



STATE OF THE FLEET

In the nearly six decades following the founding of the Federation, rapid technological advances begat a period of malaise and complacency, giving rise to the *Pax Federationis*. The Starfleet that served the fledging Coalition of Planets had an impressive roster of starships at its disposal.

<i>DY-1100</i>	Transport (TT)
<i>J</i>	Freighter (FG)
<i>Y</i>	Freighter (FG)
<i>Durance</i>	Freighter (FG)
<i>Discovery</i>	Assault Transport/Scout (TA/ST)
<i>Mercury</i>	Corvette (CO)
<i>Daedalus</i>	Corvette (CO)
<i>Minuteman</i>	Destroyer (DD)
<i>Emmette</i>	Destroyer (DD)
<i>Iceland</i>	Heavy Destroyer (DH)
<i>Triton</i>	Light Cruiser (CL)
<i>Poseidon</i>	Cruiser (CA)
<i>NX</i>	Heavy Cruiser (CH)
<i>Columbia</i>	Heavy Cruiser (CH)
<i>Victory</i>	Dreadnought/Carrier (DN/CV)
<i>Yorktown</i>	Battleship (BB)

Of these, *Daedalus*, *Yorktown* and *Columbia* proved to be the most important. *Daedalus* entered service approximately 13 years prior to the outbreak of the Earth-Romulan War and was built with easy, efficient principles and methods in mind. It made for a ship that was both highly capable and could be fielded in numbers relatively quickly and also proved to be Starfleet's saving grace after several of its powerful, but over-engineered NX class ships were destroyed early on in the war. *Yorktown* was Starfleet's first battleship, a massive beast constructed using the same principles and methods that gave rise to *Daedalus*. In the same way that *Daedalus* replaced NX for a time, *Yorktown* was built to replace the equally massive *Victory* class Dreadnought. *Columbia* came after the war. Entering service in 2168, it was a radical reworking of the NX class design that used the same construction and engineering principles/methods used in *Daedalus* and *Yorktown* to both redeem NX itself and field a more capable explorer to complement the aforementioned pair.

However one of the principal problems was that *Mercury*, *Daedalus*, *Yorktown* and *Columbia* were the only front-line classes in service as of 2170. The *Minuteman*, *Emmette* and *Iceland* Destroyer classes as well as the *Triton* and *Poseidon* Cruiser lines were all retired at the war's end in surprisingly short order, owing to their relation with the ill-fated NX. Exacerbating this was that many of the NX class ships uprated to *Columbia* specs were in a severe state of disrepair prior to their uprating and thus were re-launched with poor projected lifespans. The other principal problem was purely logistical. Both the *DY-1100* class Transport and *J* class Freighter dated from the late 21st Century (2095) and even after several extensive refits, were considered only marginally capable at the war's outbreak. The *Y* class Freighter, introduced in the early 22nd Century (2114) was somewhat of an improvement and the *Durance* class (2130) a bit moreso, but still this was far from ideal for a Starfleet that considered exploration and expansion top priorities in the post-war period.

To Starfleet's credit, they did make some attempts at modernization, but those attempts (*Almeida* in 2170 and *Caracal* in 2189) were few and far between. The fact that none really caught on led analysts to question Starfleet's sincerity and speculate that with technologies like the 'warp 7' engine and deflector shielding (together with the still-formidable force of starfighters - now organized under a separate command), the admiralty had gotten dangerously complacent. A trio of classes—*Detroyat* (2208), *Baton Rouge* (2209) and *Anton* (2210)—did show promise, however they failed to usher in any significant technological breakthrough above and beyond those that had been introduced with *Yorktown*. A fundamental shift in philosophy was needed if the fleet was to successfully move forward.

By 2215, such a change had been brought about by designer W.M. Jeffries, engineer Mark Chausser and enthusiastically supported by noted Star Marshal Stephen Offutt. Instead of seeking out a new technological breakthrough that would revolutionize spaceflight on the same order of magnitude as warp drive, Jeffries and Chausser sought to leverage proven and existing technologies at scale to support three main areas—defense/offense, exploration & scientific study and support/logistics. Their first order of business was to modernize the old *PB-5* to the new *PB-18* standard to meet new standards of performance and longevity. Next came a new, 'fleet-standard' primary hull design. Smaller in diameter and more voluminous than that developed for *Baton Rouge*, it presented a smooth, austere appearance marred only by the somewhat bulbous bridge module. Once these commonalities were in place, work branched off in three directions that culminated in four separate classes. To provide some semblance of organization, front-line starships—irrespective of mission profile—were designated as 'Class I' units, while those intended strictly for support or logistical duties were designated as 'Class II' units. From a design/engineering standpoint, this is how the period came to be known as the 'Class I Era'. Concurrently though, due to the scope and promise of this new shipbuilding effort, many historians and analysts have referred to the period as 'The Great Awakening'.

Given historical trends, the first product of this revitalized modernization effort was the successor to *Baton Rouge*, the *Constitution* class (CH 1700) Heavy Cruiser. It paired the new primary hull with a highly-evolved secondary hull design dominated by a powerful new deflector dish at the fore end and a large hangar bay at the stern. With a scientific capability that approximated 70% of *Yorktown*'s (including 14 laboratories instead of 20 principally) while featuring improved endurance and operating range ratings, *Constitution* became the fleet's principal exploratory platform—the prototype (CH 1700) being completed in 2220 and full fleet production commencing in 2223.

One of the features of the new primary hull design were common weapon hardpoints, 1 on the ventral surface covering the forward arc with 2 more on the dorsal surface, 1 each covering the port and starboard arcs. Together with the rather ingenious auto-loading torpedo launch system incorporated into the standard bridge module (at the 03 level), it removed the question of armament entirely and made the development of independent variants entirely dependent upon the internal arrangement of this and any other hull sections. Compared to *Constitution*, Starfleet's design for a mass-produced fleet picket was relatively simple and straightforward. The *Saladin* class, like *Constitution*, utilized the primary hull and connecting dorsal, but dispensed with a secondary hull section entirely and attached the nacelle directly to the bottom of the dorsal. As such, what would normally be habitable volume was instead filled with plasma conduits, antimatter storage and other utilities. Another, more noticeable side effect was the relocation of the navigational deflector dish to the primary hull's underside, in place of the main sensor dome. Running parallel to *Saladin*, the *Hermes* class Scout was also developed. Sharing the same design, it omitted the 2 dorsal phaser banks and both torpedo launchers in favor of highly sophisticated sensor and communication systems, helping to coordinate a fleet still trying to perfect joint/integrated operations.

Support and logistical operations typically got the least amount of attention but oftentimes remained the most important. For a Federation that prioritized exploration & expansion and a Starfleet that was just beginning to find its footing, a strong logistical base was something that couldn't be ignored. Rather than produce one or more ship types dedicated to carrying freight or transporting passengers, Starfleet's solution was to create a carrier or 'mothership' of sorts that could be used to transport multiple types of both cargo and passengers concurrently via a tractor-tow pad. Attached to this pad would be a common series of interlockable containers. 200 meters long with a gross capacity of 319,149 metric tons, the

Cumberland series Containers together with the *Ptolemy* class (TT 3801) Transport-Tug would be able to transport 10 times the cargo at greater speeds and over greater distances than the *J* class Freighter. All three classes entered service concurrently in 2224.

From here, things branched out slowly, Starfleet initially focusing on core areas of traditional strength. Replacing the *Minuteman* and *Emmette* Destroyer classes was the *Marklin* class (DH 1200) Heavy Destroyer. Originally the last *Baton Rouge* era design to be proposed by the ASDB, following the success of the *Detroyat* class (replacing the *Iceland* class DH) which had been converted to Class I specs itself, *Marklin* was brought back, converted and ordered into production in 2228. While in the same general size bracket as its older forbearers, it introduced concept of the 'heavy firepower forward combatant', that is, a forward-deployed combatant or fleet picket featuring the armament and associated systems of a much larger capital ship. *Marklin* embodied this by featuring a total of 8 torpedo launchers, 2 aft and a staggering 6 forward.

Likewise, the *Kearsarge* class (CL 1500) Light Cruiser emerged in 2230 to replace the *Triton* class CL and *Poseidon* class CA. With a trio of phase cannon batteries mounted at three points on the dorsal surface of its primary hull and a separate phase bank on its ventral surface both complemented by a torpedo battery (3 launchers), the 'Light' in Light Cruiser in *Kearsarge*'s case referred moreso to its size than anything else.

Starfleet's logistical capabilities received a welcome boost in 2229 and 2235 with the introduction of the *Independence* (FG) and *Sherman* (FGD) classes respectively. More traditional replacements for the old *J* and *Y* classes, the rated capacities of both (77,200mT – *Independence*, 74,600mT—*Sherman*) allowed Starfleet to finally retire the elderly duo. Additionally, *Sherman* was the fleet's first 'cargo drone'. Equipped with highly sophisticated sensors to provide all-around situational awareness as well as a highly sophisticated computer system that automated nearly all major ship functions, it took the burden of inter-system resupply and colony support off of classes like *Ptolemy*. Unfortunately, the malaise that prevented the emergence of a coherent shipbuilding strategy in the *Baton Rouge* days still lingered, limiting the production totals of *Ptolemy*, *Independence* and *Sherman* to paltry numbers, something that the admiralty would rue in years to come.

With small-craft/fighter operations being one of the few highlights to stick with Starfleet once they emerged from the shadows of war, replacing the lumbering *Victory* class (CV 950) Carrier and agile, yet sorely outdated *Thunderbolt* class Attack Fighter became a top priority. *Thunderbolt*'s replacement emerged first, in 2234. A heavily-reworked version of the *Class D* shuttlepod, the new *D-17* class lacked the graceful aesthetics and didn't quite match the raw kinetic performance of *Thunderbolt*, but featured much better in-atmosphere performance and could also be built and fielded in a fraction of the time. Initially referred to as a 'through-deck cruiser' upon its launch in 2236, *Independence* was classified as a Light Carrier, rated to embark up to 36 small craft (1 group). Heavily armed, it featured a radical design for the day that later was extensively modernized to become the modern-day *Akira* (CB 62497) class.

The last cruiser class to be launched during the decade, *Pyotr Velikiy* (CA 1670) emerged in 2239 and foreshadowed the shift from cruisers to frigates. Intended to fulfill the same general roles as *Constitution*, it was built as a strategic 'insurance policy' of sorts intended to protect the fleet in the case of any political or technical interference with that larger class.

Between 2240 and 2249, the fleet experienced its biggest growth spurt yet, introducing a record 13 classes—5 Transports, 4 Destroyers, 3 Frigates and 1 Shuttlecarrier. Most significant were the Frigates, a ship type never before operated by Starfleet in any of its incarnations. One of the most pressing needs that emerged following the launch of first three Class I designs was for a deep-space convoy escort with a comprehensive armament, sizeable shuttlebays, advanced fire control systems as well as various other improvements introduced with *Constitution*. The existing *Detroyat* class (DH 1100) Heavy Destroyer had attempted to fill that role thus far, but as with its relative the *Anton* class (CA 1825) Cruiser, *Detroyat* was underpowered and lacked the speed and range to effectively operate with the newer generation of starship being introduced. The *Surya* (FF 1850) and *Coventry* (FH 1230) classes (entering service in 2242 and 2247 respectively) filled these intended roles perfectly, as did the Andorian-designed *Loknar* (FF 2700) class that, like *Pyotr Velikiy*, was intended as a hedge.

Inexperience with single-nacelle designs led to a number of unforeseen problems with both *Saladin* and *Hermes*. The narrow warp field created by the single set of warp coils within the nacelle as well as nacelle placement itself contributed to field instability above warp 6 as well as severely diminished maneuverability. Computer control modifications as well as the installation of more powerful impulse fusion reactors solved the latter problem, but could do little to address the former. This led to the truncation of the *Saladin* class production run and to the introduction of the *Larson* (DD 4300) class in 2240 as the 'mainline' replacement as well as the *Burke*, *Kiaga* and *Seawolf* classes in 2245, 2247 and 2249 that were simpler, but more combat oriented.

The introduction of Frigates as well as the trouble in trying to effectively field a single Destroyer class both proved to be fortuitous to Starfleet overall however. Continued Klingon antagonism led to a gradual decline in relations and escalation in tensions that culminated in the outbreak of a full-scale war in 2245. Highly agile and armed with immensely powerful pulse phaser cannons, *Kiaga* and *Seawolf* were potent offensive and defensive tools while the stripped-down *Burke* complimented *Larson* and *Saladin* the same way *Daedalus* did to *NX* during the Earth-Romulan War.

Starfleet's strength in small-craft/fighter operations received an additional boost in 2245 with the introduction of the *Santee* class (CVS 1925) Shuttlecarrier. The smallest of the three Carrier types that Starfleet would go on to operate, *Santee* was an answer to *Independence*—yet another class with uncomfortably long construction times. While only able to embark up to 12 craft/1 squadron, these ships still took advantage of an area the Klingons didn't bother to exploit.

When it came to small craft, by 2245, Starfleet's inventory of such was fully fleshed out. In 2243, they introduced a new standard shuttlecraft. Retaining boxy, utilitarian lines, the *Class F* shuttle could embark up to 7 (flight crew of 2 + 5 passengers), performed exceptionally well in space or various atmosphere types and was well suited for a full spectrum of missions ranging from VIP and personnel transport to short-range research and survey. In 2245, the larger *Class G*/'*Voyager*' Heavy Shuttle entered service. Slightly more than twice the length of the *Class F*, it featured more powerful engines (making it capable of attaining a warp 5 cruise speed) and an extremely sophisticated set of sensors and communications equipment housed in a low profile 'bulge' situated dorsally. The standard *Class G* itself could embark up to 9, plus a flight crew of 2. With its size and capabilities however, cargo transport, assault and medical variants were all quickly developed and inducted into service.

As Starfleet continued building up its defensive/offensive assets, its exploratory commitments continued unabated, placing a heavy strain on its logistical support structure. To further strengthen this structure and also relieve the strain on its various freighter and transport classes, they deployed the *Kepler/K-Type* Space Stations. Not exactly a fitting replacement for the gargantuan *Ticonderoga* series stations, they quickly fell into the role of supply depot and logistical hub. Owing to their pre-fabricated nature, these stations could be completed and brought online in record time (1 month to complete basic construction, utility installation; 2 months to complete interior outfitting, systems integration). Despite the fact that 4 were in service by the end of 2245, they could do little to make up for the short-sightedness that led to short production runs of both *Ptolemy* and *Independence* and nearly crippled Starfleet during the subsequent conflict with the Imperial Klingon Defense Forces (IKDF).

The 'Four Years War' as it came to be known saw Starfleet caught woefully unprepared. Unlike the Romulans, once the Klingons were engaged, they attacked relentlessly and pressed their principal advantage of numerical superiority. Starfleet's efforts early on were hampered by their persistent desire to keep the *Constitution* class out of the fighting, forcing them to rely heavily on their imposing, but antiquated *Yorktown* class (BB 400) Battleships and their slowly expanding force of *Independence* (CVL 1590) and *Santee* (CVS 1925) Carrier classes, in addition to their motley assortment of Destroyers and smaller types. While competent on the surface, such a haphazard strategy was hardly ideal, let alone sustainable. Enter the Frigate. What Starfleet needed was a starship with weaponry, fire control systems and sizable shuttlebays seldom seen on ships smaller than Cruisers as well as one that incorporated various duotronic computing advances introduced with *Constitution* itself. They did have ships of the *Detroyat* class that, as with her larger *Yorktown* class brethren, was easily upgradable, however a new strategy required a new ship class of which they eventually received two, *Surya* (2242) and *Coventry* (2245). Along with *Loknar* (2242), they formed the core of a force that gradually settled into the general-purpose or 'workhorse' role in the years that followed.

As part of the Federation's general expansion efforts, transports gradually grew larger, faster and more adaptable. The *Cochrane* (2242) and *Aaken* (2248) classes introduced the concept of the 'Colonial Transport' (TC), starships designed expressly to transport large numbers of colonists and their supplies. The *Dolland* class (TTH 3900, 2247) was a rushed response intended to address the lack of *Ptolemy* class ships. A conversion of the *Coventry* class, it could carry the same number of containers as *Ptolemy*, but at vastly higher speeds, able to tow up to three containers at a nominal speed of warp 7. The *Wasp* (TA 6000) was Starfleet's first Assault Transport. Designed from lessons learned in the Four Years War, it featured multiple shuttlebays, long range transporters and was able to embark up to an entire battalion (1,296) of troops. It would also lead to the introduction of a number of other specialized transports in the decades to come.

The post-war era saw fleet expansion slow to a trickle. The introduction of the *Yorktown* class (CV 2200, 2251) Carrier and *Federation* class (DN 2100, 2253) Dreadnought cemented the new cold war had been gradually taking hold, while the *Proxima* class Battleship—massive in size and controversy—prefaced the dangerous and unprecedented escalation that would accelerate within two decades.

The fleet's commitment to exploration and scientific study remained unchallenged however. Central to these efforts were the *Cahuya* (AGS 740) and *Antares* (AGS 2071) Surveyor classes as well as the *Archer* class (CU 1890) Cutter. All three were designed to expressly replace the now-ancient *Daedalus* and compliment the larger *Constitution*, greatly expanding the fleet's exploratory capabilities with a comparatively minimal amount of effort.

With every mission field and possible use case addressed sometimes by one, but more often, by multiple starship classes, the Class I era rapidly gained momentum. Technological advancements and breakthroughs provided further boosts, but by the end of the 2260's, with astro-political winds shifting and proverbial storm clouds gathering on the horizon, the promise and optimism that beckoned over the last four decades began to give way to a colder, bleaker reality. Nevertheless, developments made during this period laid the foundation for the Federation and Starfleet we know today and it is very unlikely we would be where we are without them.