

JUMP POINT

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FROM THE COCKPIT

GREETINGS, CITIZENS!

I hope that you're all holding up well! I don't think it's a stretch to say that the *Star Citizen* community has been instrumental in helping distract me from the real world in recent months. As we see the game live up to a lot of the dreams we had very early on, it's equally exciting to me that the community has remained such a positive aspect. Whether you're helping new players or keeping us honest, you all have an important role to play. One thing I've been enjoying doing with my extra at-home time lately is revisiting early issues of **Jump Point**. It's something I'd recommend to anyone interested in learning how *Star Citizen* came into being. Even if you joined our elite cadre of Subscribers later on, you can still access issues going all the way back to December 2012 through the website and boy, they can be a trip! The old pages are full of fascinating history (the Hornet used to look like that!?) and the dreams for how we knew the game would come together.

In that vein, this month we're taking an extra-special, double-length look at one of those events that I think we'll look back on years from now as a formative element in *Star Citizen*: the recent Invictus Launch Week spectacular. As you know, Invictus was a huge in-game event, and underneath the excitement of what you saw it was also proof that *Star Citizen*'s development team is able to come together while working remotely to push the envelope of what's possible. Invictus was full of things we were hoping

to someday see in those early **Jump Points** and it's very satisfying seeing it realized. And even more important, it's proof that we can continue to do even more exciting events in the future! We were lucky enough to sit down with six different developers from wildly different disciplines to talk about how they helped the event happen. Here's hoping in several years we'll look back at **THIS Jump Point** as a reminder of how other great things got started.

Beyond our retrospective, we also have a couple of great new lore features including (naturally) a Whitley's Guide look at the in-universe history of the Idris. Just the REAL history of developing the Idris could fill a textbook at this point, so you might want to consider this article only part one! There's also a profile of Lightning Bolt Company, one of the 'verse's weapons manufacturers that hasn't had the magnifying glass put to it yet. Very interesting stuff. (And what an evocative name!)

We'll see you next month with another look into the details of *Star Citizen*'s development and more lore and future history. Until then, I hope you're all safe and happy and that *Star Citizen* provides as great a distraction for you as it does for me. I'll see you through the next **Jump Point**!

Ben

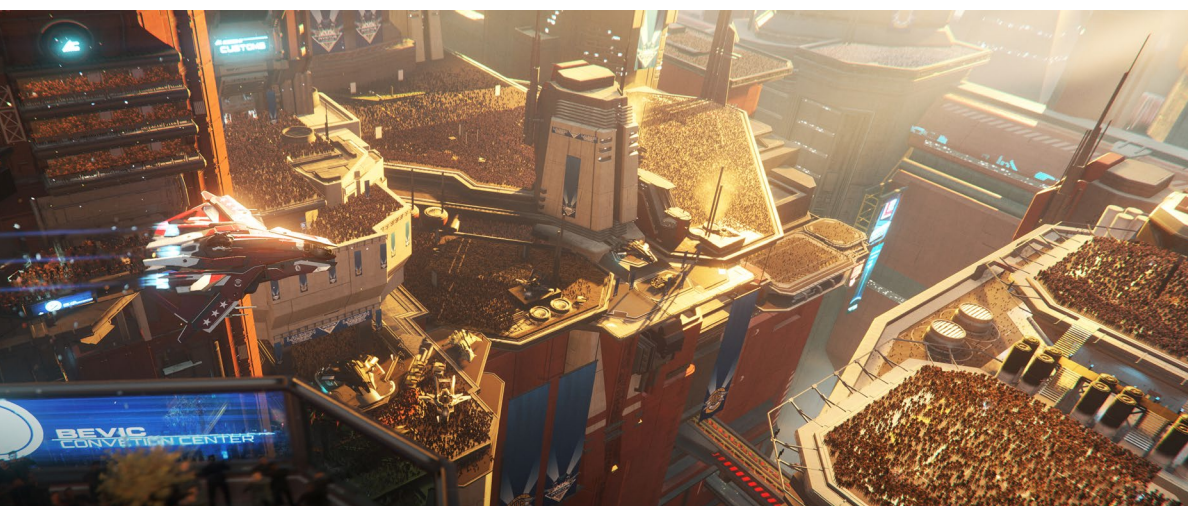
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INVICTUS LAUNCH WEEK RETROSPECTIVE



The recent Invictus Launch Week event was both a well-deserved celebration of where *Star Citizen* has been and a thrilling look at the incredible new things becoming possible. The ability to launch an in-game event like Invictus has been in Chris Roberts' mind since the project started, and it's a credit to developers throughout the company that it became a reality. Making the celebration happen touched every single person at Cloud Imperium and involved the skills of every discipline, from lore to programming to art to community. To learn how it happened and what it means for the future, we sat down with half a dozen different team members who represent just some of the work undertaken.

[BEGIN TRANSMISSION →](#)



SHIP SHAPE: LAUNCHING THE FLEET

It wouldn't be Fleet Week without a fleet! Citizens everywhere were thrilled for their first hands-on experience with military ships like the Idris, Javelin, and F8 Lightning. John Crewe tells us what was involved in bringing these long-in-development ships into the 'verse:

JUMP POINT (JP): *It was a huge surprise to see the Idris, Javelin and F8 in-game. What went into making that possible?*

JC: These ships have been progressing behind the scenes for some time due to their use in *Squadron 42 (SQ42)*, so we put them through the "traditional" production pipeline to get them to the point where we could use them in the PU. The *SQ42* Art Team has been working on the art side of the capital ships for some time, but the rest of the process was done by the normal PU downstream teams.

JP: *Will the work you put into these ships carry over to Squadron 42? Was there anything you couldn't show about them to preserve surprises for the single player game?*

JC: Everything that was done for *Invictus* was directly beneficial for *SQ42*, so there was no "wasted" work. In fact, it helped rectify some concerns we had regarding performance. As some players will have noticed, the Idris and Javelin had no interior, which was to prevent *SQ42* spoilers (and hinder people trying to hijack them!).

JP: *What is the status of the specifications of the ships seen in the game? Were they roughly equivalent to what we'll see when these ships go online permanently, or were they tailored to the event?*

JC: The specs of the ships were as designed for if they were to release there and then. Obviously, things may change in the future before they're usable in the PU.

JP: *Did players do anything with the ships that you didn't expect during the course of Invictus?*

JC: Nothing unexpected, but it was great to see how they achieved some of their more "interesting" endeavors!

JP: *Can we expect to see more of these capital ships in the future? I think we all want to see Idrises and Javelins at war!*

JC: I don't think this will be the last time you see these larger ships (and more) in the 'verse...

JP: *Do you have any special message for the community?*

JC: I hope you enjoyed the event as it was pretty fun to see come together internally. Even with everything I get to see behind closed doors, it was a special moment to see the UEE fleet in the PU.

JP: *Is there anyone else on your team we should be sure to credit for making Fleet Week such a success?*

JC: We would probably fill the whole issue if I credited everyone; safe to say it was a huge endeavor from multiple teams, including the *SQ42* Art Team who gave us the capital ship assets to play with.



FIREWORKS IN SPACE: A VERY SPECIAL EFFECT

Sometimes the smallest details make the biggest impact, and that was surely the case with Invictus Launch Week's spectacular in-game fireworks display. Mike Snowdon walks us through how Star Citizen got this new, cooler type of explosion for the big show:

JP: The fireworks were extremely cool! What kind of tech is behind them?

MS: The fireworks are almost exclusively made with GPU particles. They rely on complicated parent/child setups triggering each element of the effect at the right time. We tried to make the colors look as realistic as possible by referencing a graph that displays the colors of the various burning chemicals and a graph that displays color ranges of the Kelvin temperature scale.

JP: Do fireworks actually work in space?

MS: A lot of fireworks carry their own oxidizer, which helps them burn brighter by supplying extra oxygen during the reaction. This extra oxidizer would allow it to burn even in the vacuum of space.

JP: Are there any plans to use the fireworks effects again? Will the tech carry over to other aspects of Star Citizen?

MS: I'm quite sure we will have reasons to use the fireworks again. The tech is part of our core VFX editor, so it absolutely carries over to other effects.

JP: Is there anyone else on your team we should be sure to credit for making Fleet Week such a success?

MS: Caleb Essex, our Principal VFX Artist created all the fireworks, and Simon Bratel, our Lead VFX Programmer, gave us the tools to do so.



ENVIRONMENTAL MATTERS: BUILDING THE CENTER

The Bevic Convention Center may not be Star Citizen's first in-game expo area, but it certainly pushed the concept to new heights! We spoke to Nic Etheridge about how he created Star Citizen's most immersive event environment yet:

JP: The convention center is stunning! What was involved in the process of creating it?

NE: The convention center has evolved over the past couple of years and iterations. The very-first IAE was hosted in Lorville's spaceport; we made large convention halls to house a lot of ships, but it felt odd to

have the access point be a single elevator tucked around the corner of a corridor. We knew we would eventually want to find a proper home for these types of event with a much grander entrance.

As we were developing Area18, we wanted to break up the visual read of the city with some larger scale megastructures, and the lovingly nicknamed "donut building" was made for this purpose. It was only when Area18 was finished and we had the structure nestled into the cityscape that we had ideas for this to become a huge shopping complex or convention center. It was one of Bob Ross' happy accidents.

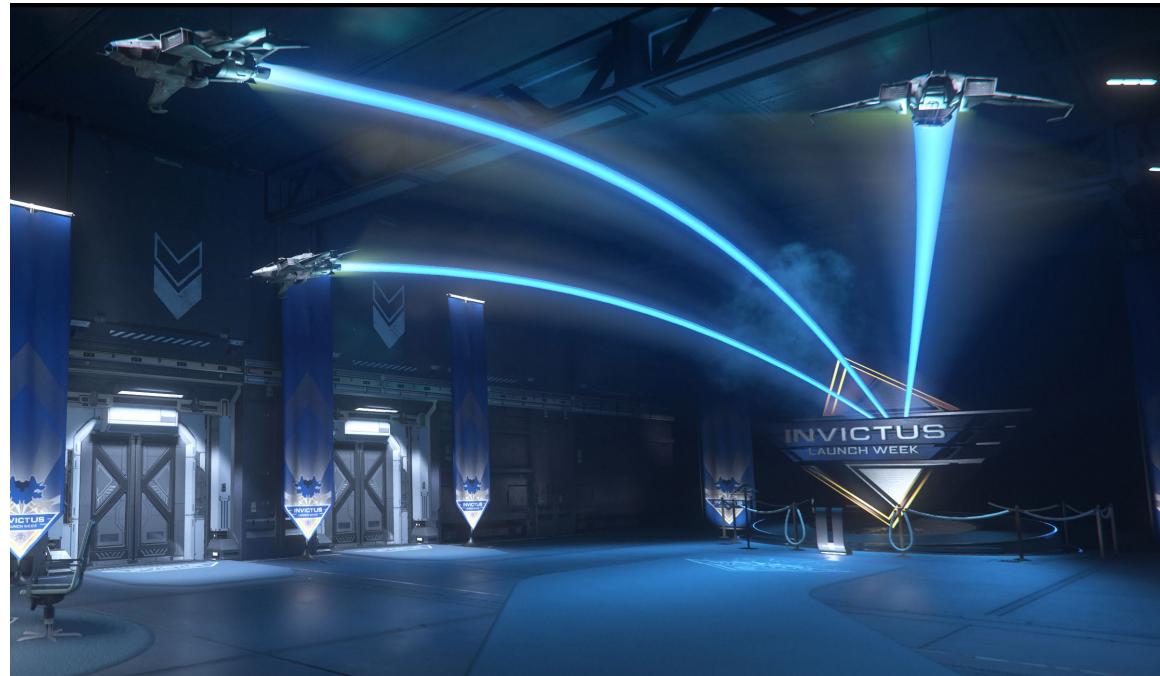
When the 2nd IAE came around, we pitched the idea for it to be held in Area18 in the donut building, which the Narrative Team named The Bevic Convention Center. This idea was well received,



so we created the transit tunnel, platforms, and added some extra detail around the inner ring as players could now get much closer. We also created an interior lobby and reception area. This gave players a focal entrance to the individual convention halls and allowed us to dress the space with assets relevant to the context of the event in exactly the same way a real convention center would put up banners, merchandise, stalls, and other displays. From then it was down to tailoring the dressing to make each event unique.

JP: How much of the design for a facility like this is specified in the brief versus what develops as it's under construction?

NE: Like with most locations, it starts as a general brief and a few ideas but evolves quite a bit over time. For example, with Invictus, we knew we wanted to have some bold military displays, some recruitment stands, and UEE propaganda, but nothing specific was outlined. It was only until we started to explore the space, the lore, and gathered references that we started to formulate more specific ideas. Some things were obvious to include, like UEE flags and banners. Other things started off as an initial idea and developed with discussion, iteration, and refinement. The dioramas started as the idea of having uniformed mannequins on plinths or rocks that were not too different from each other. After having many discussions with Narrative and Environment Art exploring a few ideas, it ended up with each diorama being unique and interesting in its own way, while still fitting the theme of the event.



For example, the central diorama at the top of the stairs is of several UEE Navy personnel climbing up a rocky precipice. It started off looking similar to the Iwo Jima memorial, but it evolved into the personnel helping each other to the top and the last person holding their hand out to an empty space where the player would stand. This was a really nice touch, as it made the scene feel more interactive to the viewer and it tied into the UEE recruitment drive. The two dioramas either side were originally character heavy too, but this took away the uniqueness of the central one. It also felt that there was not much emphasis on the ships, which is really what Invictus is about. We used those dioramas to explore interesting ways to incorporate ships into memorial pieces.

Naturally, some ideas and designs that are tried don't work, so they are discarded, or adjusted; we can't be too precious about it, it's all part of the process. One of the artists tried to dress the lobby with trees and other botanical elements. It looked nice and may work for another event, but it didn't fit the UEE military vibe we were going for. In these situations, we often save those designs to a layer that won't get exported into the game, so we can go back and potentially explore it at a later date.





JP: What kind of reference did you use in designing the facility?

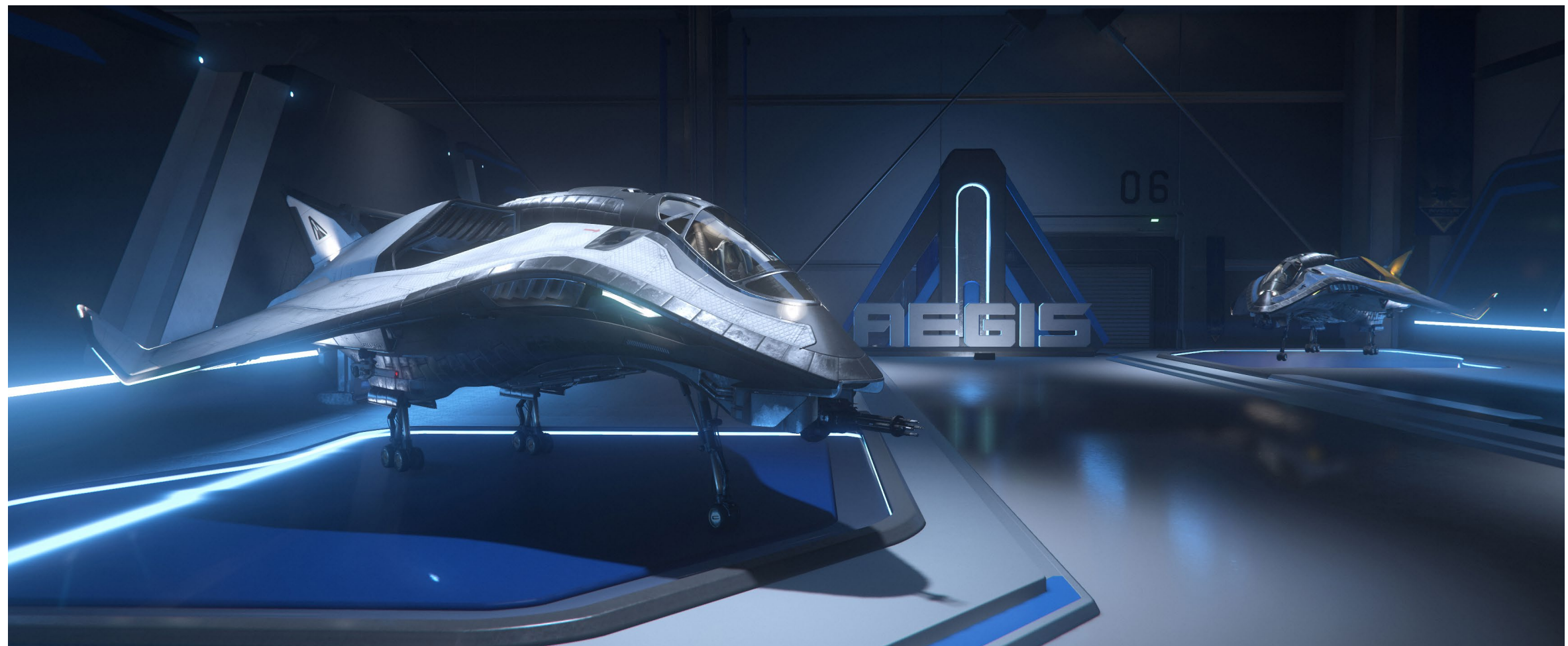
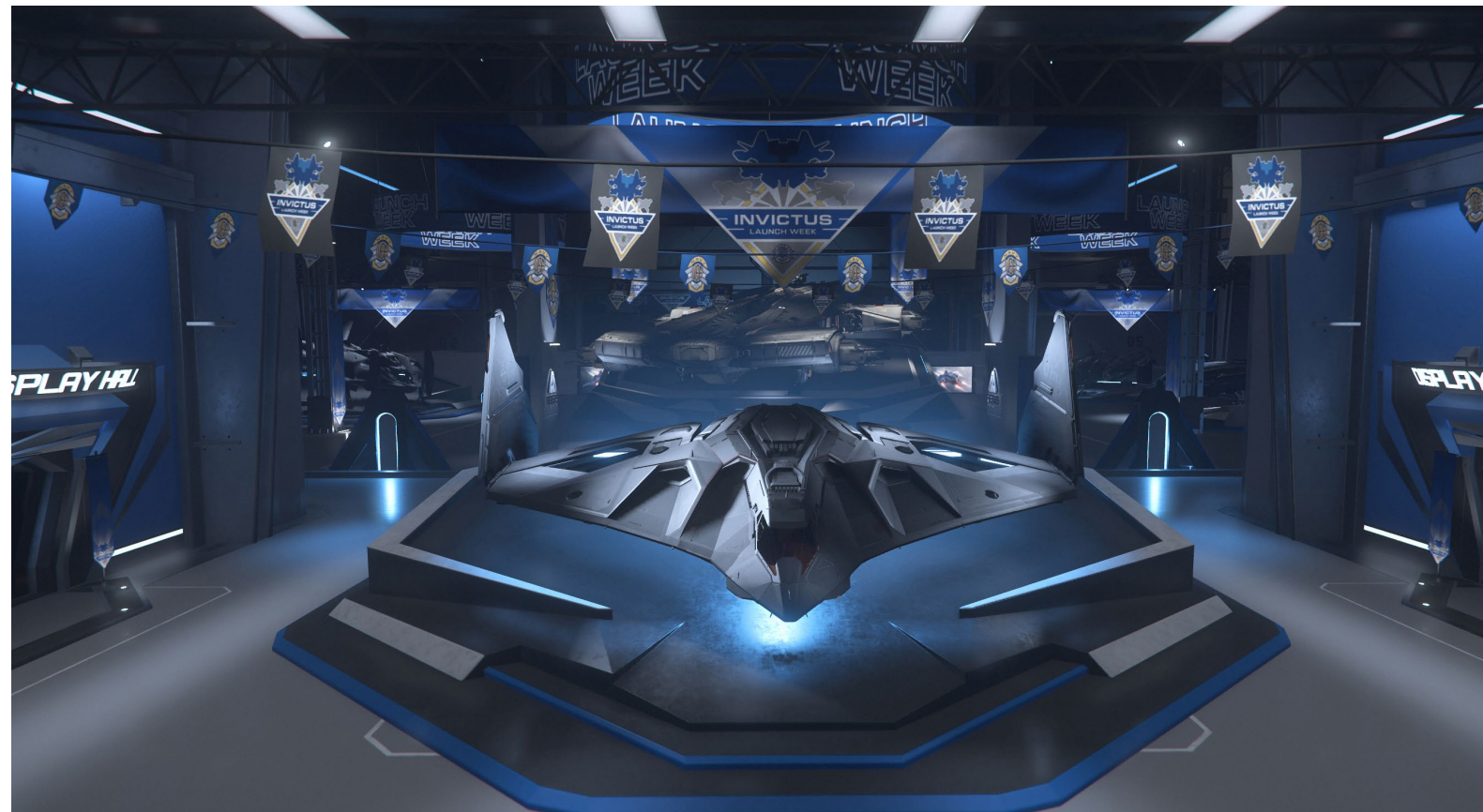
NE: For the convention hall, we drew on reference gathering as well as our own personal experiences going to conventions. I used to go to the London Motor show at Earl's Court as a kid. Despite it being spaceships and not modern cars, IAE is quite comparable to an event like that. CitizenCon gave us a lot of ideas for how we could make the space feel like a living, breathing convention center, which felt very meta. Most of the team had gone to the recent one in the UK and I had also been to the other UK one which was held underneath a Concorde. Both were pretty spectacular.

For Invictus specifically, we looked at different military parades from around the world, how different armed forces showed their military might, and how they use various media to enlist new recruits and memorialize past events. The history timeline for Invictus is reminiscent of war memorial walls, with a bold yet not-flashy aesthetic. The dioramas on the other hand were deliberately over the top,

drawing from military propaganda as well as war museum displays. It's important to not just use science-fiction imagery. We want to ground the space in reality for it to be relatable to the players of today, which is why a great deal of referencing comes from contemporary sources and our own personal experiences.

JP: Are there any secrets players might not have noticed?

NE: A bit of dev trivia: Due to the countrywide lockdown, the Audio Team struggled to bring in voice actors to record onsite, so all the public announcements at the convention center were voiced by the team themselves! I hope they don't hate me for revealing that! There were a lot of info screens that had a good amount of bespoke lore in them. For example, at the recruitment stands, you could find testimonials and info on what kind of training and work a typical recruit would be expected to do. Also, if anyone missed them, there were some new F8 Lightning models in the 999th Squadron diorama.



JP: Will the convention center continue to appear in the 'verse?

NE: I hope so, though it certainly won't be the only type of structure that hosts events like the IAE and Invictus. We'd like to let some of the other major landing zones host in-game events in the future, but I could certainly see the Bevic Convention Center being a place to visit again.

JP: Do you have any special message for the community?

NE: I'm glad everyone enjoyed it; it was fun coming up with ideas and designs for it, watching people play it, having fun, and even breaking it at times!

JP: Is there anyone else on your team we should be sure to credit for making Invictus such a success?

NE: The environment artists that worked on Invictus were Adam Sanders, Alec Cornet, and Fredrik Maribo. Luan Vetoreti didn't specifically work on the event, but he did create the exterior of the convention center megastructure and adapt it for these kinds of events. We had Kayleigh Pinhay working with us on the UI screens/banners and Forest Stephan lent a helping hand to the mannequins for the dioramas. Of course, it wouldn't have been a success without the support of many of the other teams, such as Props, Lighting, and Ships to name a few, but the full list would be extensive.



ARTIFICIAL INTELLIGENCE: THE BRAINS OF THE OPERATION

A ship without AI is just a hulk waiting to be salvaged, so making Invictus work meant reaching the next level of teaching Star Citizen's spacecraft and NPCs to think for themselves. Robbie Elms teaches us a little bit more about what goes on inside the brains of our starships.

JP: Everyone will remember the incredible visuals of the event, but they couldn't have happened without all the work under the hood. What was needed to get the ship AI ready for Invictus Launch Week?

RE: Getting the AI ready for Invictus involved building a capital ship behavior. We wanted to ensure that the capital ships would not behave like fighters and perform maneuvers impossible for a ship that size

should it enter combat. This involved creating a new check for the pilot to recognize what ship they're piloting and open/close behavioral gates befitting the ship type and size. The existing workflow of creating formations needed some improvements within Subsumption to deliver a foundation of what people would expect from Invictus too.

JP: Back in the early 90s, AI routines for space sims could be as simple as 'IF ship is damaged THEN run away'. What does it look like today?

RE: Currently, we're doing away with simply fleeing should an AI ship get too damaged. In the close future, we're looking to create personality traits that can be applied to NPCs, with each applying varieties of loops in combat.

For example, a 'cowardly' pilot could flee at the first chance of combat, but a pilot with a 'devious' trait could feign defeat and beg to

be spared, allowing themselves to be arrested. When the unsuspecting pilot approaches, they may trigger an EMP and cripple their opponent. Another is a 'reckless' pilot who, instead of fleeing, decides to ram their opponent with the intent of taking himself and his enemy out in a blaze of glory. All of these would be checks within the combat behavior and affect tactical approaches throughout combat, not just when below X amount of health.

JP: Other disciplines use a great deal of reference to help base their work in real life. Is that true of an AI designer as well? What do you look at when you're trying to decide how an NPC ship acts?

RE: I watch a LOT of movies. As an environment artist would draw inspiration from a scene's location in a movie, I tend to do character studies and break down their actions and what they would represent

as traits and personalities. For example, what would X kind of person do in this situation? How would Y person react to that?

JP: Will the AI work done for Invictus carry over to other aspects of the game? Is this another building block of the final game?

RE: Everything you saw, from the F8s flying in formation to the Javelin's behavior in combat, will carry over. Our work on the setup and workflow will be the foundation for future practices too.

JP: Do you have any special message for the community?

RE: I really hope the backers had the opportunity to see the Javelin's maiden voyage into the 'verse, and those who attempted to harm it regret doing so.

JP: Is there anyone else on your team we should be sure to credit for making *Invictus* such a success?

RE: Andrea Carbone, senior programmer of the AI Team, deserves credit for the fighter ship's escort behavior. This was seen when the F8s and Hornets escorted the Javelin in-formation and a couple peeled off to follow the ship at a distance before landing at the station and holding position. He also worked on Dynamic Collision Avoidance to improve the ships flying within close proximity of each other, as well as the station itself.

Jarek Syzsmanski, a senior designer on the PU Mission Team, also deserves credit as he utilized his knowledge of server-side missions to implement the order of the stations the fleet would arrive at and depart, as well as how long they were docked at the station.

WRITE NOW: IMAGINING AN EVENT

Imagining the world is the first step, but *Star Citizen's* Narrative Team isn't just there for the kickoff, they're as intimately involved in every step of creating an event like *Invictus* as they are in every other aspect of our future world. Dave Haddock gives us the specifics:

JP: *The Narrative Team is unique in that it touches every aspect of *Star Citizen* in some way. How was the group involved in the *Invictus* Launch Week event?*

DH: I got involved pretty early on. Basically, once Marketing announced that they were looking to have a military-style event, they wanted to know how we could build some lore around it. Since there are already a handful of holidays established that celebrate the military (Pax Fortuna) or Citizenship (Citizen Day), the first challenge was to figure out how to make this one feel unique. As the real-world event of Fleet Week was commonly cited as the inspiration, we tried to come up with something that shared a lot of the visual cues (military on shore leave, ships putting into port on display, military shows, etc.) but was specific to our universe rather than using a real world holiday/event specific to a single country.

JP: *What was the inspiration for the fictional side of this event?*

DH: I just started thinking of what kind of circumstance could lead to making a specific ship docking at a location feel like an event. A lot of people have spaceships in our universe, so why would this be special? So I actually ended up basing it further back in history to the First Tevarin War, when ships probably weren't as prevalent as they are today and the UPE Military was in its infancy. The history in a nutshell is that as the First Tevarin War broke out and Humanity suddenly needed to ramp up an active military force, they would have to send a military transport to the various planets to pick up volunteers. The people in those communities would come out to wish those heading off to fight farewell (hence the celebration aspect of it). As the centuries passed, it became more of a symbolic event to acknowledge when new recruits begin their training. They don't need to be picked up anymore; they probably just self-report to Naval transport to head to training (depicted in this series of News Updates).

We had part of that transformation also cover why there's a hall full of ships. Basically, as this represents the beginning of the Naval year, they use this as an opportunity to showcase some of the ships purchased in their budget - a chance for the taxpayers of the Empire to see what their taxes are buying and why.



JP: *The Invictus event is another example of a very believable future holiday created by your team. How did these holidays come to be? Did you build a calendar early on or has it developed over time?*

DH: There were a handful of holidays that had been casually referenced since the early days (even in the Time Capsules of 2012). Though we marked those dates for reference in internal tracking docs, there really hadn't been much attention paid to them. As the company began to grow and we started to have community/marketing events around some of the major holidays, the question was raised as to whether the real-world holidays referenced and celebrated were also existing within the game. We started really pushing towards creating a bunch of in-game holidays that could loosely reference the real-world holiday but make them our own. For example, having Christmas be a thing when there are many out there who don't celebrate it. So, we have Luminalia, which draws from many of the holidays around that time of year but isn't bound by any single religion or culture. Basically,

it was just a way to make the holiday a shared experience for the fans of the game.

JP: *What is an Invictus, anyway?*

DH: Well, in case you missed it in the Bevic Convention Center, here is the original writeup that I submitted when the idea was first presented:

Also commonly known as Fleet Week, Invictus is the period between Emancipation Day and Armistice Day that marks the beginning of the new year of recruits for the UEE Navy (as well as the graduation of the latest class of starmen/officers). The event originated back in the First Tevarin War when the UPE needed to physically send transport ships to the various planets to pick up the new recruits to ship off to basic training. The people in the planets/cities would come out to celebrate those who were signing up to defend the Human systems and gawk at the impressive military ships.



Over time, space travel proliferated to a massive degree so the UEE didn't have the time to pick up recruits from every planet in every system, but that event evolved as a way to not only celebrate those who are putting themselves on the line for their fellow civilians, but also for the Navy to roll out some of the new ships that they would be incorporating into their fleet, so the public can see them up close.

The holiday changed to the current dates after the fall of the Messers, when loyalist personnel were pushed out of the existing military and an entirely new class was adopted from the populace to give a 'fresh start' to the military in this new, kinder, more progressive regime.

JP: *Do you have any special message for the community that is enjoying Fleet Week?*

HD: Stop attacking our Idris', they're on your side!

JP: *Is there anyone else on your team we should be sure to credit for making Invictus such a success?*

DH: Everybody had their hand on various parts of Fleet Week, but Mike Kinsella knocked out all the copy for the various marketing initiatives and scripts for the videos.

ROVER, ROVER, PLEASE COME OVER - THE G-12

Move over, Tumbriel, Origin has a ground vehicle! The G-12 rover was a welcome surprise revealed during the event and Paul Jones was kind enough to fill us in on how it came to be:

JP: The new Rover was a welcome surprise! Who was the concept artist?

PJ: The Rover is a blend of creative minds. It was myself and Andrian Luchian for the initial designs, with Greg Chryapphes, our new junior concept artist, who went on to develop the modules for the combat and sport versions with further focus on animation and mechanical design.

JP: The G-12 isn't quite like anything else we've seen in the game. What was the inspiration?

PJ: Initially, it was more lunar rover, so tall with great visibility. However, on review, Chris Roberts wanted something more akin to current luxury sports cars. It's a difficult marriage, but overall I'm happy where we ended up. As you know, these vehicles are complex, especially when you factor in modularity!

JP: Can you give us a quick summary of how it was created?

PJ: Starting with 2D sketches is the fastest way to get ideas down. Its quick for iteration and when we hit on the design we like, then it's onto 3D. Always starting off simple - adding in humans for scale, components too, as they massively affect the design, especially for smaller vehicles. When everything "works" and key design points are hit, then it's onto final 3D. Depending on the time left, we'll develop as much as we can for the Art Team to work from. After all that, it's onto promo art.

JP: How long did it take to bring the rover from start to event-ready?

PJ: From start to finish, it was over a year. BUT, there was a good six-month break in there. We rebuilt a lot of the geo so that the quality was high when it rendered for promo,, which I hope was evident in the final images.

JP: Does the G-12 use existing systems or will there be anything special that needs to be developed so it can start roving?

PJ: As far as I know, it's using existing tech and systems.



G-12 ROVER DESIGN SPECIFICATIONS

A sleek Origin-branded alternative to the RSI Urso, with a more exploration-based focus for consumers and professional explorers.

- A more exploration-based rover alternative with seats for the driver, remote gunner, and scanner operator.
- Entrance options are side door, or large rear loading hatch (same as rover). Remote turret situated on top/front with wide angle coverage.
- Small scanning array dish located at top/rear.
- MUST fit inside the Origin 600i exploration module, so it's imperative that it abides by the listed dimensions.



SPACECRAFT DEVELOPMENT

The initial specification for what would become the Idris was established in 2545 by the United Planets of Earth's (UPE) Weapons Development Bureau (WepDev). The frigate was part of a range of forward-thinking plans that attempted to imagine the form that Earth's military would need to take after the successful conclusion of the then-raging First Tevarin War. These plans imagined a peacetime UPE with significantly expanded borders, both with territory annexed from the Tevarin and the increased colonization of more distant planets. The specifics of what would be the Idris called for the development of an 85-meter, corvette-class spacecraft that could dock a pair of patrol fighters. These corvettes would be built more affordably and in greater numbers than current ships-of-the-line and would be rapidly deployed to help patrol the burgeoning Empire. The prime contractor role (covering both design and manufacturing) for the new ship was assigned to Aegis Dynamics via no-bid contract with a number of component and support contracts going to smaller, now-defunct concerns.

To outside observers, the result of the ensuing three years of development was a model of typical bureaucratic confusion. The namesake Idris that would begin its space trials in 2549 was a completely different beast to the initial specification: a massive frigate-class spacecraft massing several

times the original proposal, mounting an enormous railgun, and carrying a fully functional flight deck capable of supporting multiple classes of fighters and bombers. In fact, the Idris' move from the proposed corvette to the frigate that was actually constructed was painless and seemingly natural for those involved, with the design specifications being revised multiple times as the reality of the post-war Empire became increasingly clear. The newly-christened Empire's cadre of fresh-faced, Messer-aligned planners quickly identified the project as important to establishing their own power base and they worked carefully with Aegis and other contractors (particularly Aim-Krug, responsible for the railgun installed on the first flight of ships) to expand the scope of design to define a model for the modern warship. Expansion from the original corvette to the frigate was a rare decision that was in the best interests of all persons involved. Highlighting the suggested importance of the project, the first ship was named after the recent victory at Idris IV, already being mythologized as a foundational element of the new Empire.

The first frigate was commissioned in 2551 in a ceremony at Aegis' newly constructed Idris System factory complex. The launch was attended by Emperor Ivar Messer, who presented a famous speech seen today as a prelude to him taking increased control of the UEE in the name of

public safety. The initial factory constructed by Aegis to produce the ships included six berths that would work around the clock. The first six Idrises laid down were all commissioned by May 2552 and began service tryouts then extended patrol assignments later that year. From the start, the high-tech ships were desired assignments for navy crewmen who correctly identified that the then-lavish ships would play a major role in coming events.

A major delay in production occurred the next year following the revelation that there were significant issues with the layout of the original six ships that made them particularly prone to fires. Poor placement of firefighting equipment and personnel combined with limited availability of shipboard retardants led to several significant fires, culminating in the deaths of seventeen sailors when one such fire spread to the forward magazine aboard the UEEN Ashton. Production of additional Idrises was delayed for eighteen months while a full review and redesign was conducted, culminating in the launch of the first flight-two spacecraft in 2555. With the early issues resolved, Idris production continued at pace and the powerful frigates quickly became a common sight around the Empire.

The average Idris-class frigate commissioned between 2560 and 2800 had a thirty-year operational lifespan; in modern days, this average has been nearly doubled through both updated technologies and a greatly specialized overhaul process that essentially rebuilds any given ship once

over the course of a decade. Aegis has continued to expand the number of available berths at their Idris IV factory over the centuries as demand increases from both the military and civilian users. The original UEEN Idris was decommissioned in August 2587 with 43 tours and nine combat stars. Today it is the sole remaining Flight I Idris, mothballed in drydock at MacArthur, where it is often discussed as a potential museum piece highlighting the military's role during the Messer era.

CIVILIAN LAUNCH

For the first two hundred years of production, Idrises were reliably scrapped upon decommissioning; a requirement specified by law for all capital assets by the early UEE government. While Aegis' shipbreakers were forbidden from salvaging and reusing systems, they were able to recycle roughly 35% of the scrap tonnage in the construction of newly produced frigates. This lifecycle was drastically altered in 2801 with the passage of the first Surplus Act that gave approved civilian organizations the rights to bid on properly-demilitarized but still-functional spacecraft up to and including destroyer-class vessels. In the case of the era's Idrises, this meant the permanent disabling of the keel-mounted gun and the removal of all classified subsystems, such as military-spec targeting software. The law was primarily passed to allow citizens to purchase former freighters and the initial reception to the availability of former military frigates was generally cold. Within two decades, however, the need for larger-scale fighting ships had become greater and Aegis was forced to significantly



expand its investment in mining corporations in order to make up for lost scrap resources. Simultaneously, additional citizen armament laws loosened the restrictions on what equipment could be sold off and to whom it could be sold to, gradually going from authorized militia forces to corporate and finally private entities.

By 2875, the demand for civilianized Idrises combined with expanding life cycles for existing military ships had outstripped the Navy's ability to decommission existing ships. The result of this schism was the launch of the first-ever Idris Peacekeeper (Idris P), a purpose-built ship nearly identical in form to the military model (retroactively called the Idris Military or Idris M), lacking only the main gun mount (which could be readily rebuilt on the secondary market). For the first time, civilian organizations could purchase not only the increasingly limited number of UEEN surplus ships but also commission the construction of their own spacecraft directly from Aegis. The popularity of the Idris platform, already cushioned by generations of developed support system, exploded and had quadrupled by the turn of the century.

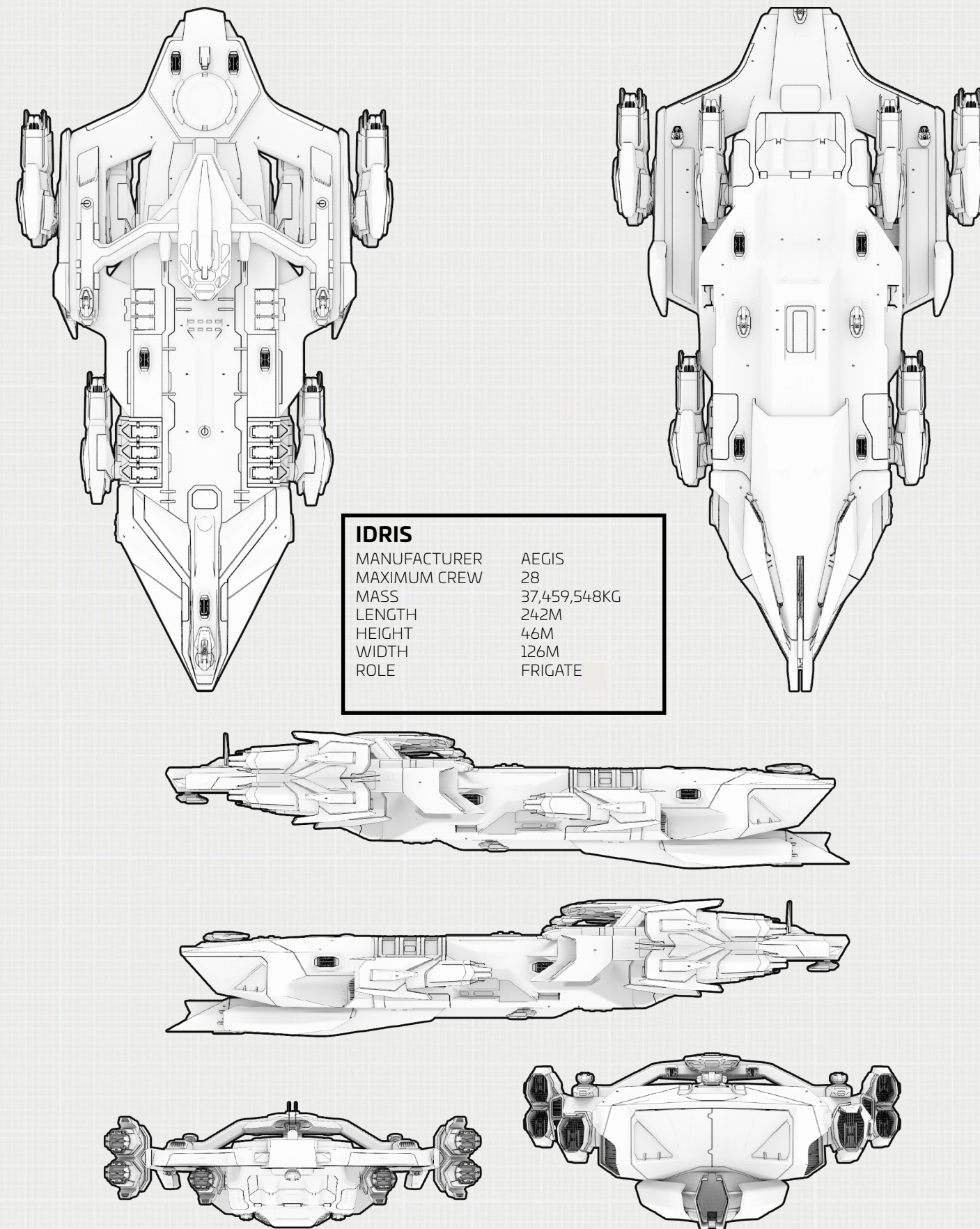
CIVILIAN EXAMPLES

The following examples are a sample of different Idris-class ships used by civilian entities. As Idrises have been available to civilian organizations for well over a century, this list is representative but not exhaustive.

- BX214, BX215, and BX218 were Idris-class frigates purchased via fundraising by aid organizations in 2812 in response to a disaster in the Corel System. Unexpected solar activity caused a nearly total crop loss in the system for an 18-month period, prompting a major aid effort to ship food and other aid supplies in. The three Idrises, their flight bays

converted for freight for the first time, served as armored transports as part of a large, ragtag fleet of similarly repurposed vessels.

- Anax was an early model Idris supposedly purchased by a civilian historical salvage group in 2815. Anax was equipped with ultra-high-tech sensor systems and a force of powerful drone spacecraft. The ship was credited with the discovery of several major wrecks and the surprise recovery of a stranded starliner thought to have been destroyed in an accident. In response to a 2915 formal information request filed by a group of journalists reviewing historical starships, it was revealed that the Imperial government funded a significant portion of Anax's expeditions for reasons that remain classified.
- Helne's Canard was a purpose-built Idris-P owned by weapons magnate Jaer Forsythe. In his later years, Forsythe became increasingly paranoid and ultimately interested in avoiding human contact altogether. Shortly after his 75th birthday, he sold off his terrestrial real estate and invested a significant portion of his weapons investments in the conversion of the Idris into an armored luxury spacecraft. The details of how the ship was crewed and its current whereabouts remain unknown.
- Home Force One was an Idris-class ship belonging to the so-called Free Republic of Lamia, a fringe political group that claimed 'ownership' of a large asteroid in the Goss System. The group considered Home Force One, a military surplus Idris which was never actually re-equipped with weaponry, to be their flagship and utilized it in a number of media stunts to promote their cause. The Lamian organization fell into bankruptcy within a year of the ship's purchase and it was ultimately taken into custody and later scuttled by the Advocacy.





Dependable, effective, and visually distinct. Since 2921, Lightning Bolt Company has carved out a unique roster of weapons around these core principles and garnered a legion of loyal customers across the Empire. The company's success is typically credited to the exacting eye of CEO Irina Arkady. While she infamously stopped the initial run of Korolev shotguns from shipping after becoming convinced the safety should be moved millimeters to provide a better user response time, these tales of meticulousness are often eclipsed by more scandalous stories.

"I've heard lots of interesting things about myself," Arkady disclosed to Total Defense in their July 2939 issue, "Unfortunately, far too few of them are true." However, despite publicly denying the veracity of these tales, some believe that Lightning Bolt Co. intentionally allows these stories to spread for the sake of notoriety. Though Arkady dislikes discussing specifics, there's one thing she freely admits: she used to kill people for a living.

TIGHT SPOT

Prior to founding Lightning Bolt Company, Irina Arkady ran a private security force out of Odyssa, Magnus. Her handpicked team earned a

reputation in the VIP protection industry for being effective but quick to escalate confrontations. While most of the company's operations went unnoticed, one infamous assignment played out live across the spectrum as Odyssa residents watched Arkady and her team defend their clients from a series of increasingly dramatic armed attacks. In the aftermath of the very public and destructive contract, Odyssa authorities launched a full investigation into the circumstances around the attack and discovered that Arkady's clients were linked to the notorious Otoni Syndicate. Arkady claimed ironclad non-disclosure agreements prevented her from revealing information about her clients or the attack, so the authorities, left with no real evidence, were forced to close the case.

"Yeah, I've heard that one," Arkady told Total Defense when asked about the rumors of an Otoni connection. "If that's true, then I'm lucky to be alive. Working for them seems like a good way to make enemies, and I'm not that hard to track down."

The only operation Arkady cares to discuss is the one that started her journey to becoming a weapon manufacturer. Amidst an intense firefight, Arkady watched in horror as her new laser rifle lost power while she was pinned down. She managed to survive thanks to a little

luck and the quick rescue efforts of her team. The incident shook Arkady to her core and revealed to her a troubling question: were the people designing these guns actually firing them?

When her anger subsided, Arkady curiously dismantled the defective weapon. Biagio Bhandari, a friend, fellow merc, and former Drake engineer diagnosed the failure while Arkady probed him with questions. Bhandi later recounted, "She noticed everything. Why is this bolt here? Wouldn't it be better if this thing was reversed? I remember joking that she should have been an engineer. Turns out it wasn't much of a joke." Other team members joined the discussion, swapping stories about legendarily terrible weapon designs and close calls caused by failures. Sure, companies like Behring and Gemini had military and security consultants on staff, but how often did their experience line up with the chaos that PMC had to deal with on a typical op? During that discussion, Arkady came to realize something important about weapon design: knowing what not to do was half the battle.

DETAILS MATTER

That brush with death and the birth of her first child swayed Arkady to

be more selective with her assignments. When not active, she repaired and modified weapons, proving to be a quick study who swiftly expanded her expertise to ship weapons. Then, in 2921, Bhandari approached her with the idea that changed everything. Equally inspired by their discussion, he had designed a new electron cannon. Bhandari represented the weapon's crackling power with a few hastily sketched lightning bolts, so Arkady honored the artistic flourish by naming the venture Lightning Bolt Company.

For the next few years, Arkady and Bhandari obsessed over the prototype. Arkady described the initial version as "functional but unimpressive." She further claimed that "Nothing about it stood out or felt special, so why go through the money and time to make it?" They tabled the project only to return to it months later after a bout of inspiration. Thus began a five-year iterative process that left Bhandari vacillating between being angered and energized by Arkady's obsession over every detail. Arkady poured any extra credits she made into the weapon's development and often crewed extra missions during particularly expensive parts of the process to help make ends meet. Finally, after clearing the safety testing and getting certified, they had everything in place to start producing their first run of Mayak



DYNAMIC DUO



electron cannons, but only enough money to make at most a few dozen models. Arkady turned to her team and offered them shares in the company in exchange for capital. They almost all contributed. The extra credits allowed the company to double their initial production run.

Hanging by a financial thread, Arkady sold the first run of Mayak electron cannons through word of mouth. Most went to friends and agreeable fellow mercs in Magnus. The response was overwhelmingly positive and the influx of orders required Arkady to stop being a mercenary and become a full-time weapons manufacturer. However, Arkady knew that her team relied on her for work and insisted she wouldn't shutter the merc operation until she could hire and train her entire crew for positions in the new company.

That glorious day came in 2932. Those that didn't want to walk away from the merc life worked for Lightning Bolt part time or left with a considerable care package. Those that stayed met with Arkady every week to discuss weapon ideas and desired features. Arkady continued to be influenced by these personal accounts of field use, such as inspiring her to add a series of heat activated vents along a sniper rifle barrel. This practical yet visually distinct flourish coincided with advances Bhandari made to the cooling system for the device

that generated the electron charge. It would be these two advances that would make the Atkav sniper rifle possible.

The Atkav, Lightning Bolt Company's first mass produced personal weapon, was released to rave reviews and strong sales. The weapon became a quick favorite among security professionals who loved it for quick and effective crowd control, utilizing one charged electron shot that could spread to nearby conductive targets. The Yubarev pistol, utilizing the same charged electron technology, arrived the following year and cemented the company's current reputation for producing meticulously crafted, cutting-edge, and cool weapons.

Some weapon industry experts have criticized the Lightning Bolt Company for not fully capitalizing on its potential; citing the company's slow development cycle and focus on features preferred by security professionals that alienate too many in the civilian market. Arkady doesn't seem to mind leaving money on the table. Her goal for Lightning Bolt Company has always been to properly pay her team and produce reliable weapons that they would actually use.

"Look, I'm such a pain in the ass about the small things because I've been under fire," Arkady admitted. "And in those moments, only two things matter: the details and whoever's got your back."

Designed by the former security professionals at Lightning Bolt Co., the Atzkav sniper rifle and Yubarev pistol fire highly charged electron rounds that spread damage to any nearby conductive targets. Whether engaging at distance or in close quarters, these two are capable of quickly controlling a situation, as each subsequent shot amplifies the damage done before.

Experience for yourself the incredible power that security professionals across the Empire are raving about. Standard-edition pictured. Exclusive Deadeye-edition coming soon.