

RENAISSANCE

CLASS HEAVY CRUISER



The successor to the venerable *Excelsior* (CH 2000) class, the *Renaissance* (CA 9770) class was at first, the product of an effort to repackage the trailblazing *Carolina* (BB 4000) class into a smaller, more sensible size. The intent was to produce a newer, more conventional complement to the *Constellation* (CA 1974) class that was capable of the same long-distance, extended-duration operation. Incorporation of numerous bleeding-edge technological advances though produced not just a compliment to *Constellation*, but a whole new vessel radically different from anything that had come before. It did in a very literal sense, usher in a renaissance in shipbuilding that carries on to this day.

The Federation's expansion throughout the latter half of the 23rd Century - the Linear Warp Era - gradually placed greater and greater demands upon its Starfleet. Starships were being called upon to patrol larger areas and explore uncharted regions that were farther and farther from major starbases and space stations, to say nothing of the core systems. *Constellation* and *Excelsior* each introduced successive propulsion advances and others as well that helped extend Starfleet's reach. Generational and technical issues though prevented the fleet from truly getting out ahead of its ambitions however.

To be fair, throughout most of the 23rd Century, the fleet had to contend with a delicate and oftentimes, precarious balancing act. The starships it constructed and deployed were either designed for scientific exploration or defensive/offensive operations. Beyond that, many included (or attempted to include) exploratory or tactical features. Given that the Federation was locked in a cold war with the Klingon Empire, this was simply how it was.

Excelsior, once the holder of so much promise with the Transwarp Development Project, had matured into a highly capable multi-mission platform that Starfleet was still solidly committed to. Its Koeller FTWA-1 series engines didn't significantly improve over the characteristics and performance figures of the LN-64 equipping *Enterprise* though and from 2294, they were eclipsed by the LN-70 equipping the *Potemkin* subclass. For all the promise it still held and as capable as it currently was, this meant that *Excelsior* would become incapable of keeping pace with the Federation's current rate of expansion - not unless there was a sustained production increase for the foreseeable future.

Over the long term, such an increase or the adoption of another radical, complex solution (on the same order as those that were adopted with *Constellation* and *Carolina*) was entirely unfeasible. The multiphasic warp breakthrough of 2297 though was just what the fleet needed however. At its most basic, it involved altering the warp field design to allow for overlapping, multiphasic fields and then disconnecting the phase locks in the warp coils of each engine. Based on research done during the ill-fated Transwarp Development Project, the results were so extraordinary that an entirely new warp scale had to be formulated.

Within two years, Koeller Warp Technologies produced new, multiphasic warp coils and incorporated them into a new engine nacelle design, designated internally as FTWA-3, but redesignated WF-5 by the ASDB. This, plus the impulse deck design were the only tangible links to the past. Otherwise, *Renaissance* was an entirely new design that the ASDB had 'bulked up' vis-a-vis *Excelsior*. While maintaining the traditional primary hull-secondary hull-warp nacelle arrangement of past Cruiser designs, the hull sections themselves emerged from the drawing boards vastly more capacious - taken

together, 65% more so than *Constellation*, yet in a package that was 45% smaller overall compared to *Carolina*.

As *Carolina* was a Battleship in the purest sense of the term and didn't feature any of the scientific or exploratory accrements that were now regarded as standard, *Renaissance* reached back further to the *Pyotr Velikiy* (CA 1670) class. As that Cruiser had eclipsed *Constitution* in raw exploratory capability, so too did *Renaissance* come to eclipse *Constellation*. The primary hull housed an astonishing 36 laboratories compared to *Constellation*'s 24. Additionally, dedicated space was provided for the collection, analyzation and cataloging of signals intelligence (SIGINT) making *Renaissance* equally capable in the exploratory and reconnaissance roles.

Where *Carolina* was concerned though, the ASDB was presented with something of a quandary. Due to *Renaissance*'s smaller size, incorporating the same Battleship-level armament was a non-starter - there simply wasn't enough room to incorporate the same number of phaser batteries. Engineers did experiment with higher-power phaser banks in the traditional *Constitution* locations, but sacrificing fields of fire for raw firepower merely placed it on the same level as *Excelsior*.

After much brainstorming, engineers began experimenting with ways to link individual banks and batteries into a cohesive whole. Surprisingly enough, the solution was simple. They found they were able to link multiple banks together via force coupling. The result was an emitter array which took the form of a gently raised strip on a shipboard surface. Phaser energy was then able to be directed from any point along the emitter, making it much easier to cover a given firing arc. The only limitation was of course power. Throughout the bulk of the Class I era, the most powerful shipboard phaser weapons were designated Type VI. At the onset of the Linear Warp era, this weaponry had been redesigned and power increased to the point that they were redesignated Type VII. With the introduction of *Excelsior* into the fleet and going all the way up to the advent of *Renaissance*, Type VIII weapons were the standard. Now, thanks to the advent of larger, more powerful reactor cores to feed the WF-5 nacelles, the new Phaser Emitters were designated Type IX, able to channel 3000 terawatts of energy each (twice the amount of a single Type VIII Bank). They were placed at the traditional locations on the saucer, with an additional one covering the ventral surface of the secondary hull and one each on the nacelle pylons (for a total of 9).

Along with phasers, the ASDB achieved a similarly momentous breakthrough with torpedo launch technology. Throughout the 23rd Century, the 2nd Class Launcher was the predominant launch system for holding and firing torpedo weapons on Federation starships, a launcher able to fire one torpedo every 4 seconds. Improvements in design, reliability and operation were made, culminating in the 'Standard' launcher (able to fire one torpedo every 2 seconds) that was fitted to *Excelsior* and other ships of the line fielded after 2284. *Renaissance* though fitted 4 brand new Burst Fire, Type I launchers. Considerably bulkier than their predecessors, each was able to load and fire a cluster of 4 torpedoes every 2.85 seconds. 2 were fitted forward and 2 aft at the base of the connecting dorsal.

Duotronic innovations reached their zenith too during this period. Though comparatively arduous compared to technology that would emerge in the coming decades, adding additional duotronic enhancers together with re-written control software resulted in a system that was vastly more powerful and responsive compared to that of *Excelsior*. The DX series fire control system made yet another appearance here. It operated on the same principles and featured the same capabilities as past iterations--permitting the phaser emitters, either independently or jointly, to track, acquire and engage targets automatically based on pre-selected input. Like *Miranda* and *Excelsior*, this iteration also permitted independent torpedo tracking for up to three dozen separate targets. Thanks to the improvements made by the ASDB, the system included aboard *Renaissance* was designated DX-12.

Giving *Renaissance* Battleship-level weaponry was the hard part. Incorporating the expected exploratory and scientific accrements was comparatively easy. Maximum sensor range matched that of *Carolina* for a still-respectable 12.3 light years. The sensor suite incorporated specialized multispectral, magnetomic and exographic scanning abilities, among others. Equipment and software to facilitate SIGINT and EW operations was also included, exponentially increasing the class' flexibility.

Thanks to the relative compactness and low emissions of *Renaissance*'s new power plant (compared to *Excelsior*'s), significant room was freed up in the secondary hull. The primary hull was comparatively voluminous already and able to hold the entirety of the class' laboratory space (that was still a 90% increase over *Constellation*). With no need for mission critical spaces to be housed in the secondary hull, designers and engineers focused on improving other, less critical spaces. An enlarged, two-story arboretum was the principal highlight, with other personnel accommodations seeing moderate levels of improvement.

Logistical attributes, long a thorny issue for Starfleet, received significant attention yet again. Cargo capacity was quadrupled over *Excelsior* - from 45,000 to 180,000 metric tons. A single *Cumberland* series Container as well as the old *Overfield* and *Ostoria* Freighters could handily haul more as would the *Java* class that would appear by 2320. This didn't make the *Renaissance* a Freighter then by any means, but did ensure ships could carry enough stores to remain self-sufficient on extended-duration assignments as well as carry out the occasional transport mission when and where needed.

Renaissance had improved small-craft capacities as well. Starfleet had long ago shifted missions accorded to Heavy Shuttles towards larger, more capable Corvettes--those of the *Class II* family and later the more conventional *LaFayette*--so there was no need to embark the few that still existed (like the *Type 3*). The venerable *Type 1* remained the standard, *Renaissance* rated to carry in a 2+4 arrangement (2 on deck, 4 on standby/in storage). In a first for a Heavy Cruiser and a testament to just how far Starfleet's definition of 'multi-mission' extended, she would soon (2310) be certified to operate up to a full squadron (12) of the new *Valkyrie* class Attack Fighters.

Following the multiphasic warp breakthrough in 2297 and the introduction of the FTWA-3/WF-5 engine nacelle in 2299, *Renaissance's* gestation moved quickly. Design work was completed by 2302 and the prototype--CHX 9778--was completed in mid 2304. In early 2305, the class was formally certified for full fleet production and it commenced at a rapid clip.

Deployment patterns initially mirrored those of *Constellation*, currently the only class with ships deployed both on the frontier and outside Federation space. Additionally, the *Devonshire* (CH 10127) was assigned to Starfleet's ongoing scientific study of the Badlands.

These kinds of exploratory and scientific survey missions typified *Renaissance's* first decade in service. Two developments would go on to burnish the class' reputation and significantly enhance the fleet's overall strength.

The first would be the most significant. In 2320, the advent of Isolinear computing represented a major sea change in the operation of everything from the smallest Shuttlepods to the largest Battleships. Combining storage and processing power into a single integrated unit, isolinear chips represented a quantum leap over duotronic enhancers--relatively cumbersome pieces of machinery that processed and output computations and instructions from the main computer. Adding memory to a computer therefore added more processing power as well making upgrades a vastly easier task. All that was left was the somewhat-arduous task of writing, testing and deploying software that allowed the computer systems to not only run, but take full advantage of the new processing capabilities.

The second was more an endorsement of *Renaissance's* overall design and the work that the ASDB had done advancing propulsion and other technologies. A larger, heavily modified offshoot of *Renaissance*, *Ambassador*, was developed and launched in 2325. Improved engines, isolinear computers, expanded laboratory space and new standards of personnel accommodations headlined a roster of changes and improvements designed to move the fleet ever closer to fielding a true *Carolina* class replacement.

The Tomed Incident of 2311 notwithstanding, threats during the early half of the 24th Century turned decidedly asymmetric. The hijacking of the Dreadnought *Ulysses* by Kriosian terrorists in 2302 served as a stark reminder that Starfleet could not afford to maintain a tepid attitude where these were concerned. Starfleet Intelligence and the SFMC's Special Operations Command (MARSOC) dramatically stepped up their external operations. Additionally, the bi-annual *Odyssey Dawn* anti-piracy exercises were expanded to cover counter-terrorism beginning in 2318.

In a sign that the Admiralty was beginning to come to terms with these new realities, both the *Devonshire* and the *Pensacola* (CH 20270) led the Starfleet contingent as part of *Odyssey Dawn* 2328. Experience gained combined with her crew's performance led both S.I. and MARSOC brass to take an interest in *Pensacola* specifically. While the profile a Heavy Cruiser presented didn't exactly lend itself to the kind of specialized,

clandestine operations the two divisions undertook, the bigger deterrent effect combined with the cover provided by the class' scientific and exploratory capabilities made it a still-useful tool against emerging threats.

The biggest of those came from criminal activity both directly and indirectly related to the 'Red Ice' trade. A synthetic offshoot of heroin made from Earth's poppies and Deneb V's morolovov gapsum, it became a major moneymaker for organizations like the Orion Syndicate and a catalyst that fueled the rise of drug cartels like Asfar Qatala.

Smuggling, hijackings and general piracy had long been trademarks of the Orion Syndicate and Starfleet had a wealth of experience dealing with these activities (the most serious of which was the syndicate's attempt to hijack the ChR *Brak'en* in 2285). Asfar Qatala on the other hand, was entirely different. When the cartel initially popped up on the radar of Starfleet Intelligence, they were regarded as small-time upstarts looking to muscle in on the Syndicate's action. Once red ice began to filter inwards from the frontier worlds, S.I. realized how wrong they were.

The cartel leader, Mahfouz Qadir, had no scruples, but was both smart and shrewd just the same. He had no qualms about subordinates using extreme violence on his behalf, but kept himself insulated, his directives passing down through a minimum of 3 to 5 people before reaching the mercenaries or 'private contractors' that often executed them. Observing the Orion Syndicate and Starfleet's traditional, heavy-handed approach to combating them, Qadir himself stayed out of notorious hot spots like the Triangle and did not keep a central 'home base'. Directly connecting him to the red ice trade was hard enough, tracking him down was near impossible.

Embarking a platoon of MARSOC operators, the *Pensacola* spent the next 8 years combatting the cartel, engaging and destroying at least 2 dozen affiliated vessels, impounding upward of 70,090 metric tons of red ice and either arresting or killing 150 mercenaries. By 2336, Qadir's aspirations had been significantly tempered once Starfleet put its resources to work. Though the Orion Syndicate regained its lost ground and the red ice trade continued, it returned to its previous, limited/fringe state--affecting frontierward, or otherwise backwater colonies only. More significantly for Starfleet, this marked the first use of mainline starships for special operations use--a trend that would become more predominant in the coming decades.

The following year, the *Balson* (CH 20489), and another MARSOC platoon were deployed to Turkana IV to try and avert what was rapidly becoming a humanitarian and security disaster. Over the years, the colony's central government had not adapted to accommodate the needs of an exploding population. Thus, the population fragmented, forming loose coalitions--"cadres"--to acquire and manage the resources needed for their continued growth and support. Over time, the central government was gradually beset by corruption and competition for resources caused relations between the cadres to disintegrate to the point of violence.

Starfleet's Colonial Operations Command dispatched a liason to attempt to sway government leaders, but after three months, no progress had been made. Rival

cadres had taken to using bombs and snipers against each other, leading the *Balson*'s special operators to play a strenuous game of 'whack-a-mole'--taking out individual snipers or bombers to stem the tide of violence. The sluggish attempt at progress continued until after two weeks, the liason and her team were killed--being caught in the same building as a targeted cadre leader. With the entire planet basically disintegrating into total anarchy, the Federation Security Council ordered Starfleet Command to fully withdrawal. This caused some measure of alarm in the General Assembly, but this was tempered by assurances from the Admiralty that there were still be an in-system presence of some type for some time to come.

In 2338, the class' history was burnished when the *Tripoli* (CH 19386) made a significant discovery. Under the command of Captain J.J. Thorsson, the ship along with several others, was conducting an extensive planetary survey of Omicron Theta in the aftermath of its devastation two years prior at the hands of the Crystalline Entity. After piercing some difficult atmospheric interference, the crew responded to an automated distress call and discovered the Soong-type android known as 'Data' deactivated on a rock face. After a short period of study, he would go on to join Starfleet and as an officer aboard the *Enterprise-D*, would participate in many of the defining events that shaped the latter half of the century.

2344 marked the first point of contact between *Renaissance* and vessels of the Cardassian Guard. A trio of *Zhoden* class Heavy Frigates went missing on an ostensibly classified mission inside the Badlands. Starfleet Command viewed the Cardassians with thinly-veiled suspicion following first contact two decades prior--irritants on the same scale as the Breen and Tzenkethi. The Federation General Assembly took a more benign view, feeling that there was still room for diplomacy in the current relationship. Therefore, Starfleet was ordered to assist the Cardassians if and where possible.

The structure of the Cardassian Guard was akin to the IKDF during the early part of the Four Years War (2240s), sprawling, but with a poor logistical support structure. Their activities and motivations for such garnered them many comparisons with the Klingons, yet the way they went about their business was more cautious and mercurial, almost like the Romulans. This explained, why after three days, the *Devonshire* found the missing ships orbiting a deserted planet deep within the Badlands. After towing them out of the Badlands one-by-one, she returned to the planet--Athos IV--and discovered they had established an extensive subterranean supply depot and listening post. Little valuable information was recovered, but examination of the construction materials/methods as well as the supplies left behind, signified a measure of technological inferiority.

Analysts today believe that it was this inferiority that drove a campaign of first, espionage and then, outright military confrontation - the Cardassians seeking to 'level the playing field' to their own ends.

Given their inferiority, the Cardassian Guard and the Obsidian Order made liberal use of pirates and proxies to attack nearby colonies, merchant & supply convoys and even the 6 Federation Starbases arrayed around the border with the end goal of

seizing valuable technology and/or intelligence. Attacks followed a predictable pattern and almost always ended up with the pirates/proxies fleeing into Cardassian space. The attackers were pursued by Starfleet assets who ended up engaging Cardassian forces--the Cardassians claiming the right to attack on account of 'gross sovereignty violations'. This excuse prompted the Guard, over time, to beef up its forces along the border and attack any vessel within a certain proximity that it deemed a threat.

In terms of military capability, the Cardassians made use of standard phase-disruptor armament that they later modified for increased range and effectiveness against superior shielding systems. Their propulsion and deflector technologies were on par with their Klingon contemporaries, enhanced in certain ways, by the compact, integrated designs of their starships. Computer, transporter and sensor technologies lagged however. Overall, they were some 20-30 years behind Starfleet.

Excelsior and her offshoots, *Exeter* and *Centaur*, matched up evenly with the Guard's *Galor*, *Zhoden* and *Akril* classes respectively. *Renaissance* on the other hand, outmatched all three quite handily. As with the *Constitution* class during the Four Years War, Starfleet Command was highly reticent to pull *Renaissance* away from pressing exploratory and scientific endeavors. The Cardassian predilection for grouping its starships into formations of 3-5 however, forced their hand. The *Maryland* (CH 45109), *Hornet* (CH 45231) and *Gryphon* (CH 45378) were pulled from their assignments and redeployed to Starbases 129, 211 and 257 respectively. There, operating in concert with other, older assets they were able to utilize their reconnaissance capabilities to maximum advantage. When necessary, they also intervened in engagements, pressing their tactical advantages to win the day.

While the Cardassians may have succeeded in luring Starfleet's sophisticated 'game-changer' onto the battlefield, the reticence that kept most of them away was still extremely entrenched. So much so, that Starfleet devoted considerable time and resources to upgrade *Carolina* (an 825m long behemoth) before deploying all 15 examples to the Cardassian border (where they were the first to take offensive action as the conflict shifted).

The Federation's conflict with the Tholian Assembly saw *Renaissance* engaged in a much more active role (out of necessity more than anything else). Its outbreak preceded that between the Federation and Cardassians by 2 years, starting around approximately 2353. As per usual, the instigators here were the Tholians, pushing the same aggressive, xenophobic agenda that they had been for over a century.

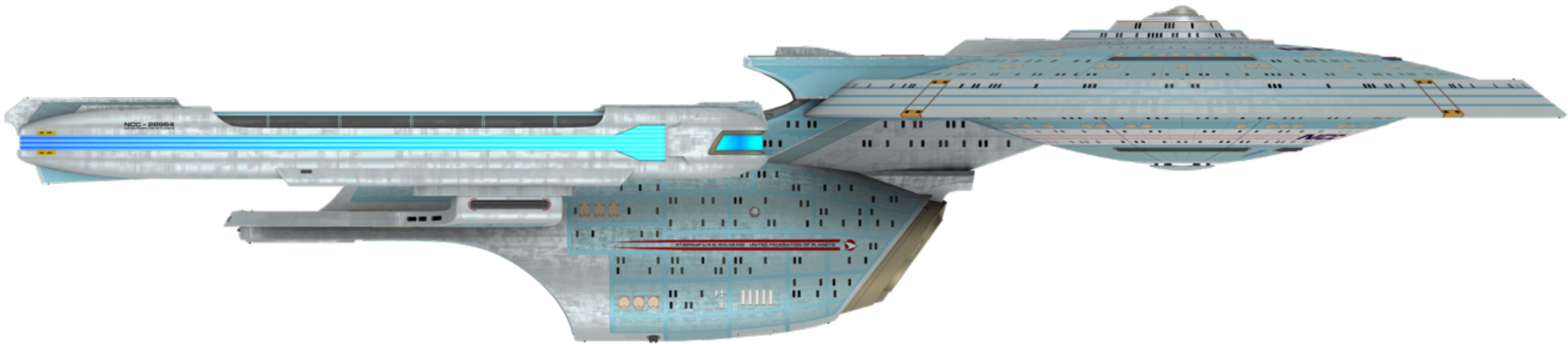
Compared to the Cardassians, they were not nearly as sophisticated and as such, Starfleet Command handled this conflict almost exclusively with their older, Reserve Force assets. When *Carolina* (the largest and most powerful of these) was pulled from the front lines, refitted and then redeployed to combat the Cardassians, the *Maryland*, *Hornet* and *Gryphon* were likewise redeployed to the Tholian front where they took a more active command-and-control role.

By this time though, Starfleet's shipbuilding doctrine--inflexible and lethargic as it was--had adapted. *Ambassador*, a larger, extensively-modified version of the *Renaissance* design entered service in 2325 and kept Starfleet on the bleeding edge of design and engineering. Two decades later, the sophisticated capabilities and attributes of *Ambassador* were re-packaged in the more utilitarian *Korolev* class. *Korolev* was designed as a next-generation replacement for *Exeter*. Unlike that *Excelsior* based offshoot though, Starfleet intended for *Korolev* to be an all-encompassing fleet picket and for it to be produced in serious quantity (effectively replacing most older Frigates in this arena). Manpower and logistical issues though kept that quantity from reaching sufficient levels until about 2356.

The introduction of *Korolev*, the now-iconic *Nebula/Galaxy* duo and another fleetwide modernization push in the early 2360s (that produced the *Norway*, *Steamrunner* and *Akira* classes) virtually eliminated any possible need for *Renaissance* outside the exploratory and scientific arenas and with that, the class continued to soldier on in quiet service.

While Starfleet was modernizing in these years, the shift towards smaller numbers of larger, more capable 'multi-mission' vessels came at the expense of smaller ones with a more limited scope, yet that could be produced in quantity much easier. This meant that despite Starfleet's best efforts, there came points in time where their overall drop in numbers became acute and noticeable. Such was the case in 2367--when the *Aries* (CH 45167) and *Hornet* deployed with other starships to interdict Romulan involvement in the Klingon Civil War--and also 2380 when the *Aries* deployed as part of Battle Group Omega which was tasked with stopping the Reman Warbird *Scimitar*.

Following the Battle of the Bassen Rift, where the starship *Enterprise* (CH 1701-E) was heavily damaged in combat against the *Scimitar*, the *Aries* and the rest of her Battle Group escorted the *Enterprise* back to Earth. On stardate 57052.5 (19 July 2380), the *Aries*, *Hornet* and the rest of their compatriots were formally retired from active service and transferred to the Reserve Forces Command.



Class
Classification Renaissance
Heavy Cruiser

Service 2305-2379

Length 451m
Beam 210m
Height 78m
Decks 20

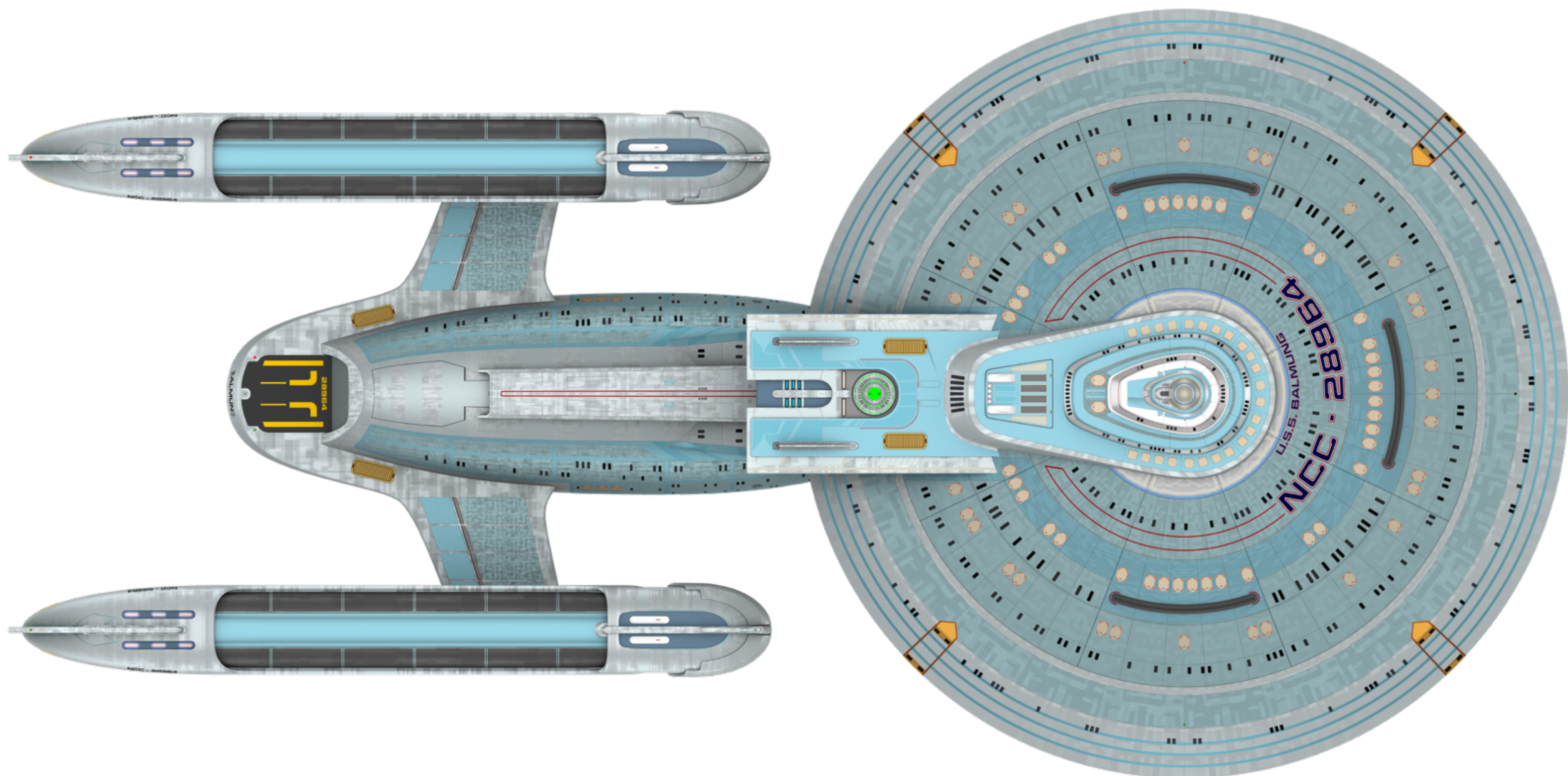
Mass 2,250,000 metric tons

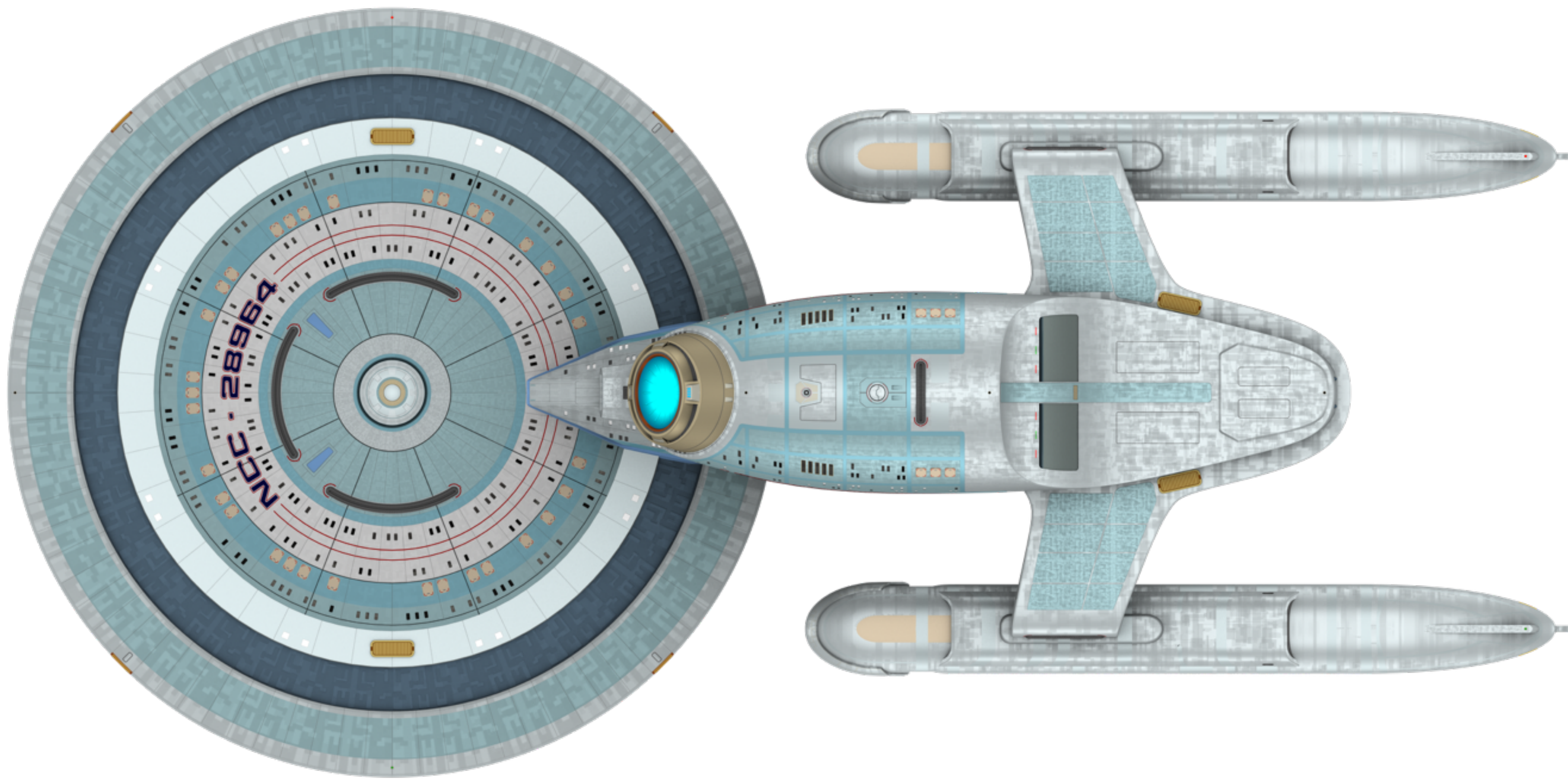
Compliment 479

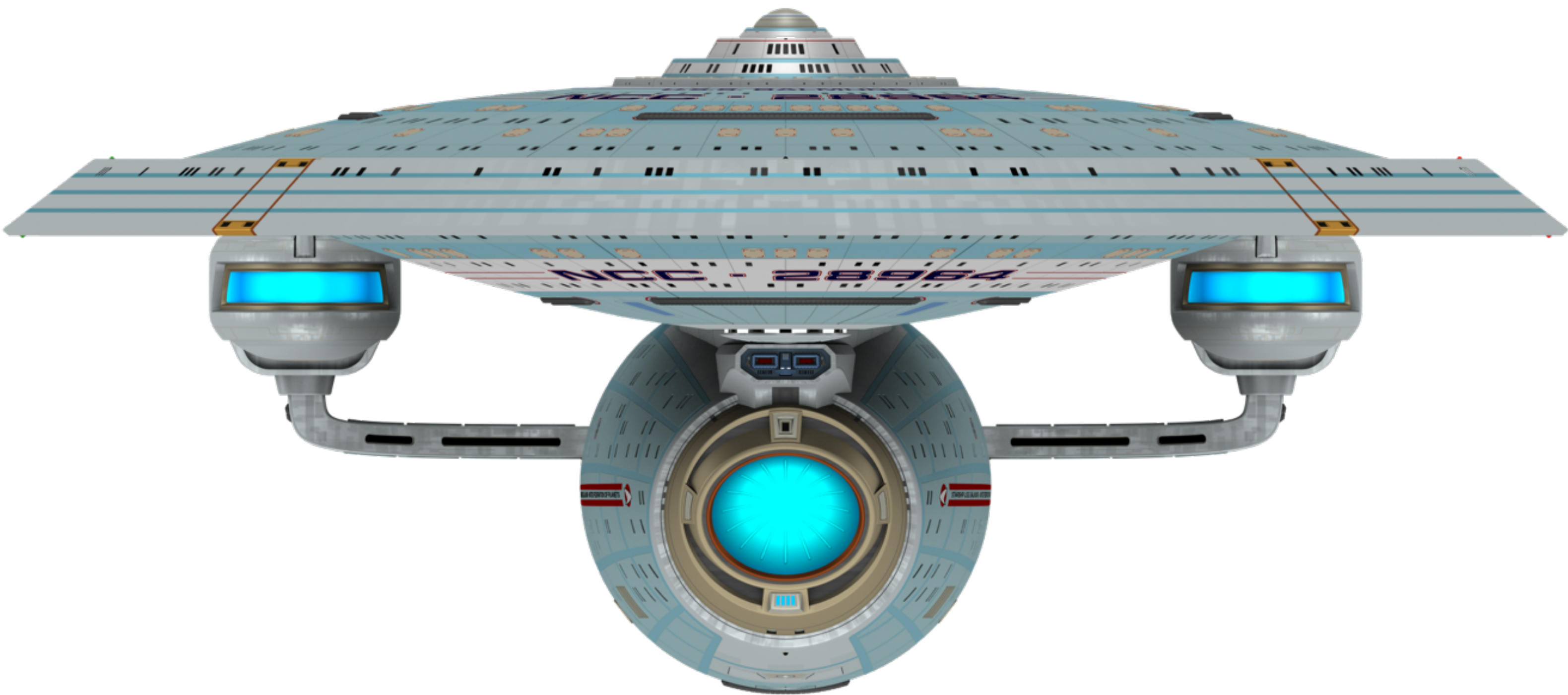
Armament 9 Type IX Phaser Emitters
4 MK I Torpedo Launchers

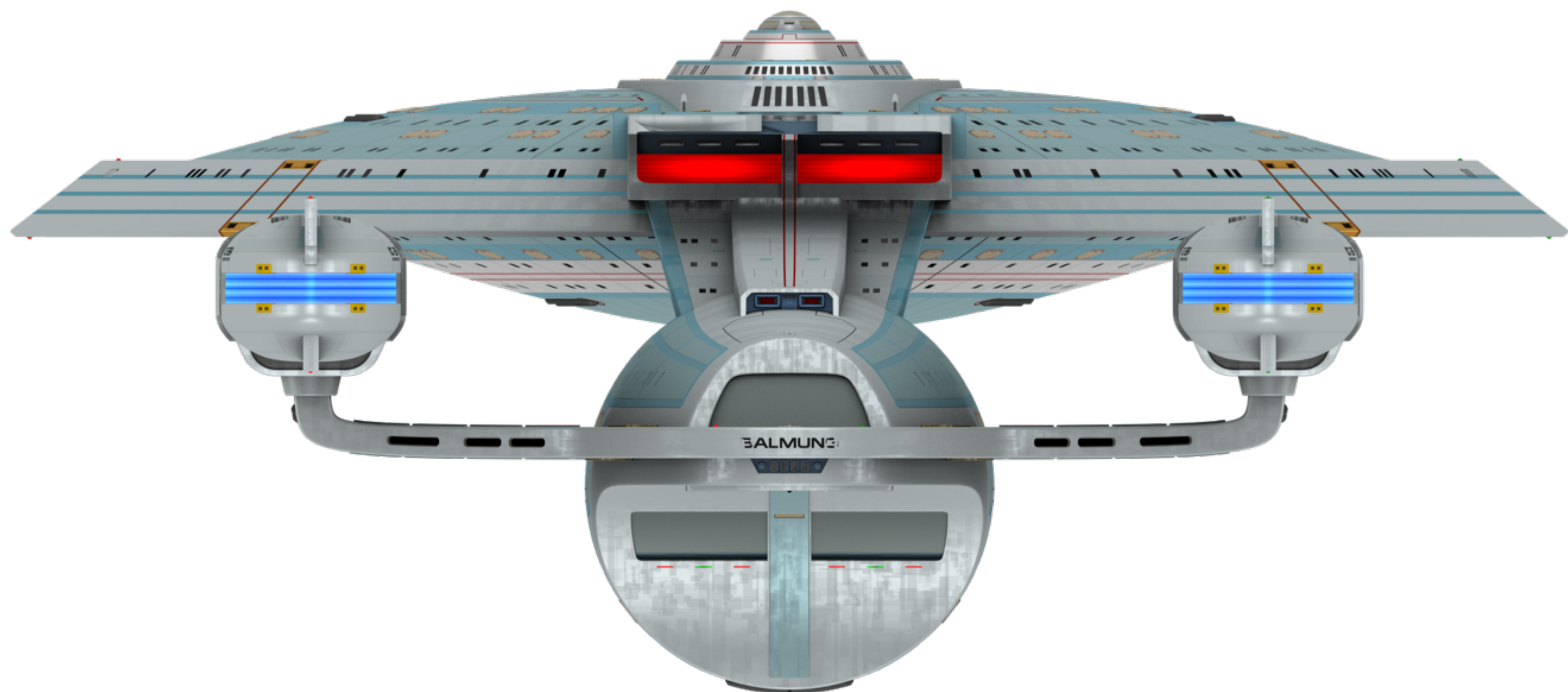
Defense Systems Standard Deflector Shield System
total capacity 1,613,250 terajoules

Standard Duranium/Tritanium Double Hull









Editor's Annotations

Going back and rewriting the histories of all the ships I've previously written up has been a necessary and noble task on my part, but with certain classes from certain eras, it can be difficult, if not impossible to achieve a balance between the technical/engineering and then the historical sides of things. As with the last project I worked on (*Frigates of the Linear Warp Era*), *Renaissance* proved a bit daunting.

I got a good running start, getting all the technical/design bits down and then moving on to the historical stuff—mentioning the Tomed Incident, naro-trafficking (of 'Red Ice'), Turkana IV and then the Tripoli's discovery of Data. When it came to the Cardassian War though, this is where I really got bogged down. Initially I had planned on writing this like I did the Four Years War, including a few specific battles that would hopefully even things out. The more I thought about that though, the more difficult it became until I finally decided to describe the conflict in more general terms. Given that I have a) expounded upon Setlik III and its aftermath and b) hinted at a 'scorched earth' campaign by a character of my own creation ('Edward Sherman') elsewhere, I'll have to get creative and expand upon this general narrative with a future project (Korolev maybe?)

I was even more general when describing the Tholian conflict (as I have mentioned elsewhere that Starfleet handled this with its older reserve forces) and didn't even bother touching the Talarians.

Considered in context, the mention of subsequent shipbuilding developments (all the classes that came into being after *Renaissance*) is the overriding reason why the service history is rather truncated as it is.

This design itself though is the whole impetus for my circling back around to redoing this. When I first saw it (the *USS Balmung* from the **SOTL** calendars), the first and only thing I thought was that it **was** the *Renaissance*. Dan Uyeno completely nailed it from the design/aesthetic standpoint—it's not too much of an *Excelsior* type throwback, but then again, neither is it some weird *Ambassador* type offshoot. It effortlessly nails the middle ground between the two.

Bibliography

Logo—Cyklus07 ([DeviantART](#))

Design—Dan Uyeno

Orthos—‘madkoifish’ ([Blog](#) ; [WIP Blog](#))