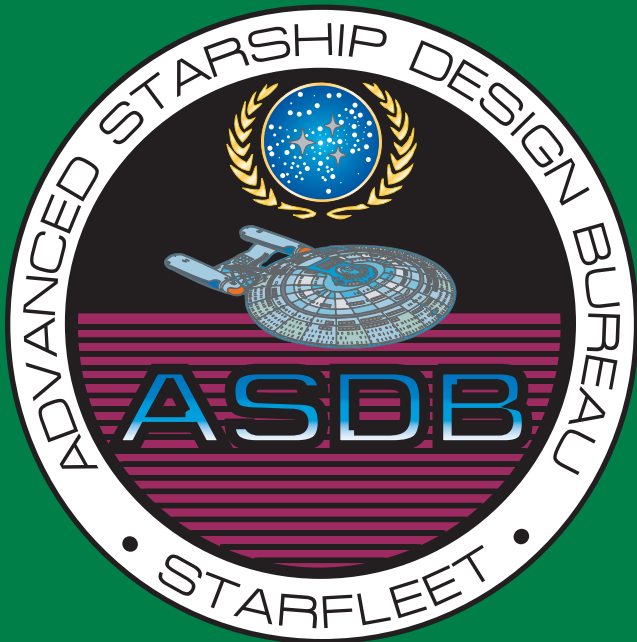


THE BEST OF
DOCKYARD REVIEW
VOLUME ONE: 2290-2350



*A collection of selected articles
Published by the Star Fleet Advanced Starship Design Bureau*

THE BEST OF DOCKYARD REVIEW

VOLUME ONE: 2290-2350

By Admiral Chris Wallace

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This document prepared and published by Team Neko and Team Kempo for the Starfleet Spacecraft Design Advisory Commission.

Memory Alpha Cataloging Data:
UFPI ITP/SP SOTSF23772378

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This is a publication of Panda Productions, Post Office Box 52663, Bellevue, Washington, 98015-2663.

Created and published in the United States of America.

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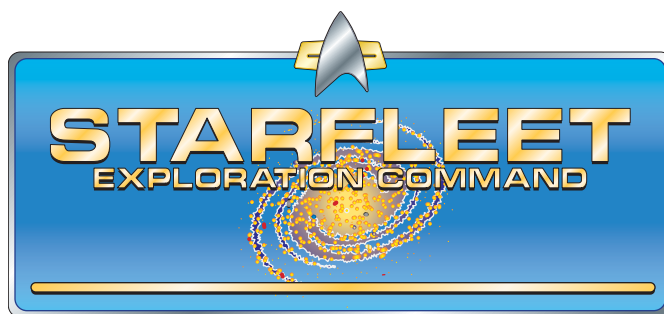
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PREFACE

THE BEST OF DOCKYARD REVIEW

STARSHIP ARTICLES



AN EXPLORATORY DREADNOUGHT? CAN DREADNOUGHTS BE ADAPTED TO AN EXPLORER ROLE?

LIEUTENANT COMMANDER KYOKO SHIDARA
STARFLEET DESIGN ADVISORY BOARD
JANUARY 2290 EDITION

Of all of Star Fleet's vessel types, the dreadnought — the most powerful vessel in service — gets the least respect. This is because the current mission of these ships is to sit at a starbase and wait for a war to break out. The only time they leave is to either "Show the Flag" in some hot spot or to take part in Fleet training exercises like Solar Wind. Dreadnoughts are very expensive to maintain, as they need to be kept at an enhanced rate of readiness. Star Fleet has already canceled the remainder of the *Ascension* class starships and decided not to go through with the plans for a number of new-build *Federation (II)* class dreadnoughts, instead updating all the existing hulls to the *Federation (II)* specification.

When the *Avenger* class heavy frigate design was modified to become the *Endurance* class exploratory cruiser, much thought was given to doing the same to the dreadnoughts. Currently, the *Tikopai* class exploratory cruiser needs escorts when operating in frontier and hostile areas, greatly increasing the cost of such missions. The dreadnoughts, with their greater firepower, would be able to perform these missions without the need for additional escort.

MODIFICATION PROGRAM

The *Federation (II)* class of ships are essentially *Enterprise* class hulls and updating them with the scientific suites of the heavy cruisers should prove to be little problem. The *Ascension* class, being based on the purely military *Belknap* class strike cruiser, would be a little more difficult. However, the new *Athabaska* class modifications designed to give the *Belknaps* an exploration role could

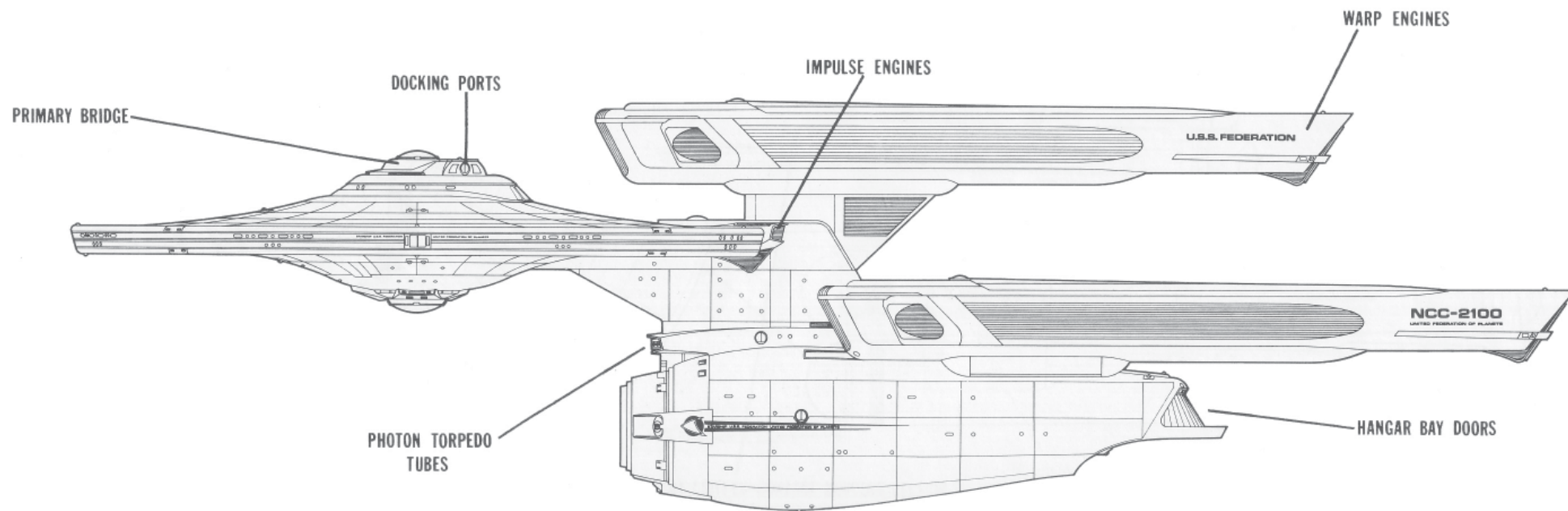
be adapted to the *Ascensions*.

At this time, the *Federation* dreadnought U.S.S. *Star League* (DN 2102) is currently undergoing modification at Starbase 10. The *Ascension* class dreadnought *Tai Shan* (DN 2524) underwent changes in the yard during construction and has just been commissioned. She will be assigned to the Romulan Neutral Zone and will work alone and in conjunction with *Tikopai* class exploratory cruisers.

CONCLUSION

Both vessels will be evaluated on their suitability to this new role that has been devised for them. Should it prove successful, it is expected that the remaining active duty vessels of each class will be converted. It is expected that the *Federation* class, being more easily adapted to an exploratory role, would be converted first in bunches while the *Ascensions* maintain traditional dreadnought roles. Then the converted *Federation* classes would cover the *Ascensions* during their modification. Those vessels that are currently on Stand Down status will remain so, and are not scheduled to be converted at this time.

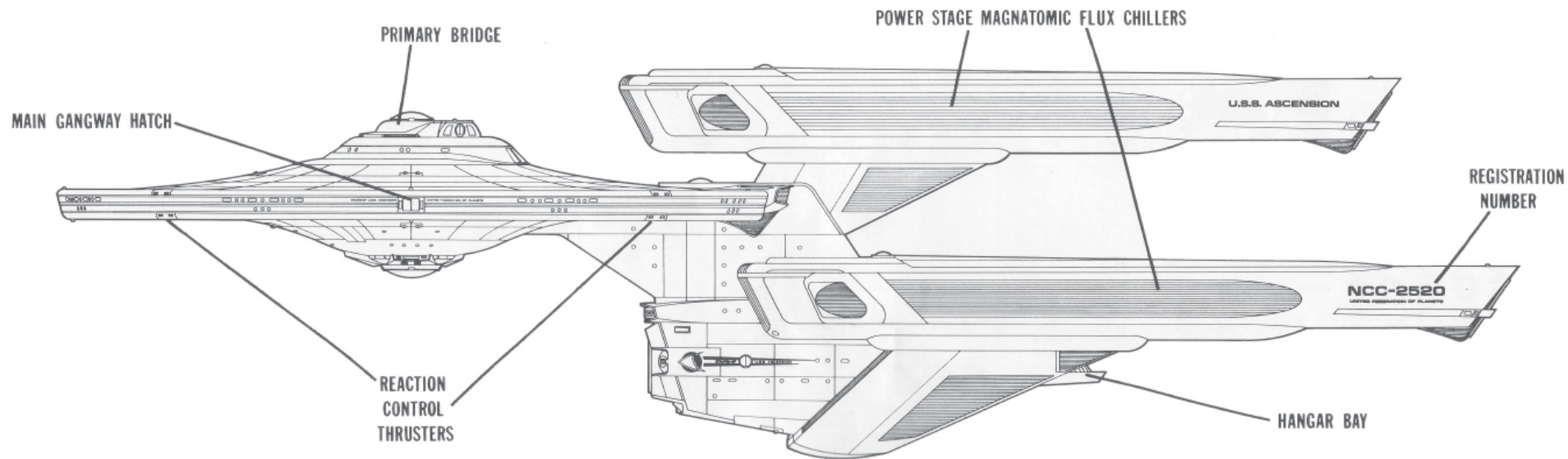
Commander Shidara is a member of the Star Fleet Design Advisory Board.



Federation Class Dreadnought

Displacement:	275,000 mt
Overall Length:	307.6 m
Overall Draft:	83.7 m
Overall Beam:	141.7 m
Propulsion:	Three LN-64 Mod 3 dilithium-energized antimatter linear warp drive units (System Contractor: Cochrane Warp Dynamics, Minos al Rijil, Alpha Centauri VII) Two RSN subatomic unified energy impulse units (System Contractor: Scarbak Propulsion Systems, Earth) QASR particle beam maneuvering thrusters (System Contractor: Scarbak Propulsion Systems, Earth) "Trentis" pulsed laser reaction control system (System Contractor: Orage Ijek, Aksajak, Andor)
Velocity:	Warp 11 Standard Cruising Speed Warp 13 Maximum Cruising Speed Warp 15 Maximum Attainable Velocity
Duration:	5 years, standard
Complement:	70 Officers 430 Enlisted Crew 0 Passengers (Normal - Up to 100 maximum) 500 Total Crew (Standard)
Embarked Craft:	1 Type SW-7 Personnel Shuttle 2 Type S-10 Shuttlepod 2 Type S-2A <i>Bee</i> Workpod 0 <i>Victory</i> Class Fighter

Navigation:	"Artos" Warp Celestial Guidance (System Contractor: Mandor Industries, Ltd., Dalhalam, Delta IV)
Computers:	"Fasfax" Duotronic III Upgrade; Datatac Support Subsystem (System Contractor: Farranti Mnemonics, Berkshire, Earth)
Phasers:	7 banks of 2 each - RIM-12C independent twin mount (System Contractor: Agusta Ansadado Inc., Fuzes, Venus)
Phasers:	6 banks - RSM-14B single mount (System Contractor: Agusta Ansadado Inc., Fuzes, Venus)
Missiles:	4 tubes - Mk 6 Mod 2 Direct Photon Torpedoes (System Contractor: Skat-Rar Weapon Systems, Ezuruk, Andor)
Defense:	"Lancelot" primary force field and deflector control system (System Contractor: Prentice-Schafer Inc., Marsport, Mars) Cetis Weapon System, TACAR fire-control add-on (System Contractor: Raakuv, Gaziwahaida, Andor) CGCP/SCDS cloaking generation, penetration and stasis countermeasures system (System Contractor: Hycor, Woburn, Earth)
Life Support:	MC-3E artificial gravity generator (System Contractor: Cristobal SM/S, Manila, Earth) "Rastis" radiation protection package (System Contractor: Tidjikja/Atar Associated Industries, Rastaribi, Regulus) "Febix" waste regeneration system (System Contractor: Jullundur-Lahore Ltd., Bombay, Earth)

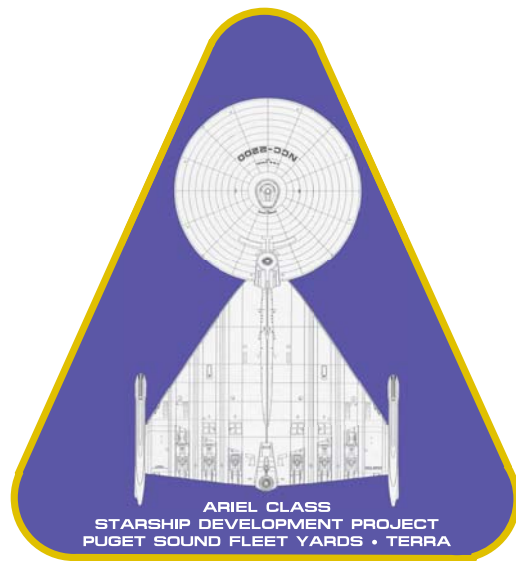


Ascension Class Dreadnought

Displacement:	245,000 mt
Overall Length:	289.8 m
Overall Draft:	77.8 m
Overall Beam:	141.7 m
Propulsion:	Three LN-64 Mod 3 dilithium-energized antimatter linear warp drive units (System Contractor: Cochrane Warp Dynamics, Minos al Rijil, Alpha Centauri VII)
	Two RSN subatomic unified energy impulse units (System Contractor: Scarbak Propulsion Systems, Earth)
	QASR particle beam maneuvering thrusters (System Contractor: Scarbak Propulsion Systems, Earth)
	"Trentis" pulsed laser reaction control system (System Contractor: Orage Ijek, Aksajak, Andor)
Velocity:	Warp 11 Standard Cruising Speed
	Warp 13 Maximum Cruising Speed
	Warp 15 Maximum Attainable Velocity
Duration:	5 years, standard
Complement:	65 Officers
	420 Enlisted Crew
	0 Passengers (Normal - Up to 50 maximum)
	485 Total Crew (Standard)

Embarked Craft:	1 Type SW-7 Personnel Shuttle
	2 Type S-10 Shuttlepod
	2 Type S-2A <i>Bee</i> Workpod
	0 <i>Victory</i> Class Fighter
Navigation:	"Hawkeye" Warp Celestial Guidance (System Contractor: Plessey Group, Essex, Earth)
Computers:	"Sable" Duotronic III (System Contractor: Erisaffe-Zynn Space Systems, Sebaldhasta, Deneb V)
Phasers:	8 banks of 2 each - RIM-12C independent twin mount (System Contractor: Agusta Anasado Inc., Fuzes, Venus)
Missiles:	2 tubes - Mk 7 Mod 1 Direct Photon Torpedoes (System Contractor: Skat-Rar Weapon Systems, Ezuruk, Andor)
Defense:	"Lancelot" primary force field and deflector control system (System Contractor: Prentice-Schafer Inc., Marsport, Mars)
	Cetus Weapon System, TACAR fire-control add-on (System Contractor: Raakuv, Gaziwahaida, Andor)
	CGCP/SCDS Cloaking generation, penetration and stasis countermeasure system (System Contractor: Hycor, Woburn, earth)
Life Support:	MC-3E artificial gravity generator (System Contractor: Cristobal SM/S, Manila, Earth)
	"Rastis" radiation protection package (System Contractor: Tidjikja/Atar Associated Industries, Rastaribi, Regulus)
	"Cerix" waste regeneration system (System Contractor: Jullundur-Lahore Ltd., Bombay, Earth)





THE ARIEL CLASS FIGHTERCARRIER

ANOTHER ROLE FOR THE SHUTTLECARRIER

CAPTAIN STEBEN KARNAK
MILITARY STAFF COMMITTEE
JANUARY 2290 EDITION

“What to do with the Ariel class?” has been an often-asked question in the offices of the Military Staff Committee since the U.S.S. Ariel (SC 2200) was launched almost five years ago. With the recent commissioning ceremony of the U.S.S. Adjuvant (SC 2203) and the refusal of the Federation Council to approve funds for the Fredrikstad class until a suitable role can be found, an answer to that question has been given new urgency.

So far, three main proposals have been put forth as to what role the ship can fill. The first proposal is to keep them as shuttlecarriers. The second proposal is to use them as massive probe launching facilities to map new sectors of space. And the last is to use them for colonization duties, carrying all the materials and personnel needed to start a colony. Since we last covered this topic, a proposal by Admiral Nan’k Tasschat’n to produce one of each type was rejected due to the extreme cost of such a program. Instead, a fourth proposal has been floated – that of a fightercarrier. This design seems to be the odds-on favorite, now that the Excelsior and Ingram classes of SCS do appear to be continuing beyond the single-ship stage at this time and relations with the Klingons remain tense.

GENERAL CHARACTERISTICS

The SCS / Fightercarrier proposal calls for two of the six landing bays to be modified to allow the quick launching of Vigilante and Victory class fighters. The bays themselves would be interconnected to allow a full carrier air wing to be carried. This would allow a potent mix of fighters, tankers, SWACS (Spaceborne Warning And Control Shuttles), and standard shuttles

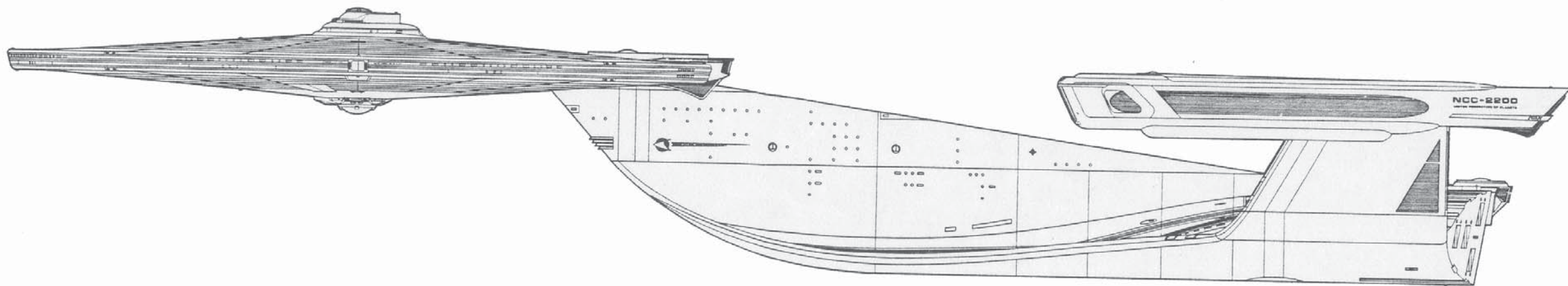
to be carried. As such a design would be a natural for ground assault operations, internal modifications to the primary hull to allow the stationing of a regiment of marines and the ability to carry their equipment in the hangar bays are incorporated into the design.

Deployment zones continue to be a sore spot for the Ariel class. Due to their size and limited armament, these vessels require a destroyer or frigate escort screen to accompany them on border patrols. Chandley and Northampton class heavy frigates can be assigned to beef up the marine detachments and the fightercarrier would be an excellent addition to large-scale operations involving Makin and Continent class assault ships.

CONCLUSION

Currently, the four existing ships are being used in their original roles as shuttlecarriers. The most likely plan is to modify the ships along the SCS program. They would be assigned with either heavy frigates for ground operations or destroyers for fleet-level maneuvers. This design would be most appropriate as portable probe launchers could be added to the fighter launch tubes for surveying missions and the sheer size allows them to be used as colonial transports for short-duration periods. A vote by the MSC is expected within a few months.

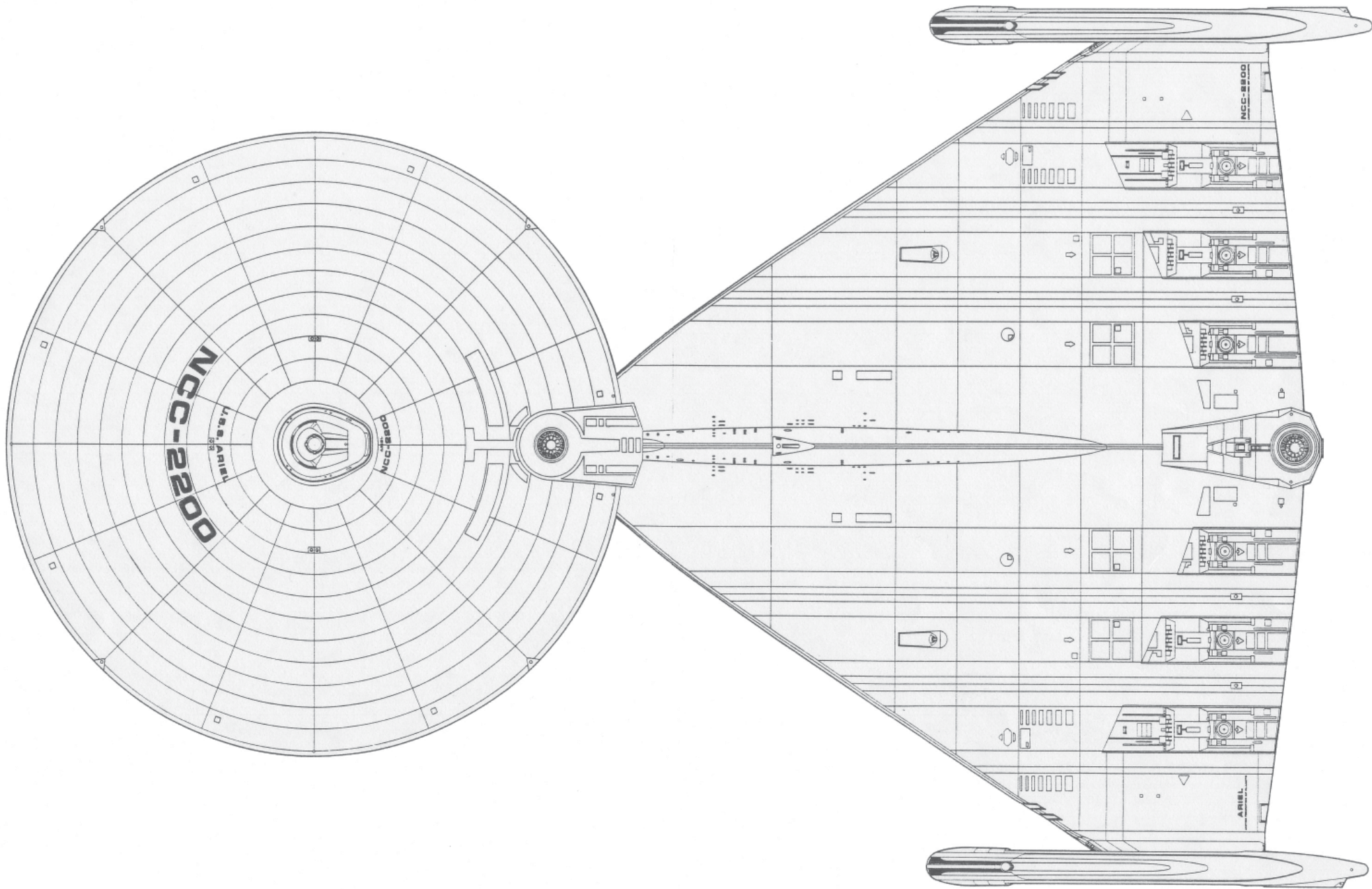
Captain Karnak is the former Commanding Officer of the U.S.S. Coronado • NCC-1975 and is Chairman of the Shuttlecarrier Delegation to the Military Staff Committee.

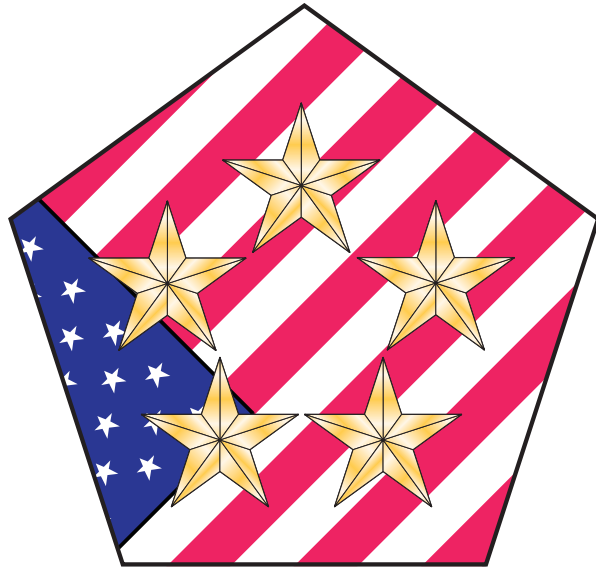


Ariel Class Shuttlecarrier

Displacement:	1,652,000 mt
Overall Length:	496.1 m
Overall Draft:	79.2 m
Overall Beam:	230.4 m
Propulsion:	Two LN-65A Mod 1 dilithium-energized antimatter linear warp drive units (System Contractor: Cochrane Warp Dynamics, Minos al Rijil, Alpha Centauri VII)
	Three RSQ subatomic unified energy impulse units (System Contractor: Scarbak Propulsion Systems, Earth)
	Two RST subatomic unified energy impulse units (System Contractor: Scarbak Propulsion Systems, Earth)
	"QASR" particle beam maneuvering thrusters (System Contractor: Scarbak Propulsion Systems, Earth)
	"Trentis II" pulsed laser reaction control system (System Contractor: Orage Ijek, Aksajak, Andor)
Velocity:	Warp 10 Standard Cruising Speed
	Warp 12 Maximum Cruising Speed
	Warp 14 Maximum Attainable Velocity
Duration:	5 years, standard
Complement:	224 Officers
	518 Enlisted Crew
	0 Passengers (Normal - Up to 50 maximum)
	742 Total Crew (Standard)

Embarked Craft:	20 Type SW-7 Personnel Shuttle
	20 Type S-10 Shuttlepod
	25 Type S-2A <i>Bee</i> Workpod
	24 <i>Victory</i> Class Fighter
	32 <i>Vigilante</i> Class Fighter
Navigation:	"Artos" Warp Celestial Guidance (System Contractor: Mandor Industries Ltd., Dalhalam, Delta IV)
Computers:	"Daystrom" Duotronic III with Multitronic M-7 Supplement (System Contractor: Daystrom Computer Systems, Lunaport, Luna)
Phasers:	6 banks of 2 each - RIM-12C independent twin mount (System Contractor: Agusta Anasadado, Inc, Fuzes, Venus)
Phasers:	6 banks - RSM-14B single mount (System Contractor: Agusta Anasadado, Inc, Fuzes, Venus)
Defense:	"Arthur" primary force field and deflector control system (System Contractor: Prentice-Schafer Inc., Marsport, Mars)
	Cetis Weapon System, TACAR fire-control add-on (System Contractor: Raakuv, Gaziwahaida, Andor)
	CGCP/SCDS cloaking generation, penetration and stasis countermeasures system (System Contractor: Hycor, Woburn, Earth)
Life Support:	MC-3E artificial gravity generator (System Contractor: Cristobal SM/S, Manila, Earth)
	"Rastis" radiation protection package (System Contractor: Tidjikja/Atar Associated Industries, Rastaribi, Regulus)
	"Cerix" waste regeneration system (System Contractor: Jullundur-Lahore Ltd., Bombay, Earth)





THE U.S.S. BRADLEY

A DEFENSIVE CRUISER PROPOSAL

FLEET CAPTAIN GERRY ANDERSON
STAR FLEET OPERATING FORCES - TAC FLEET
APRIL 2292 EDITION

Launched in 2276, the U.S.S. *Bradley* (CS 2502) was the second of the now-famous *Belknap* class of strike cruisers. Her most recent mission was as part of a four-ship exploratory task force around the *Enterprise (II)* class heavy cruiser *Lexington* (CH 1703). Upon her return to Starbase 27 in 2289, it was decided to send the ship through the SLEP (Starship Life Expectancy Prolongation) program, which would involve checking and replacing worn structural members to effectively double her service life. The *Bradley* was docked at Cosmadyne's Boston Shipyards on June 18, 2289 and the SLEP procedure was begun.

About this time, the Military Staff Committee was looking into building a specialized vessel to act as a support to the *Ariel* class shuttlecarriers. The *Ariel*, though designed to operate on the frontier, was far too unprotected to deploy alone. Currently, *Avenger* class heavy frigates or *Baker* class destroyers are usually assigned protection roles. However, neither vessel was designed to operate as a "defender" and it was feared that, in a pitched battle, the ships might damage each other in addition to the enemy due to command-and-control problems. Also, neither ship's shields, while good, were able to withstand the continued punishment these vessels were expected to take as they essentially acted as a wall between the enemy and the shuttlecarriers.

DEVELOPMENT AND CONSTRUCTION HISTORY

Star Fleet looked into building a special-purpose vessel, but the cost was considered far too

prohibitive. Current frigate and cruiser designs were looked at for modification, with the finalists being the *Avenger* and *Belknap* classes. It was considered to modify one of each of the ships currently in the yards to the new specifications and see which one performed better. However, the ships were too far along in construction, and modifying them would prove too expensive. It was then decided to make the modifications to new-build vessels, though this would delay introduction of them by at least two years.

However, as part of the SLEP program, the *Bradley* was to have most of her internal systems stripped for testing and replacement / upgrade. The new equipment and modifications dictated by the Defensive Cruiser Proposal could be made with little additional cost. Continued computer modeling during this time had shown that the *Belknap* would probably prove a better platform for the DCP anyway, so the MSC decided to convert the *Bradley* to DCP specifications during her SLEP refit.

SHIP CHARACTERISTICS

Externally, the *Bradley* appears the same as any other *Belknap* class vessel. All modifications and upgrades are internal in nature.

PROPULSION AND POWER SYSTEMS

To boost performance and power, the *Bradley* received the new "Ikeda" LN-68 Mod 1 linear warp drive units installed on the *Belknap* cruisers *Raan*, *Sur Cha*, and *Ki Rin*. This increases top speed to Warp 13 and provides an additional 23% to the ship's shield systems. The RSL impulse drive units remain unchanged.

TACTICAL SYSTEMS

The standard weapons mix of eight RIM-12C and one RSM-14B phaser banks and two Mk 7 Mod 1 photon torpedo launchers was deemed more than adequate and remain unchanged. The "Merlin" force field deflector system with integrated cloaking device was installed to replace the standard "Lancelot" system. The energy transfer and heat dissipation conduits were improved to improve total shield power by 30% over a standard *Belknap*. The improved Kotri CIDSS (Close-In Deflector Shield System) deflector supplement was also installed to protect against fighters and close in attacks.

The extremely capable CETIS weapons system and TACAR fire-control unit provide a tremendous level of flexibility. A 2016L "Sneaky Pete" sensor system, 25/ADA countermeasures support system, and a Link 22 communications core were added to further improve the system's effectiveness.

The *Bradley* was fitted with the AEGIS Fleet-Fire Control System to coordinate task-force-level combat operations. During battle, she would use this system to coordinate with the other vessels in the task force to provide a coherent response to Threat forces. She also carries two S-3 SWACS (Spaceborne Warning and Control Shuttles) to monitor all contacts out to a 100 A.U. radius and a pair of *Vigilante* Class fighters for support.

COMPUTER SYSTEMS

The *Bradley's* computer system was updated to the "Sable" Duotronic III system along with the Dataram Support Subsystem. Navigation is provided by the standard "Hawkeye" Warp Celestial Guidance system, though the new NAVTAC Guidance Supplement is fitted.

TRIALS AND TESTING

The *Bradley* completed the SLEP and DCP modifications on December 21, 2290. She was launched from Cosmadyne on January 5, 2291, and proceeded to the Asdai Testing Range for a strenuous set of shakedown and acceptance trials on the DCP systems. Post-Shakedown Availability was begun on August 12, 2291, and finished on November 28. She re-entered service with TacFleet on December 19, 2291.

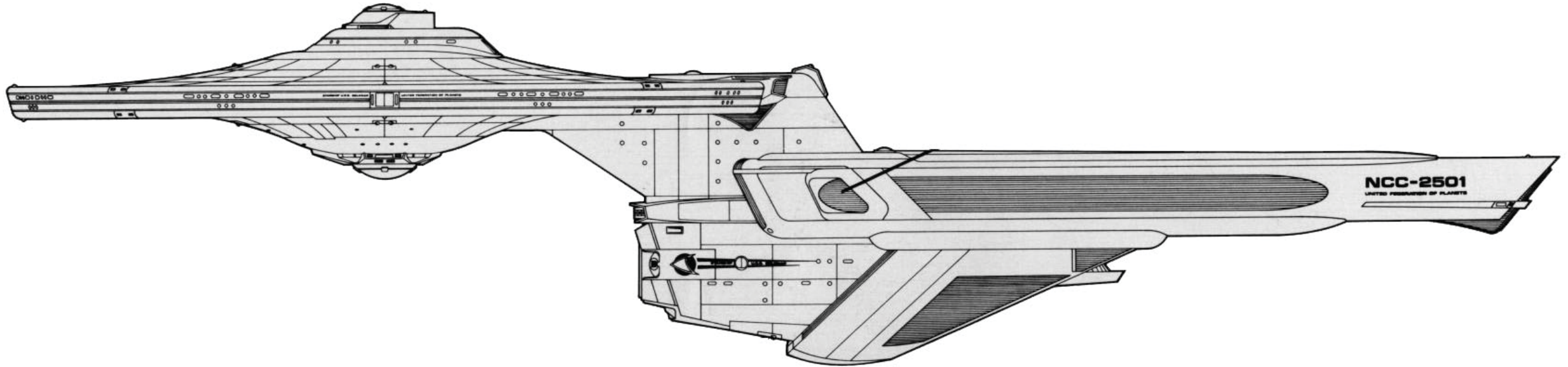
OPERATIONAL DISPOSITION

The *Bradley* was assigned to Task Force 12 centered around the shuttlecarrier *Ariel* (SC 2200) along with a regular *Belknap* class cruiser to test her effectiveness. The tour was routine, though

it was discovered that the *Ariel*, which also mounted the *Aegis* system and her own flight of SWACS, made these systems unnecessary on the *Bradley*. As the *Aegis* system was a major contributor to the ship's cost, it was decided to pull the *Bradley* from this role. The shielding and computer upgrades are currently being made to some vessels in the next series of *Belknap* cruisers—the *Excel* class (CS 2545)—which will then be assigned shuttlecarrier protection roles.

As for the *Bradley*, her special talents seem to be well suited for covert work, as she has been transferred from TacFleet to Star Fleet Intelligence and assigned to the First Strike Cruiser Squadron under the command of Rear Admiral J. Scott Spadaro. Based out of Starbase Five on the Romulan Neutral Zone, their missions seem to involve operations around (and in?) the Neutral Zone and the Triangle. It has been confirmed that Captain Michael Dillinger III and Commander Kendra Zanin have been named as her two senior officers. Both are well known as the Captain and Executive Officer of the *Northampton* class cruiser U.S.S. *Bremerton*, which spent a year on a classified mission into the Triangle. Both are considered some of the Federation's top experts on this area.

Fleet Captain Anderson served as the Commanding Officer of the U.S.S. *El Dorado* (CH 1722) and U.S.S. *Kidd* (FF 3207) along the Triangle Patrol Zone. He currently serves as an instructor in defensive strategies at Star Fleet's Strike Warfare School.



U.S.S. Bradley (CS 2502)

Displacement:	192,000 mt
Overall Length:	290 m
Overall Draft:	67.5 m
Overall Beam:	141.7 m
Propulsion:	Two "Ikeda" LN-68 Mod 1 energized-energized antimatter linear warp drive units (System Contractor: Vickers Engineering Group Ltd., Cumbria, Earth) Two RSL subatomic unified energy impulse units (System Contractor: Scarbak Propulsion Systems, Earth) QASR particle beam maneuvering thrusters (System Contractor: Scarbak Propulsion Systems, Earth) "Trentis II" pulsed laser reaction control system (System Contractor: Orage Ijek, Aksajak, Andor)
Velocity:	Warp 8 Standard Cruising Speed Warp 12 Maximum Cruising Speed Warp 13 Maximum Attainable Velocity
Duration:	5 years, standard
Complement:	70 Officers 255 Enlisted Crew 0 Passengers (Normal - Up to 100 maximum) 325 Total Crew (Standard)
Embarked Craft:	1 Type SW-7 Personnel Shuttle 2 Type S-10 Shuttlepod 2 Type S-2A <i>Bee</i> Workpod 2 <i>Vigilante</i> Class Fighter

Navigation:	"Hawkeye" Warp Celestial Guidance (System Contractor: Plessey Group, Essex, Earth) NAVTAC Guidance Supplement (System Contractor: Plessey Group, Essex, Earth)
Computers:	"Sable" Duotronic III (System Contractor: Erisaffe-Zynn Space Systems, Sebaldhasta, Deneb V) <i>AEGIS</i> Mk 5 Mod 1 Fleet Fire Control System (System Contractor: RCA, New York, Earth)
Phasers:	6 banks of 2 each - RIM-12C independent twin mount (System Contractor: Augusta Anasadado, Inc, Fuzes, Venus)
Phasers:	2 banks - RSM-14B single mount (System Contractor: Augusta Anasadado, Inc, Fuzes, Venus)
Missiles:	2 tubes - Mk 7 Mod 1 (System Contractor: Skat-Rar Weapon Systems, Ezuruk, Andor)
Defense:	"Merlin" primary force field and deflector control system (System Contractor: Prentice-Schafer Inc., Marsport, Mars) Cetus Weapon System, TACAR fire-control add-on (System Contractor: Raakuv, Gaziwahaida, Andor) CGCP/SCDS cloaking generation, penetration and stasis countermeasures system (System Contractor: Hycor, Woburn, Earth)
Life Support:	MC-3E artificial gravity generator (System Contractor: Cristobal SM/S, Manila, Earth) "Rastis" radiation protection package (System Contractor: Tidjikja/Atar Associated Industries, Rastaribi, Regulus) "Cerix" waste regeneration system (System Contractor: Jullundur-Lahore Ltd., Bombay, Earth)





THE B-10 BATTLESHIP

THE KLINGON'S NEUTRAL ZONE NIGHTMARE

REAR ADMIRAL SHUTARO MENDO
FEDERATION INTELLIGENCE AGENCY - KLINGON SECTOR
APRIL 2292 EDITION

"Gentlebeings, our job just became a lot more complicated." This famous quote is attributed to Admiral Therenn, the Director of Operations for the Klingon Neutral Zone, after having been briefed on the newest vessel to come out of the Mastocol dockyards. A truly stupendous achievement in ship design for the Klingons, if built in volume they could alter the balance of power along the Neutral Zone in the Klingon's favor.

GENERAL APPEARANCE

The *B-10* battleship is easily the largest and most powerful vessel in service with any of the three major power's fleets. With a mass of 2,470,000 MT, it dwarfs the *Excelsior* class battleship.

PROPULSION AND POWER SYSTEMS

Four STN5 warp nacelles power the ship to an estimated top speed of Warp 12 and a cruising speed of Warp 10. Twin KIC-1 hydrogen impulse units provide sub-light drive.

TACTICAL SYSTEMS

The *B-10* is a veritable floating fortress and is easily a match for any vessel in the Star Fleet. Tactical systems include 16 Type 61 long-range disrupters, 8 Type 47 short-range units, 6 Type 248 photon torpedo launchers, and 10 Type 157 drone / missile launchers. The ship mounts an enhanced version of the Zigartar deflector shield, the most powerful available, and a large-scale version of the Kaekus Dom clocking device is probably fitted, as well.

COMPUTER SYSTEM

The Akami Level 16 is the most powerful Klingon shipboard computer known, so it stands to reason such a unit has been fitted, probably with additional processor and storage.

SHIPS FACILITIES

Klingon vessels are not known for their comfort, and the *B-10* is probably not much different. Scans did detect a number of large areas that could be cargo bays, training areas, or a combination of the two.

DEVELOPMENT AND CONSTRUCTION HISTORY

The *B-10* can trace its lineage back to the *B-7* battleship and *C-9* dreadnought that saw service during the early part of the Four-Year War. Both designs were reaching the end of their service lives and the Imperial Council wished to create a new series of vessels so powerful that they would crush any Federation or Romulan forces they encountered.

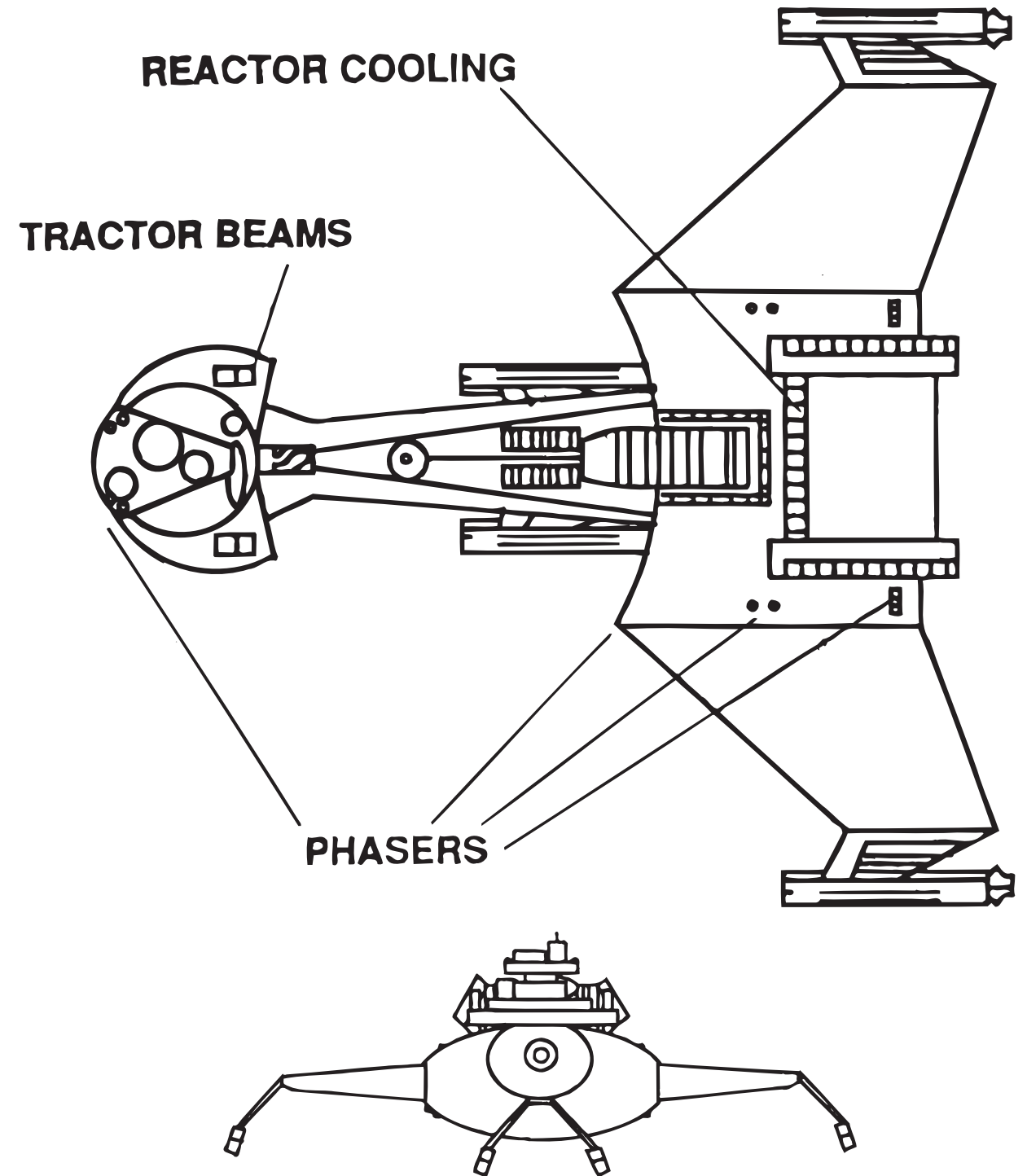
Six hulls were begun in the Mastocol yards shortly before the start of the war. However, none of them ever exceeded 25% completion. As Klingon war losses mounted, four of the ships were eventually scavenged for spare parts. In a desire to have the latest systems on board, the other two vessels would have components installed, only to be stripped out and replaced with newer ones in what became a never-ending upgrade cycle. With the Klingon defeat in the war, work was stopped and the six hulls placed in mothballs.

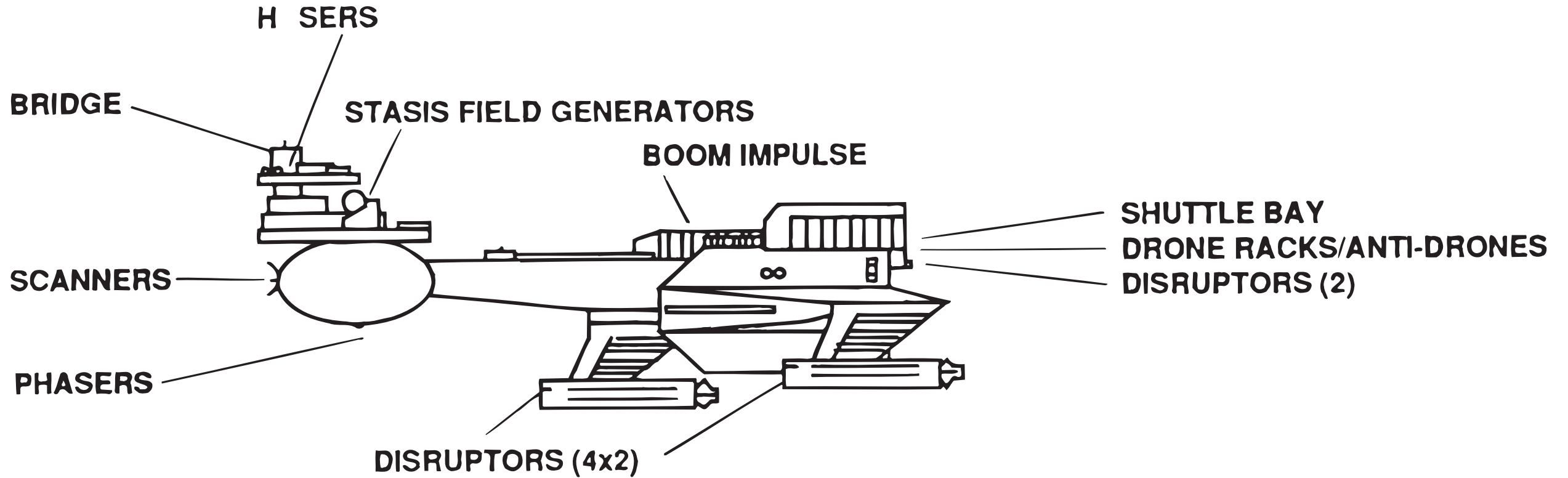
It is believed that the current emperor, K'hriss eptai Hurric, authorized the consolidation of all six hulls into one usable vessel. It is believed to be assigned as Flagship of the First Imperial Strike Flotilla. Named *K'arhamer* ("March of Death"), it is under the command of Crown Prince Kaloc. When first encountered, the vessel allowed an extensive surface scan to be performed on it, probably to let the Federation know exactly what they are up against.

CONCLUSION

According to Star Fleet Intelligence, there are no further vessels under construction, though it is possible a second vessel could be built from what is left. The new L-24 "*Ever Victorious*" class battleship seems to be well matched to the Federation *Excelsior* and Romulan *Nova* class battleships. Due to the extreme costs in materials and time, it is most probable that the *K'arhamer* is a "one of a kind" vessel to show its neighbors just what the Empire is able to produce. One can only hope this is the case.

Admiral Mendo is the Chief of Starship Analysis for Klingon Sector Intelligence and is the author of numerous books on Klingon ship designs and tactics.





B-10 Class Battleship

Displacement	2,470,000 mt
Overall Length	625.1 m
Overall Draft	218.6 m
Overall Beam	253.4 m
Propulsion:	Four STN5 dillithium conversion graph units (System Contractor: K'tchar, Komari, Quonos)
	Two KIC-1 hydrogen energy impulse units (System Contractor: Kunu Kin Fluganza, Kyanna, Quonos)
	Sech'Nar Chemical Propulsion System (System Contractor: Rajiks Wu, Xontari)
Velocity:	Warp 10.0 Standard Cruising Speed
	Warp 12.0 Maximum Cruising Speed
	Warp 13.0 Maximum Attainable Velocity
Duration:	4 years, standard
Complement:	241 Officers
	824 Enlisted Crew
	1500 Ground Troops
	2565 Total Crew (Standard)
Embarked Craft:	40
Navigation:	Druim-Blinge Vector and Tensor Analysis Unit (System Contractor: Shahkur IX)

Computers:	Akami Level 16 Central Processing Unit (System Contractor: Krum Artificial Intelligence Group, Kahat III)
	Kortuk Vwe-Cha Tactical System with Car Livak Add-On (System Contractor: Klinthis Defense, Kinkuthanza II)
Disruptors:	16 Krazen Moy Force 61 Gravitic Disruptors (System Contractor: Kalakrazin, Zaghlud)
	8 Ovlarka Moy Force 47 Gravitic Disruptors (System Contractor: Boskon Weapons Facility, Bosklave)
Missiles:	6 T Yagust Force 248 Magno-Photon Projectile Launchers (System Contractor: Char'Yagust, Yik'Cha, Quonos)
	6 T Yagust Force 157 Magno-Photon Projectile Launchers (System Contractor: Char'Yagust, Yik'Cha, Quonos)
Defense:	Zigartar Deflector Plating and Generation (System Contractor: Frich Tigar, Tomanki Military Outpost, Tomar IV)
	Kaekus Dom Improved Cloaking Generator (System Contractor: Kiktar, Quonos)
Life Support:	Bar'Shak (System Contractor: Trin'shak, Sif III)





THE U.S.S. KI RIN

A NEW TWIST ON THE STRIKE CRUISER CONCEPT

CAPTAIN LUM MOROBOSHI
MK. 20 (BRADLEY CLASS) STARSHIP DEVELOPMENT PROJECT
APRIL 2292 EDITION

With twenty vessels currently commissioned, the *Belknap* (Mk. 20) class is one of the most successful ship classes in current service. These vessels currently in service are stationed along the Romulan Neutral Zone and as part of scientific task forces centered around *Tikopai* exploratory cruisers.

Due to their success on the Romulan Neutral Zone, it was decided to deploy some of these task forces along the Klingon Neutral Zone to free up the *Enterprise* class cruisers currently on assignment there to perform the exploratory roles for which they were designed. Though on paper the *Belknaps* were a match for the Klingon counterparts, in reality they were outgunned as the Klingons usually travel in groups of two or three ships.

DEVELOPMENT AND CONSTRUCTION HISTORY

Though the program did not work out as hoped, Star Fleet continued to show interest in replacing the *Enterprise* with the *Tikopai*. Star Fleet commissioned a design study of improving the tactical systems of the *Belknap* so that it could better hold it's own against the Klingons. This new program was named the Improved Strike Cruiser Concept. The U.S.S. *Ki Rin* (CS 2539) was currently under construction and it was decided to use this starship as the platform to test the

new systems.

PROPULSION AND POWER SYSTEMS

The *Ki Rin* was already scheduled to receive the "Ikeda" LN-68 Mod 1 linear warp drive unit, so no additional modifications to the power plant were necessary. The standard Scarbak Propulsion Systems RSL impulse drive unit was replaced with the more powerful RSM.

TACTICAL SYSTEMS

The standard weapons mix of eight RIM-12C and one RSM-14B phaser banks were improved to the RIM-15A/RSM-20B units standard on the *Enterprise* class heavy cruiser. The Mk 7 Mod 1 photon torpedo system was also upgraded to the *Enterprise (II)*'s Mk 70 Mod 2 specification. The "Merlin" force field deflector system and Kotri CIDSS (Close-In Deflector Shield System) deflector supplement was installed. The CETIS / TACAR fire-control system with the 2016L "Sneaky Pete" sensor system, 25/ADA countermeasures support system, and a Link 22 communications core were also installed.

AEGIS was considered for the *Ki Rin*, but scrapped due to cost considerations and the fact that these vessels were designed to operate independently.

TRIALS AND TESTING

The *Ki Rin* was laid down on July 6, 2285 at the Cosmodyne Shipyards on Earth. The vessel was completed on May 23, 2288, and proceeded to the Asdai Testing Range for a strenuous set of shakedown and acceptance trials on the DCP systems. Post-Shakedown Availability was begun on January 2, 2289, and finished on March 11. She was commissioned into TacFleet on April 8, 2289.

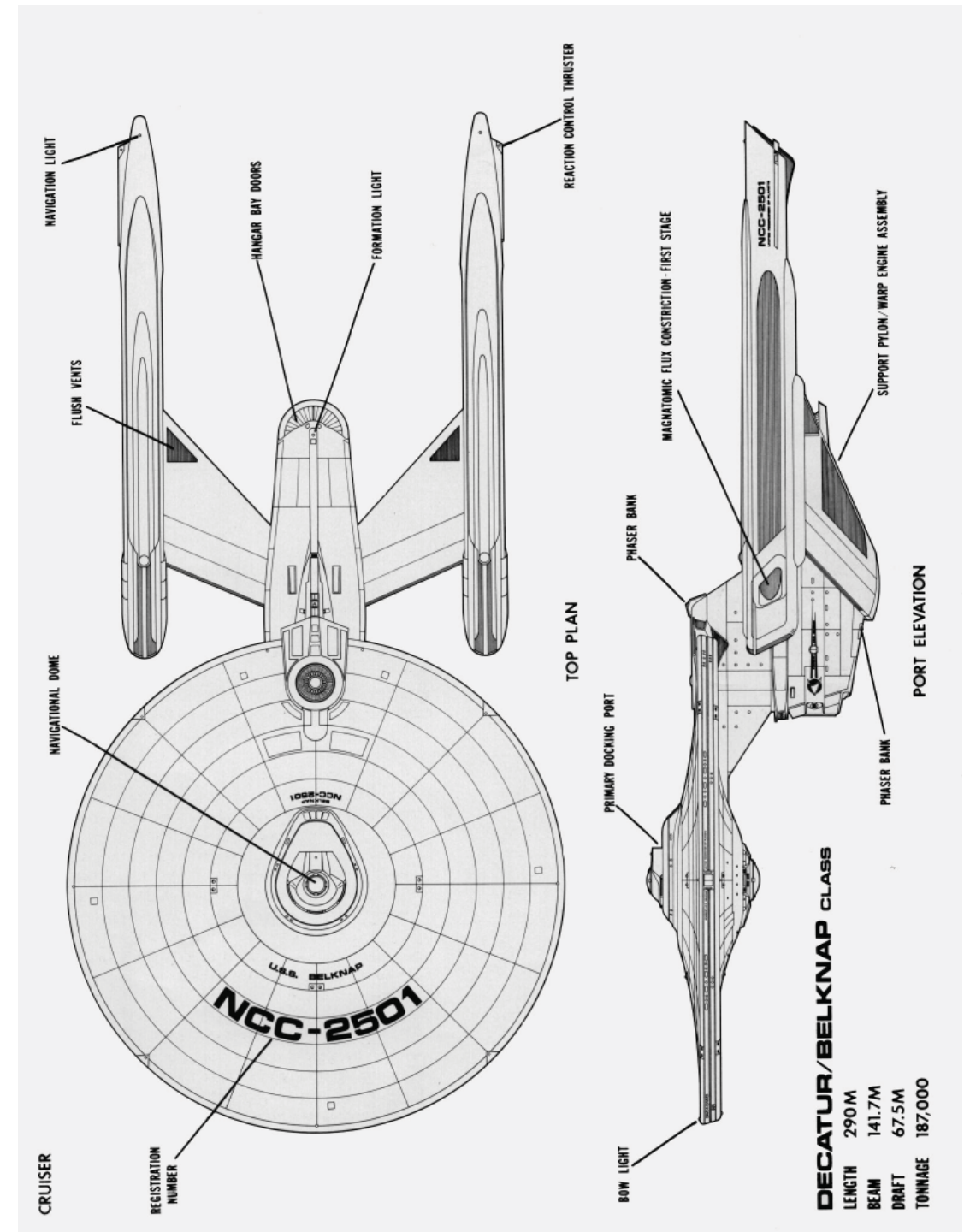
OPERATIONAL DISPOSITION

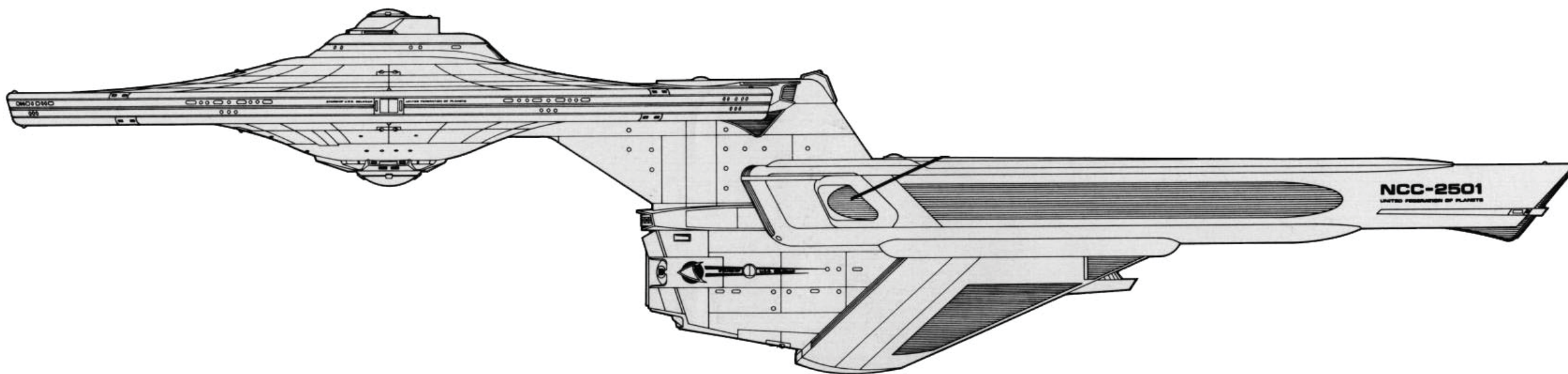
The *Ki Rin* was assigned to Task Force 18 based out of Starbase 27. She took part in the annual Solar Wind Fleet Exercises and performed markedly better against simulated Klingon forces than her "conventional" sisters.

CONCLUSION

Additional vessels of this type are being planned — most probably *Sur Cha*, *Mira*, *Aveley*, and *Alor* which are now either under construction or preparing to be laid down. It is also possible that additional vessels of the *Excel* (CS 2545) series will be built to this specification. Another proposal has been forwarded to use *Avenger* or *Chandley* class heavy frigates in a protection role for *Tikopai*'s, as these ships have proven to be well-matched against Klingon forces. However, with the *Ki Rin* showing herself to be quite capable for the role, and with new vessels already in the shipyards, it seems likely that this class will fill the escort role.

Captain Moroboshi is a member of the Mk. 20 Starship Development Project. She is one of the designers of the Improved Strike Cruiser concept.





U.S.S. Ki Rin (CS 2539)

Displacement:	189,000 mt
Overall Length:	290 m
Overall Draft:	67.5 m
Overall Beam:	141.7 m
Propulsion:	Two "Ikeda" LN-68 Mod 1 energized-energized antimatter linear warp drive units (System Contractor: Vickers Engineering Group Ltd., Cumbria, Earth)
	Two RSM subatomic unified energy impulse units (System Contractor: Scarbak Propulsion Systems, Earth)
	QASR particle beam maneuvering thrusters (System Contractor: Scarbak Propulsion Systems, Earth)
	"Trentis II" pulsed laser reaction control system (System Contractor: Orage Ijek, Aksajak, Andor)
Velocity:	Warp 8 Standard Cruising Speed
	Warp 12 Maximum Cruising Speed
	Warp 13 Maximum Attainable Velocity
Duration:	5 years, standard
Complement:	70 Officers
	255 Enlisted Crew
	0 Passengers (Normal - Up to 100 maximum)
	325 Total Crew (Standard)
Embarked Craft:	1 Type SW-7 Personnel Shuttle
	2 Type S-10 Shuttlepod
	2 Type S-2A <i>Bee</i> Workpod
	0 <i>Victory</i> Class Fighter

Navigation:	"Hawkeye" Warp Celestial Guidance (System Contractor: Plessey Group, Essex, Earth)
	NAVTAC Guidance Supplement (System Contractor: Plessey Group, Essex, Earth)
Computers:	"Sable" Duotronic III (System Contractor: Erisaffe-Zynn Space Systems, Sebaldhasta, Deneb V)
Phasers:	6 banks of 2 each - RIM-15A independent twin mount (System Contractor: Augusta Ansadado, Inc, Fuzes, Venus)
Phasers:	2 banks - RSM-20B single mount (System Contractor: Augusta Ansadado, Inc, Fuzes, Venus)
Missiles:	2 tubes - Mk 70 Mod 2 (System Contractor: Skat-Rar Weapon Systems, Ezuruk, Andor)
Defense:	"Merlin" primary force field and deflector control system (System Contractor: Prentice-Schafer Inc., Marsport, Mars)
	Cetis Weapon System, TACAR fire-control add-on (System Contractor: Raakuv, Gaziwahaida, Andor)
	CGCP/SCDS cloaking generation, penetration and stasis countermeasures system (System Contractor: Hycor, Woburn, Earth)
Life Support:	MC-3E artificial gravity generator (System Contractor: Cristobal SM/S, Manila, Earth)
	"Rastis" radiation protection package (System Contractor: Tidjikja/Atar Associated Industries, Rastaribi, Regulus)
	"Cerix" waste regeneration system (System Contractor: Jullundur-Lahore Ltd., Bombay, Earth)





THE ADELAIDE CLASS IMPROVED PERIMETER ACTION SHIP

SPEED, STRENGTH, AND STAMINA

REAR ADMIRAL JOHN BERNARD
CHAIRMAN - STAR FLEET ADVANCED STARSHIP DESIGN BUREAU
OCTOBER 2305 EDITION

At one hundred and five vessels delivered between 2286 and 2292, the *Akyazai* class Perimeter Action Ship Program was the second-largest shipbuilding program ever. Though the most potent of the three sub-classes, the twenty-five ships of the *Akula* sub-class were not nearly as stealthy as their *Akyazi* and *Arbiter* sisters due to the Bia deflector pod assembly that extends forty meters from the bottom of the propulsion package support assembly. Due to these shortcomings, it was decided not to use *Akulas* in conjunction with missions run by either Project Gray Ghost or Operation Dixie. In order to address these issues, Star Fleet decided to commission a design study for an "Improved" Perimeter Action ship, eventually resulting in the 10 vessels of the *Adelaide* class.

GENERAL APPEARANCE

The *Adelaide* class is identical to an A-variant *Akula* class PA without the Bia deflector pod assembly. This drastically lowers the sensor profile and makes the craft far stealthier. Otherwise, only subtle changes differentiate the *Adelaide* class from their sister craft or, for that matter, from each other.

PROPULSION AND POWER SYSTEMS

The *Adelaide* class uses the Vickers Engineering Group's LN-94 "Kratos" warp drive, virtually identical to the A-variant *Akula*'s. However, the drive unit has undergone further modifications and refinements over the last few years, resulting in the LN-94B designation for the drive units implemented on the last two hulls, *Sophie* and *Clarksdale*. The improvements are mainly to be found in the area of Matter/Anti-matter management and interfacing. According to published specifications the LN-94 is capable of a 7% performance increase at cruising velocity, but with a theoretical 3% increase in performance at maximum warp velocity. These modifications will eventually be incorporated into the other vessels during routine maintenance cycles. Relieved of the mass and drag of the Bia pod, the *Adelaide* currently holds the distinction of being fastest ship in Fleet service, the lead vessel attaining a top speed of Warp 24.2 in trials. Cruising speed is Warp 10 with a top sustained speed of Warp 17.

TACTICAL SYSTEMS

The *Adelaide* class carries the same tactical suite as the *Akula*. However, output levels and dwell times of the JAKA-2 and JAKA-5 phaser units have been increased 5% and 10%, respectively.

The loss of the Bia deflection pod has been offset through the inclusion of the "Iulus" Protective Envelope system developed for the *Arbiter* class. The "Iulus" system is a heavy drain on ship's power, but the more powerful LN-94 warp drive helps counterbalance this. Podi Aschura deflection spires have also been fitted, though they are about half as efficient as the Bia unit. Grid redistribution of the Merlin II deflector system has increased total deflector power by about 10%. The end result is the *Adelaide* is the most powerful and powerfully shielded PA in Fleet service.

COMPUTER SYSTEM

The standard Daystrom Data Systems "Perim" M-9 Duotronic IV with Farranti Mnemonics' Datatac support subsystem is used on the *Adelaide* class.

SHIPS FACILITIES

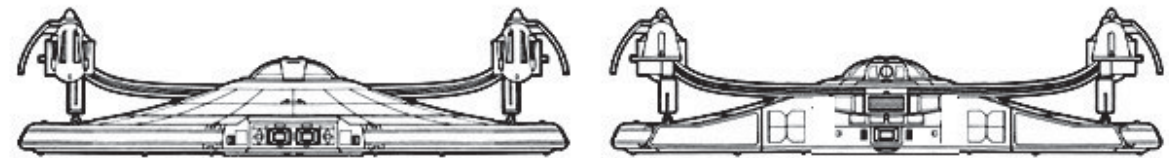
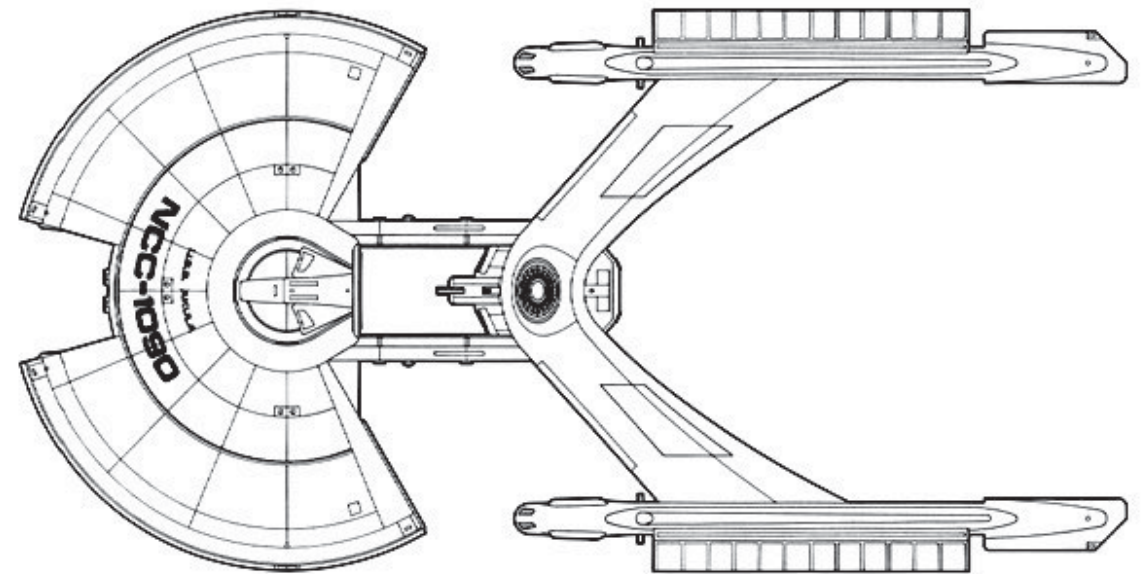
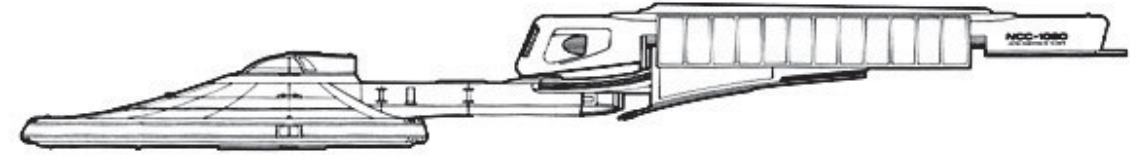
The *Adelaide* carries a slightly larger officer and crew compliment (3 more and 6 more, respectively), but all ships facilities are identical to those found on the *Akula* class.

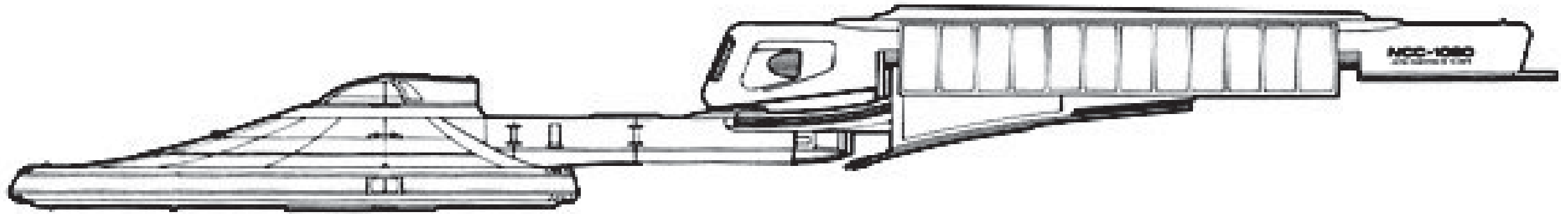
DEVELOPMENT AND CONSTRUCTION HISTORY

The *Adelaide* class was approved for construction in 2293 and completion of all ten hulls was completed by early 2396.

CONCLUSION

The *Adelaide* class takes the best elements of the *Akyazi*, *Arbiter*, and *Akula* classes and combines them into a single platform. However, as Star Fleet approaches the 24th century, the profile and scale of ships deployed across the known universe had begun to change. Perimeter Action ships found themselves facing increasingly difficult odds when confronted with ships that more often than not would feature equal or even superior tactical systems. With this in mind, in late 2295, Star Fleet decided to cancel the construction of the remaining 12 hulls of the *Adelaide* class. Though 10 completed hulls have proven themselves to be a capable performers, no additional vessels are planned at this time, though current plans call for the *Akyazi* and *Arbiter* sub-classes to undergo modification to the *Adelaide's* specs as they reach their SLEP.





Adelaide Class Perimeter Action Ship

Displacement:	75,500 mt
Overall Length:	215.8 m
Overall Draft:	28.6 m
Overall Beam:	120.2 m
Propulsion:	Two "Kratos" LN-94 Mod 1 energized-energized antimatter linear warp drive units (System Contractor: Vickers Engineering Group Ltd., Cumbria, Earth) Two "Delrum" CME-A subatomic unified energy impulse units (System Contractor: Orage Ijek, Aksajak, Andor) QASR particle beam maneuvering thrusters (System Contractor: Scarbak Propulsion Systems, Earth) "Trentis II" pulsed laser reaction control system (System Contractor: Orage Ijek, Aksajak, Andor)
Velocity:	Warp 10 Standard Cruising Speed Warp 17 Maximum Cruising Speed Warp 24 Maximum Attainable Velocity
Duration:	2 years, standard
Complement:	10 Officers 80 Enlisted Crew 0 Passengers (Normal - Up to 10 maximum) 90 Total Crew (Standard)
Embarked Craft:	0 Type SW-7 Personnel Shuttle 1 Type S-10 Shuttlepod 1 Type S-2A <i>Bee</i> Workpod 0 <i>Victory</i> Class Fighter

Navigation:	"Owl's Eye" Warp Celestial Guidance (System Contractor: Valdemar NCS Inc., Copenhagen, Earth)
Computers:	"Illorin" Duotronic IV with Datatac Supplement (System Contractor: Kuchata Pratus Ikyla)
Phasers:	6 banks of 2 each - JAKA-2 independent twin mount (System Contractor: Asakaze Ordnance Systems, Hiroshima, Earth)
Phasers:	2 banks - JAKA-5 single mount (System Contractor: Asakaze Ordnance Systems, Hiroshima, Earth)
Missiles:	2 tubes - Mk 5 Mod 1 (System Contractor: Skat-Rar Weapon Systems, Ezuruk, Andor)
Defense:	"Merlin II" primary force field and deflector control system (System Contractor: Prentice-Schafer Inc., Marsport, Mars)
Life Support:	MC-3E artificial gravity generator (System Contractor: Cristobal SM/S, Manila, Earth) "Rastis" radiation protection package (System Contractor: Tidjikja/Atar Associated Industries, Rastaribi, Regulus) "Cerix" waste regeneration system (System Contractor: Jullundur-Lahore Ltd., Bombay, Earth)





THE NORMANDY CLASS SUPERCARRIER

BOLDLY GOING INTO HARM'S WAY

MAJOR GENERAL LES RICKARD
COMMANDER - SECOND MARINE EXPEDITIONARY GROUP
COMMANDING OFFICER - STARSHIP U.S.S. NORMANDY • NCC-36000
OCTOBER 2305 EDITION

With the commissioning of the U.S.S. *Malverne* in 2292, it seemed that the shuttlecarrier program was at an end. With no solid role in place, the Federation Council refused to authorize funding to construct the additional four vessels requested by Star Fleet. The combining of the SCS and *Excelsior* class proposals to create the *Ingram* class helped drive a nail into the shuttlecarrier's coffin.

When the U.S.S. *Ingram* entered service, the Star Fleet Marine Corps looked long and hard at it as a possible platform for planetary operations. Current deployment structure mandated the use of *Makin* and *Continent* class assault ships. While capable of carrying large numbers of troops and their equipment, these vessels were slow and woefully underdefended. The high speed and strong tactical suite of the *Ingram* class looked to form a far stronger platform. However, the *Ingram* was plagued with teething problems and the price of the vessel skyrocketed, resulting in the approval of only two more vessels.

Malverne herself had undergone modification to a fighter-carrier role while under construction and during Operation Solar Wind the ship worked well in conjunction with the assault ships. In operational deployments, however, the slower speeds of the assault ships would hinder the mobility of the *Malverne* to quickly reach hotspots.

Marine and Fleet officers, working in secret at the Star Fleet Sol Weapons Proving Grounds, had developed a new class of carrier designed to address the needs of both Fleet and the SFMC. This design was submitted to the Star Fleet Spacecraft Design Advisory Commission in 2298.

GENERAL APPEARANCE

The *Normandy* class uses the secondary hull of the *Ariel* class with the primary hull of the *Kirov* class. The larger primary hull allows the embarkation of up to a battalion of Marines and their equipment while the secondary hull carries their fighters and dropships.

PROPULSION AND POWER SYSTEMS

To keep the performance of the *Normandy* class on par with that of the *Ariel* class, the LN-65A Mod 1 drive was improved to the LN-65B Mod 1 specification. Retuning of the warp conduits and plasma system resulted in a 10% power boost. The three RSQ and two RST impulse drive units used on the *Ariel* also perform the same function on the *Normandy*.

TACTICAL SYSTEMS

The *Normandy* uses the same RIM-12C twin-mount and RSM-14B single mount turreted phaser as the *Ariel* and *Kirov* classes, mounting six of each. Like the *Ariel*, the *Normandy* depends more on her escort screen for protection than her own weapons. The "Arthur" shield system and "Oracle" fire-control systems are also carried-over from the *Ariel*.

COMPUTER SYSTEM

The *Normandy* is only the second class to use the Daystrom Data Systems "Daystrom" Duotronic III with the Multitronic M7 supplement, the first being the *Enterprise* class.

SHIPS FACILITIES

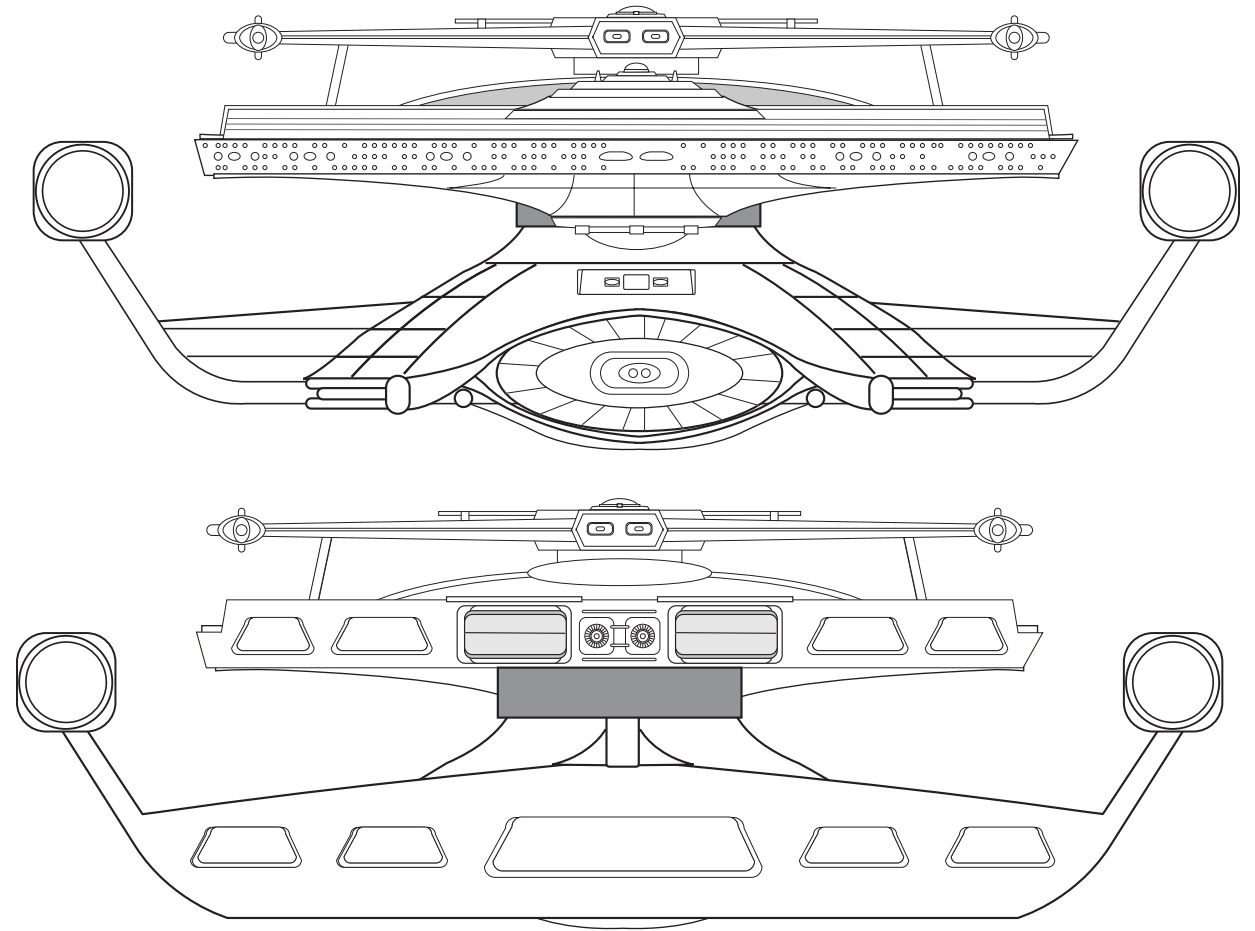
The *Normandy* carries one hundred more enlisted than the *Ariel*, mostly in support roles for the Marines and their equipment. The larger primary hull offered by using the *Kirov* allows additional training facilities to be installed.

DEVELOPMENT AND CONSTRUCTION HISTORY

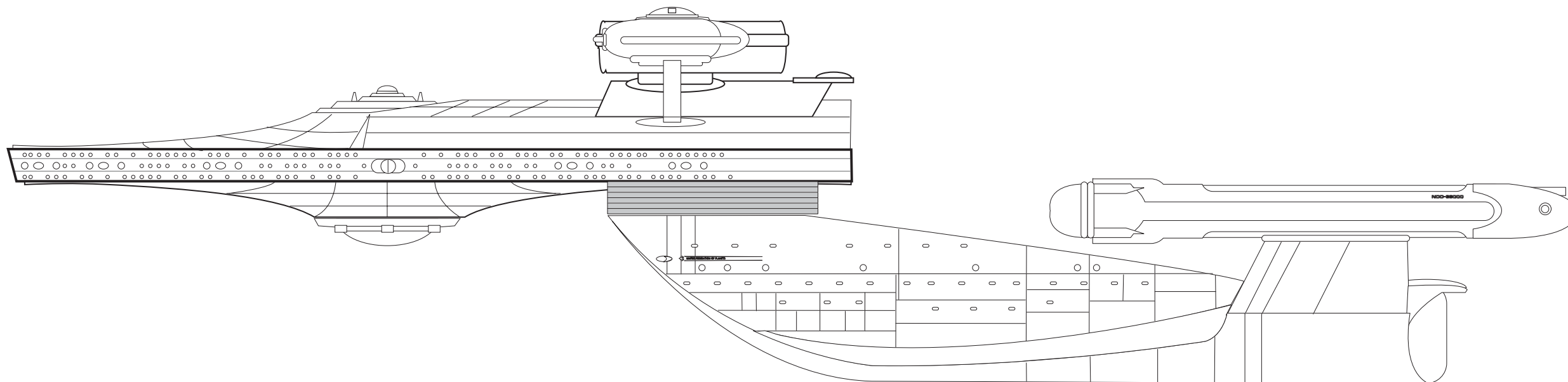
The *Normandy* class was officially submitted to the SSDAC on July 4th, 2298. It immediately ran into trouble with that body, who felt that its similarity to the *Ariel* and *Frederickstaad* classes would probably not pass the Federation Council. However, an unexpected booster of the project was the Federation Intelligence Agency, who successfully lobbied the Security Council for development funding. The ship was passed to the ASDB, which began to actually work out the parameters of the design. This was completed in 2303 and the project was formally approved for production. The keel was laid on February 14th, 2304 at the San Francisco Fleet Yards (the only facility large enough to build her).

CONCLUSION

Normandy is expected to be completed in 2310. The SFMC has requested a total of five vessels, but the Council has ordered a complete and thorough shakedown and test of the U.S.S. *Normandy* herself before any other vessels are built. There is also talk of converting *Malverne* and *Frederickstaad* to similar roles, as such a conversion cost would be far cheaper than building another *Normandy* class. However, it is not known how the smaller primary hull would affect the suitability of such a conversion.



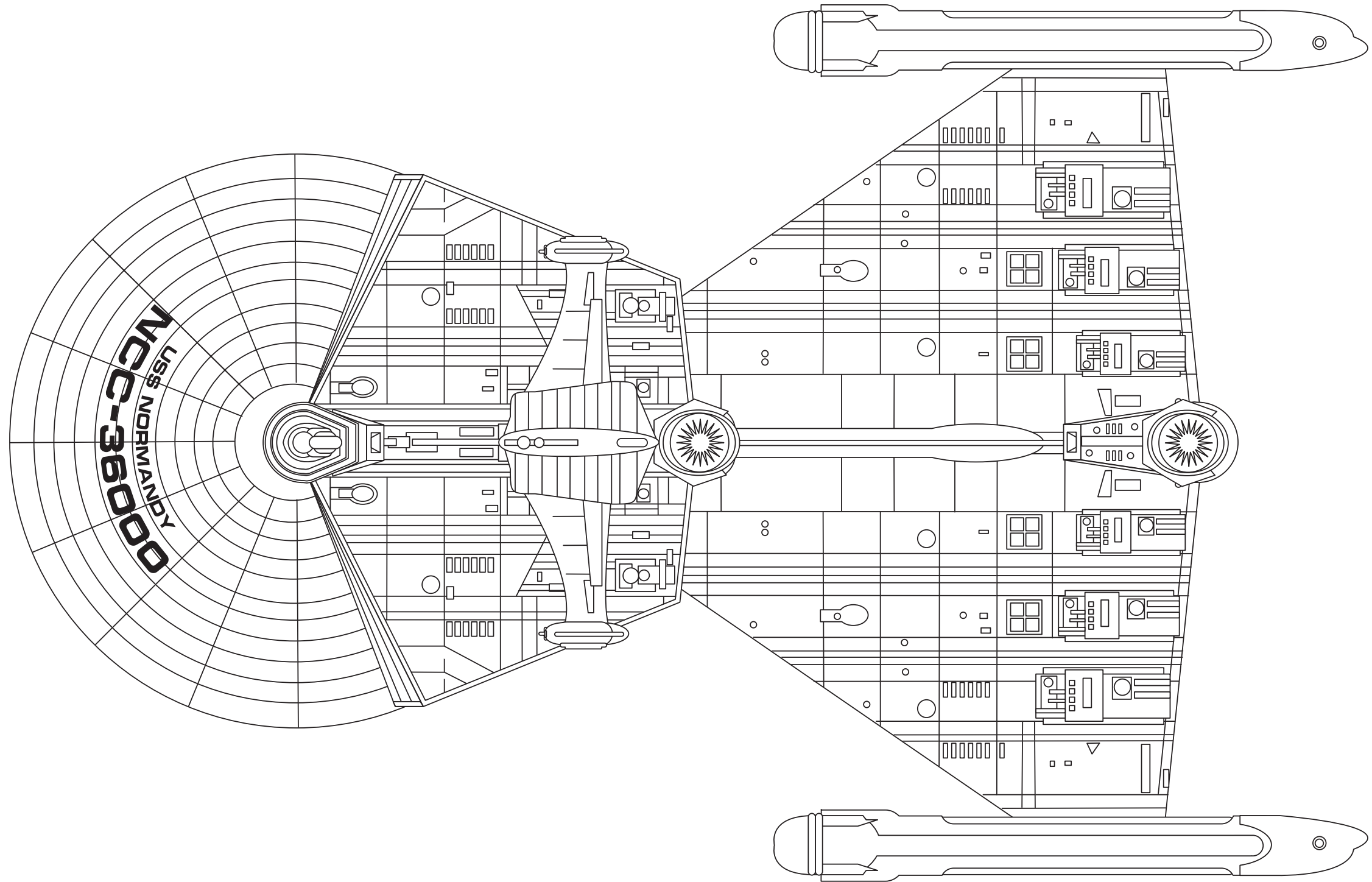
General Rickard is the Commander of the Second Marine Expeditionary Group, as well as Commanding Officer of the U.S.S. *Normandy*.



Normandy Class Supercarrier

Displacement:	1,752,000 mt
Overall Length:	516.1 m
Overall Draft:	95.2 m
Overall Beam:	316.1 m
Propulsion:	Two LN-65B Mod 1 dilithium-energized antimatter linear warp drive units (System Contractor: Cochrane Warp Dynamics, Minos al Rijil, Alpha Centauri VII)
	Three RSQ subatomic unified energy impulse units (System Contractor: Scarbak Propulsion Systems, Earth)
	Two RST subatomic unified energy impulse units (System Contractor: Scarbak Propulsion Systems, Earth)
	"QASR" particle beam maneuvering thrusters (System Contractor: Scarbak Propulsion Systems, Earth)
	"Trentis II" pulsed laser reaction control system (System Contractor: Orage Ijek, Aksajak, Andor)
Velocity:	Warp 10 Standard Cruising Speed
	Warp 12 Maximum Cruising Speed
	Warp 14 Maximum Attainable Velocity
Duration:	5 years, standard
Complement:	224 Officers
	618 Enlisted Crew
	1000 Marines
	0 Passengers (Normal – Up to 50 maximum)
	842 Total Crew (Standard)

Embarked Craft:	5 Type SW-7 Personnel Shuttle
	5 Type S-10 Shuttlepod
	5 Type S-2A <i>Bee</i> Workpod
	10 <i>Victory</i> Class Fighter
	40 <i>Vigilante</i> Class Fighter
Navigation:	"Artos" Warp Celestial Guidance (System Contractor: Mandor Industries Ltd., Dalhalam, Delta IV)
Computers:	"Daystrom" Duotronic III with Multitronic M-7 Supplement (System Contractor: Daystrom Computer Systems, Lunaport, Luna)
Phasers:	6 banks of 2 each – RIM-15C independent twin mount (System Contractor: Agusta Anasadado, Inc, Fuzes, Venus)
Phasers:	6 banks – RSM-20B single mount (System Contractor: Agusta Anasadado, Inc, Fuzes, Venus)
Defense:	"Arthur" primary force field and deflector control system (System Contractor: Prentice-Schafer Inc., Marsport, Mars)
	Cetis Weapon System, TACAR fire-control add-on (System Contractor: Raakuv, Gaziwahaida, Andor)
	CGCP/SCDS cloaking generation, penetration and stasis countermeasures system (System Contractor: Hycor, Woburn, Earth)
Life Support:	MC-3E artificial gravity generator (System Contractor: Cristobal SM/S, Manila, Earth)
	"Rastis" radiation protection package (System Contractor: Tidjikja/Atar Associated Industries, Rastaribi, Regulus)
	"Cerix" waste regeneration system (System Contractor: Jullundur-Lahore Ltd., Bombay, Earth)





U.S.S. EXCELSIOR GOLDEN ANNIVERSARY

THE "GREAT EXPERIMENT" TURNS FIFTY

REAR ADMIRAL ELUZA ONARI
STAR FLEET OPERATING FORCE - TAC FLEET
OCTOBER 2336 EDITION

When commissioned in 2286, the USS *Excelsior* (CH 2000) was dubbed "The Great Experiment" due to her Koëller Uti K27 transwarp drive. When the drive proved to be a failure and the ship was returned to Space Dock to be fitted with traditional warp engines, some thought the a class that started with so much potential would end up being a white elephant.

How wrong they were. The *Excelsior* recently celebrated her fiftieth year in service and looks strong to celebrate a century come 2385. Over fifty sisterships have joined her, and production continues at the rate of five vessels per annum.

There are three distinct sub-classes of the *Excelsior*. The "original" version remains the most popular, with thirty vessels in service. When transwarp encountered serious troubles during her first test runs, Star Fleet decided to halt production of the second vessel, USS *Ingram*, while in the yards. When construction resumed a few months later, the ship was extensively modified to a Space Control Ship format. The design proved convincing enough that the fourth through fifth vessels were also built to this format.

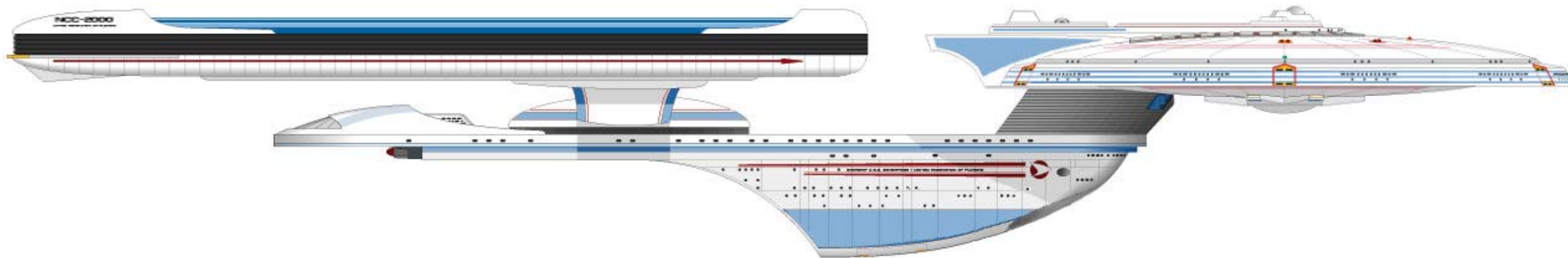
Excelsior herself was expected to be converted to *Ingram* specifications and the program ended. However, her Commanding Officer, Captain Hikaru Sulu of USS *Enterprise* fame, put forward an intriguing option — turn the ship into an explorer, ala the heavy cruiser fleet. The plan

was agreed (mainly because it was far cheaper than converting the ship into an *Ingram*) and while conventional warp drive units were being installed, the ships already impressive sensor and laboratory suite were improved even more. The ship was re-launched in 2290 and began a three-year research mission to cataloging planetary atmospheric anomalies. The ship performed amazingly well, and *Columbia* (BB 2002) was built to the same specifications.

The third version of the *Excelsior* began shortly after it was decided to retire the USS *Enterprise* (CH 1701-A) in 2292. Two large sensor pods were placed to either side of the main deflector dish, housing either a scientific or a surveillance package. *Enterprise* (CH 1701-B) was chosen as the name for the first of these vessels and an additional nine were built over the years (three more surveyors, like *Enterprise* and six surveillance models, three each sent to the Romulan and Klingon borders).

All *Excelsior* Class vessels mount an extremely powerful tactical suite, befitting their original battleship classification. As such, they are quite capable of operating in forward areas without need of escorts.

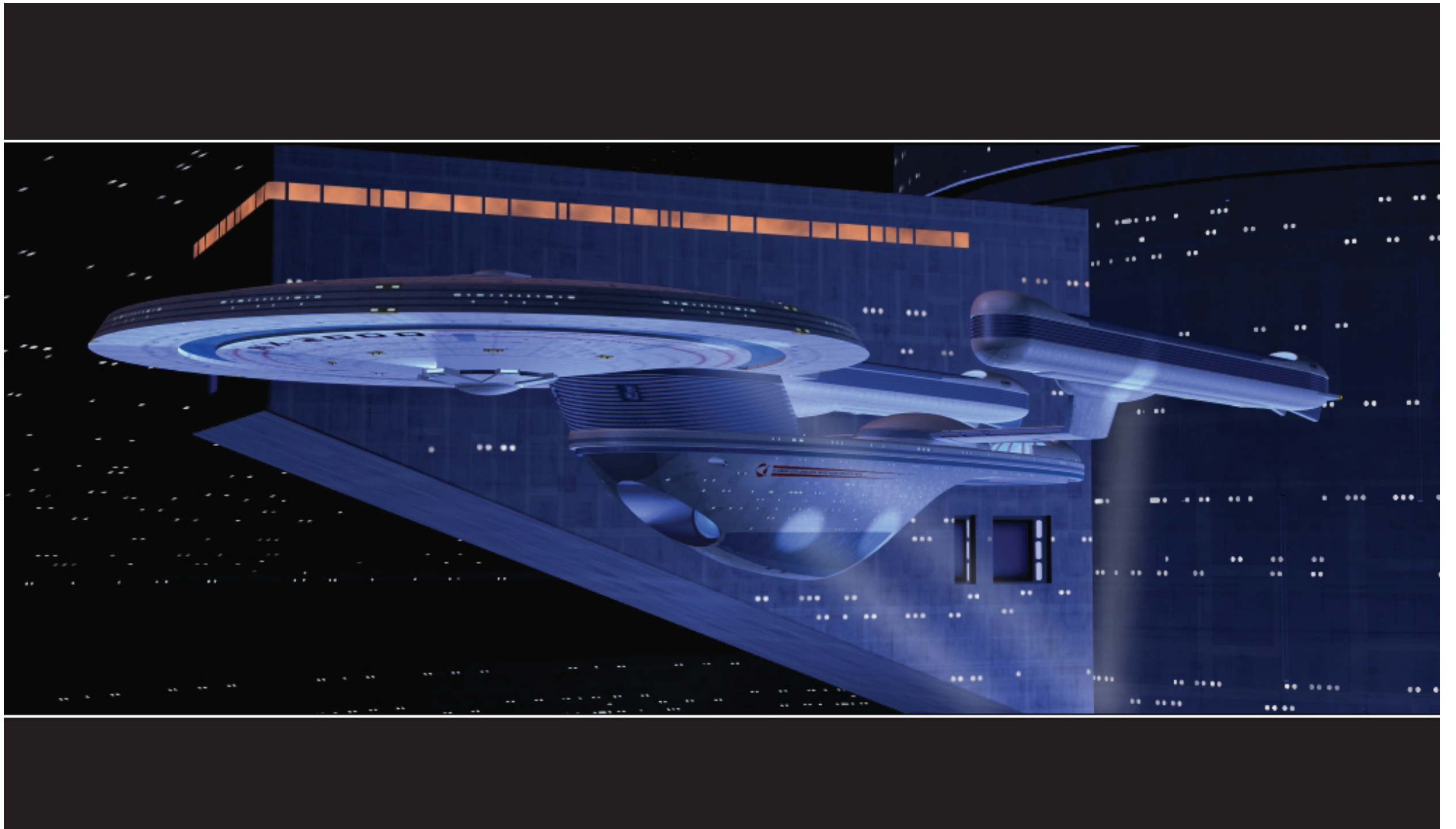
Rear Admiral Onari serves with TacFleet and is in charge of *Excelsior* Class starship deployments.



Excelsior Class Heavy Cruiser

Displacement:	1,534,610 mt
Overall Length:	467 m
Overall Draft:	78 m
Overall Beam:	186 m
Propulsion:	Two K-27 Mod 1 dilithium-energized antimatter linear warp drive units (System Contractor: Koëller Uti, Stuttgart, Earth)
	Two LN-72 Mod 1 dilithium-energized antimatter linear warp drive units (System Contractor: Shuvinaaljis Warp Technologies, Vulcan)
	Two SANTH-H subatomic unified energy impulse units (System Contractor: Scarbak Propulsion Systems, Earth)
	"QASR" particle beam maneuvering thrusters (System Contractor: Scarbak Propulsion Systems, Earth)
	"Trentis II" pulsed laser reaction control system (System Contractor: Orage Ijek, Aksajak, Andor)
Velocity:	Warp 15 Standard Cruising Speed
	Warp 18 Maximum Cruising Speed
	Warp 20 Maximum Attainable Velocity
Duration:	5 years, standard
Complement:	100 Officers
	450 Enlisted Crew
	0 Passengers (Normal - Up to 50 maximum)
	550 Total Crew (Standard)

Embarked Craft:	5 Type SW-7 Personnel Shuttle
	5 Type S-10 Shuttlepod
	5 Type S-2A <i>Bee</i> Workpod
	5 <i>Victory</i> Class Fighter
	5 <i>Vigilante</i> Class Fighter
Navigation:	RAV / ISHAK Mod 1 Warp Celestial Guidance (System Contractor: Tlixis Ramab RRB, Coridan III)
Computers:	"Daystrom" Duotronic IV with Multitronic M-9 Supplement (System Contractor: Daystrom Computer Systems, Lunaport, Luna)
Phasers:	10 banks of 2 each - RIM-15A independent twin mount (System Contractor: Agusta Anasadado, Inc, Fuzes, Venus)
Phasers:	4 banks - RSM-20B single mount (System Contractor: Agusta Anasadado, Inc, Fuzes, Venus)
Missiles:	4 tubes - Mk 70 Mod 2 Direct (System Contractor: Skat-Rar Weapon Systems, Ezuruk, Andor)
Defense:	"Merlin" primary force field and deflector control system (System Contractor: Prentice-Schafer Inc., Marsport, Mars)
Life Support:	MC-3E artificial gravity generator (System Contractor: Cristobal SM/S, Manila, Earth)
	"Rastis" radiation protection package (System Contractor: Tidjikja/Atar Associated Industries, Rastaribi, Regulus)
	"Cerix" waste regeneration system (System Contractor: Jullundur-Lahore Ltd., Bombay, Earth)





APPENDICES

ABOUT THE PUBLISHING TEAM



Chief Editor and Publisher: Admiral Chris Wallace

The current Chief of Star Fleet Operations, Admiral Wallace also served as the Executive Director of the *Galaxy* and *Galaxy (II)* Class starship development projects and is a former Chairman of the Advanced Starship Design Bureau. He was the Commanding Officer of both the U.S.S. *Bright Star* and U.S.S. *Galaxy*.



Project Coordinator: Captain Belldandy Morisato

Captain Morisato has served as the Project Coordinator for most of DTS and ASDB's technical publications. She is the Executive Officer of the U.S.S. *Bright Star*.



Layout Consultant: Sakura Shinguji

Ms. Shinguji serves as the Director of Publications for Panda Press Interstellar.



Strategic Editor: Commander Natsumi Tsujimoto

Commander Tsujimoto serves as the Tactical Officer aboard the U.S.S. *Bright Star* and served on the battle planning and management staffs for most of the Dominion War's largest engagements.



Production Editor: Rear Admiral Kurt Roithinger

The former commander of the *Space Station Nexus*, Rear Admiral Roithinger has worked on a number of Star Fleet projects.



Technical Editor: Admiral Alex Rosenzweig

Admiral Rosenzweig is the current Director of the Star Fleet Department of Technical Services, as well as the Director of the Office of Technical Information. He has chaired numerous Star Fleet committees and panels, including the commission that oversaw the loss of the U.S.S. Enterprise at Veridian III.



Engineering Consultant: Lieutenant Commander Skuld

The Chief Engineering Officer of the U.S.S. *Bright Star*, Commander Skuld served on the *Galaxy (II)* Class Starship Development Project and is considered one of the top field engineers in Star Fleet.



Systems Analyst: Rear Admiral Carsten Pedersen

Considered one of the premiere designers at Star Fleet R&D, Admiral Pedersen has lent his talents to most of the starship designs put into production over the past decade.



Naval Liaison: Rear Admiral John Scharmen

Admiral Scharmen serves as the Naval Liaison between Star Fleet Operations and the Star Fleet Spacecraft Design Advisory Commission.



Graphics: Commodore David Pipgras

Commodore Pipgras is the Director of the Region Five Office of Graphic Design.



Historical Liason: Lieutenant General Scott A. Akers

General Akers serves as the Chief Historian of Star Fleet and assisted with the background histories of each class.



Support Staff: Doctor Rick Sternbach

Doctor Sternbach serves on the Advanced Propulsion Unit of the Advanced Starship Design Bureau. He was a senior member of the *Galaxy*, *Sovereign*, *Intrepid*, and *Defiant* Class Starship Development Projects.



Support Staff: Doctor Michael Okuda

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Support Staff: Doctor Graham Kennedy

A senior analyst with the Daystrom Technical Institute, Doctor Kennedy provided technical data for this publication.



Senior Consultant: Dr. Bernd Schneider, PhD.

Dr. Schneider is the Dean of the School of Astronautics at Annapolis. He is considered an expert of Vulcan and other alien spacecraft and has written numerous articles for PPI.

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Belknap Class Strike Cruisers in formation: Image by Mateen Greenway. Model by Eric Peterson.

Akyazai Class PA: Image and model by Andrew J. Hodges.

Excelsior in Space Dock: Image by Cameron Wu. Models by Peter Savin.

Excelsior Under Attack: Image by Anarion. Model by Peter Savin.

AUTHOR'S NOTES

Welcome to [The Best of Dockyard Review](#). Since 1997, [Dockyard Review](#) has showcased ships from 2290 to 2380, as well as articles on starship technologies. When I created [Ships of the Star Fleet: 2378](#) in 1999, many of the starship articles in [Dockyard Review](#) were the starting point for the ship entries. These entries were fleshed out and, in some cases, came to directly contradict what was in [Dockyard Review](#) as new information become available. I spent all my time on [SOTSE](#) and essentially "abandoned" updating the original articles in [Dockyard Review](#).

When it came time to do the document overhaul for 2003, I decided to end [Dockyard Review](#). Instead, I took all the articles that did not cover ships showcased in [SOTSE](#) and created two "Best of" volumes to put them in.

As for [Dockyard Review](#), I doubt I will do any more. I saved the master files, just in case, but with the recent "expansion" of [SOTSE](#) to include new ships, as well as other projects like [Klingon Military Power](#) that covered the Klingon articles, I think there is no real need to keep them going.

The information contained within this volume is purely the conjecture of myself and is not meant to be deemed official or "canon" in any way. I have, where possible, used official Paramount sources for information. Where that has failed, I have gone to the web and other books.

STARFLEET ADVANCED STARSHIP DESIGN BUREAU