

JUMP POINT

ISSUE: 07 11



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FROM THE COCKPIT

GREETINGS, CITIZENS!

Now THAT was a show! There's no question in my mind that CitizenCon 2949 was the most exciting one yet. It's certainly a far cry from how we started back in 2013, with a small theater and a hundred or so backers in attendance. The team put on an incredible show and I know from experience how incredibly difficult it is to do. However, it's infinitely rewarding seeing how it brings the community together and how it lets us share the latest on the game. It was also wonderful to see the Anvil Carrack get so much love (and so much ice!). It has been the number one most requested ship when it comes to **Jump Point** features for some time now and, now that CitizenCon is over, I can say we'll be bringing you more details about its construction in a future issue.

Our first feature for November takes a close look at the recently-unveiled weapon attachment system that allows players to reconfigure their handheld weapons with different upgrades. Systems like this speak to the best kind of game design, taking a system like FPS weapons that's easy to pick up and understand and enhancing it with options that will reward players willing to go the extra mile and learn about advanced configurations. We spoke to the designers behind the system to learn how it came about and where it's going, and also put together a visual guide so that everyone can understand the capabilities of the attachments currently available. Who knows, the next time you're facing off against armored pirates on an abandoned asteroid base it might just save your life!

Last month I promised we'd go back and look at the making of the latest flight-ready surprise ship, the RSI

Mantis, and we've done exactly that! The Mantis is even more exciting than an ordinary ship because it involves bringing to life a new game mechanic - the interdiction system that allows players to intercept one another in space. As usual, you get a first-hand look at the development of the new ship's look in the article. We also spent extra time talking with the designers about how the new system it represents came into being (and where they see it going next). If you've ever dreamt about pulling other ships out of quantum then this is a must read.

Then we have a look at microTech, one of the megacorporations that helps hold the Stanton system together courtesy of the Lore Team. They're the company responsible for the mobiGlas system and a lot of the background elements of the *Star Citizen* world that we probably don't think too much about... so this is a great opportunity to learn more! We also have a deep dive into Sloma in this month's Galactapedia, a Banu drink associated with their culture and business practices, which is just the thing to supplement the new Rust Society article that premiered at CitizenCon!

Next month we'll close out this volume of **Jump Point** with a special focus on some of the recently-revealed ships coming to a hangar near you soon. Until then, happy *Star Citizen* anniversary to everyone and we'll see you through the next **Jump Point** (which we now know leads to Pyro!).

Ben

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FORMING ATTACHMENTS



Star Citizen Alpha 3.7 introduced something that, at first, may have seemed small - the first attachments for FPS weapons. Attachments include any device that can be connected to existing handheld weaponry to change its performance, including sights, muzzle flash suppressors, lights, stabilizers, and more. True to the old adage of game design, the attachment system gives the familiar set of guns near-infinite options that players can experiment with to suit their own playstyle and particular mission needs. And Alpha 3.7's attachments are just the beginning, with the underlying system allowing an incredible variety of play-altering attachments to be developed as and when required. To learn more about what has gone into the system and what's coming next, we spoke with the man behind *Star Citizen's* FPS mechanics, Jonny Jacevicius.

BEGIN TRANSMISSION →

JUMP POINT (JP): Please give us your name and title and let us know what you've worked on previously for *Star Citizen*.

JONNY JACEVICIUS (JJ): My name is Jonny Jacevicius and I'm a senior FPS systems designer. I started off on the Technical Design Team working on ships - writing documentation, whiteboxing new ships prior to concept, and setting them up for release. I've worked on the Vanguard, Prospector, and Razor just to name a few. I was also briefly seconded to the SQ42 team to help with level set up and scripting. For the last couple of years I've been heading up weapons and FPS gameplay and mechanics!

JP: What are weapon attachments?

JJ: They are items that attach to various points on a weapon to provide additional functionality or gameplay benefits. They're either optics, fit on the barrel, or attach to the rail under the barrel.

JP: What impact do attachments have on the existing weapons?

JJ: Some of our attachments alter weapon behavior, like recoil, while others add functionality that wasn't there previously, like the laser pointer. The optics provide you with different visual aiming aids alongside different levels of magnification that the weapons don't provide by default.

JP: How do you see weapon attachments changing the overall FPS gameplay in *Star Citizen*?

JJ: The first implementation just gives players the option to find something they like that suits their playstyle, so it won't rock the foundation of our core FPS gameplay yet. There are several options and many combinations for combat, but as the game progresses, grows, and features are added and fleshed out, attachment options will become more important.

JP: Is there any kind of performance trade-off when adding an attachment?

JJ: There are some very minor trade-offs here and there, but while researching how a lot of these attachments work in reality, we found

there's actually very little performance compromise. There is certainly room to make these downsides more severe, or to add more in if we wish, but we're currently happy with where they are.

JP: How do attachments, well, attach? What is the player interface?

JJ: We're currently using the PMA. As we continue to progress the feature further, we'll be adding and swapping them via the weapon inspect pose, which will give a cleaner and more tactile feel.

JP: Where will players find new weapon attachments?

JJ: In the shops in the Persistent Universe - but we also currently loan them for free in *Star Marine* so we can get plenty of feedback from our ever-helpful backers!

JP: Is there a limit on the number of attachments one weapon can have?

JJ: Yes, generally each weapon can have one optic, one barrel attachment, and one underbarrel attachment. There are some exceptions though, where special features or functionality means an attachment won't fit. For example, the Gemini R97 shotgun has a unique barrel that alters spread, so a barrel attachment won't fit.

JP: Does adding new weapon attachments require work from any other disciplines, such as special animations or sound effects?

JJ: Absolutely, the VFX and Audio teams have been working especially hard on our barrel attachments - suppressors need an entire new set of firing audio and all of them alter the muzzle flash. We've also been

working closely with UI on the reticules for the new scopes, Weapons Art created them, and our code teams made them function!

JP: Are there any longer-term plans for this system that you can share? Will the team continue to add attachments in future patches?

JJ: The 'Weapons 2.0' system has been built in a very clever way (props to Thorsten!) that allows us to expand on the existing systems more easily than before. This first wave of attachments is just that. I can't reveal exactly what's coming next, but rest assured there will be more in the future.

JP: Balancing and testing weapons must be a huge challenge. How is it done?

JJ: On a game that changes and progresses as much as *Star Citizen*, it's something we're always trying to keep on top of. In terms of the attachments, we went from paper design, straight into internal playtesting, leaving some room for further iteration and changes post-release.

JP: For the roll of honor, who else was involved in working on weapon attachments?

JJ: Thorsten, our weapons engineer. Ben Curtis and his team of weapons and prop artists. Paul Jones and his Concept Team. Mike Snowdon and the VFX Team. Barney Oram for his work on the suppressors. Simon Burse and the UI Team for their work on the new scopes. I'm sorry to not mention everyone by name, there's been a lot of input from a lot of people!

VISUAL GUIDE

Know your foe and what their packing! This visual guide introduces you to the FPS attachments now available at weapon shops throughout the Stanton system. From suppressors and compensators

to lights and scopes, this first wave promises an exciting future for weapon customization.



TACIT

TYPE: Suppressor
MANUFACTURER: ArmaMod
AVAILABLE SIZES: 1-3
ATTACHMENT POINT: Barrel

STORE DESCRIPTION: Strike silently with the Tacit Suppressor3. ArmaMod uses a proprietary ceramic coating inside the suppressor to ensure the sound of gunfire remains minimal.

ABOUT: Attaching a dedicated suppressor to your weapon will reduce the overall firing sound for a slight decrease in range and damage. This will make it more difficult for others to locate you and potentially allow you to get the jump on enemies in an ambush. Suppressors are available in three sizes and attach directly to the gun barrel of any standard weapon. Frequently called silencers, suppressors work by modulating the speed of gas ejection from a gun's muzzle to reduce (but not eliminate) the sound of a round firing.



VEIL

TYPE: Flash Hider
MANUFACTURER: ArmaMod
AVAILABLE SIZES: 1-3
ATTACHMENT POINT: Barrel

STORE DESCRIPTION: The Veil Flash Hider3 is an S3 flash hider from ArmaMod. Designed to reduce muzzle flash, it will help keep your position hidden once the action begins.

ABOUT: Is it better to be seen or to be heard? That's the choice offered between the flash hider and the sound suppressor. The Veil flash hider from ArmaMod is another option for increasing the stealth aspects of your FPS warfare. The flash hider reduces the visual muzzle flash which occurs when you fire your gun, making it more difficult to locate the source of a round. The result is a gun that doesn't signal your position visually in exchange for a slight increase in recoil. Flash hidens, also called flash guards or flash cones, function by cooling gases as the ammunition exits the weapon's barrel.



SION

TYPE: Ballistic Compensator
MANUFACTURER: ArmaMod
AVAILABLE SIZES: 1-3
ATTACHMENT POINT: Barrel

STORE DESCRIPTION: Maintain accuracy by countering muzzle rise with the Sion Compensator1. ArmaMod's expertly designed S1 barrel attachment efficiently expels gasses to keep every shot on target.

ABOUT: ArmaMod's Sion compensator is a weapon barrel attachment that aims to improve overall accuracy by reducing a gun's horizontal and vertical recoil (the natural push that happens when the trigger is pulled). In exchange, the overall shot volume and muzzle flash of the weapon are increased. Compensators work in a similar fashion to suppressors, but instead of modulating gas to reduce sound, they redirect it upward to counter the natural movement of the gun when firing. The Sion is available in three sizes and works only with ballistic weaponry.



EMOD

TYPE: Energy Stabilizer
MANUFACTURER: ArmaMod
AVAILABLE SIZES: 1-3
ATTACHMENT POINT: Barrel

STORE DESCRIPTION: Reduce energy weapon recoil with the Emod Stabilizer1 from ArmaMod. While it will increase the heat generated by the gun, it's a small price to pay for a more precise shot.

ABOUT: ArmaMod's Emod energy stabilizer is essentially the equivalent of the ballistic compensator for energy-specific weapons like lasers and plasma guns. The Emod works to reduce the recoil generated by energy guns in exchange for an increase in heat, which could reduce the amount of time you can continue firing before a reload. While *Star Citizen's* other barrel attachments are based on real technologies, the energy stabilizer is exclusive to the powerful energy guns of the 'verse. Like other barrel attachments, the Emod is available in three sizes to cover a large range of familiar gun types.



◀ 250-E

TYPE: Laser Pointer
MANUFACTURER: NV-TAC
AVAILABLE SIZES: 1
ATTACHMENT POINT: Underbarrel

STORE DESCRIPTION: The 250-E is an intuitive aiming aid that produces a laser visible to you and others. NV-TAC built the attachment to be lightweight yet durable so it won't add extra weight to your weapon.

ABOUT: In addition to barrel attachments that impact stealth and recoil, NV-TAC also produces a selection of underbarrel attachments aimed at improving the manual aiming of weaponry. The 250-E laser pointer is exactly what it sounds like: a device that can be strapped to the bottom of a gun to generate a red aiming reticle. The overall impact is a little more complex than you'd think: adding a laser pointer means your gun generates an in-world aim marker that can be seen by other players (including potential targets). But, it also provides targeting assist when a player isn't wearing a helmet, making it an especially useful upgrade for the countless situations where you aren't engaging in constant warfare.



◀ DELTA

TYPE: Optic - Red Dot
OPTIC TYPE: Reflex
MAGNIFICATION: 1x
MANUFACTURER: NV-TAC

STORE DESCRIPTION: Ideal for civilians and professionals, the Delta non-magnifying reflex sight from NV-TAC provides a precise illuminated target marker, visible across a wide range of light levels.

ABOUT: NV-TAC is *Star Citizen's* first developer of gun sights and its initial lineup has a variety of options derived from real-world weapons technologies. The Delta reflex sight is the simplest upgrade, replacing a weapon's standard iron sight with an unmagnified scope that contains an illuminated red dot. Unlike the 250-E underbarrel attachment, the red dot can be seen only by the player.



◀ FIELDLITE

TYPE: Flashlight
MANUFACTURER: NV-TAC
AVAILABLE SIZES: 1
ATTACHMENT POINT: Underbarrel

STORE DESCRIPTION: The FieldLite is a tough and tactical underbarrel flashlight. Featuring a corrosion-proof body and impact-resistant lens, NV-TAC tested the attachment across a variety of environments and conditions to ensure it works when needed most.

ABOUT: The NV-TAC FieldLite flashlight is another utility mod, this time with a variety of non-violent uses. The FieldLite mates your gun with a powerful light source that can illuminate wherever the weapon is aimed. This lets you better target enemies and, in addition to its use in combat, allows explorers to do their jobs while remaining ready to fight. Attaching a flashlight to a gun barrel only makes sense: whether you're exploring an alien derelict or battling it out in the depths of an asteroid, there are endless situations in which a player would not want to spend time switching between a gun and a light. Note that underbarrel attachments are distinct from gun sight upgrades.



◀ GAMMA

TYPE: Optic - Holographic
OPTIC TYPE: Projection
MAGNIFICATION: 1x
MANUFACTURER: NV-TAC

STORE DESCRIPTION: Whether under the blazing sun or on the dark side of a moon, the NV-TAC Gamma projects an easy to see reticle to help ensure your shot finds its mark.

ABOUT: The NV-TAC Gamma holographic sight is the next level of technology up from the Delta reflex sight. By replacing the standard sight with a high-tech holographic projection, the player gains a variety of options to improve their targeting in less-than-ideal lighting conditions. The standard Gamma does not include magnification options; NV-TAC makes them available with the Gamma Duo and Gamma Plus.



GAMMA DUO

TYPE: Optic - Holographic
OPTIC TYPE: Projection
MAGNIFICATION: 2x
MANUFACTURER: NV-TAC

STORE DESCRIPTION: NV-TAC extensively tested the Gamma Duo across a range of extreme temperatures to assure that thermal drift doesn't affect the accuracy of this 2x magnifier sight.

ABOUT: The Gamma Duo is the 2x version of the standard NV-TAC Gamma sight, allowing the user to be more precise when engaging targets at medium range.



TAU PLUS

TYPE: Optic
OPTIC TYPE: Telescopic
MAGNIFICATION: 4x
MANUFACTURER: NV-TAC

STORE DESCRIPTION: The Tau Plus 4x telescopic sight from NV-TAC uses a proprietary optics coating to ensure a crystal-clear image regardless of light levels and conditions, allowing you to precisely engage targets at medium range.

ABOUT: NV-TAC's highest magnification options are dedicated telescopic sights that allow sniper-level targeting options in exchange for a reduction in aim-speed. Telescopic sights allow for long-distance magnifications and offer a full range of vision options. The technology uses traditional optics to offer the most detailed possible view of the battlefield. The Tau Plus model offers 4x the magnification of a standard gunsight.



GAMMA PLUS

TYPE: Optic - Holographic
OPTIC TYPE: Projection
MAGNIFICATION: 3x
MANUFACTURER: NV-TAC

STORE DESCRIPTION: NV-TAC's Gamma Plus is a 3x magnifier sight that utilizes ReadyBrite projection for quick target acquisition. Its durable design makes it perfect for any tactical situation.

ABOUT: The Gamma Plus is the most advanced holographic sight currently available, a 3x variant of the Gamma design that will appeal to anyone looking to increase their distance and accuracy in exchange for a reduction in the amount of time it takes to aim.



THETA PRO

TYPE: Optic
OPTIC TYPE: Telescopic
MAGNIFICATION: 8x
MANUFACTURER: NV-TAC

STORE DESCRIPTION: Carefully crafted and calibrated, the Theta Pro delivers precise and effective long-distance combat engagement capabilities thanks to its powerful 8x telescopic sight.

ABOUT: The NV-TAC Theta Pro is the highest capability telescopic sight replacement currently available, offering a whopping 8x magnification over the standard iron sight. The Theta Pro is a tool for dedicated snipers and anyone willing to put additional time into their targeting... but it shouldn't be used for fast, close range engagements. It's an attachment that will allow you to get the drop on distant foes. Used effectively, they won't know what hit them!



WORK IN PROGRESS...

RSI MANTIS

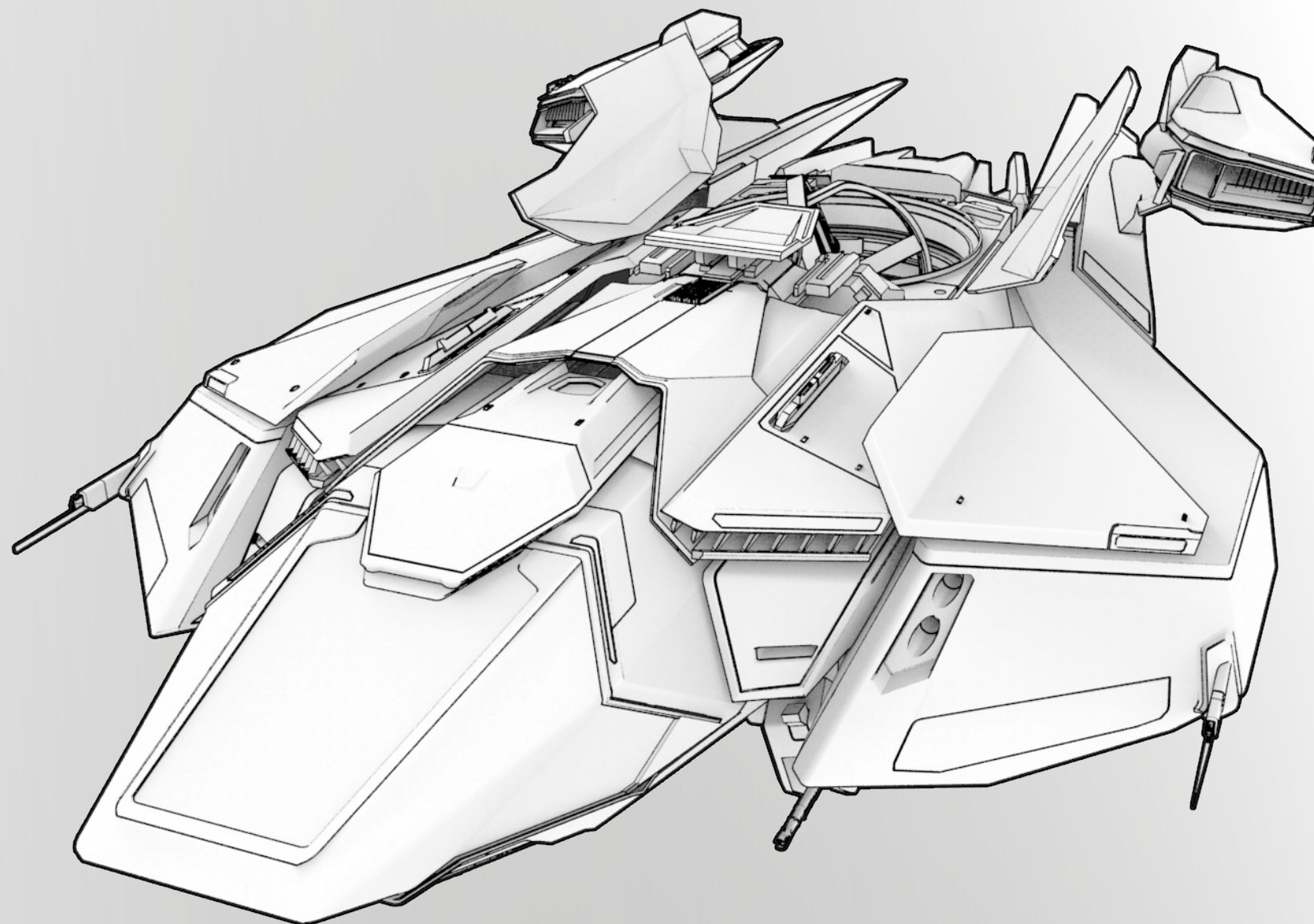
AIMS

- Single-seat ship that introduces the player to quantum enforcement gameplay. Features a device that can create a 'net' to pull players out of quantum travel, as well as prevent quantum drives from working within a specified area of effect.

AESTHETIC

- Similar in size to an Avenger. Straddles the line between a utility craft and a fighter.
- The utility mount will hold the interdiction device. This should be similar in size to an EMP device.
- The internal walkable space will have a small section where the player can access the interdiction device to do maintenance, and storage for a handheld mission box.

Length	30m
Width	17m
Height	8m
Max Crew	1
Weapons	2x S3 Kroneg Laser Cannon
Missiles	1x S3 Behring MSD-322 Missile Rack 2x S2 Talon Dominator Missiles 1x S3 Behring MSD-322 Missile Rack 2x S2 FireStorm Kinetics Ignite Missiles
Counter Measures	1x S1 RSI Flare Launcher 1x S1 RSI Chaff Launcher
Thrusters	8x Joint Mavs 2x Mains 2x Retros
Quantum Drive	1x Small Wei-Tek Beacon
Power Plant	1x Aegis Regulus
Shield Generators	2 x Small
Coolers	2x Aegis Bracer
Shield Emitter	2x Gorgon Defender Industries AllStop
Fuel Intake	2 x Small
Battery	1 x Small



Specifications and appearance are subject to revision during development.

KEY CONTRIBUTORS :

DESIGNERS - JOHN CREWE & STEPHEN HOSMER
 CONCEPT ART - ALEKS AKSTINAS
 ART DIRECTOR - PAUL JONES
 MANTIS IMPLEMENTATION - KIRK TOME, STEPHEN HOSMER, CHRIS SMITH,
 MATTHEW INTRIERI, ARAN ANDERSON, JOSH BELL
 QUANTUM ENFORCEMENT DEVELOPMENT - MARK ABENT, CATALDO FANELLI,
 DOM CRISTALDI, PATRICK MATHIEU, TONY ZUROVEC, TOM SAWYER



INTRODUCTION

As a great man once said, space is big. This means that, in theory at least, it could be difficult for players to ever actually encounter one another in the vastness of a fully realized star system. Even if thousands and thousands of people are active in a particular area, it's possible that there's so much empty space that they could never come in contact. Luckily, the practicalities of an inhabited interstellar setting make this less likely: *Star Citizen's* players don't typically just fly anywhere, they travel between points of interest, effectively forming space lanes along which commerce, exploration, mining, and other activities happen. Players tend to travel along these routes at quantum speeds, exiting only when they reach their destination or if they run afoul of attackers. But how will these attackers locate and engage their prey? The answer is, it turns out, the brand-new Roberts Space Industries Mantis, the latest *Star Citizen* vehicle to be built and implemented directly into the game.

IT'S NOT JUST THE WHALES

The Mantis was not the first *Star Citizen* spacecraft to be launched flight-ready, but it was the next major step in the team's effort to someday move to exclusively releasing ships straight into the universe. Unlike previous straight-to-flyables like the Anvil Arrow, the RSI Mantis is not just a new take on an existing design role: it introduced both a new ship design and an entirely new element of gameplay – interdiction – that needed to be carefully considered and balanced. This meant that *Star Citizen's* designers had their work cut out for them going into the development, with some focusing on the standard set of specifications for the new ship and others prototyping how interdiction would work. The process was a true production challenge! Senior systems designer Stephen Hosmer explains: "Several teams had to align in order to get the Mantis and interdiction gameplay into the game, including Ships Team, VFX, Audio, and UI. Coordinating all of these teams and getting the work out on time was a challenge."

So what exactly does interdiction gameplay entail? "It's the first time that players are able to interrupt other players' quantum travel," explains lead systems designer Kirk Tome, "which was previously only available to patrolling AI. Now, players are able to both pull players and AI ships out of quantum travel and prevent them from initiating it again. When used alongside more heavily armed ships, the mechanic should improve pirate-based gameplay greatly (providing the ships caught are freighters and not big capital ships!)."



Building a system by which ships can stop one another dead in space wasn't as easy as teaching one to press a stop button. Interdiction needed to be balanced for and against the Mantis crew and it needed to work without breaking any of the already complex elements of space combat. Like any update to *Star Citizen's* overall design, the work would include both the development of something new and countless small adjustments to what already exists. Tome further explains: "The Quantum Enforcement Device has two modes. Quantum Dampening requires a bit of power and creates a small field that prevents those close to you from initiating quantum travel. Initiating the Quantum Snare requires a charging sequence, and then an initiating event that must be held steady. This generates a quantum enforcement volume that pulls players and AI ships out of quantum travel should they enter the enforcement volume, and at the same time prevents those within the volume from initiating quantum travel. Because of its high power requirement and heat generation, you'll need to activate this feature judiciously, as you'll need to turn down or disable other systems in order

to capture ships. Because quantum enforcement heavily interacts with quantum travel, both systems required many adjustments to ensure that they were communicating with one another effortlessly." Speaking to the dedication of the team to the community making the game possible, he added: "Hiding stuff like this from you guys is quite a challenge! We wanted to do this to be able to surprise everyone with a cool feature that was available immediately."

The designers worked hard to not only create the required functionality for the Mantis but to also decide how it should function in the wider game. Tome explains how they balanced it with other non-interdictor spacecraft: "For this initial rollout, we're balancing the quantum enforcement device (QED) to require lots of power, generate lots of heat, and have a long cooldown. This power requirement means that you'll not be able to have all of your other systems at full capacity after the main function is initiated, so it's best to enlist the help of your comrades.

The best way to avoid getting caught by a quantum snare is to plot a less-obvious quantum travel path. In the future, we'll update the law jurisdiction system so that just using a QED anywhere is not permitted." While interdiction technology is exclusive to the Mantis at this point, it could be seen on other ships in the future. "While we always like to expand gameplay features for multiple ships, with its initial rollout, the QED will only be allowed for player use on the Mantis. However, patrolling AI will still be able to interrupt your quantum travel and prevent usage of your quantum drive while being scanned."

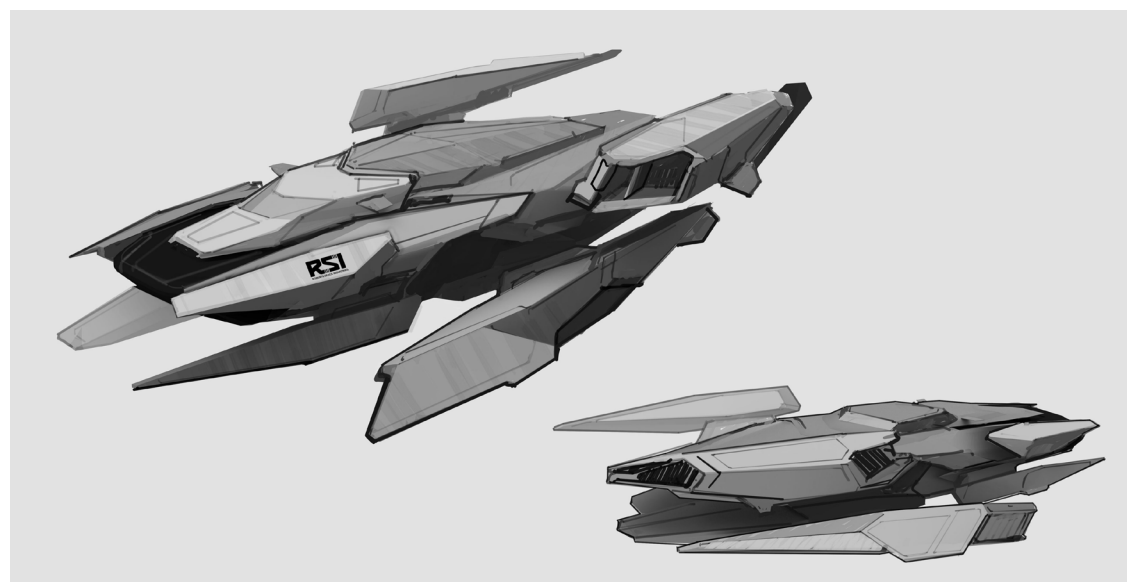
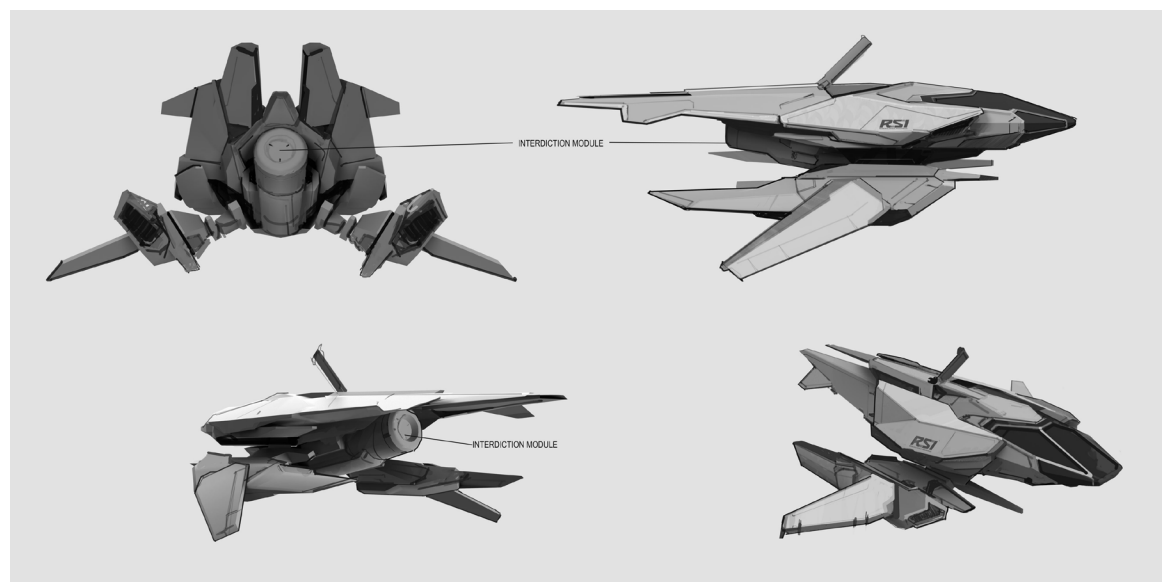
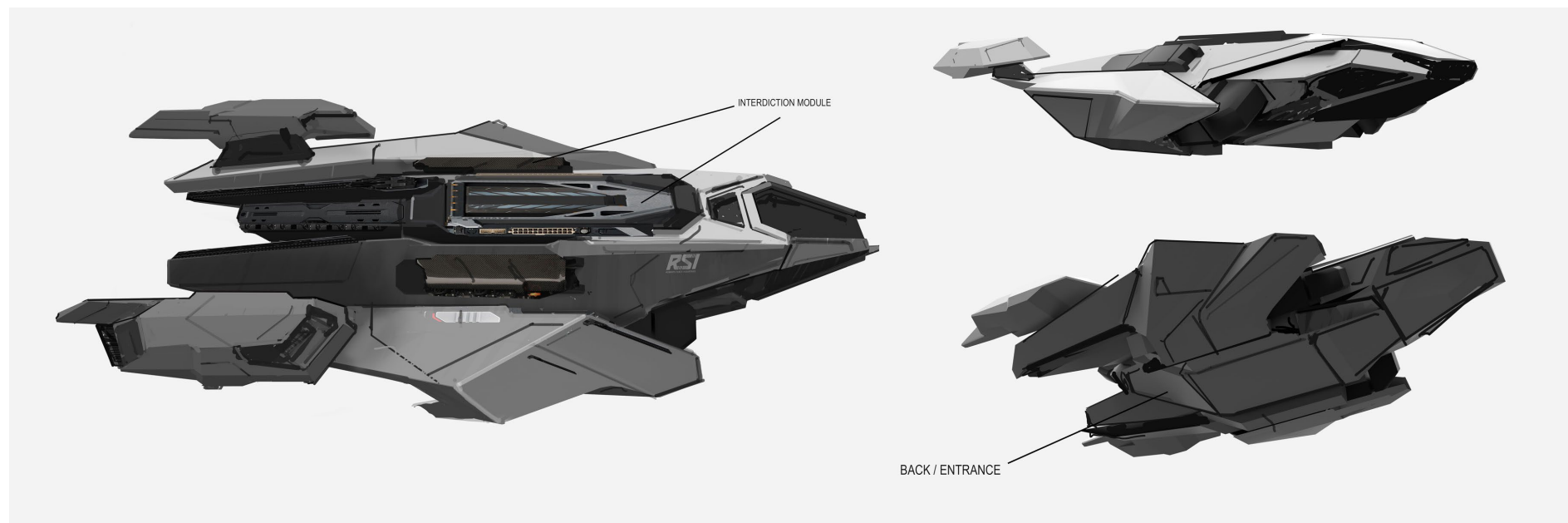
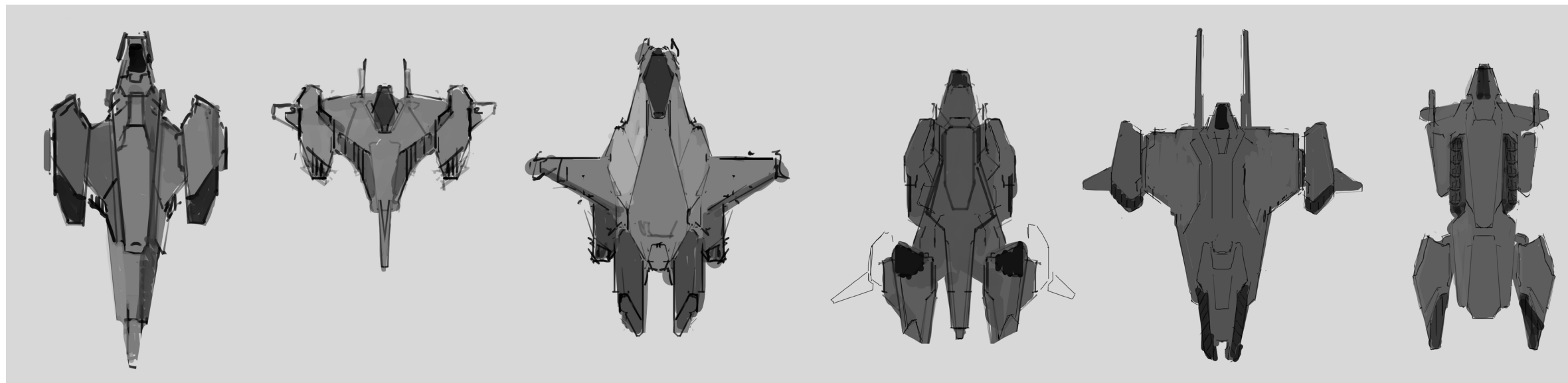
To build the Mantis inside *Star Citizen's* world, the team went back to the beginning and fan-favorite brand Roberts Space Industries, a decision that would have a heavy impact on the later concept stage of development. With regards to this decision, Hosmer states: "We wanted the Mantis to be seen as a tool used by the military and security forces. RSI as a manufacturer may be most known for the Aurora and Constellation series

of civilian ships, but they also create military ships such as the Bengal and Polaris. This connection to both civilian and military markets, as well as being at the forefront of quantum drive technology, made RSI the ideal manufacturer for the Mantis."

Finally, the team discussed what the name for the ship should be. Early in the process, it was simply known as the 'interdictor'. While civilian RSI spacecraft typically have astronomical names, the feeling was that a military-oriented design should have something slightly different that expressed its ability to hunt and trap other spacecraft. Options discussed among the design team included the Pasha, after a mythological lasso, several takes on mythological hunting figures (Actaeon and Cyrene from Greek mythology, Davana from Slavic tradition) and broader terms like Spider, Predator, and Tornado. Ultimately, the team chose 'Mantis' after the deadly insect, expressing both its nature as a hunter and touching on its elaborate, high-tech design.

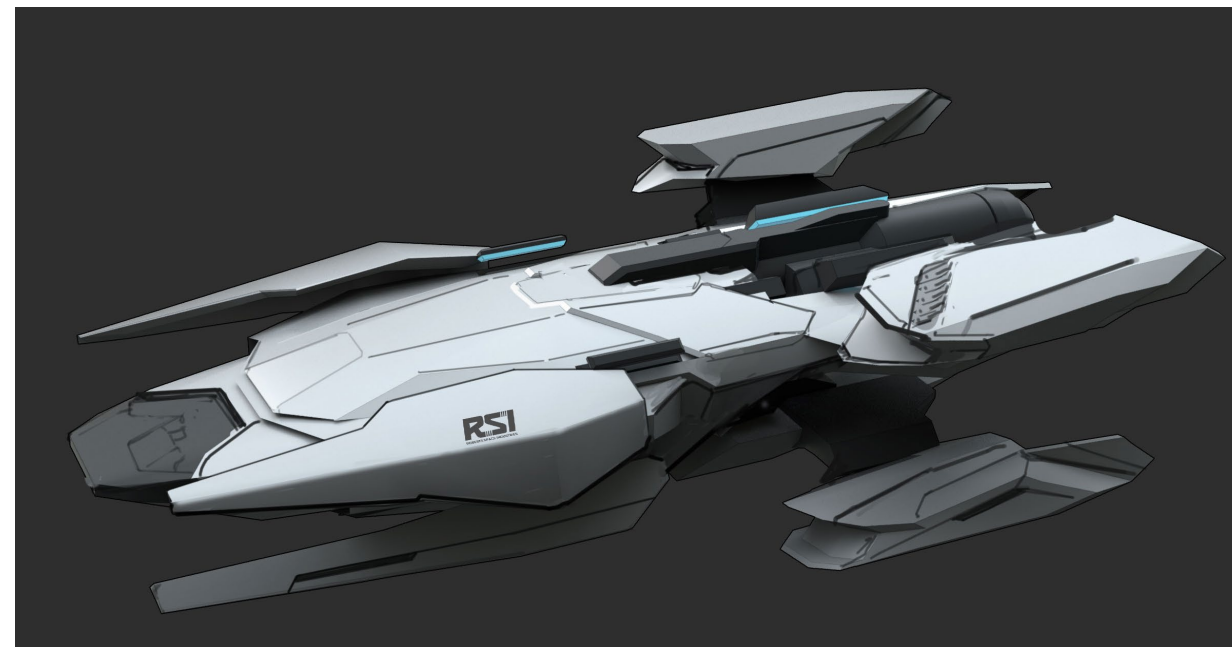
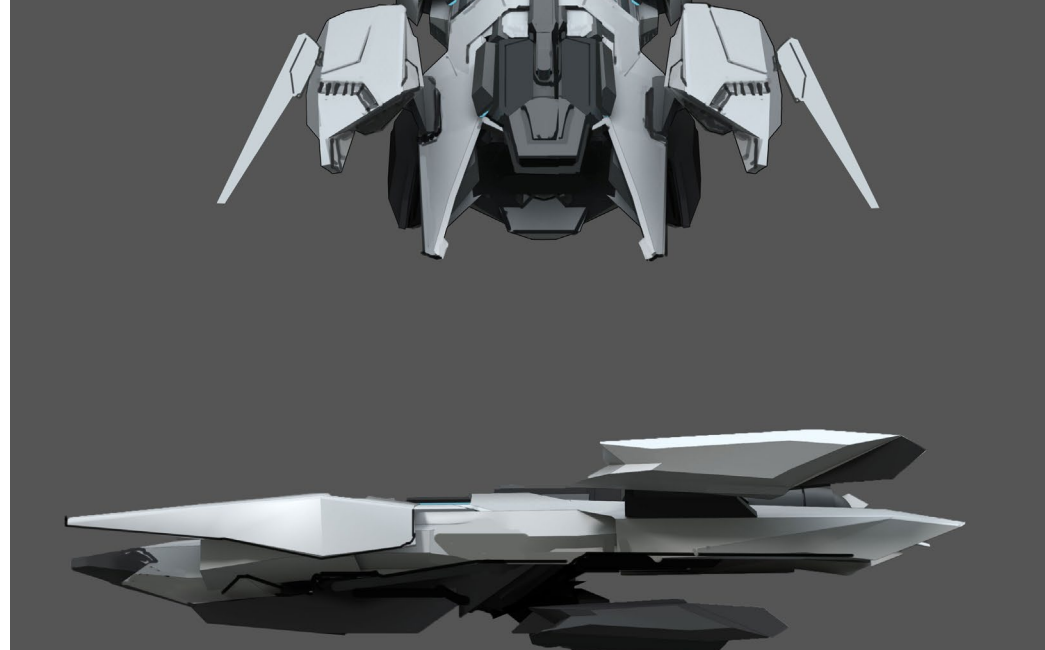
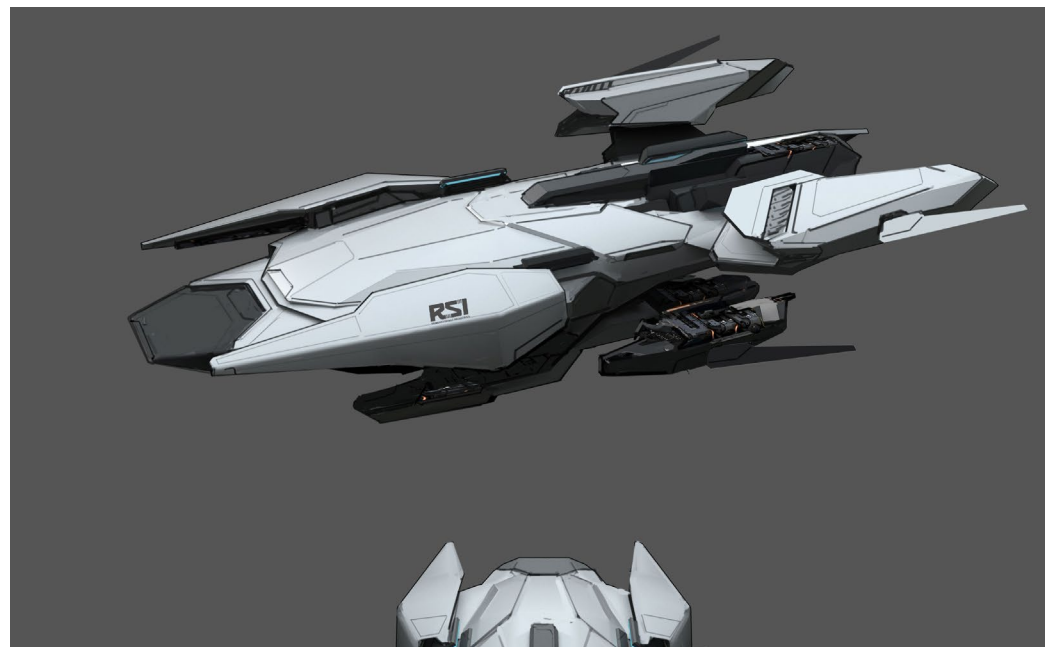
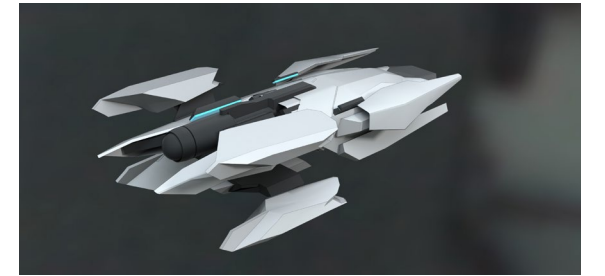
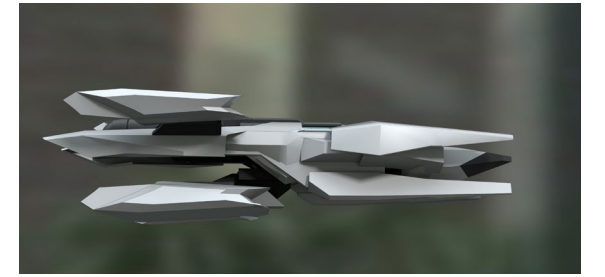
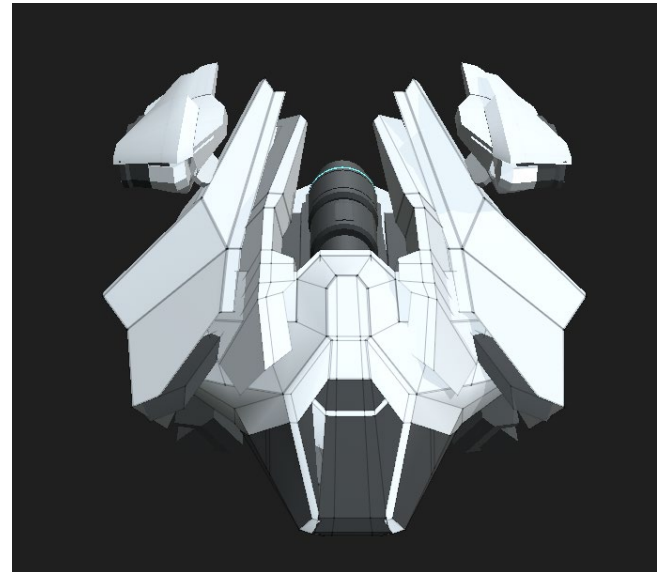
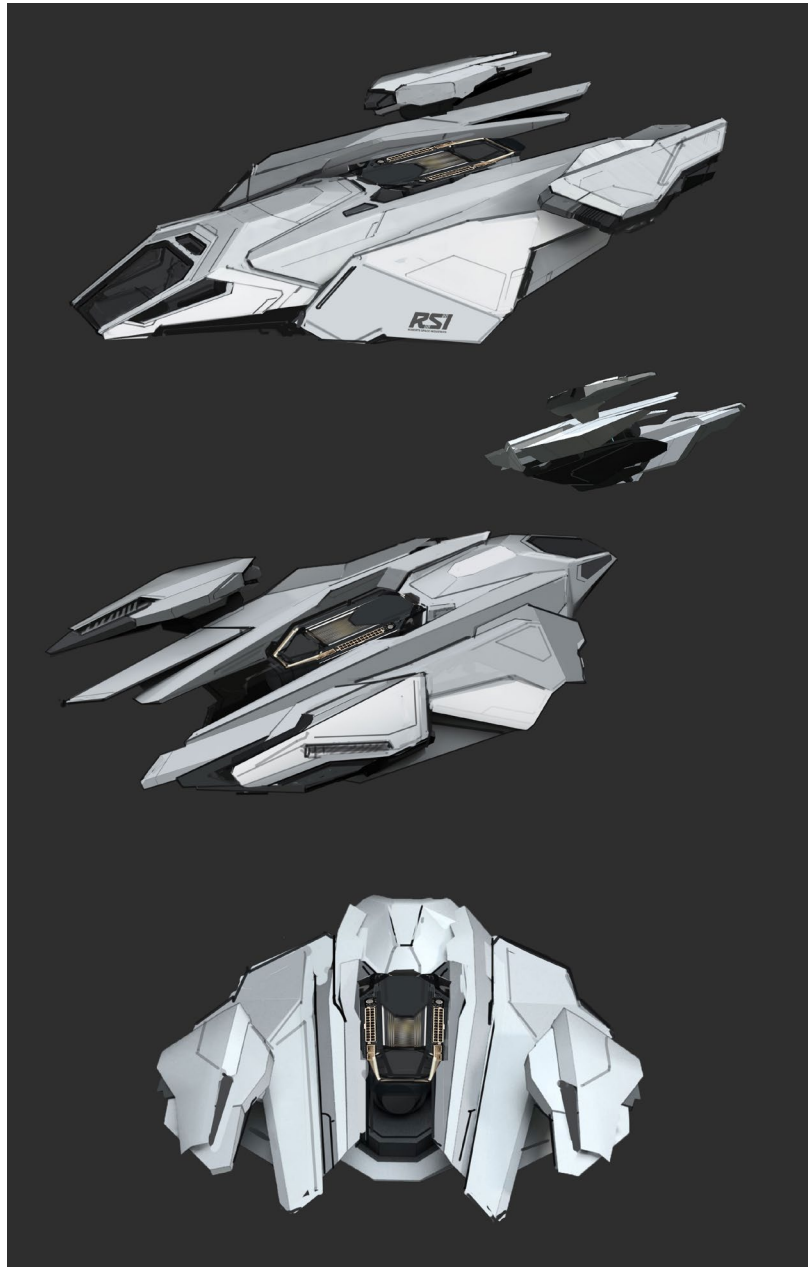
HATCHING A MANTIS

The next challenge, kicked off as design was still developing the gameplay that would allow the ship to function in the 'verse, was to design the look of the craft itself. To develop RSI's latest spacecraft, art director Paul Jones chose concept artist Aleks Akstinas, best known for his work on spacecraft like the Drake Vulture and the Xi'an San'tok.yāi. The natural first question was: what does an interdicator look like, anyway? With the Design Team working simultaneously to refine the gameplay mechanics behind the ship, the concept process would involve a great deal of back and forth. But most ships also reference real-world equipment and technologies: a space destroyer borrows from a naval destroyer, a space carrier an aircraft carrier, a racer from high-performance cars, and the like. In this case, there was not necessarily one good starting point. Instead, Akstinas would focus largely on connecting design's works to the established look and feel of existing RSI ships such as the



Constellation, Apollo, and Polaris. He began the process with a handful of rough 3D sketches, to which he assigned names like Dart, Manta, and Vampyr (the designers having not yet settled on Mantis).

Since the interdicator's design would be one defined by its role more than anything else, the ideas focused on different ways to connect the existing RSI aesthetic with the still-growing technology it would unveil to players. Akstinas presented Jones with a variety of different silhouettes to try and break into what felt right for the new ship, offering a variety of interesting designs that offered varying visual weights since there was no single vision for how such a ship should look. From the original sketches he whittled down the selection to be better built around the interdiction device, whatever the final form of that device would end up being. Reviewing the first sketches, Jones preferred the direction taken that references the familiar nacelles of the Constellation and asked that Akstinas experiment further with ways to include the interdiction device.

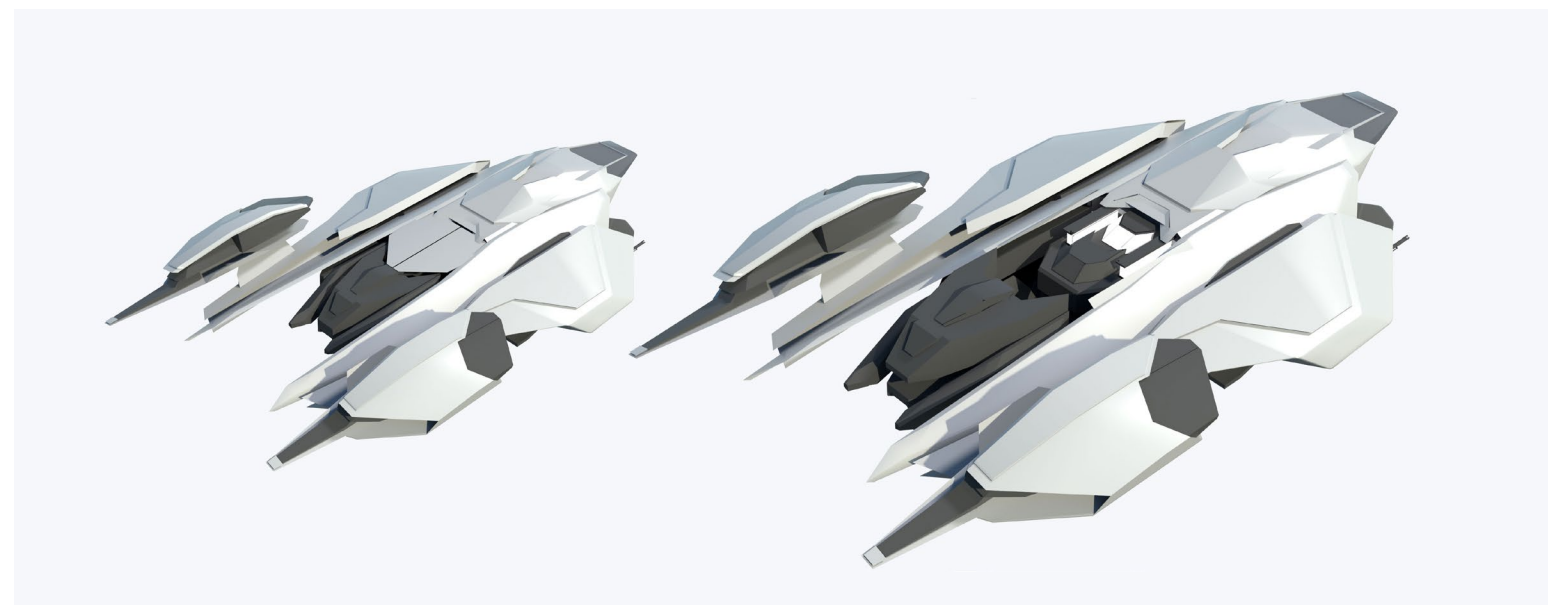
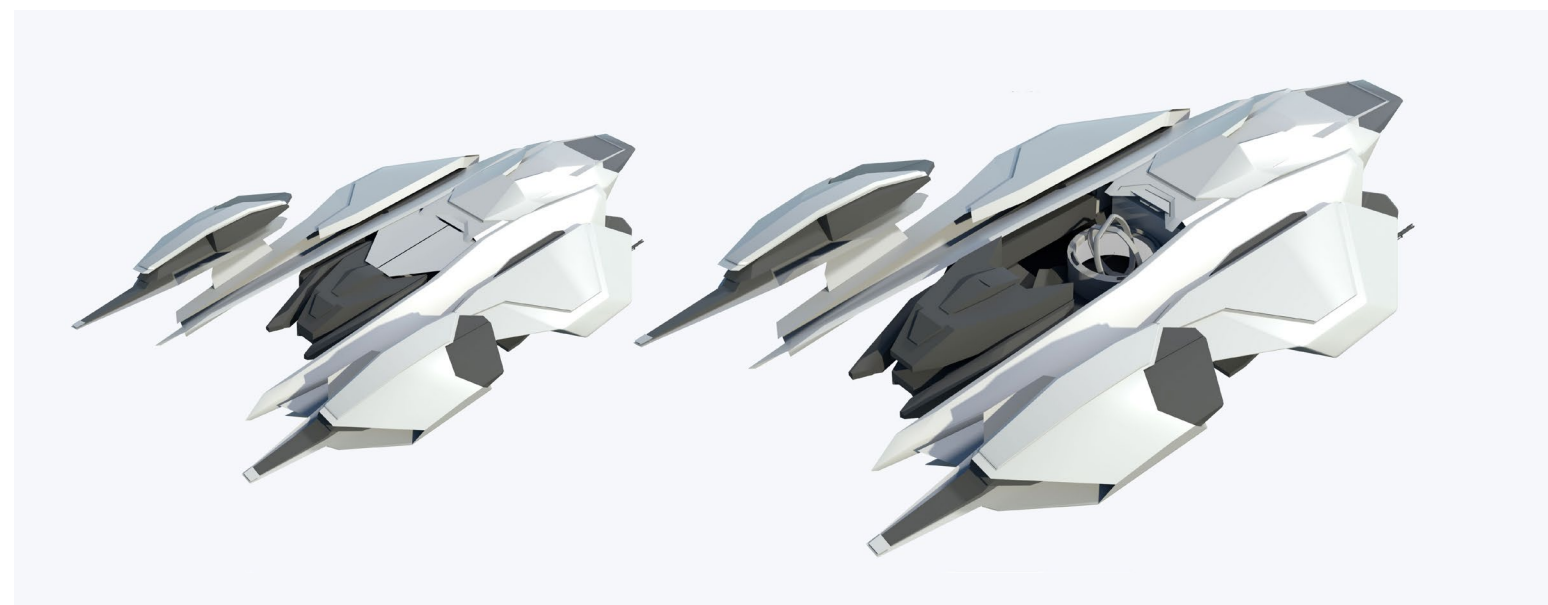
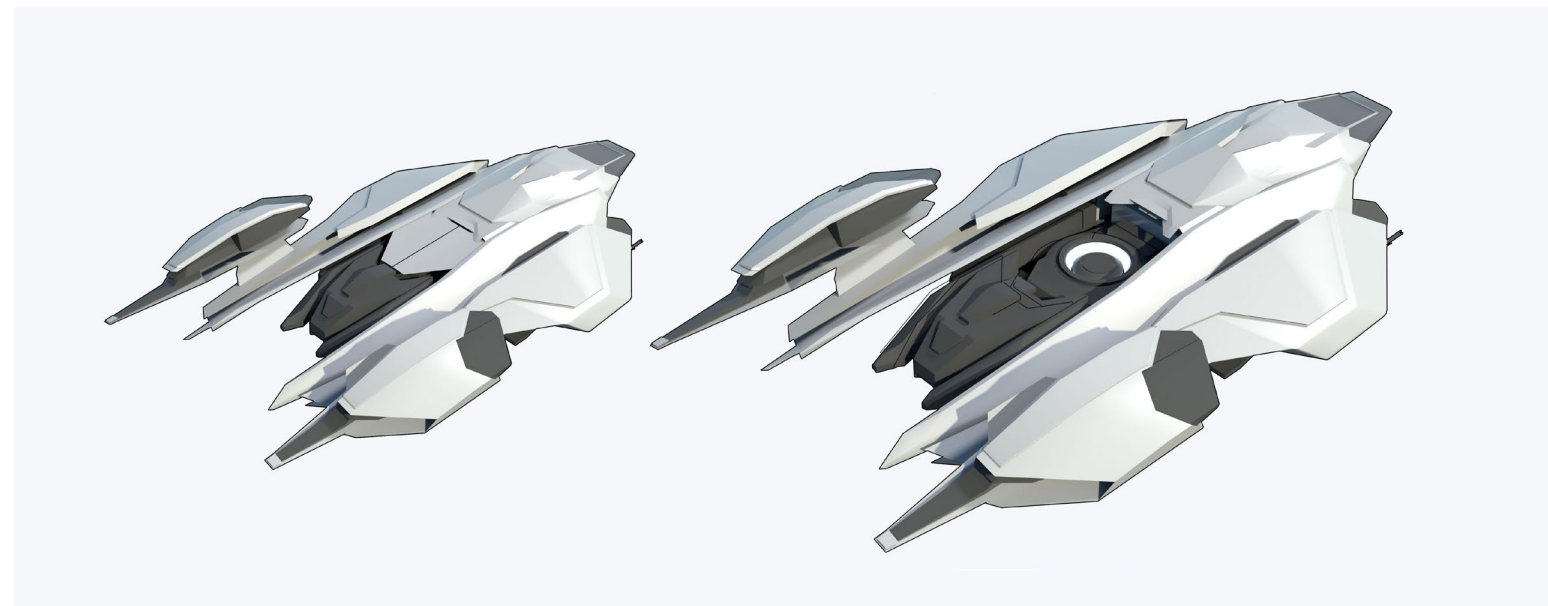
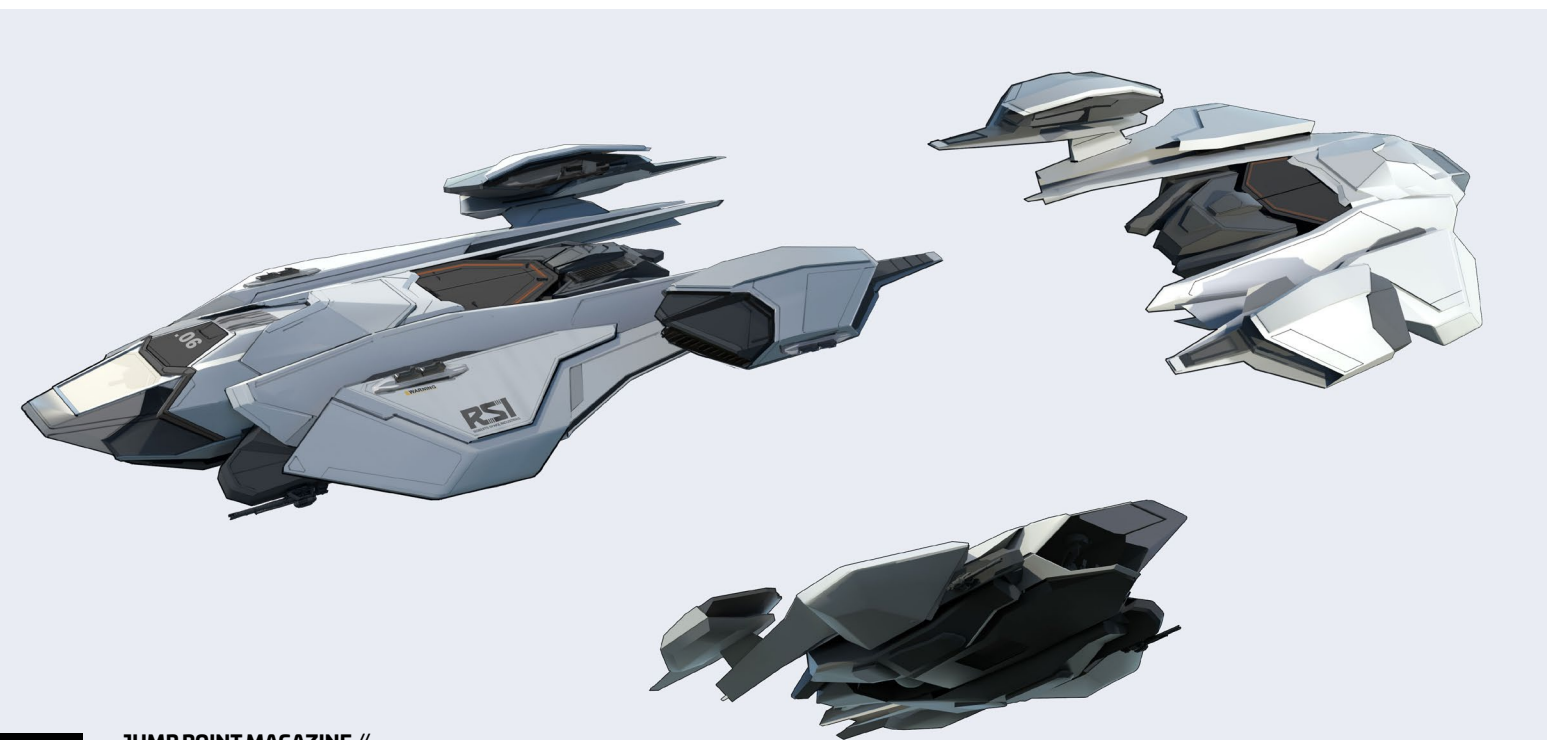
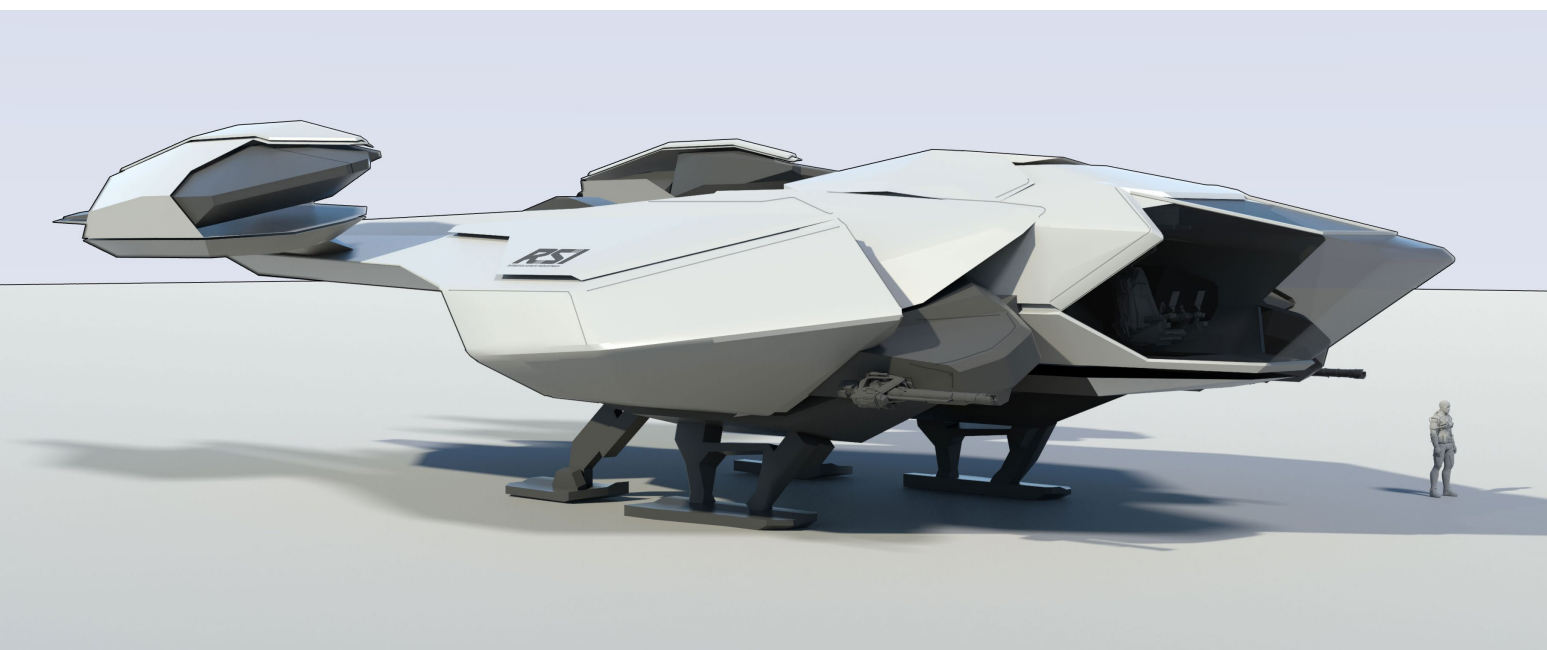


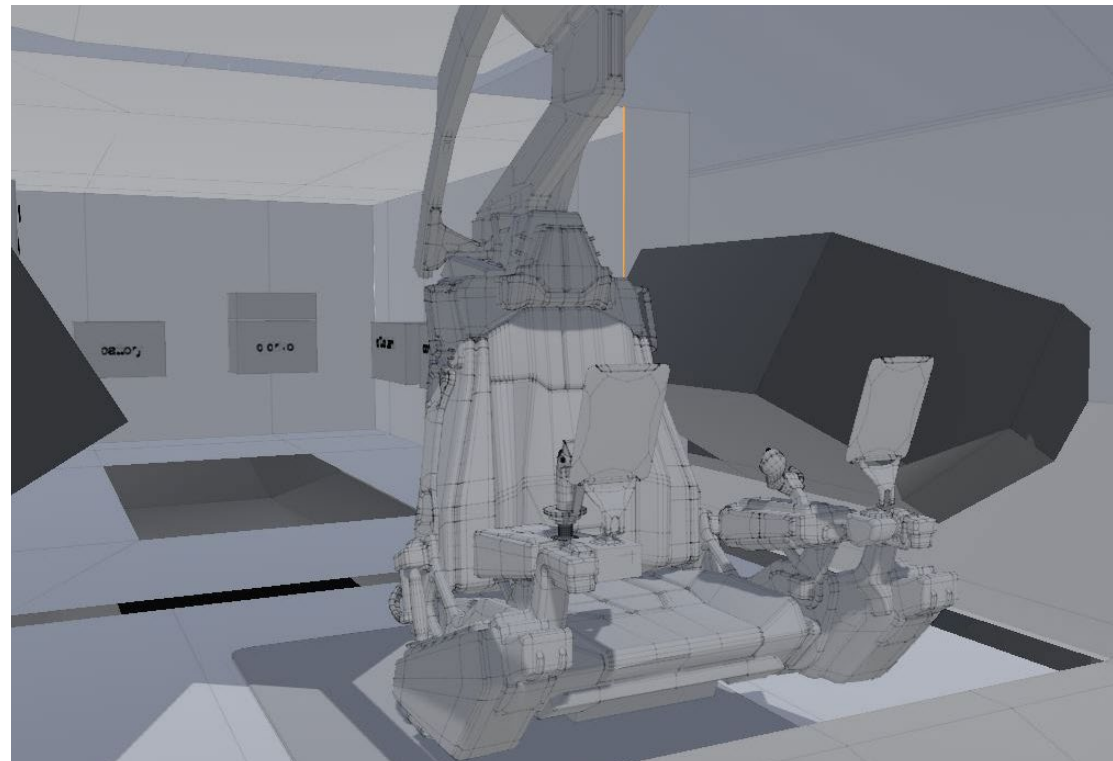
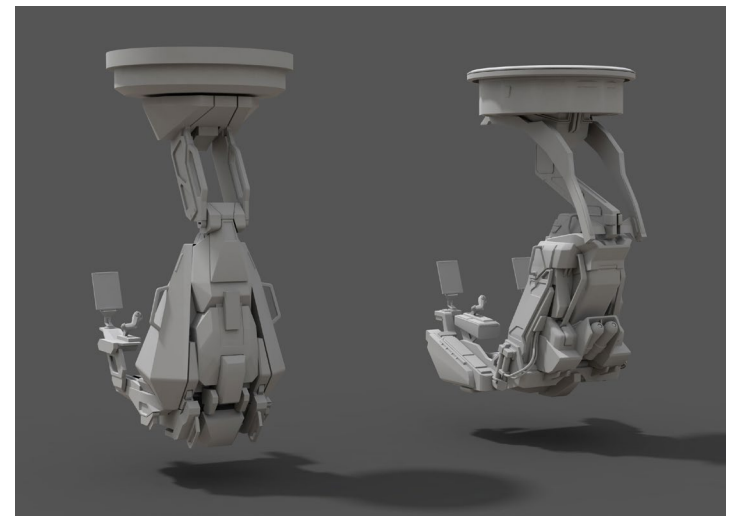
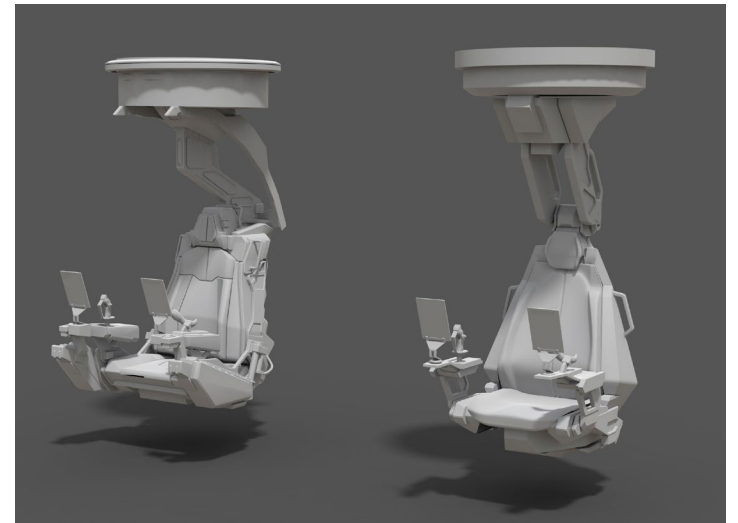
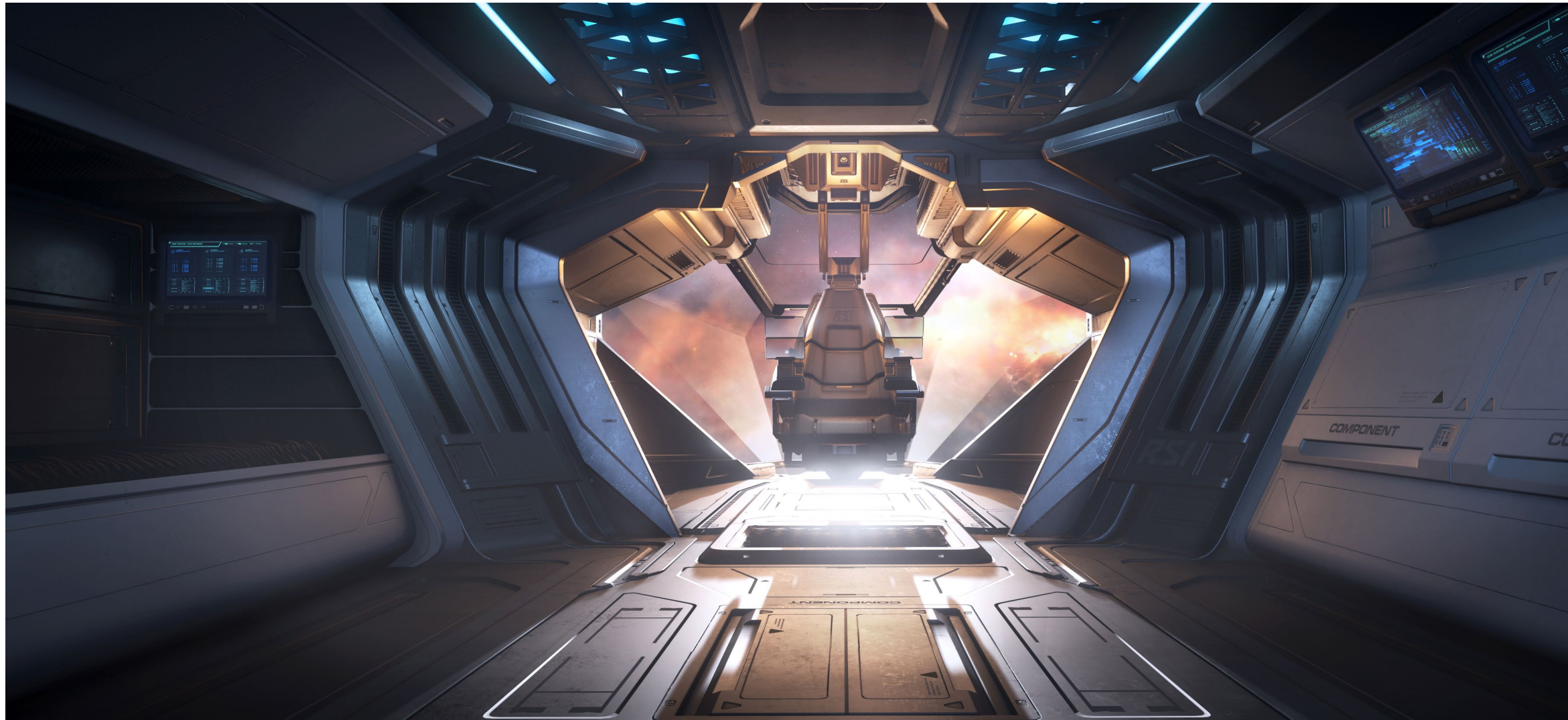
From Jones' first round of feedback, Akstinas pushed forward, refining three different takes that included the nacelles, including a version that had only two instead of four. Jones was keen to continue the focus on the visual technology and the next round included a much stronger focus on the interdiction device, including takes that looked like an AWACS plane and one that slung the interdicator underneath the ship. Jones liked the underslung idea but ultimately chose a different direction because it prevented players from easily seeing the device. Nevertheless, the feeling going into the first pass review with Chris Roberts was that they had developed a strong set of options that did a good job of defining what an interdicator could look like. Roberts agreed, asking for a combination of two of the earlier concepts that followed the Constellation style. He again noted the need to make the interdiction technology a defining feature, encouraging further experimentation. He also thought that the ship should be larger than the current design suggested, giving more weight to the value of this new technology.

Next, Jones and the team developed a set of animations to better show the new ship at work. This helped make the new technology much more visible and allowed the team to identify more opportunities for animation, a strong goal to help reinforce the high-tech nature of the interdiction device. Any points in the design where the ship can seem to move and transform, it was thought, would be beneficial and help move away from a ship-with-rudders look. The animation work revealed issues with the visual weight of the ship at certain angles, a problem that was easily tackled as development progressed. Akstinas also did a set of landed and clean renders for further review. The team then moved to consider the interior of the ship, which began small and packed with components but would expand slightly as they received feedback; Roberts would later ask that a bed, toilet, and food dispenser be added to allow for longer duration flight. This phase included basic component placement and further work to establish the ship's lineage; to help reinforce the RSI look,

a captain's chair similar to that of the Constellation was developed and suspended from the top of the cockpit. Further work occurred on the ship's landing gear placement to keep the canopy's view clear.

Work also began on refining the interdiction device itself, although the actual function behind it was still in development. Jones knew that like the ship itself it should have a high-tech feel and that animations and transformations would help establish its role. He experimented with three different designs for the device - a glowing coil with a central portion that plunged down, a series of spinning rings, and an abstract, alien-looking design. The rings were a favorite but at the first pass were felt not to be dominant enough; further work would take place to turn it from a feature to the centerpiece of the ship, implying that the Mantis was built around this technology rather than outfitted to use it.



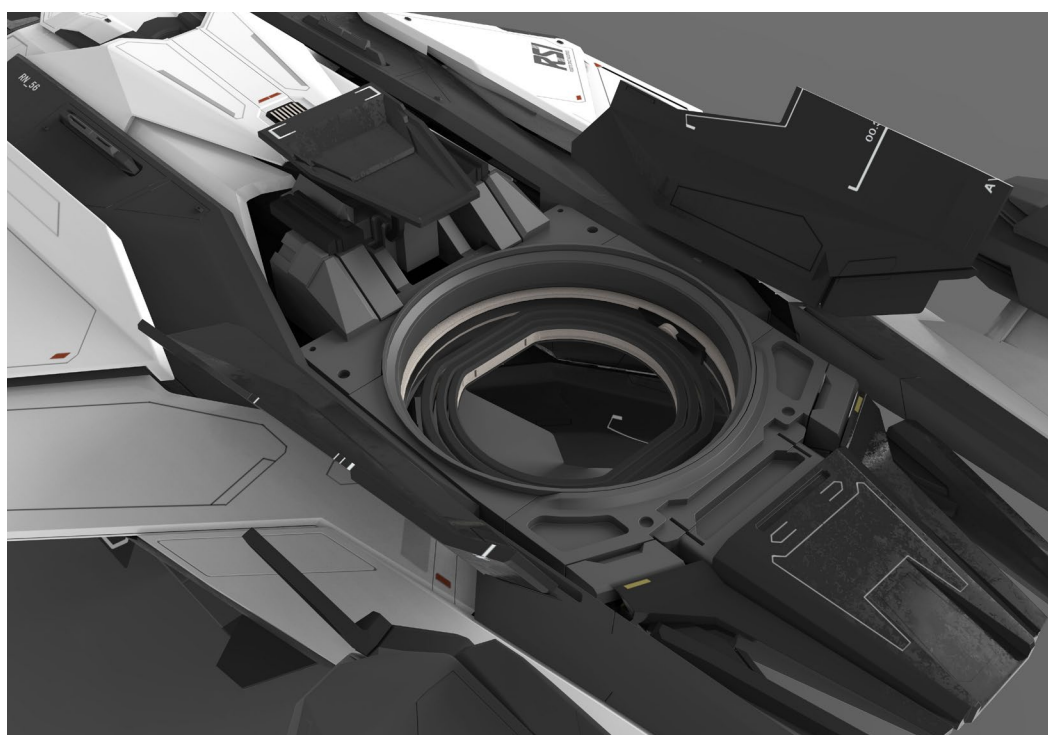
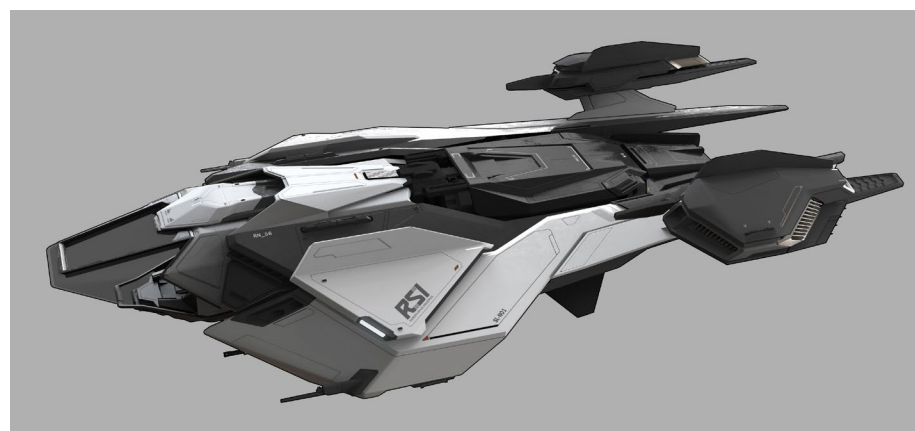


With a general feel for the overall look of the ship and the device established, the artists went through the process of detailing the exterior and locking down the interior. Time was spent on panel lines and general surface work as well as a detailing pass for the interior. This took line reference from RSI's other recent design, the Apollo Medivac. With Chris Roberts and the Design Team happy with the ship's direction, the second stage of development began with a full detail pass aimed at things like getting the ship's surfaces to lie correctly and the weight of the engines correct. Work on the interdiction technology continued with experimentation in colors and effects. The RSI-style chair was updated to become more distinct and the Mantis underwent a set of final checks. There was an additional pressure on the Concept Team at this point because the ship was going straight to flight-ready instead of moving on for marketing renders. To help those implementing the ship, Jones knew that the work his team provided needed to be as clean as possible to make building it in-engine as easy a process as possible. By locking down seats, animations, and line work, a great deal of time would be saved in the long run. The team also developed a range of possible liveries to include and then passed their work on for implementation.

FLIGHT READY

The production process for the Mantis' implementation was overseen by lead system designer Kirk Tome and senior system designer Stephen Hosmer. The job of moving the Mantis' concept model through to implementation fell to a true expert, lead vehicle artist Chris Smith, whose long history with the project goes all the way back to making the 300 series hangar ready for 2013. Smith built the Mantis in-game and in the process made a number of welcome additions to the concept, including improved detailing to pistons and other specifics around the interdiction device. Smith was assisted by lead technical artist Matthe Intriери with animator Aran Anderson handling VFX and Josh Bell overseeing the new audio that needed to be created.

To present the Mantis to the world, the team at Turbulent built a distinct presentation page complete with a trailer showing the ship in action (and offered a selection of Mantis-specific merchandise). The Mantis launched alongside *Star Citizen* Alpha 3.7, delighting players who had no idea the ship had been in development for the past months. Mantis owners quickly took to space to experiment with the new ship, offering valuable feedback to the team that would be useful for future updates.



RSI MANTIS SHIP PAGE

<https://robertsspaceindustries.com/pledge/ships/rsi-mantis/Mantis>

SHIP PRESENTATION

<https://robertsspaceindustries.com/comm-link/transmission/17236-Mantis>

TRAILER

<https://www.youtube.com/watch?v=6exXWnz9CWY>

Q&A

<https://robertsspaceindustries.com/comm-link/engineering/17270-Q-A-RSI-Mantis>

GALACTAPEDIA

SLOMA

Sloma is a beverage often consumed by the Banu before they begin the negotiation process for new business deals, or during various social gatherings. Sloma is made up of a base liquid that is then altered by the addition of disparate ingredients brought to the table by everyone involved in the given social situation. After the concoction brews for a few moments, the resulting beverage is called sloma.

KNOWN HISTORY

Since they were initially encountered, Banu have usually opened negotiations, be they political, business-related, or otherwise, with the creation and consumption of sloma. The first Banu-Human Interstellar Peace and Trade Accord was hashed out over sloma created from ingredients contributed by General Neal Socolovich and a Protectorate Trade Essosouli, among others. Because Banu do not keep historical records, there is no definitive evidence that points to the origin of the practice. The Essosouli present at the first Peace and Trade Accord, when asked about sloma, simply replied that it was how things were done. Human and Xi'an xenoanthropologists believe that the practice likely began before either civilization encountered the Banu.

DETAILS OF THE PRACTICE

Before negotiations begin, either a Banu who is hosting or a Banu who has previously agreed to host will provide the slomaddon, a usually ornately decorated vessel in which sloma is prepared. It will be partially filled with one of a variety of carrier liquids. Once

the slomaddon has been opened, each participant of the deal or meeting will add something to it. Spice is one of the more popular additives, as it is light, easy to carry, and can significantly alter the sloma's flavor. However, anything that is safe to eat or drink is acceptable. This can create unique flavors. Banu can safely consume food that is dangerous for Humans, Xi'an, and Tevarin, so it is a good idea to request that everyone bring ingredients that are respectful of their various dietary limitations. After the sloma has macerated for a few minutes, the host will provide cups, into which they will serve the resulting drink. Everyone is expected to partake.

Methods by which Banu create and consume sloma can vary: Some may serve it hot, some may serve it cold, some may ask you to bring a carrier liquid and vessel, some may insist upon drinking directly from the slomaddon, some may not use liquid at all and instead offer to share food. As with the original version, participants are still expected to add something to the dish. While food isn't technically sloma, it fulfils the same purpose.

Consensus among Banu is that sloma is used to ensure all involved in a contract are entering into it without ill intent. Because everyone, from low-ranking assistants to the most powerful Essosouli, must drink the sloma from the same vessel, so no one can slip poison to anyone else. Especially careful Banu may insist upon randomly mixing cups, in case someone has laced one or more of them with poison instead of the sloma. Some Banu believe that the flavor of the sloma can positively or negatively portend how negotiations will go. Other Banu attach no importance to the flavor whatsoever.





Inspirational. Visionary. Ruthless. Much has been said and written about microTech founder Magnus Tobin, who was the driving force behind the empire's most essential piece of wearable tech, mobiGlas. Broadly perceived as a reclusive tech genius, Magnus' fascinating life defies such easy categorization.

Magnus Tobin was born on Earth in 2756. His parents devoted their time to running a prosperous textile manufacturing business and left the rearing of their three sons (Fikri, Magnus, and Camryn) to au pairs. Magnus' eldest brother, Fikri, was a formative influence who taught him how to hack high-end electronics. Magnus' technological obsession led to his elite private high school expelling him for poor grades and attendance. Instead of enrolling in a new school, Magnus convinced his parents to let him work full time for the family business while studying for the Equivalency.

Free from school, Magnus passed his Equivalency at an extraordinary pace after bypassing the daily lesson limits and creating his own algorithm to analyze trends in past exams. Meanwhile, Magnus spent his days working in the information technology department of his family's company. He learned all he could about its operation before presenting his parents with a comprehensive plan to overhaul and update its

technical infrastructure. Impressed with his vision, his parents signed off on the plan and assigned Aleena Tressler, a trusted senior advisor, to officially oversee it. The project improved efficiency and generated massive profits for the company.

MAKING MICRO MACRO

Magnus became the heir apparent to the family business but shocked his parents by rejecting the role. Instead, he convinced them to fund a small technology start-up that sold a modified version of his business software. microTech officially incorporated in 2782 but struggled to turn a profit. Eventually, he asked former mentor Aleena Tressler to join the company and offered her a percentage of the profits. Her extensive list of contacts and cutthroat business acumen brought the growing microTech more orders for custom software than they could handle - an enviable position to be in as the overthrow of the Messer regime in 2792 sent shockwaves through the empire's economy.

Magnus felt fortunate that microTech survived the economic upheaval, but Aleena argued that the company could only succeed long term if it diversified. Magnus went on a hiring spree, courting numerous notable engineers and developers by guaranteeing them autonomy over their

projects. He also believed that the next great idea could come from anyone within the company. He organized hack-a-thons to identify new talent and kept one week clear in his schedule every quarter so anyone in the company could pitch him their idea. Even today, microTech remains renowned for nurturing and developing good ideas from any of its employees.

Meanwhile, Aleena led an initiative to buy struggling businesses with intriguing intellectual property. Industry observers deemed their combined spending as 'reckless', but the talent and technology microTech acquired eventually led to many of their signature products. The only company Magnus insisted on purchasing was Empiric Education. An intense bidding war soured Aleena on the company, but it became their most important purchase. microTech now owned a major producer of education software, and Magnus had big plans for it.

After the purchase of Empiric Education, Magnus revealed an upgrade that significantly streamlined the code and enhanced its security. He had been developing it since hacking his own Equivalency prep in his youth, but knew he needed to own the underlying code to monetize it. Beyond the surface-level improvements, he had also included additional background software meant to securely manage every detail of a student's life to increase their productivity. Aleena noticed that early adopters used these

software features well beyond studying and saw the promise in it. She encouraged Magnus to develop it as standalone software.

The initial Glas software was a hit and quickly became one of the top productivity software on the market. However, to fully and comfortably utilize all the features, users needed to bounce between their datapads and wearable comps, often necessitating carrying both with them. Year after year Magnus and his team tried to improve the existing available interface, but the most popular devices of the time were limited by their screen size, and anything larger might as well have been a datapad. The breakthrough came when Magnus climbed into a simpod only for it to malfunction and project a small screen in front of his face. Now he knew what he had to do - call his siblings.

SAFE AND SECURE

Magnus contacted Camryn, his younger brother and current CEO of the family business, and worked with him on designing and sourcing the right materials for a wrist-wearable device. If Glas was really going to succeed, Magnus knew that microTech was going to have to begin building their own hardware with Glas transitioning into a full-blown operating system. Meanwhile, he hired his older brother, Fikri, to try and hack his software,



trusting no one but him to test its security. Aleena believed it to be out of family loyalty, but later claimed that Magnus confided in her Fikri's extensive credentials, including playing an instrumental role in the hack that broadcast shocking images of the Massacre of Garron to their system and helped topple the Messers.

Simply, Magnus understood the importance of security on a device meant to manage someone's entire life. The wearables market was saturated with products plagued by security concerns. Following the fall of the Messers, it was revealed that wearable manufacturers were forced to build a backdoor into their devices so the government could access their network. Even years later, this drove some consumers to not use wearables due to ethical concerns, while others questioned whether these backdoors were ever closed. Magnus hammered home this point in the mobiGlas' first ad campaign, which featured a pixelated figure hacking every wearable on the market only to be stifled by the mobiGlas. The effective ad combined with the device's intuitive interface and competitive price point made the mobiGlas an instant success upon release in 2818. Its popularity only increased over the years until it became the ubiquitous wearable worn across the empire today.

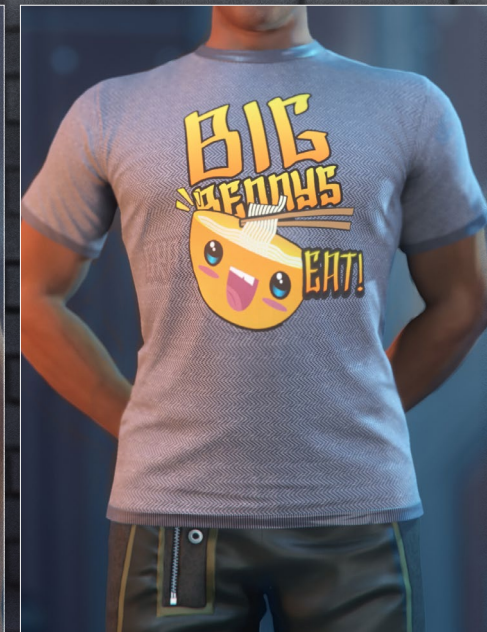
Aleena retired after the successful mobiGlas release, but Magnus continued to employ her aggressive business strategy, sometimes in ways that observers deemed dangerous or unethical. He poured profits into developing a wide range of new devices, including a revolutionary new simpod design and a line of ship computers. He even bought massive swaths of cheap real estate in extremely cold biomes across the empire to park the ever-growing army of microTech servers. When

microTech quietly began selling this land, industry observers believed it signaled a corporate shift away from server management. Instead, Magnus used the capital for his biggest and boldest deal to date, the purchase of Stanton IV.

Magnus officially retired following microTech's purchase of Stanton IV, but to the dismay of some, remained deeply involved in the company's operations. He oversaw the design and construction of New Babbage, microTech's primary landing zone, and was even given veto power over any new device or corporate initiative that he believed didn't align with the company's core values. After decades of being hailed as visionary, his increased stranglehold on the company was beginning to tarnish his image. A series of high-level leaks revealed just how unhappy employees were with his continued involvement and that several key decisions he had recently made had cost the company millions. In response, Magnus went on a media blitz to whitewash his image, even hiring a ghostwriter to pen a fawning autobiography. The campaign painted Magnus as a tech-focused force within the company that existed above the questionable business practices. This led to the sterile image of him as a reclusive tech genius that persists to this day.

When Magnus Tobin died in 2912 people hailed him as one of the most important figures of the 29th century. Despite his undeniable influence on technology, his greatest achievement may be creating a company that has thrived without him. microTech's ownership of a planet, ever-expanding product line, and constant quality of life updates to the mobiGlas has the company well-positioned to be just as influential in the next century as it was in the last.

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