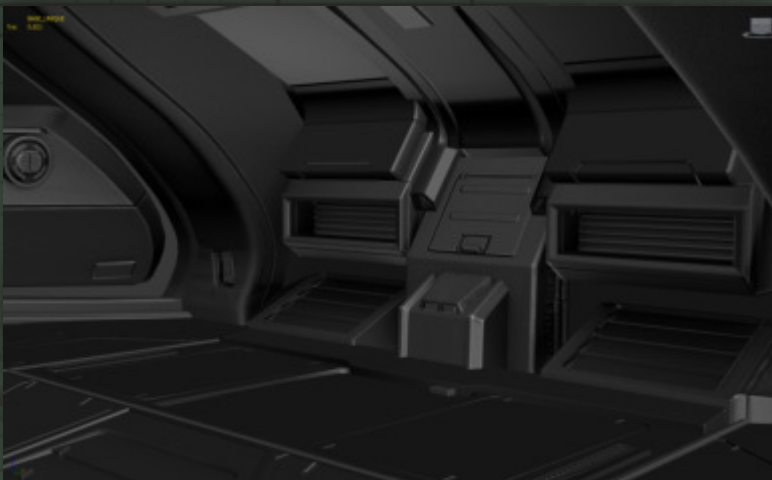
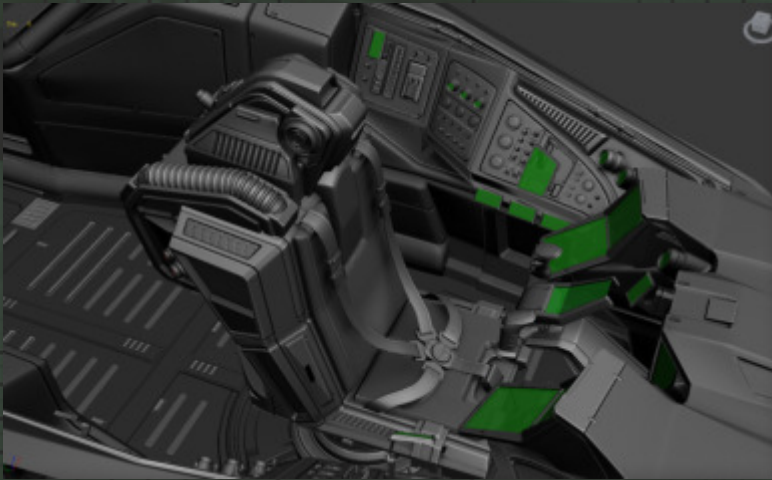
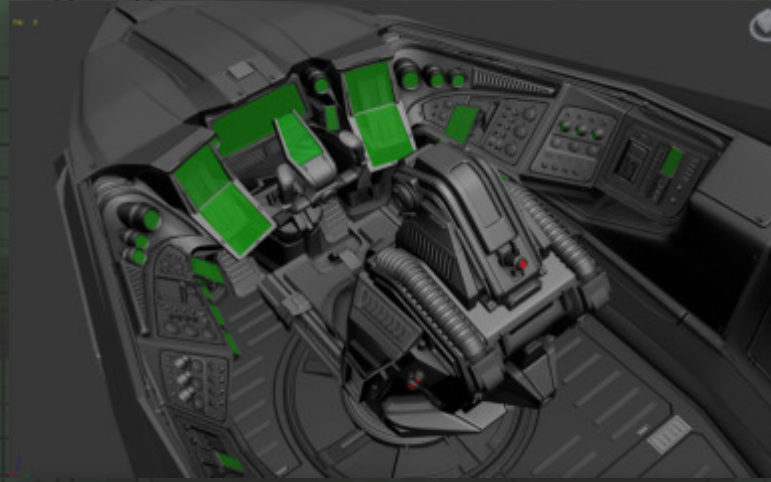
CS: More interior modelling shots.



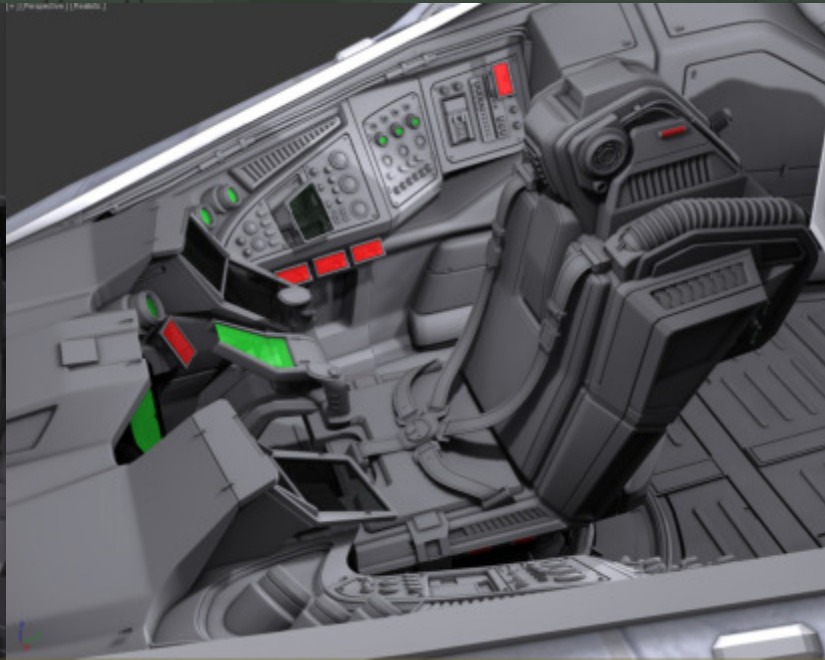
WORKING DRAFTS

CS: Here are shots of the 300i interior, with normal maps applied. The floor and some part of the walls are tiling textures. (No color texture applied yet. ;)) Moving on to the color tonight; I should have a good first pass by tomorrow. I also have to make a pass at the computer screen readouts.

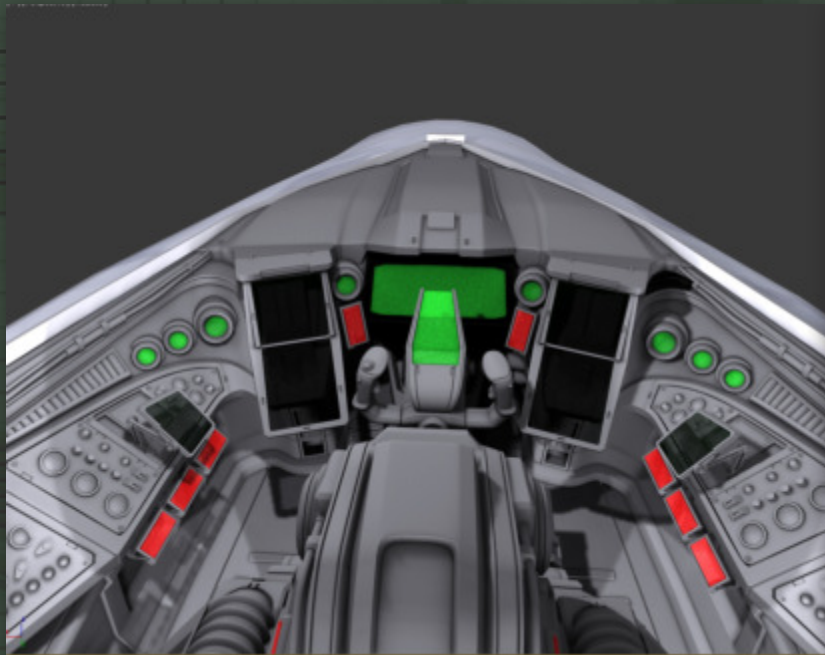
CR: Looking good — can't wait to see with more than just bakes! Remember that we want cool animation inside the cockpit / living quarters, as well as some cool external ones. In fact, we should always be thinking about how much life / coolness we can add via animations inside the cockpit, as that is where you will spend most of your time.



WORKING IN PROGRESS

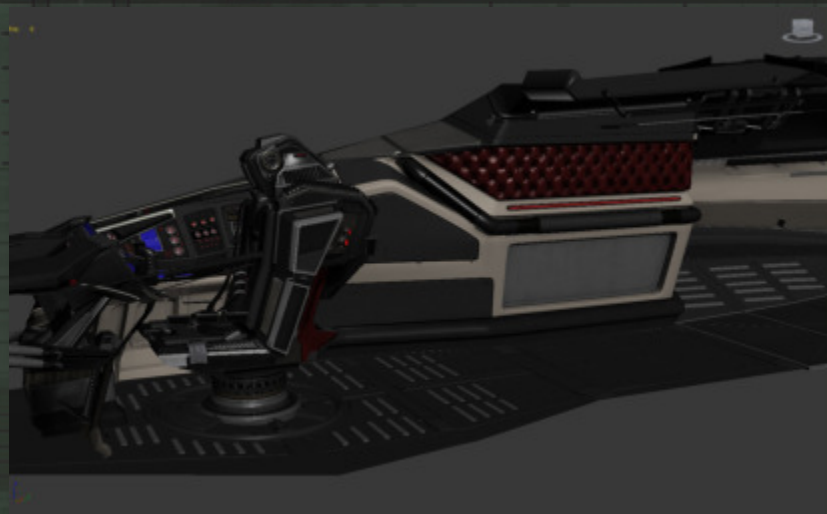
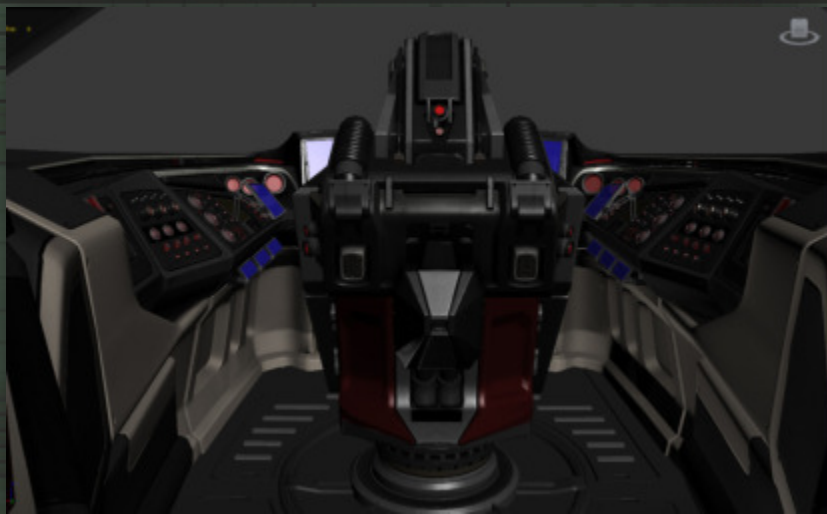
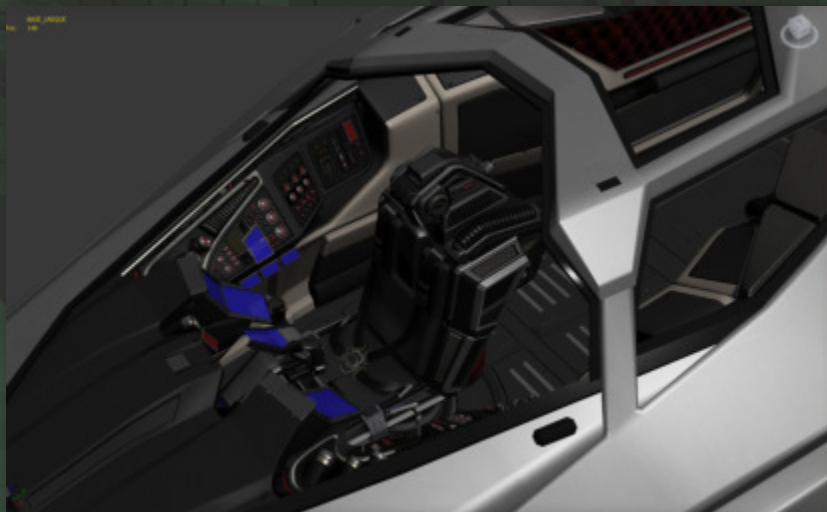


CS: More interior modelling shots.



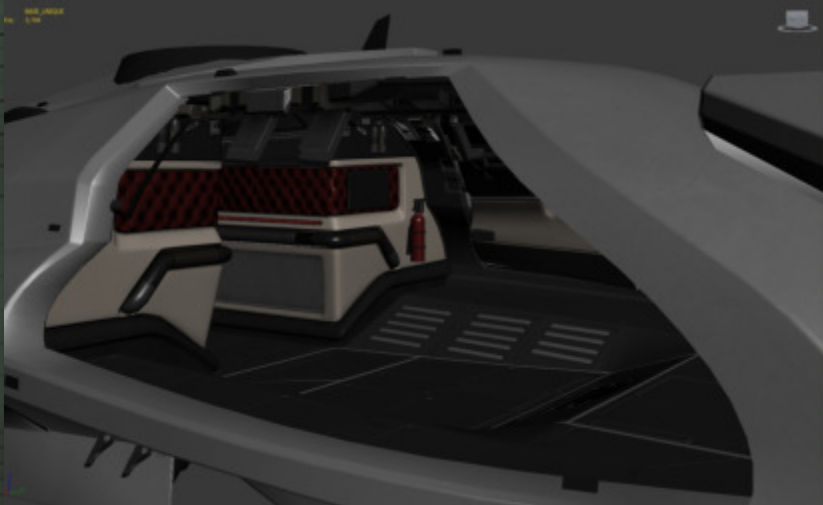
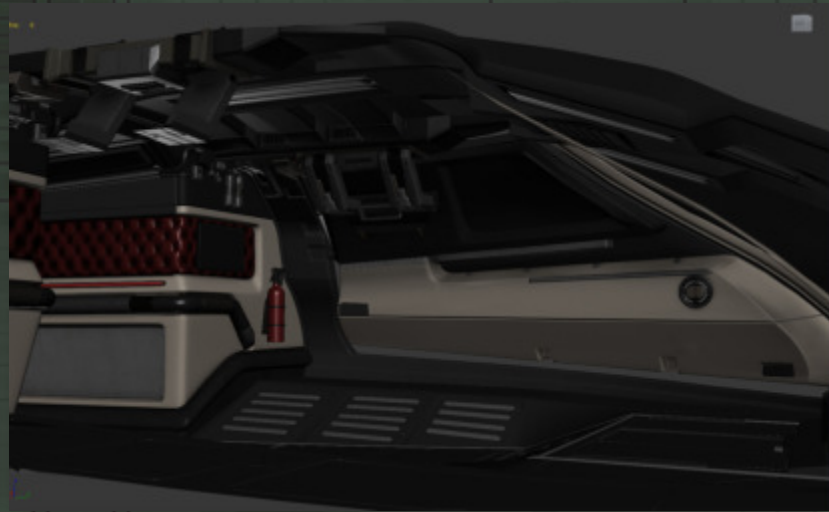
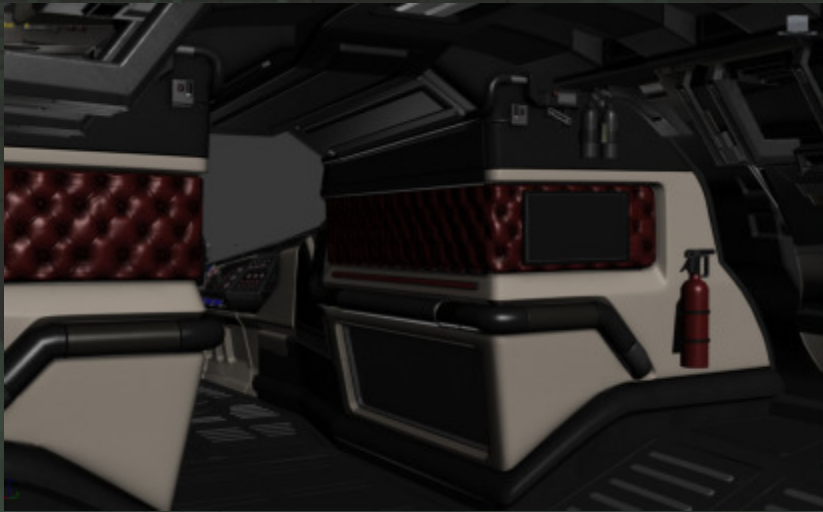
WORKING IN PROGRESS

CS: Some color progress. I'm going with a BMW two-tone thing right now; what do you think of that? A little luxury cream leather mixed with sporty black? We can make variations eventually, too (all black, brown, etc.). I'll be working on it over the weekend and I should have it ready for in-game shots and animations next week.



WORK IN PROGRESS

CS: Also, I was going to make an alternate version of the 'cushion' wall ... It's looking good but it might be a little out of place style-wise.



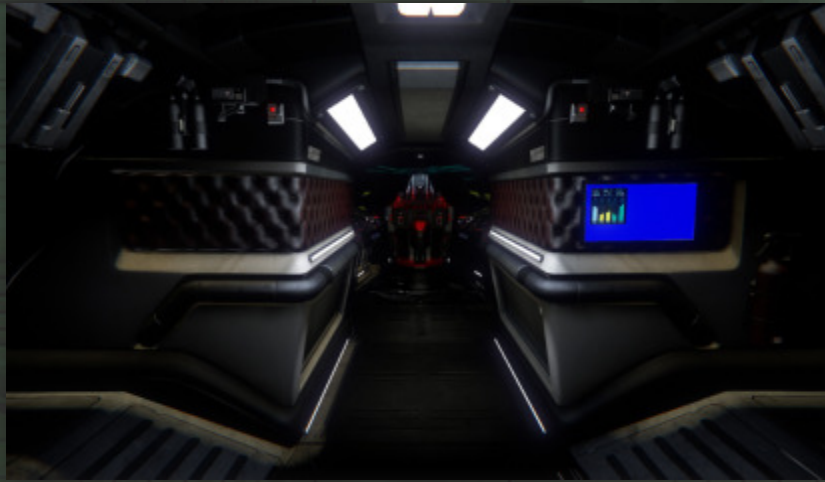
WORKING IN PROGRESS



CS: Some in-game interior shots. I did a lighting/mood pass on it (with help from some of Forrest's tips and tricks :)). The computer and TV screens are place holders at this moment (I bashed them from the Aurora cockpit screens). I'm also still working on getting the window reflections right. And I'm still going to make an alternate pattern for the 'cushion wall.' But first, Brian and I will sit down and get the animations banged out.

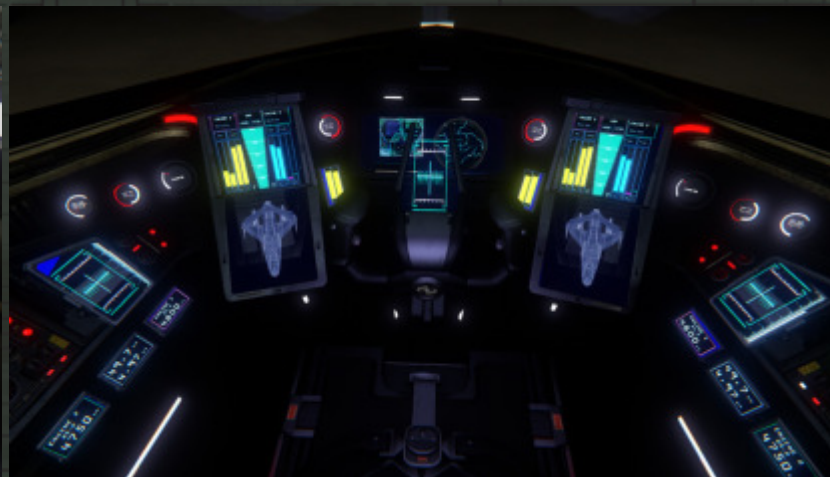
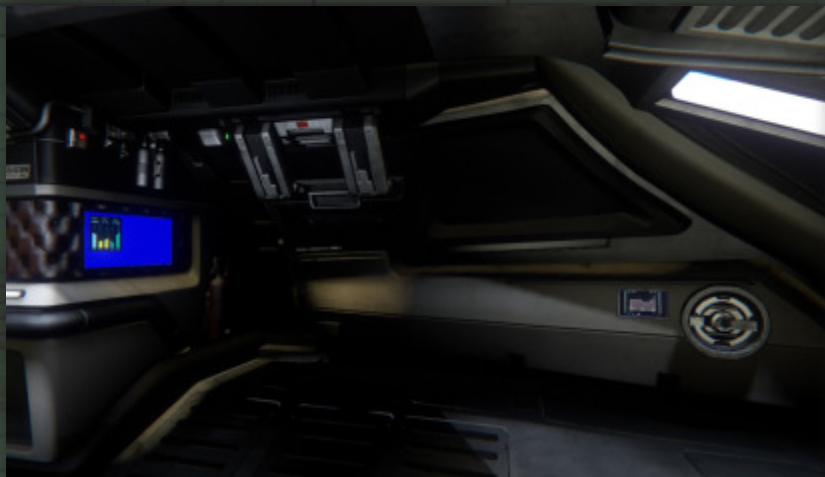
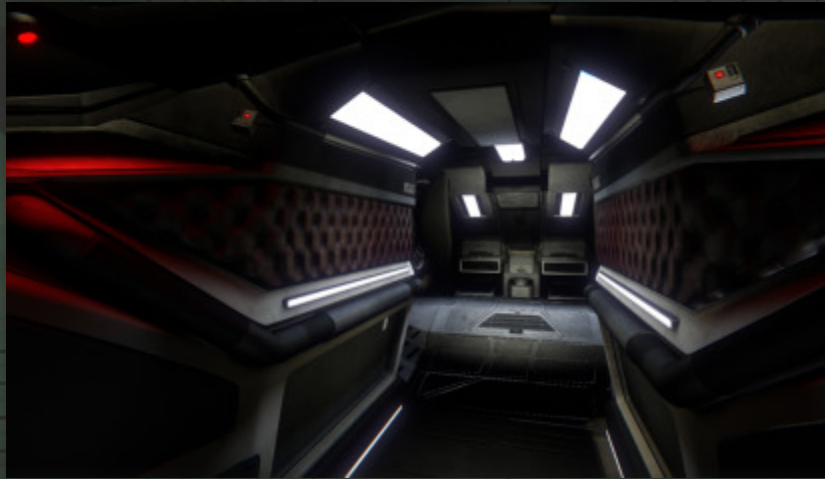


WORKING IN PROGRESS

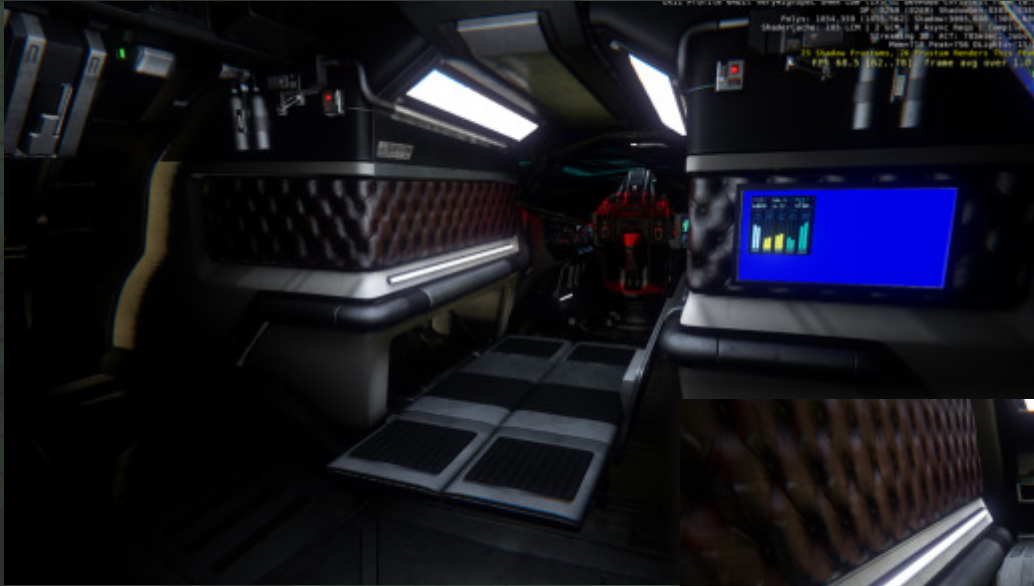


CR: Looking good! Don't forget lots of detail animations for the cockpit / hold — you'll spend a bunch of time in here if it's your ship, so it needs to feel alive ... Also, shouldn't we have a flip-out cot / bed in the back for sleeping? Even the Aurora has a place to sleep.

BTW, how are we planning on implementing the safety harness? It could be a separate object (skinned) and start in the open position (unlocked, straps hanging open), then when the pilot sits down we can trigger its get-fastened animation which runs in tandem with the pilot buckling up animation.

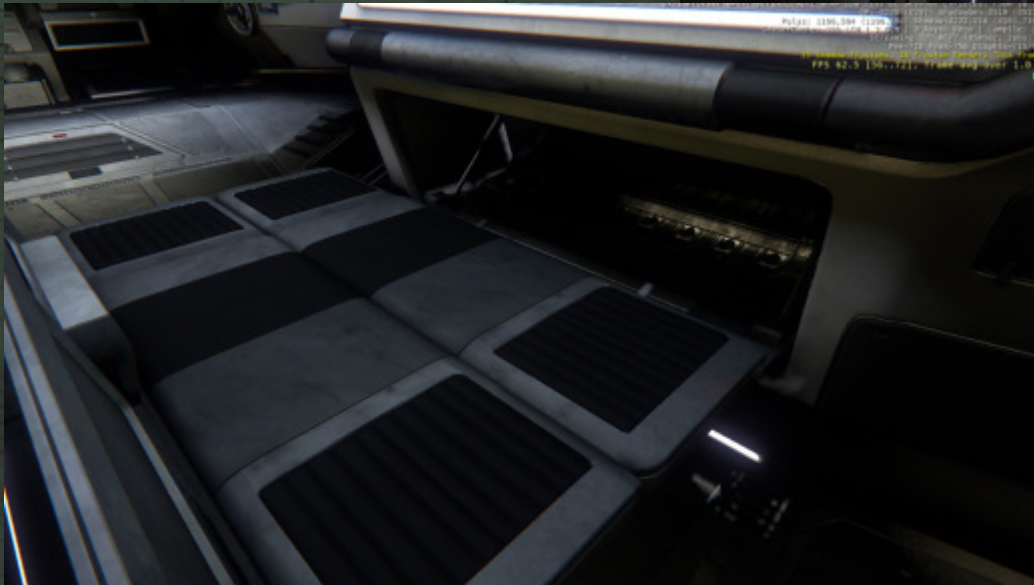


WORKING PRIORITIES



CS: Some shots of the bed in game.

CR: Looks great! Nice work!



WORKING IN PROGRESS



CS: Added some quick shots of some paint job variants. Also, this is an updated version, with more detail added all over the hull for more interest. I've also added more lights as well (including a red light for the port side and green for the starboard side;)). The tiled texture and UVs were also worked over a bit.



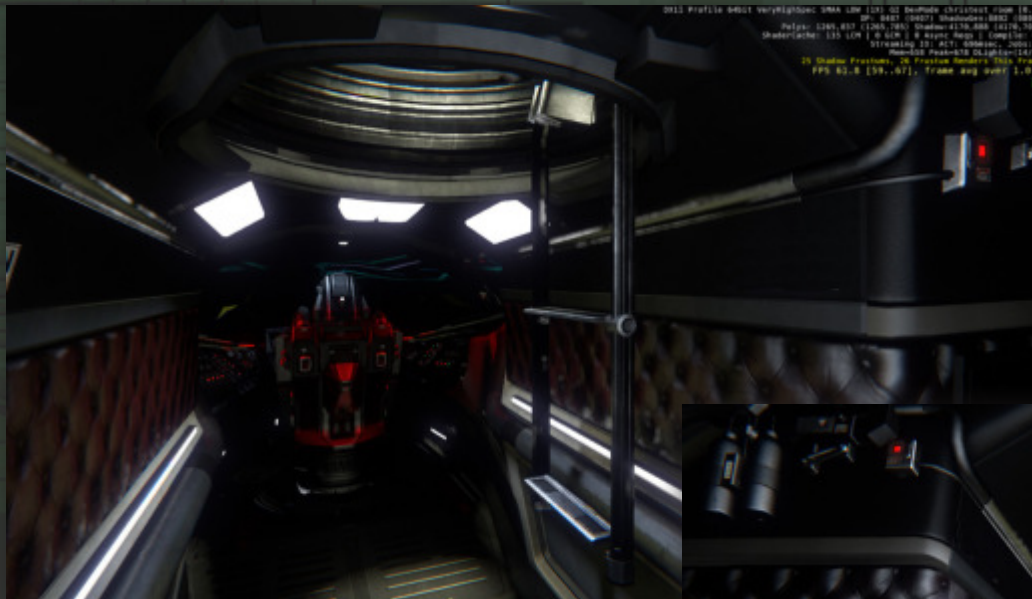
WORKING IN PROGRESS



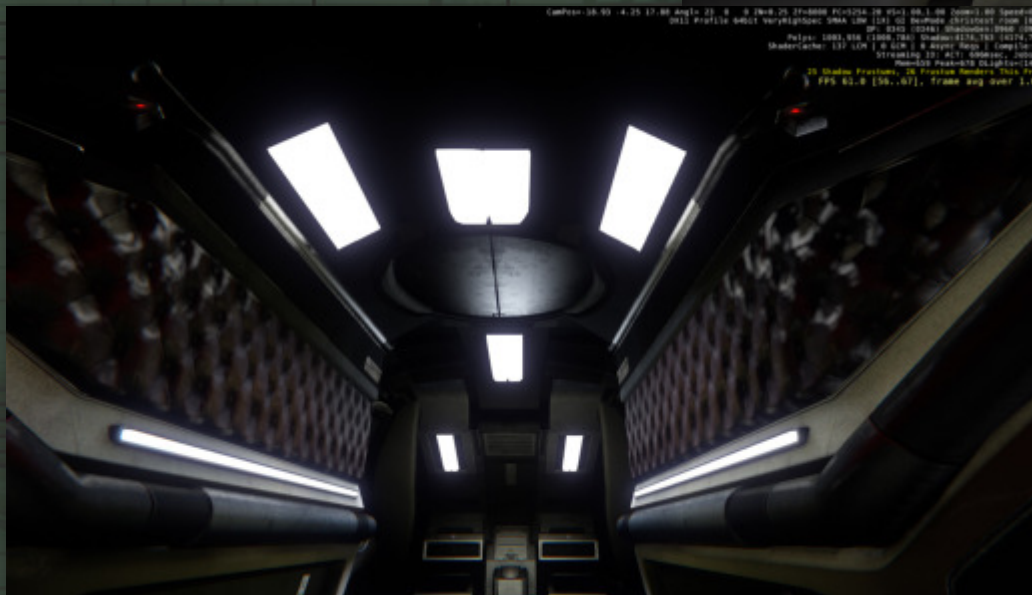
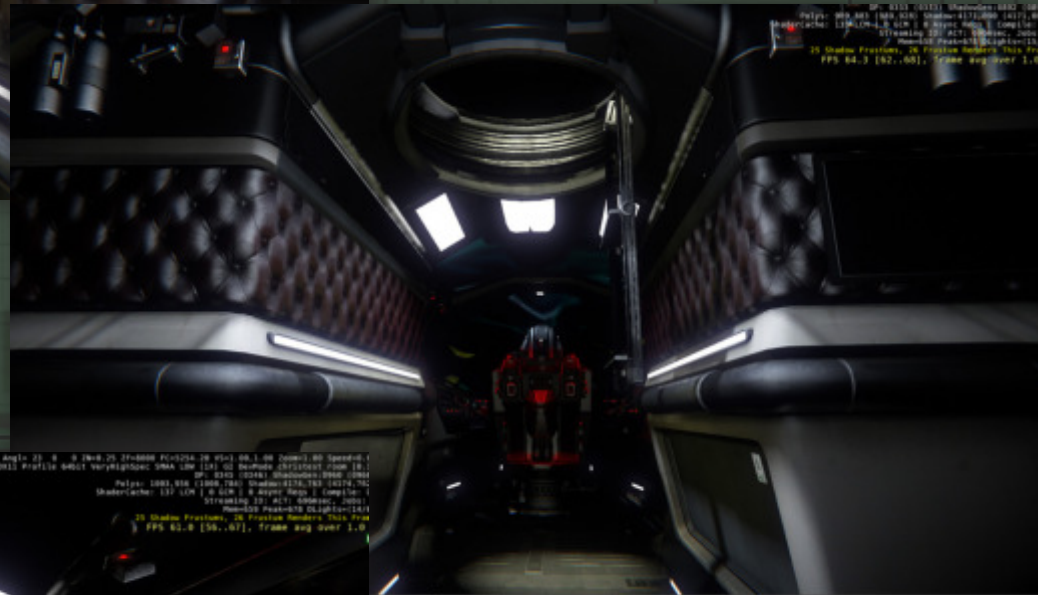
CO: Very nice ... I was going to say that the port and starboard lights were too christmas treeish, but never mind; I love it. The only thing I would say is the ORIGIN 300i decal seems too vivid and stands out too much — is there any way to tone it down? It bothers me more on this version than the red one. It might just be this angle.



WORKING IN PROGRESS



CS: Here is the hatch in-game textured. Ended up being a pretty quick deal. I'll work on the animation a bit more — you're saying have the top hatch open a bit later once the ladder is down, correct?



WORKING ON THE



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DP: 0418 (3418) Shadower/300i (300i)
Pelzer: 135 LHM | 1190 | 257 | 0.00 | 1.00 | 1.00
Shadower: 135 LHM | 1190 | 257 | 0.00 | 1.00 | 1.00
Hannes: 135 LHM | 1190 | 257 | 0.00 | 1.00 | 1.00
FPS: 60.5 [57.00], Frame avg over 1.0
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```
DP: 0418 (3418) Shadower/300i (300i)
Pelzer: 135 LHM | 1190 | 257 | 0.00 | 1.00 | 1.00
Shadower: 135 LHM | 1190 | 257 | 0.00 | 1.00 | 1.00
Hannes: 135 LHM | 1190 | 257 | 0.00 | 1.00 | 1.00
FPS: 63.2 [59.70], Frame avg over 1.0
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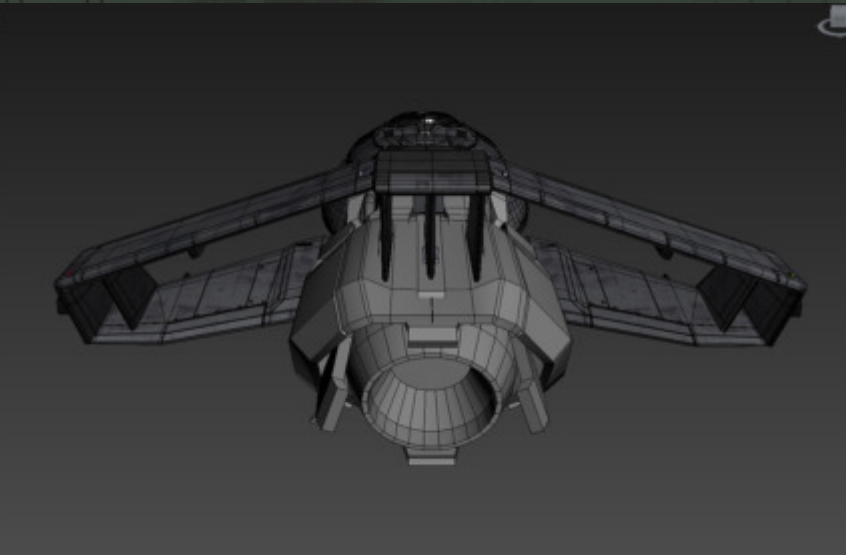
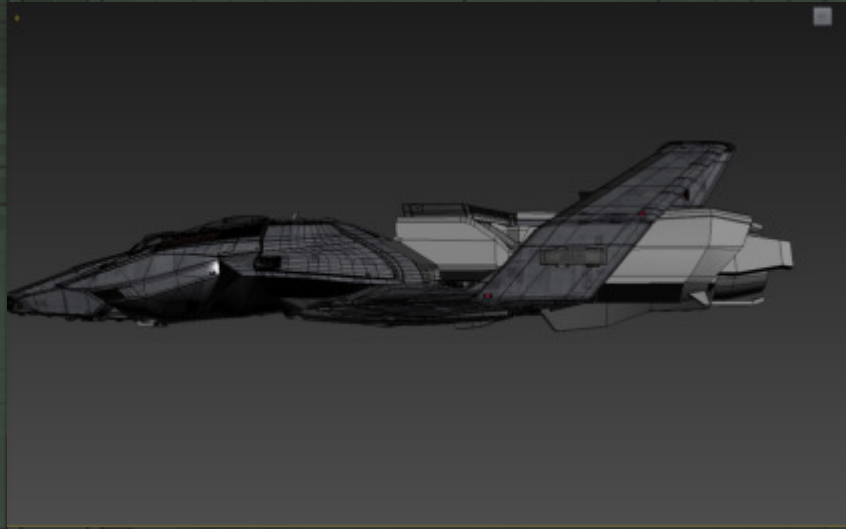
CR: I was actually thinking that the top hatch opens, then the ladder deploys.

Still looking great. Have we gotten the updated version to Hannes? What about the animations, etc.? I'm back tomorrow afternoon in LA, so I can work on hooking up the 300i as a proper vehicle if we have the various animations, etc.

WORK IN PROGRESS

CS: Here's a block-out of the larger, beefier engine for the 315i (with a side-by-side comparison to see the size).

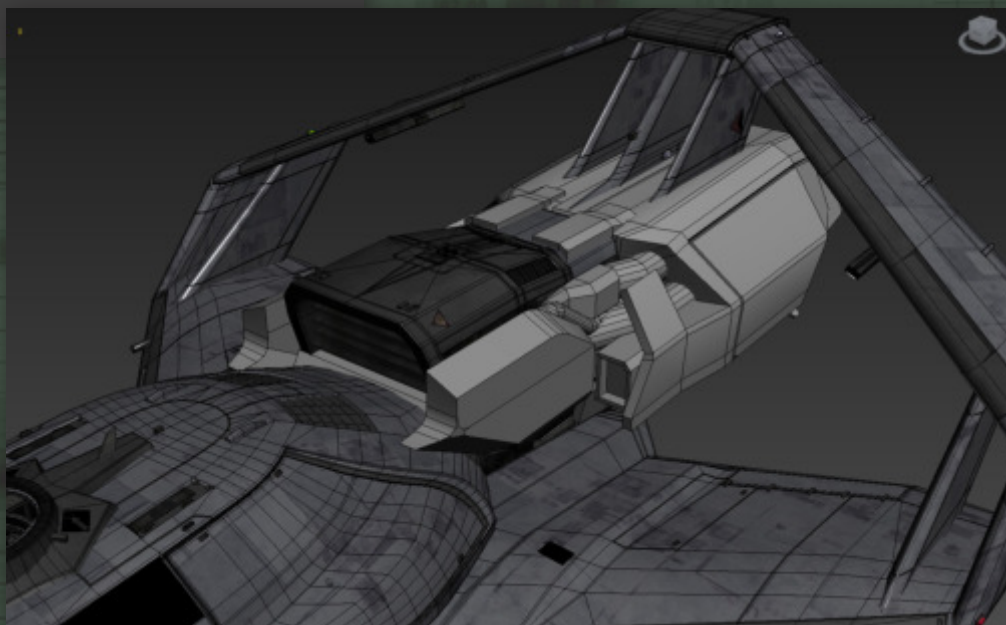
CR: Looks great! I guess you decide one big nozzle instead of two? Works for me either way — full systems ahead!



WORK IN PROGRESS

CS: I also did a little mock up of the tractor beam retracted and extended. Once I get approval I'll move on to detailing out the parts.

CO: How about a bit of external clean piping for more oomph?



WORK IN PROGRESS

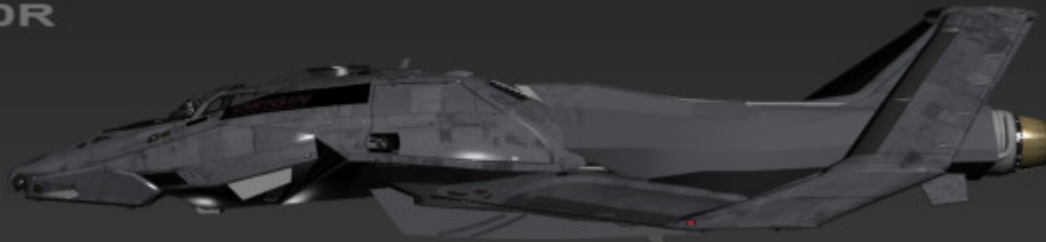


CS: Here's a block-out for the 350r's dual nozzle engine. It's a little wider than the base 300i engine, but it's a lower profile. I eliminated the big air scoop from the top to give the plane a very sleek, low profile silhouette. The main air scoops now hug the belly of the ship. I modified the wing; it's set back and lowered as well. I've also added some custom vent-cutouts for the hood and a few ground effects on the front and the midsection of the ship. Let me know if everything's kosher and I'll work on getting those parts banged out.

300I



350R



CR: I like it — but doesn't the 315 feel like it has a bigger power plant / engine due to the build-up parts and exposed piping? Seems like you want to feel that the 350 has at least that much juice in its engine.

WORK IN PROGRESS



CS: Here is the complete 350R. I widened the engine a lot but kept the low profile to give a powerful but still sleek silhouette, like a race car. Decals are all there and the small class 1 lasers are installed.

CR: Looks very nice. I think it needs a distinctive racer paint job, though.



WORKING IN PROGRESS

CS: More of the 350R.



WORKING IN PROGRESS

CS: Here are renders of the 315p. Larger, bulky engine for long hauls. Has the class 2 lasers and tractor beam installed. Next I will take shots of the individual hard point parts for the brochure and after that Forrest and I will take full beauty shots of all the versions. Do we want some of the versions with paint jobs as well? I already have two and making a third one wouldn't take too much time (next week).



CO: I want a solid black one — just sayin' ...

CR: Looks good! Have we broken out the separate items and animated them?

I think you want different paint jobs (but obviously try to do it without too many extra diffuse maps).



WORKING IN PROGRESS



CS: More of the 315p.



WORK IN PROGRESS

CS: Here's a sport paint scheme for the 350r (based on one of the paintovers I did a while ago). What do you say, guys?

CR: Cool! I feel this is a little similar to the Aurora paint job. I wonder if there is another "racer" motif we could follow? Maybe a different color (more Ferrari red or yellow?) Should give the feel of a racing BMW or a souped up M series.



WORK IN PROGRESS



CS: Here are some paint job explorations. Some of these can be used for the 315p (thinking B,C,F). Which one should I use (or modify) for the brochure? I was going to put a paint job on the 315p and the 350r.

CR: B for 315p (can we see with blue as well?)

C for 325a (which 300i base are we using for the combat version?)

D for 350r (kind of has the racing stripe video). Maybe have some race numbers or something on the hull too?



A



B



C



D



E



F



G



H



I



WORK IN PROGRESS



WORK IN PROGRESS

CGBot: Here's the 315p paint. I played around with the secondary color (blue) a bit. I think the brighter blue looks too Lakers. I like the darker, desaturated blue or the gray.

CO: Cool! It would be even cooler if there weren't such a clean line between the paint and no paint ... but I know that's dreaming.

CR: I like this set up. I agree with CO that it would be good to not have such a crisp line between the colors — would a dirt map help?

CO: ORIGIN Jumpworks 300 Series



WORKING IN PROGRESS

The logo for ORIGIN JUMPWORKS features a stylized, metallic-looking 'O' on the left, composed of several curved, overlapping bands. To the right of the 'O', the word 'ORIGIN' is written in a large, bold, sans-serif font with a metallic texture. Below 'ORIGIN', the word 'JUMPWORKS' is written in a smaller, similar font. The entire logo is set against a dark, textured background.

ORIGIN

JUMPWORKS



If it is possible for a company to merge class and sophistication with the sheer risk of spaceflight and the cold-blooded nature of interstellar dogfighting, ORIGIN Jumpworks GmbH comes the closest. The company's extensive array of high-end spacecraft is known for their sleek and sophisticated lines. Similarly, they have cultivated an exclusive customer base from the rich and the powerful. As ORIGIN's perfectly-manicured salesmen eagerly point out, selecting an ORIGIN design doesn't just mean buying a ship ... it means choosing a lifestyle.

ORIGIN was incorporated during the so-called Glowing Age, the financial boom of the mid-28th century that followed the antimatter rush. For their first decade, the company produced high quality fusion engines used by the UEE military and mounted on the ostentatious Roberts Space Industries

and Aegis Dynamics star yachts available to the public (at least, the well-heeled public) at the time. With the need for personal spacecraft growing exponentially, ORIGIN moved to compete with the companies they initially supplied. Within ten years, the company was producing a top-five selling midscale composite transport and within fifty their well-paying customer base was neck and neck with RSI for gross profits in the manufactured spacecraft field. ORIGIN premiered their initial 200 and 300 lines of personal ships in 2899 and has held a strong second in that market ever since.

Founded on the banks of the Rhine in Cologne, Germany, ORIGIN had strong ties to Earth for the first two centuries of their existence, originally going so far as to insist that every component for their elite 600 line be manufactured in-Sol. In recent years, these ties have been severed completely.

ORIGIN

Declaring Terra the new cultural capital of the UEE, President Jennifer Friskers made the then-unpopular decision to relocate to Terra. In a largely unexpected executive order, she moved corporate headquarters and the primary design team to the settlement of New Austin in 2913. Since that time, manufacturing has become nearly completely outsourced, with only an engine testing facility remaining on Earth's moon. Government scrutiny of the company since the move has also flourished, with tax issues quadrupling following the decision to leave Earth.

New Austin has since become an "ORIGIN town," with the

company holding fast as the key employer (Omega Foods, the corporate entity responsible for the Crab-O chain, is a distant second). The system has become a mecca for ORIGIN enthusiasts, with wealthy buyers traveling across the galaxy to purchase their ships straight from the factory floor. A stunning company showcase in the center of the city highlights M50s, 300s and 890 JUMPs in a series of life-sized action dioramas costing millions to set up and display, and ORIGIN has sponsored naming rights for local stadiums, high schools and streets. Tourists leaving New Austin without a 300 Series shotglass or keychain is nearly unheard of!

300 Series

The current workhorse of the company's lineup (if any ORIGIN craft can be so described) is the ORIGIN 300 Series, a "luxury class" dogfighter. It is to the credit of the company that such a description is not inherently a contradiction in terms: the bare silver metal and the smooth, aerodynamic lines of the 300i base design perfectly evoke both a flowing work of technical art and mankind's most perfect killing machine. Every element of the 300 Series feels designed, from the recessed missile mounts to the flowing metal gun attachments ... and, of course, it was: thousands of hours went into the development of every individual element of their spacecraft. (The company is known to pay millions in bonuses to employees who can figure out how to remove a single bolt attachment from their designs.)

ORIGIN currently manufactures three standard 300 Series models, plus a variety of specialized limited-run variants. The base 300i luxury touring model has remained largely unchanged since the ship's inception, other than incorporating improved technology and control surfaces. Though the sales copy advertises that the advanced models fit any lifestyle, observers can easily ascribe specific tasks to them:

the 315p, featuring long-range options and improved scanners, is the exploration model and the 325a, with heavier weapons and armor, is built for combat. The 300 lineup changes on a nearly yearly basis, with other roles including interdiction, outranging, stealth and blockade running having appeared in the past.

The only standard is the customer: ORIGIN makes a clear point not to associate their craft with piracy. The company spends billions on anti-piracy efforts and has been known to refuse sale to known pirates attempting to purchase their craft in person on Terra. Erstwhile rogues should not fear, though, as the secondary market for 300 Series spacecraft is robust. Nevertheless, the effort has largely paid off: the 300 is known as a law-abiding bounty hunter ship at its roughest and never a smuggler or an aggressor.

The notable "fourth" 300 Series model, not produced in large quantity but arguably the best known beyond the base, is the 350r, the so-called "lightspeeder." The 350r is the dedicated racer model of the line, used as a base by professional racing teams around the galaxy. 350rs have a storied history, with more Carrington wins than any other



ORIGIN



spacecraft. From multi-system endurance races to cross-star speed runs, the twin-engined 350r is a common sight along the racing lanes. It is also rumored that the UEE military's elite black watch divisions make use of a squadron of 350rs for covert operations requiring extreme speed; reports of stealth-grey racer-class ships without broadcast transponders operating along the Vanduul border can not be independently substantiated.

M50

Soon to give the 350r a close second in the acclaimed racer category is the ORIGIN M50, often referred to as a

powerplant with a cockpit attached. M50s, which will roll off the production line for the first time this year, represent another leap forward in engine technology and are predicted to give the 350r a run for its money. Despite well (if not overly) publicized teething difficulties in the prototype and Y-series test ships, the current M50 lineup is a solid spacecraft design that promises unequalled speed. Whether the ship will find buyers among ORIGIN's business-oriented clientele remains to be seen. The company is doing their best to promote the M50 as a 'second ship' to 300 owners, the sporty coupe in which you speed around the galaxy on weekends.



ORIGIN



AN INTERVIEW WITH ZANE BIEN & JOHN ERSKINE



BEHIND THE SCENES

This month we go behind the scenes to talk with John Erskine and Zane Bien about the new website for Cloud Imperium and our games.

JP: Zane, you're probably the employee who has traveled the farthest to join the team. How did you become involved with Chris Roberts and Cloud Imperium?

ZB: I had just finished university in Hawaii and I was basically just sitting in limbo at my parent's house, wondering what my next step in life was going to be. I knew I wanted to work in some sort of creative/technical field, but I wasn't sure exactly what. Visual designer? Web developer? Database administrator? There were several potential paths, but with whatever I would end up doing, I wanted it to be something epic.

One day, a buddy of mine whom I've worked with in the past tells me Chris Roberts would like to have a word. At first, I

thought he was playing a joke on me because I remembered hearing about Star Citizen when it was one of the top items on reddit last year. Well, turns out he wasn't kidding, so I quickly jumped right into building the first demo that they set me up with (Hornet UI screen) in order to evaluate my abilities. I cranked it out in a little under two weeks, sent it off, and next thing I knew I was being offered a position at CIG literally the day after my graduation ceremony.

Prior to CIG, I never really thought about getting into the gaming industry. I thought that maybe I would start off designing UIs for business and mobile applications, because despite my futuristic style of design, I'm also extremely fascinated with the technical side of the equation and how things operate under the hood in both front and back-end web-development, especially database technologies. So far, it has truly been an amazing ... an epic experience!

JP: John, what's your background in the games industry?

JE: I joined the game industry in 1998 at Origin Systems specifically so I could work on *Ultima Online*. Before that I was in management outside the game industry. My motivation then and today is focused on games that connect people via the internet. I think the connection between social interaction and play is fascinating on a lot of different levels! I worked on a number of different MMOs while at Origin/Electronic Arts, and then in 2001 I decided to join the startup team at Destination Games. Very early on we were acquired by NCsoft and given the task of creating the Western presence for the company. We set up several development and publishing offices in North America and Europe. I managed all of the Studio Services and Publishing Operations for nine years, which includes everything from Customer Support, QA, Localization, Community Management, Billing and Account Support, Fraud and Risk Management, Live Operations, and a lot more. I really enjoyed working on a lot of great games developed in Korea by NCsoft and by our studios in the West. My favorites were *City of Heroes*, *Guild Wars* and *Aion*. I decided to leave NCsoft in 2010 so I could join another startup team at Portalarium where we focused on emerging social and mobile games.

JP: You most recently worked with Richard Garriott on the *Shroud of the Avatar* campaign. How did that compare with *Star Citizen*?

JE: I really enjoyed working with the Portalarium team, and as a founding member of the team I had a lot of influence in many different aspects of the company. I've worked with Richard in some form or fashion since I joined the game industry 15 years ago, so the *Shroud of the Avatar* campaign was really a natural extension of much of the work we started in bits and pieces over years past. I'm excited



to see the development of that game since it should tie together much of Richard's role-playing prowess with the very best that modern technology and social connection has to offer. I worked with the team through the conclusion of the initial crowd funding campaign, and we worked closely with the *Star Citizen* team to learn from the experience gained here. After talking more with Chris and looking at the ongoing success of the *Star Citizen* project, I made the decision to join this team full time earlier this spring. I'm so excited to work on a team that is so focused on a complete and total AAA entertainment experience in every respect. I love the multimedia approach we are taking with weekly shows like Wingman's Hangar and other high-end video elements, I love the super open development approach where every team member is featured and introduced to the community, and I love the super high quality approach we have taken to designing the website and all of the other materials that we release to the public. I'm really excited to see how things continue to grow as we release even more exciting content. I see *Star Citizen* ultimately as a total lifestyle experience that will include the game in its wide variety of experiences, the ongoing fiction, and a variety of media formats. Most importantly it all revolves around the active and creative community, which makes it exciting for me to imagine the possibilities for the future.



SENEKSEH
BEHIND THE SCENES
ON HER

JP: Why did we need to replace the current RSI website?

JE: The current website was first designed for the initial crowd funding campaign. At that time nobody imagined how great the response would be, and the lion's share of the pre-production focus went into building the game rather than the website. The team knew they could get by with what they had and it would be hard to build something that would last forever on the first try. We've been through several revisions and upgrades to that site which happened largely behind the scenes. When the site first launched there were a lot of problems handling the overwhelming load, and the features were somewhat limited. So, most of the updates to that original site were focused on supporting more load and adding very specific additional features. What we have been able to do now is to start with a blank canvas and design our dream site for *Star Citizen*. This includes the front-end user interface, the back-end system tools, the capacity and scalability needs, integration with the game, robust e-commerce features, and much much more. In line with our goal to release components of the game in stages, this really is the foundational component upon which all other components will build.



Many of these features will drive your inventory, identity and communication in the game.

JP: The website isn't the only new addition that you're launching this month. Tell us about that!

JE: My wife and I just had a wonderful baby boy this week! This is the start of a new and giant adventure for us! Everyone is happy and healthy and off to a great start. :-)

JP: Zane, what were your inspirations for the new design?

ZB: What Chris was looking for was a website that looked like it could come straight from the future. The idea was that it would represent the fictional online presence of RSI as if it were a real company making real spaceships, and it would also function as a community portal. We took a look at what some movies did for their promotional websites, mainly weylindustries.com for Prometheus and how it was made to seem like a website promoting an actual company. The thought was that this would enhance the immersive experience on the web and eventually tie into the actual game.

For the color theme and style, the obvious direction was blue with lots of illumination. The overhead lights just below the navigation bar made it seem like the site is a 'showcase' of the content, as if it's illuminating something important. There are many places where the background appears to have scanlines which I've coupled with transparency in order to create a sort of 'holographic' effect on many of the site's elements. In fact, we use a lot of transparency on the site and it might be safe to say that over half of all elements have some sort of transparency applied to them.

Small and subtle details used in the right way can really add up and enhance the look and feel of the interface, and I made sure to keep this in mind when designing the new web UI. For example, the glows that are attached to



BEHIND THE SCENES

any given element have to be subtle with respect to the brightest color of that element. Where I feel many UIs trying to implement this style get it wrong is that they end up overloading their glows and/or oversaturating their colors, resulting in a dull overall layout rather than one where the illumination stands out.

What also makes things much easier is the fact that features of CSS3 have much more support across all of the web browsers, allowing us to easily implement all of these subtle design details — such as glows, transparency and multi-backgrounds — using style rules alone. In the old days, you could only achieve this through loading up a bunch of images, drastically hindering user-experience and load-times.



JP: How did the design process for the new site work?

ZB: When I was tasked with designing the new site, what I first did was draft up a high-fidelity mockup demonstrating the general style, color theme, textures and all of the small details that I wanted to implement into the design. At the time I didn't really have a solid idea of what the user-experience architecture was going to be like, but given the

nature of the content on RSI, I knew we were going to need some sort of submenu system for the navigation as well as a content categorization scheme to bring order to the chaotic layout of the Wordpress site. At this stage, I just wanted to show Chris something impressive and go from there.

Once we had a base design and theme, I flew to Montreal to meet with Turbulent Media, who handles our backend architecture and most of the front-end integration. There, we spent a week spec'ing out the features that we would implement on the site and how things were to be organized, such as content architecture, user navigation, account features and layout, e-commerce experience, and so forth.

Once we nailed down the architectural aspect, we sent the spec off to their UX team to produce wireframes for each planned page. The wireframes serve as a guide to what things should be displayed on the page and what should happen when various UI events are triggered. The bulk of my work for the past few months has been designing all of the visual elements based around the wireframes.

For each page, once I was satisfied with the design, I sent off the mockup internally for review by Chris and the marketing team. When each mockup was signed off, I sent the source files to Turbulent's front-end integrators, and then started on the next design. This process ensured that everyone involved was working in parallel and focused on their specialty.

JP: Tell us about Turbulent. How do you interact with them?

ZB: Turbulent is the reason why our system is now much more scalable and flexible over the old Wordpress site. They are a dedicated team of developers that build large-scale websites using their own custom-rolled framework and CMS, and they've been hard at work tailoring the system to fit our requirements and plans for future feature integrations. They were also responsible for optimizing



BEHIND THE SCENES

the old Wordpress site early on in order to perform better under load. One of the things I have been most impressed with is how 'on-the-same-page' their entire team is. Working with them has been utterly fantastic and I'm very pleased with the work they've done thus far.

JP: John, what is the back end of a website and why should we care?

JE: The 'back end' is where all of your data is stored for inventory, identity and communication. This allows you to make secure financial transactions, manage and modify your inventory, control your identity, chat on the forums, live chat, and eventually play in the game. Since we eventually plan to have millions of people in the *Star Citizen* universe, we need a 'back end' that is robust, secure, scalable and extensible. This means that we need to be able to handle tons of load without slowdown or failure, we need to be able to support a lot of features that we've designed, we need to make it easy to add new features, and we need to do all of this in a secure fashion!

JP: What will the new website allow us to do differently?

JE: Many of the things you'll notice right off the bat are that the content on the site will be easier to browse, sort and search. The new visual design of the site which Zane has created is fantastic. There are a ton of robust e-commerce options in the pledge store and a lot of new options to manage your account and your pledges. There are new forums and they are totally integrated into the entire site, which means that post comments will also be linked to your profile. Honestly, there are so many new features it is too much to list!

JP: Zane, what tools do you use in building a website?

ZB: All design work is produced in Photoshop, and I develop in a simple text-editor called ZB: notepad++. As a

front-end developer, I also find that Chrome Dev Tools is indispensable in building a UI, as I can test styling in real time, audit performance and debug errors.

JP: You had a lot of fun "destroying" the old website. How did you do that?

ZB: The idea of "degrading" the old site gradually was inspired by the transition of 2Advanced Studio's "v4" to "v5" portfolio, which occurred in 2006. I remember seeing the small cracks starting to appear on their site, and was instantly excited for what was about to take place. The anticipation that was built from so simple a foundation was astounding, and ultimately made it a much more epic transition than if they had simply switched over with no effect at all.



GOING, GOING, ...

Of course, this only works when the site in question has a lot of daily traffic, where even the slightest changes are noticed. The RSI to RSI PRIME transition couldn't have been lined up more perfectly for a "degradation" transition: large fan base, launching a new site, and lots of opportunity for visual changes. I pitched the idea and they agreed.

So I thought I would start off with a simple change to the background ... start to put some cracks in and see if anyone notices. I think I should have made this first phase a lot more subtle than I actually did ...



BEHIND THE SCENES

Once the discussions and speculation started kicking up in the community, the next step was to bleed elements of the new site through the fissures, which effectively confirmed the community's speculation that it was in fact a "preface" to the new site. I also thought I'd start going the extra mile and affect various other page elements besides the background ... so I also started to "derezz" the RSI logo.

Next step was interesting and kind of got on the nerves of people with OCD: I used a CSS3 property to slightly tilt the navigation bar by two degrees, as if it were falling out of place with the site not being able to hold up any longer. In addition to that, more background changes, bigger fissures, and starting to derezz the teal background itself.

The final step coincided with the 300i promotion. I knew I couldn't really degrade the site any further without seriously impairing usability for new users, so I decided to just implement the new navigation into the old site ... this made it even more user-friendly, and hinted at the new site. On the background for this last phase, I wanted to truly test just how detail-oriented our community really was ... so what I did was I hid a giant centipede protruding out from underneath one of the old site chunks. I was surprised no one mentioned it (probably because it got overshadowed by the 300i promotion).

Overall, I think doing these phases resulted in a much more epic transition than had they not been done.

JP: *Are you finished with the site, or can we expect even more in the future?*

JE: I have been working on a lot of different things since I joined the company. One really big component of that is the website, which launches in its first phase this week. Also I've been helping to streamline the customer support tools

and experience on the back end. A lot of that has happened behind the scenes over the past six weeks, and a lot more of it will go live with the new site. We'll have superb tools to use to provide support in very efficient and effective ways. I'm also helping with the QA process since we are starting to test the Hangar App internally, with the planned launch at the end of the summer. We'll ramp up the QA process as we move forward because once the Hangar App launches we'll start to have content releases of various sorts on a pretty regular basis. Most pressing is to put the finishing touches on Version 1 of the new website. We've scheduled a week to be able to react to any necessary bug fixes and polishing issues after the launch, and the second week of July we've got an intensive week of planning and design for the next set of features that we wish to add to Version 2 of the new site. Lots of cool stuff to come!!

ZB: We're just getting started. We hope to integrate many more features in later phases of the website, such as the Galactapedia, which will be a full-screen futuristic UI that's designed to also be accessible from within the game.



BEHIND THE SCENES



TERRA SYSTEM



Terra, shining jewel of the United Empire of Earth! Terra III, commonly referred to by its star's name, has made great strides towards becoming the cultural focus of the Empire. While die-hard Earth loyalists would dispute such a claim, there is no doubt that Terra has its finger on the pulse of the civilized galaxy. From the increasing inflow of mega-corporate HQs to the system to the influence of Terran-originated music on popular culture, Terra is unquestionably the closest thing to a rival Earth has ever produced.

HISTORY

The Terra system, then designated 342A, was first charted in 2508 and explored as part of a five-system "long run" research expedition in 2516. When the first long-distance magnetic relay images of the system's third planet resolved, the explorer crew immediately knew they had hit it big. A natural superearth located squarely in the star's green band, Terra III was immediately recognizable for its astounding similarity to an untouched Earth. Lush, verdant and brimming with natural resources, Terra's colonization was immediately obvious. Within two years no fewer than seven colonial sloships had been dispatched to the world.

Astrophysicists soon staked their own claim with a startling discovery: Terra system's unique location and makeup meant that it was a strong jump point hub. Like Sol, Terra is a G-type main sequence star. Unlike Sol, its outer planetary system never formed. Without the mass diffusion caused by gas giants and with the star's location in the center of a dense stellar cluster, extremely stable jump points arose easily. Thus far, five jump points have been charted and scientists believe that a sixth is almost a certainty. (Theoretically, as many as twenty-four could exist, although the odds against most of them ever being stable enough for transit are astronomical.) Exobiologists, too, had an early interest in the system: massive stone ruins clearly indicative of intelligent life were discovered on Terra III's southern continental mass. No other evidence of this ancient civilization has yet been uncovered on the planet, creating one of the most-debated archaeological mysteries of our time.

Terra III was the twelfth planet colonized by the United Empire of Earth. In four centuries, owing to its jump network and location, it has evolved into a massive trade hub. Kiel, Baker, Kilian and other name systems are short hops from the star. The world's plentiful resources, cultivated carefully so as not to impact the environment, have fueled the Empire's Eastern Expansion Program.

AERO (TERRA I)

A non-descript rock world incredibly close to its star. Although rich in certain minerals, attempts to harness resources on Aero have been largely unsuccessful due to its proximity to the sun. Even the harshest environment suits are incapable of sustaining Human life long enough to conduct factory maintenance on a world with a 95 Standard Earth Day orbital period.

PIKE (TERRA II)

The mining efforts on Pike, on the other hand, are a masterpiece of Human engineering. One of the most mineral-rich planets in the galaxy, Pike is dotted with thousands of unmanned "cities" churning out tons of platinum, mercury, iron and gold every day. With three times the orbital period of Aero, Pike is still incapable of sustaining Human life for an extended duration. Regardless, the lack of atmospheric storms and other weather events means that fully mobile robot machinery can operate with peak efficiency and requires very little downtime. The mines and refineries of Pike have been essential to fueling Terra's expansion and to allowing Terra itself to remain relatively untouched.

TERRA (TERRA III)

The capital city of Terra is New Prime, a beautiful bayside megacity built on the foundations of two of the original colony ships. A stark contrast to Earth's metropolises, everything in Prime was planned by the original settlers, leading to a much greater balance between nature and civilization than is found elsewhere in the Empire. Unlike many cities, Prime's primary landing zone is located away from the city to reduce pollution and air congestion. A monorail runs pilots to and from their hangars. Don't let the relaxed atmosphere fool you, though: Prime has everything New York or Moscow does, from ship upgrade stores to

MARKET DEALS — PIKE

BUY: TITANIUM	+3
BUY: MERCURY	+2
BUY: IRON	+1
SELL: ROBOTICS	+2
SELL: CRUDE OIL	+2

black market opportunities. The city itself divides into two major regions: the sparkling Downtown and the lower class residential region known as The Block. Opportunities for visitors are available in both portions of the city.

Terra's second-largest city is Quasi, in the colder southern hemisphere. Quasi is built into the shadow of the massive ruins discovered early in Terra's exploration. Quasi is considered more of a tourist destination than Prime, although several corporations operate in the region. Crusader Industries, best known for its facilities in Stanton system, operates the Platinum Bay landing facilities.

New Austin, another initial colonization point, is as close as Terra comes to an industrial city. New Austin is a business park writ large, home to corporations like ORIGIN Jumpworks and Cronus Devices. The cost of living in New Austin is lower, leading to more of a "blue collar" sensibility, but moneyed compared to other worlds. The centerpiece of the city is The Old Hall, a former Miner's Guild meeting area now populated by factory owners, pilots, haulers and shippers.

MARKET DEALS — TERRA

BUY: LUXURY FOOD	+3
BUY: CLASS 4 FOOD	+2
SELL: ELECTRONICS	+2
SELL: REFINED ORE	+2
SELL: PLASTICS	+1



GEN (TERRA IV)

Oft overlooked is the fact that Terra's sister world, Gen, is also an inhabited world. This smaller planetoid, the outermost in the system, was terraformed roughly a century after Terra's initial settlement and is now home to the diplomatic and military aspects of the system's government. Consisting largely of military bases, Imperial administration and housing, the world represents a conscious effort on the part of the Terran system planners to separate business and pleasure. There is an ongoing debate about Gen's representation in the Senate. Though the planet is well-populated, the inhabitants are almost exclusively government workers. Thus far, Earth has shut down any attempts to award them representation, seeing it as a thinly veiled plot to extend Terra's influence.

MARKET DEALS — GEN

BUY: RECYCLING	+1
SELL: WEAPONS	+2
SELL: OFFICE SUPPLIES	+2
SELL: LUXURY FOOD	+1
SELL: ROBOTICS	+1





The Void Rats

by Doug Niles



PART Three

With their small carrier, Africanus, under attack, star-men Antoinette, Jackson and MacClean are commanding a cutter to rally in defense. They've encountered resistance . . .

Darrison Jackson sat atop the wild-haired, unkempt woman who had attacked him and glared down at her. She was covered in drops of blood, and he was only vaguely aware that the source was his own face. He was so angry he had to resist the urge to jab the P4 muzzle right into her eye.

"Damn it!" he snapped. "You broke my nose!"

She tried to spit some kind of reply, but when he pressed the laser pistol against her skin her face twisted into kind of a grimace. With a little imagination he could interpret

that expression as a smile of cruel glee. With a little more imagination, aided by an imaginary washcloth, a shower and perhaps a day and a half in the drunk tank for detox, he could even interpret that face as being, if not beautiful, at least rather slyly attractive. What the hell was wrong with him — she'd kill him if he gave her half a chance!

"Mac! Skipper!" he shouted, the words sounding weirdly muffled by the blood draining past his mouth.

"Let go of me, you —" The grimy attacker's objection was cut off as Petty Officer MacClean, racing down the companionway to the stern of the ship, arrived on the scene.

"Are you okay, L.T.? Jeez, you look like hell!" Mac declared, kneeling beside him to help restrain the squirming, desperate woman. "And who are *you*?" he demanded, as the prisoner on the floor twisted helplessly in the burly petty officer's grip.

CHRONICLES

“She claims this is her ship,” the fighter pilot reported. “Though I think she’s a drunk who crawled back here to sleep off a bender.” Grateful for his comrade’s assistance, Jackson slowly rose to a standing position, pressing a hand to his bleeding nose.

“You! What’s your name?” snapped Mac, hoisting the woman to her feet. Her dark eyes flashed resentfully, but after her captor twisted her arms up behind her she evidently decided to talk.

“I’m Sharona Sirene – *Captain Sirene* to you,” she barked back.

“This rust bucket has a captain?” Jackson declared in a tone of mock amazement.

“This rust bucket is my ship, *Plumetail*, and she can outrun any pirate ship – for that matter, any damned UEE ship too – in this system or any other!”

“Outrun the pirates?” scoffed the lieutenant. “More likely, you *are* the pirate!”

Naya Antoinette appeared. She snatched a rag from one of the supply cabinets and handed it to Jackson as she glared at the prisoner.

“This ship is ours now,” she barked, her tone cold and firm. “For the duration of the emergency. The UEEN will compensate you – after deducting for Lieutenant Jackson’s medical expenses.” The skipper glanced at the pilot’s bloody face, raising one eyebrow in mild interrogation.

“What?” he demanded, his temper running high. “She ambushed me. I thought the damned cabin was empty. And we’re in a hurry – remember?”

“I should have broken your neck!” screeched Sirene, until Mac jammed her up against the bulkhead so hard that her voice broke off.

“Give me one reason I shouldn’t break *your* neck!” the NCO snarled. Jackson knew that MacClean was a kind person, and a gentleman – but the tone in his voice made it seem like he was readily willing to commit murder.

“All right – ease up!” gasped Sirene, apparently reaching the same conclusion.

The flow of blood abated somewhat by the rag he pressed to his face, Jackson looked at his CO quizzically. “What did you find in the cockpit? Is this garbage scow ready to fly?” He was pleased to hear a squawk of protest from Sirene as he tossed the gratuitous insult.

“She’ll do,” Antoinette replied. “I’ve already got her reactors charging up. We can be out of here in thirty seconds.”

“What should I do with this one?” Mac asked, giving Sirene’s arms enough of a twist that her feet almost came off the floor. “Toss her overboard? Maybe smack her nose-first down on the hangar deck? Or just vent her right out to space? Your call, skipper,” he added with apparent relish.

“I told you – this is my ship!” spat the captive, squirming again. “You can’t do this!”

Naya half smiled, then shook her head. She chose to ignore the other woman’s objection as she replied to Mac. “Tie her up and lock her in one of these storage cabins. I don’t want her making trouble on the station while we’re out there. We’ll figure out what to do when this is over.” She fixed her eyes on the captive captain. “Assaulting a naval officer who was duly performing his assigned mission is a serious charge. You’d better think about where you want to take this, from here.”

Jackson, looking back and forth between Naya and Sharona, couldn’t help but contrast the two women. Both were damned hot, each in her own way. The CO was a bit of an ice queen, tall, blond, fair-skinned and coldly beautiful. Even after her fighter had crashed and she’d emerged from its



blazing wreckage, she looked clean, almost immaculate. He knew she had a sense of humor, but she rarely revealed it. Clearly she seemed to be taking a bit of enjoyment from the other woman's predicament – not to mention from the broken nose that had been inflicted on her second-in-command.

Sharona Sirene, on the other hand, reeked of cheap liquor, and her olive skin was marred by smears of grease and other, less savory stains. Her shirt remained open, revealing a slender but definitely female shape – and even when Mac released one of her hands she made no effort to cover herself. Her eyes, dark where Antoinette's were ice blue, flashed anger and humiliation. He didn't doubt for a moment that she would slip a knife between his ribs if given half a chance. And yet he could see that beneath the grime and stink she, too, was a stunning woman, beautiful in a very exotic way.

"Lieutenant!" snapped the skipper. Jackson couldn't help flinching – he had the terrible feeling that, somehow, she'd been reading his thoughts. "The silver spider – we're taking off after it! Get up to the turret and charge the lasers. Mac, you get on the particle cannon after you secure the prisoner."

"Wait – what did you do with my crew?" demanded Sirene, looking from one to the next of them.

"Apparently loyalty wasn't high on their priorities," Naya said acidly. "They scooted out the back door as soon as we showed up at the front." She paused, and frowned. "How many men did you have aboard, anyway?" she asked pointedly.

"Just two," the captain said disgustedly. "They weren't worth the dry rations I had to feed them."

"Welcome to the world of command," the skipper replied. Again, Jackson felt the flush of rebuke, even though she didn't look at him. With a last wipe of the saturated rag, he

turned to hoist himself up the ladder into the turret with the twin Mark V laser cannons. The ship might be old, he told himself, but the battery in the turret was first rate and state of the art. He pulled on the helmet with its targeting scanner, and in a few moments heard Naya's voice over the intercom ordering him to strap in.

He did, even as he flicked the switches that brought the big, twin-mounted cannons to life. The weapons and installation were fairly standard copies of the military turrets typical on UEEN ships like the Retaliator-class bombers. As such, Jackson knew how to operate the turret and to fire the weapon with speed and accuracy. He powered up the mobility drive as he felt the thrusters come alive below him. The turret was a small dome, almost flat against the dorsal surface of the hull, but well surrounded by Plexi. He had a good view in all directions above the ship, though the broad hull blocked his line of sight from everything even slightly below their level.

The ship lifted off from the hangar deck and Jackson felt the solid *click* of the landing struts retracting into the hull. The fires from the crash-landed fighters and shuttle had been fully doused, and he saw several dozen of the station's hangar crew watching from a safe distance as *Plumetail* eased toward the airlock screen.

With barely a shudder the pirate ship swooped through that invisible but powerful barrier into the vacuum of space. Glancing back, Jackson saw the bright glow of the hangar recede quickly as the skipper accelerated them to the *Africanus*. Even from here, the starman in the turret could see that the enemy squadron had replenished itself from the ore carrier/mother ship. Now, with the silver spider in the lead, the attacking ships spread out to surround the big, old base ship – the only home the Void Rats had left.

* * *



CHRONICLES

“Wait – you’re going to need me!” Sharona Sirene insisted, as Mac started to close the door to the small cargo cabin. He’d secured her hands behind her back with a pair of flex cuffs, and determined that the compartment did not have a control that would allow her to open the hatch from within. “I can help you guys – and I want to save my ship. There’s a lot you don’t know about *Plumetail*! Seriously, turn me loose –”

“Fat chance. Just keep your head down,” he barked, ignoring her barrage of curses as he pulled the hatch shut. *She was a fireball, that one*, he thought to himself as he jogged aft. He had to admit that he kind of admired her spirit.

He slid through the hatch, dropping into the firing position beside the particle cannon. The space was cramped, but MacClean – a veteran of nearly twenty years in the service – had laid down in tighter spaces. He dropped to his stomach and pulled the targeting helmet over his head, then powered up the gun.

Not surprisingly, it had very limited traverse – it was a damned big weapon for this size of ship, and as such was limited to about a thirty-degree swivel up, down and to either side. Still, anyone who tried to come up on their six would be in for a very unpleasant surprise. He grinned tightly and privately as he pictured the silver spider roaring in, only to meet this unexpected firepower.

With his view limited to the stern, Mac could only see the orbital station behind them, as the glowing disk, home to tens of thousands of souls, shrank into the distance. He readied his hands on the cannon’s firing trigger, made sure that it could swivel freely through its full range of movement . . .

And wondered why he was thinking, again, of the grimy, whiskey-soaked pirate captain locked in the cabin just a couple of meters over his head?

* * *

Antoinette found the cutter surprisingly responsive to the controls. It wasn’t an F7, or any kind of fighter at all, really, but the acceleration that blasted them away from the orbital station pressed her backward with satisfying force, and *Africanus* grew in size and detail as she studied it through the cockpit Plexi. Clearly Sharona Sirene had invested more in her power plant than in the cosmetic appearance of *Plumetail*. In spite of herself, the officer found herself impressed by the unique vessel.

Eyes front again, she could see that the big ship’s hangar doors were closed, and she hoped that her two Hornets – the last surviving ships of the original Void Rats – had reached the safety of that hold and had the sense to remain there. She could see the silver spider – the ship was bigger, brighter and more aggressive than any of the other attackers – until it swept around behind the big ship, momentarily blocked from her view.

But there were several targets in the immediate foreground, and she took advantage of the fact that they didn’t seem to regard her scruffy-looking pirate ship as a real threat. The fake ore carrier upon which the attackers were based still stood aloof from the fight, at least two dozen clicks away.

“D-Jack!” she barked. “You have that turret powered up?”

“Aye, Skip. Give the word and I’ll light the bastards up,” he replied. There was no trace of his trademark wisecrack, and she felt completely confident that he would do the job.

“All right. On my signal – in another half minute or so. Mac?”

“All set, Skip. Can’t see crap from down here though, except through the rear window. How about backing up to ’em? I can clear us a nice path.”

She snorted a burst of laughter in spite of herself. “Just wait. I’ll get ’em chasing us soon enough.”

“You’re the boss,” he replied.



CHRONICLES

Plumetail closed at high speed, and Antoinette dipped the nose to give the dorsal turret a clear field of fire. She saw controls for several rocket launchers oriented forward, but she wasn't sure about the targeting apparatus and, in any event, she was too busy flying the ship to consider launching them. Off to the side, operated from the co-pilot's seat, she noticed an array of controls, including a stick that looked like a targeting marker. She momentarily wondered what that was for – and then they were in the thick of it.

“Now, Jackson!” she snapped, as a couple of the attacking fighters veered from the cargo ship, apparently taking note of the pirate's aggressive approach. Both of the bogeys turned sluggishly, with irregular bursts from their thrusters, and she guessed they had taken damage in the first round of the battle. She hoped the damage extended to their shields as Jackson brought his turret guns to bear.

Immediately bolts of energy flashed over her head as the lieutenant operated the twin lasers at full power. She yelled in delight when one then the other of the unknown assailants exploded with bright flashes and blossoms of debris. The kills wouldn't begin to avenge her Rats, not by a damn sight, but she felt the terrible thrill of combat success as the young pilot in the turret turned his attention toward another trio of fighters.

The attackers bolted in different directions, obviously taken by surprise by the stunning attack. Naya veered to starboard in a half-roll, aware that Jackson in the turret still blasted away. One more of the attacking fighters vanished in a cloud of debris, and she angled *Plumetail* alongside the long hull of *Africanus*, choosing to pursue a pair of enemy fighters that still persistently blasted away at the larger ship.

She remembered her initial assessment – guess, really – that these were Vanduul raiders. The notion remained

a possibility, but raised more questions than it answered. How did they get here, to the Centauri system? What did they want? The Vanduul had been driven out of this system a year earlier, and for all that time had directed their aggression elsewhere. Could it have been the big task force, centered around *Gemini*, that had kept them at bay? What did they expect to gain here now? Especially by an attack on an orbital station? Even if they destroyed the installation, which would have been no easy task, the essential planet-based strong points of the UEE would remain in place. And besides, the attackers had first gone for *Africanus*, with only a detachment of them diving in toward the station.

But surely this was more than a raid! How many of these damned fighters were there, anyway? Another one vanished in a blossom of fire, targeted by Jackson's impressive accuracy, and yet another dozen swarmed together in the distance, a few dozen clicks away. They seemed to be re-forming for another onslaught. And where was the silver spider, anyway? Somehow, it was hard to imagine that unique and capable spaceship as a product of the crudely savage Vanduul.

A solid *crump* shook through the hull of *Plumetail*, and the skipper knew that Mac had found a target for his particle beam cannon. Several more reports sounded, and a look in the rear scans showed the debris fields of one or more destroyed enemy ships. Another had lost an engine and now, trailing smoke, it careened crazily through a tumbling cartwheel until it impacted the massive thruster nacelle of *Africanus*'s starboard engine. The engine remained unscathed, but the fighter vanished into tiny specks of debris.

Antoinette steered the cutter up and over the dorsal surface of the larger ship, as *Africanus* seemed to regain her stability. The big thrusters flared and the supply ship moved out – sluggishly, perhaps, but still making way.



CHRONICLES

Plumetail handled like a large fighter, she admitted grudgingly, wondering for a moment about the captain now held prisoner in the supply cabin. Sirene may have been a smuggler or a pirate; the officer was certain that she was more than just a merchant or trader, to have a ship like this.

Her reflections were interrupted by a hard blow that rocked the Constellation-class vessel from stem to stern. *Plumetail* veered wildly as Naya fought with the controls. The impact had been violent and destructive. She wondered where they'd been hit, when Mac's voice came crackling over the comm.

"Skipper, that spider came out of nowhere. He's still on our six. Knocked out the particle cannon with a single shot. I'm leaking air back here." Considering the emergency, the petty officer's voice was remarkably calm.

"Are you hurt?" Antoinette demanded, wishing her own voice sounded as level.

"Just scratches. But the cannon is a wreck, and the firing position no longer stable."

"Evacuate! Back into the hull – get up to the cockpit!" she ordered, struggling to control the ship as it plunged through a series of barrel rolls, barely missing the lighted bridge at the forefront superstructure of *Africanus*. She imagined she saw the fear on the helmsman's face, though surely that was her imagination. "Fear on my own damn face, more likely," she muttered to herself. She hoped Mac would hurry forward – maybe he could operate some of the forward-firing weapons while she concentrated on flying the ship.

And then her concentration focused like a laser beam as a silver shape flashed past, veering around through an impossibly tight turn, a full battery of weapons coming to bear on the crippled, barely controlled, *Plumetail*.

* * *

Petty Officer MacClean scooted backward out of the cannon's firing platform, climbed back to the main deck, and slapped the airlock shut. He sealed it with a wrenching twist of the wheel, and tried to climb to his feet.

Only then did he notice the blood. He'd been vaguely aware of the pain when the rocket had impacted the particle gun, but now he saw that his left hand was torn to hell and gone. The little and ring fingers dangled like they were part of a separate limb, and a steady stream of crimson liquid drained from the wide slash across his palm. Grimacing, he pulled out his kerchief and tied it, clumsily, around the grisly wound.

The deck pitched under his feet, violently enough that the gravity compensator couldn't keep up. He slammed against the bulkhead and slid halfway to the deck before he could arrest his fall. He found himself leaning against the hatch behind which he'd locked Sharon Sirene – and he could hear her shouting inside the compartment.

Ozone and smoke filled the companionway and he knew that the ship had taken more than one serious hit. A sense of guilt tugged at him: he didn't like the thought of the ship's captain dying, locked up and bound inside her own ship. At the same time, he remembered her words when he had closed the hatch, her strangely sincere insistence that she could help them. He thought about asking Commander Antoinette's advice, but as another impact rocked the ship he knew there wasn't time.

He flipped the latch on the door. Sirene was rolling on the floor, kicking at the hatch, and her foot almost clipped his knee. He was mildly surprised to see that she had somehow wriggled her hands, still bound at the wrists, from her back to her front.

"You said you could help," he snapped. "What can you do?"

"I can boost our shields, for one thing!" she barked back, equally waspish. "Get me to the cockpit while we still have air to breathe!"



CHRONICLES

He eyed her warily, hesitating for a fraction of a second before he made up his mind. “What the hell,” he grumbled. “Where are you going to run away to if I take those cuffs off?”

“I’m going to try and save my ship – and all your lives, because there’s no other way around it!” she shouted as he released the bonds. As soon as her hands were free, Sharona darted past him and raced to the cockpit, Mac following right on her heels. He was mildly surprised to realize that the former captive showed no signs of the drunkenness that had seemed to impair her a few minutes earlier. She pushed open the hatch and squeezed into the co-pilot’s seat.

Antoinette looked up in shock, but didn’t dare take her hands off the controls. “How did you –?” she spluttered, until Mac came into view.

“I let her out. She said she could help this ship survive, and I guessed that we could use all the help we could get.”

The skipper looked like she was about to argue, but like the petty officer apparently concluded that desperate situations required desperate solutions. “So, what can you do?” she demanded, as Sirene strapped herself into the seat. Mac braced himself with his uninjured hand on the bulkhead and looked over both women’s heads. Debris and burning bits of flotsam blew past them. The silver spider charged toward them on a head-on course, but the skipper juked the controls hard and the cutter dipped away as the powerful ship swept past.

Remembering its impressive turning ability, Mac was certain that the spider was again poised on their six, and as long as the bastard stayed slightly lower than *Plumetail* there was not a weapon aboard the smuggler’s ship that could strike him.

Secured in her seat, Sirene quickly took the mysterious control stick. Kicking her foot against an unseen switch

on the floor, she released the resin cap that covered the space of the belly turret. The ship immediately steadied, until another blast from the silver pursuer, once again on their tail, rocked them violently.

“Now – channel the reserve power into the shields!” Sirene snapped, sounding like a captain on her own ship.

Naya’s eyes narrowed, but she hesitated only a moment. She flipped the transfer switch, and a thrum of power vibrated through the ship. Jackson, over the intercom, protested that his guns had lost power, but they all ignored him.

And immediately the pummeling sensation, even the noise of the bombardment eased. “That’ll buy us a couple of minutes. Now, turn us around – do a one-eighty!” she barked.

Mac saw the skipper hesitate, and it wouldn’t have surprised him if she’d ordered him to drag the other woman back to her cell. Instead, she nodded curtly and cast a cold glance at Sirene. “I hope you know what you’re doing!”

“Turn!” repeated the pirate captain, but Antoinette had already started the maneuver. She kicked the steering controls with her feet and pulled on the stick. *Plumetail* continued on its trajectory, but now it flew backward, with a formidable array of guns and rockets facing the silver spider as it maintained its close pursuit.

“You bastard!” snarled Sirene, her voice a mixture of anger and glee. It took Mac a second to realize she was addressing the enemy fighter. She flicked switches, maneuvered a trigger with her left hand, poked buttons on a control panel with her right. Fire brightened the void as at least a dozen rockets exploded forward from hidden tubes in *Plumetail*’s hull. Two laser Gatlings lit up at the same time, and the full force of the barrage slammed into the silver spider, knocking it into a cartwheeling tumble. Mac even thought he saw a few pieces break off of the mysterious ship.



CHRONICLES

The large fighter recovered immediately, thrusters flaring as it sparked away, bearing toward the false ore carrier. Eight or ten of its fellow fighters – all that remained of the original two dozen – swarmed after it, zeroing in on the sanctuary of that wide, glowing hold.

“Run your silver ass right out of this system!” the pirate captain jeered.

“Negative – I want his silver ass in my trophy case!” Antoinette declared.

Sirene looked at the female officer appraisingly, and perhaps with a grudging element of respect. However, she shook her head dismissively. “Not gonna happen,” she replied. “At least not today, with that ship. We’ve taken too many hits even to catch him, much less bring him in.”

“What do you mean, ‘him’?” the skipper demanded. “Do you know who he is? What that silver spider is?”

“Even better,” Sharona Sirene replied confidently. “I know what he wants. And I just kept him from getting it.”

“What the hell is he after?” Antoinette questioned.

“Not an it,” Sirene answered smugly. “A person. More specifically, a female person who thinks she’s too high and mighty for her own good – one who gets her people killed without melting the ice in her veins. One who doesn’t give a crap about anyone else so long as she keeps getting promoted.”

The skipper’s jaw dropped as she stared at Sirene through suddenly narrowed eyes. “I imagine you have some reasoning behind that explanation. I can’t wait to hear it.” Her voice was almost level, but shivered with an undertone of dangerous fury.

“I finally clued in when I saw your stripes. He wants you. Wants you dead, more to the point.”

“That’s ridiculous!” MacClean sputtered. “You don’t really believe that, do you?” To his surprise, the skipper actually seemed to be thinking seriously about Sirene’s ludicrous assertion. “Do you?” he repeated, more warily.

“Want me to shut her up, skipper?” Jackson’s voice crackled, flat and menacing, through the comm. “I owe the bitch a broken nose.”

But Antoinette’s fury melted away in the face of her own reflection. When she spoke, her voice was level, and full of regret. “It makes sense, in a way. He’s attacked twice, both times against *my* squadron, and he could know I commanded it. He set up the attacks to take out our Hornets, about as brutally and efficiently as possible.”

“But why would he want you dead?” the petty officer pressed, utterly confused.

“Not so much because of me,” Antoinette replied, somewhat distantly. “It’s because of my father. But that’s a story for another day.”

To be continued in Fall 2943 . . .

(Continued from Page 2)

By the time you read this, I will have made my debut on today’s live stream, and I’ll admit I’m a little nervous about it. I do print, not live ... we’ll see how it turns (turned) out.

Hold on, it’s gonna be a wild ride!

David

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