

THE NX CLASS CRUISER

AN INTRODUCTORY GUIDE



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NX Class Introductory Guide

As the first ships in Starfleet service with a drive capable of sustained Warp 5 operation, the four vessels of the NX class are expected to immediately expand the “envelope” of exploration. Stellar charts provided by the Vulcans show almost 10,000 worlds within 1 year’s travel of Earth. Ships of the NX class mount the most advanced equipment available on Earth and are expected to give decades of fine service.

This introductory guide is meant to acquaint the reader with the design of the NX class, its construction history, the senior officers of the lead ship, U.S.S. *Enterprise*, and the ship’s systems. It is not meant to be an in-depth technical treatise on the ship and her systems.

This first edition is somewhat incomplete. The *Enterprise* was launched ahead of schedule on an important diplomatic mission to the homeworld of a new spacefaring race. In addition, many of the ship’s systems are classified and information on them is either unavailable or protected by nondisclosure laws. Again, a full technical description of the NX class ships will probably become available in the near future.

Class: The NX Class Starship Development Project began in 2122 as an extension of the work begun at the Warp 5 Complex in 2119. Once a working Warp 5 drive had been produced, work began on designing a ship class to carry it. Because no existing starship design was structurally capable of handling such speeds,

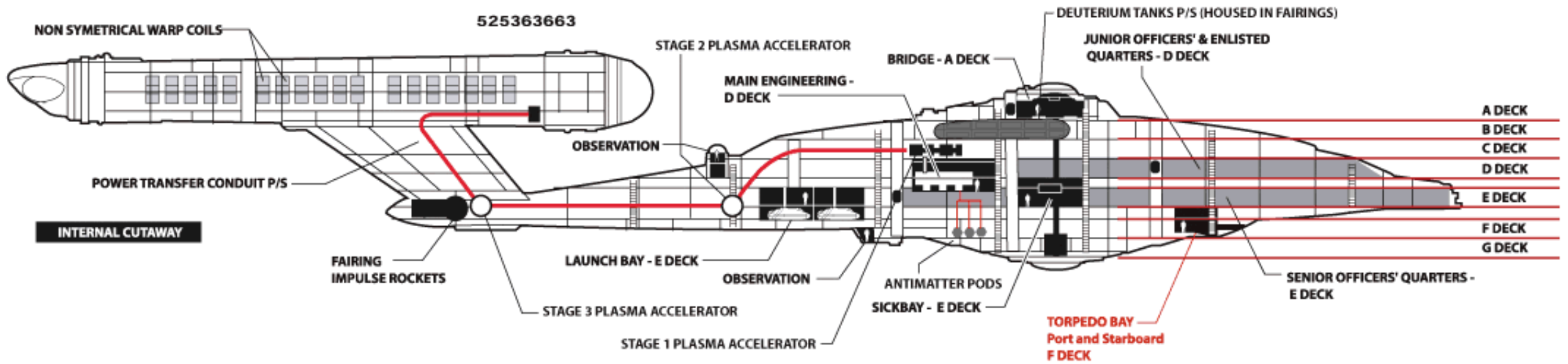


new design criteria were drafted which resulted in the NX class.

Classification: Owing to the variety of roles these vessels are expected to perform, they have been classified as Cruisers.

Design: *Enterprise* and her sister NX vessels are the first ships to use a saucer-shaped primary hull, as opposed to the spherical ones currently prevalent in Terran starship design. Contemporaries, such as the *Fireball* and *Comet* classes, use spherical forward hulls attached to cylindrical aft hulls from which nacelles are extended to either side. These hull designs are easily pressurized and, like the bulbous protrusions used in old Terran seagoing vessels, reduced “drag” at warp. However, because recent computational modeling has shown that a saucer is the most warp-dynamic shape, it was selected for use in the first Warp 5 starship. The NX class is an absolutely cutting-edge starship. In addition to a Warp 5 drive, the NX class is the first to mount matter transporters, although they are recommended for use with inorganic cargo only. Personnel usually rely on two onboard shuttlecraft for ship-to-ship or ship-to-shore travel in both routine and emergency situations. Although the Vulcans have kept much of their technology to themselves, they have helped make NX’s sensors and scanners the most advanced on a Terran starship. The ship also incorporates an advanced environmental system, using biochemical reactors based on plant photosynthesis to convert waste carbon dioxide into breathable oxygen. Thermal regulators provide heating and cooling, as necessary, to maintain the shipboard temperature at 20°C. Protein resequencers are able to produce such food staples as pasta and potatoes. However, most of the food carried aboard ship is stored in cryogenic lockers, and a team of chefs prepare and serve all meals. Needless to say, significant facilities are required to feed 87 people for the 3-year exploratory missions these vessels are expected to undertake.

Only the saucer is inhabitable. The cross-section reveals its structure. There are seven decks, designated A through G. The bridge is located on A-deck. The junior officers’ quarters are on D-deck. Sickbay, mess hall, and the senior officers’ quarters can be found on E-deck. Two half-decks are inserted between D-deck and E-deck and between E-deck and F-deck. They contain plasma conduits and access tunnels. Main engineering occupies part of D-deck and E-deck just behind the saucer center. The deuterium tanks are located on B-deck, in the forward ends of the twin hulls. The antimatter pods are on F-deck.



NX CLASS - INTERNAL CUTAWAY

NX CLASS - FORWARD VIEW

Engineering: To achieve Warp 5, the NX class ships are the first production Terran starships to be fitted with Matter/Anti-Matter reactors, as opposed to the fusion reactors found in slower vessels. The drive section and nacelles are located and connected to the main saucer by two booms. In the event of a drive emergency, these booms can be sealed and separated, allowing the saucer section to move to safety under impulse power.

The double hulls, pylons, and warp nacelles are uninhabitable and can only be accessed in environmental suits. The plasma conduits that can be seen in main engineering run from the warp core up to C-deck. The twin hulls contain a three-stage plasma accelerator. The first stage is just above main engineering, and its warp core output transfer junction is visible from outside the ship on the top of the twin hulls. After passing through the three stages, the plasma is fed into the nacelles through the warp pylons, as on conventional starships. The nacelle housings contain hatches to access critical warp engine components, which require constant maintenance. The warp drive must be periodically shut down to retune and clean the engines. The pod between the twin hulls is a symmetrical warp field governor that regulates the shape of the warp field, which would otherwise break apart at higher warp factors.

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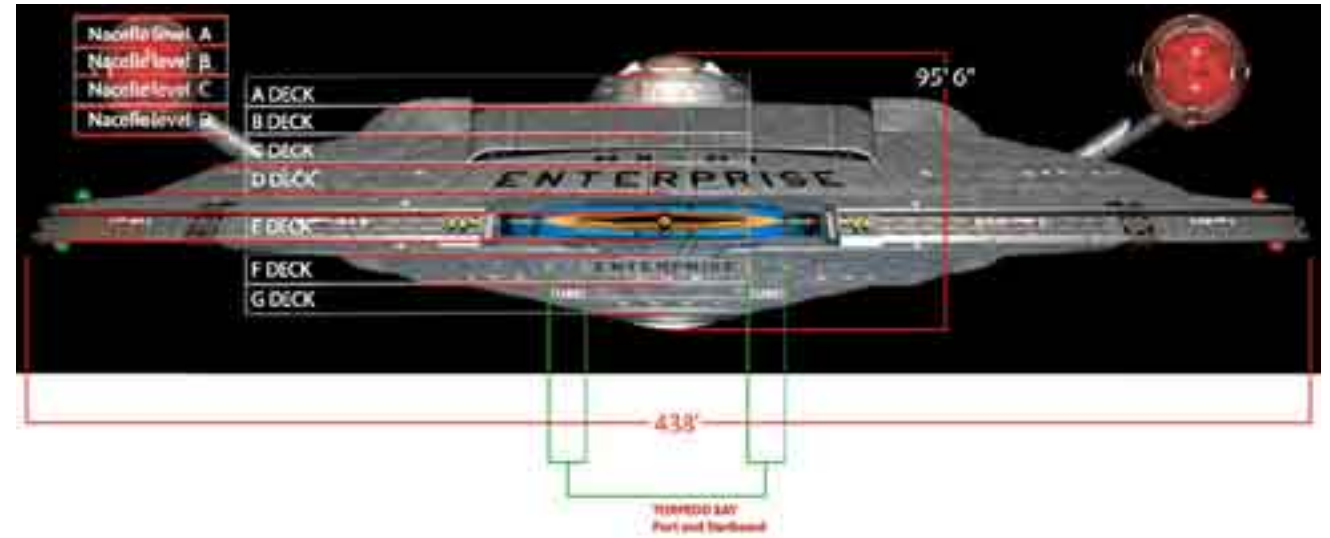
Tactical: For defense, *Enterprise* and her sisters rely on three phaser cannons and four torpedo tubes. The torpedoes themselves use thermonuclear warheads with variable yields. Shield technology is not available to Terra, so the vessel uses polarized plates that allow them to withstand more damage, as well as to reflect away some of the energy. A grappling system is fitted to allow the ship to capture or attach itself to other objects, as the Vulcans have not yet shared their tractor beam technology. A staging area for extravehicular (EV) activities is located at the back of the saucer, with equipment still to be determined. An inspection pod is also stored here. Observation rooms are located next to the lower shuttle bay and above the EV staging area.

Computers: Rapidly advancing monotronic technology allows the NX class to mount the most powerful shipboard computers available, which are required to monitor and regulate the warp drive. Warp celestial guidance relies primarily on using pulsars as "guideposts", although star charts provided by the Vulcans can be used to help the ship navigate.

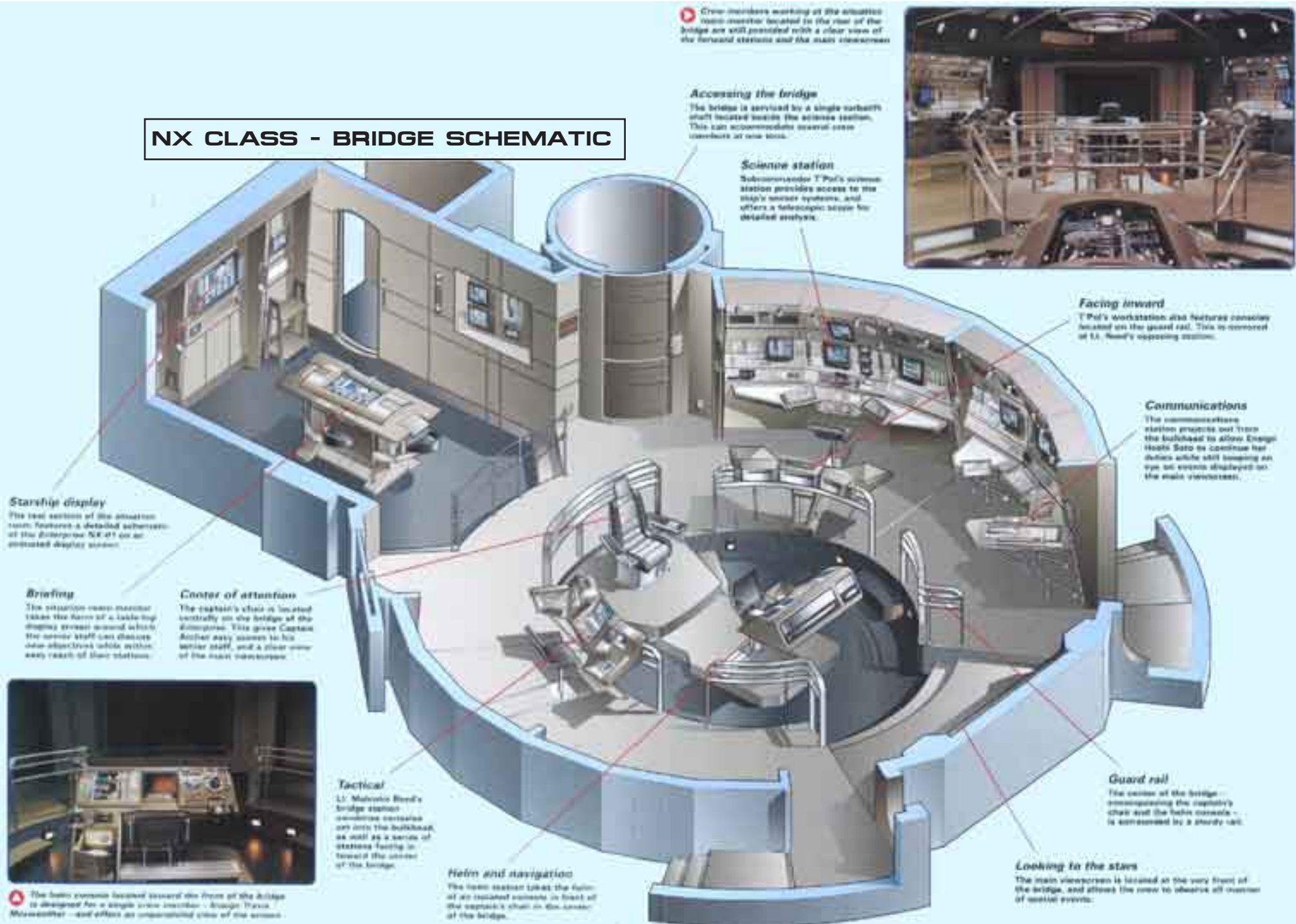
Sensor pallets are located next to the deflector dish, just forward of the port and starboard saucer airlocks, behind the bridge, forward of the shuttlebays and on the back of the symmetrical warp field governor. The domes on the top and the bottom of the saucer are perimeter and planetary sensors.

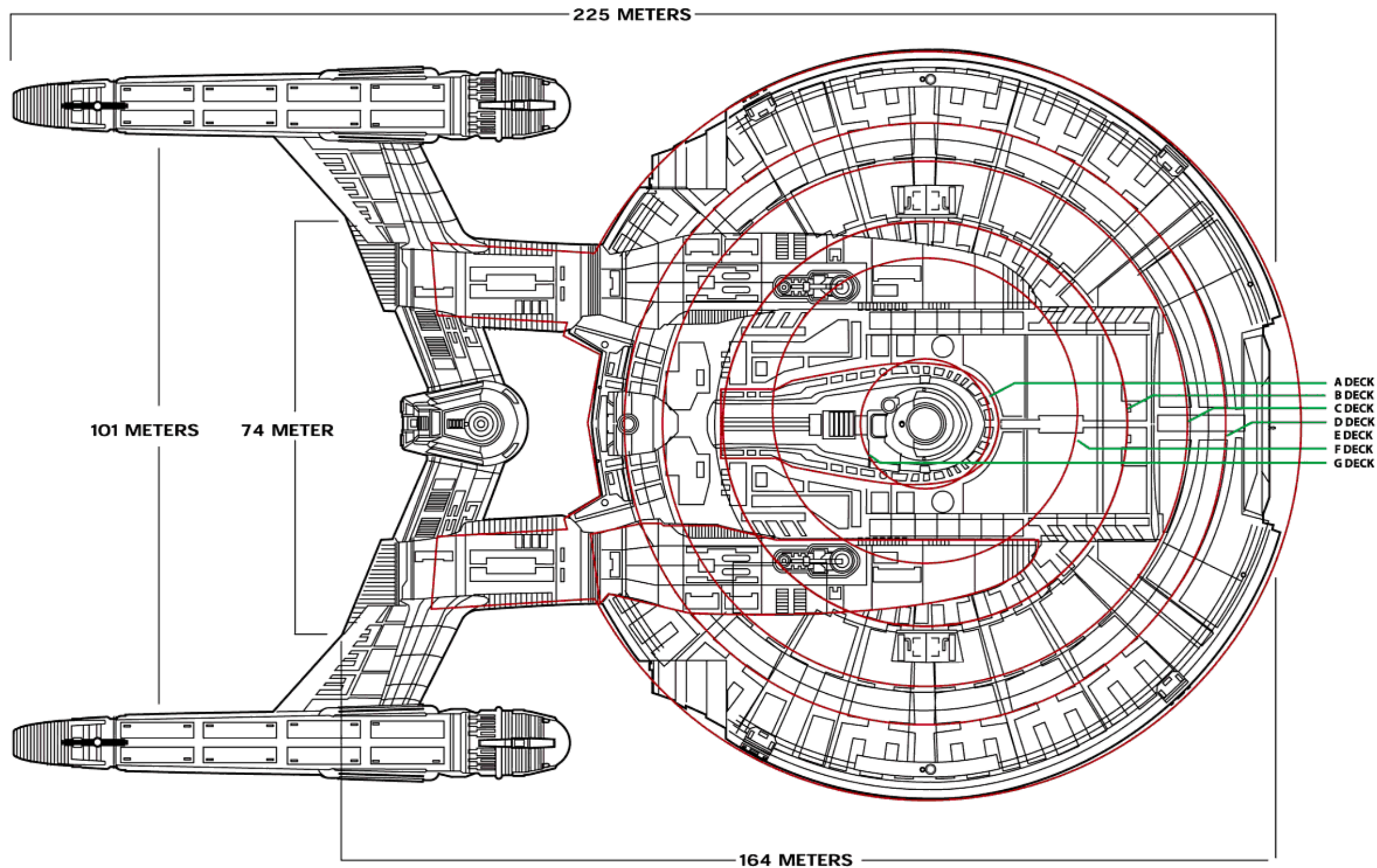
Builders: All four NX Class vessels were built or are under construction at the San Francisco Fleet Yards.

Development and Construction History: *Enterprise* was the first NX class starship, although three additional vessels were under construction when *Enterprise* began her mission to repatriate a citizen of, and make first contact with, the above-mentioned spacefaring race. The U.S.S. *Alexandria* (NX-02) is undergoing final outfitting prior to shakedown, and two additional vessels, *Shenandoah* (NX-03) and *Astra* (NX-04), are nearing completion and should be in service by mid-2152. Additional vessels are planned.



NX CLASS - BRIDGE SCHEMATIC

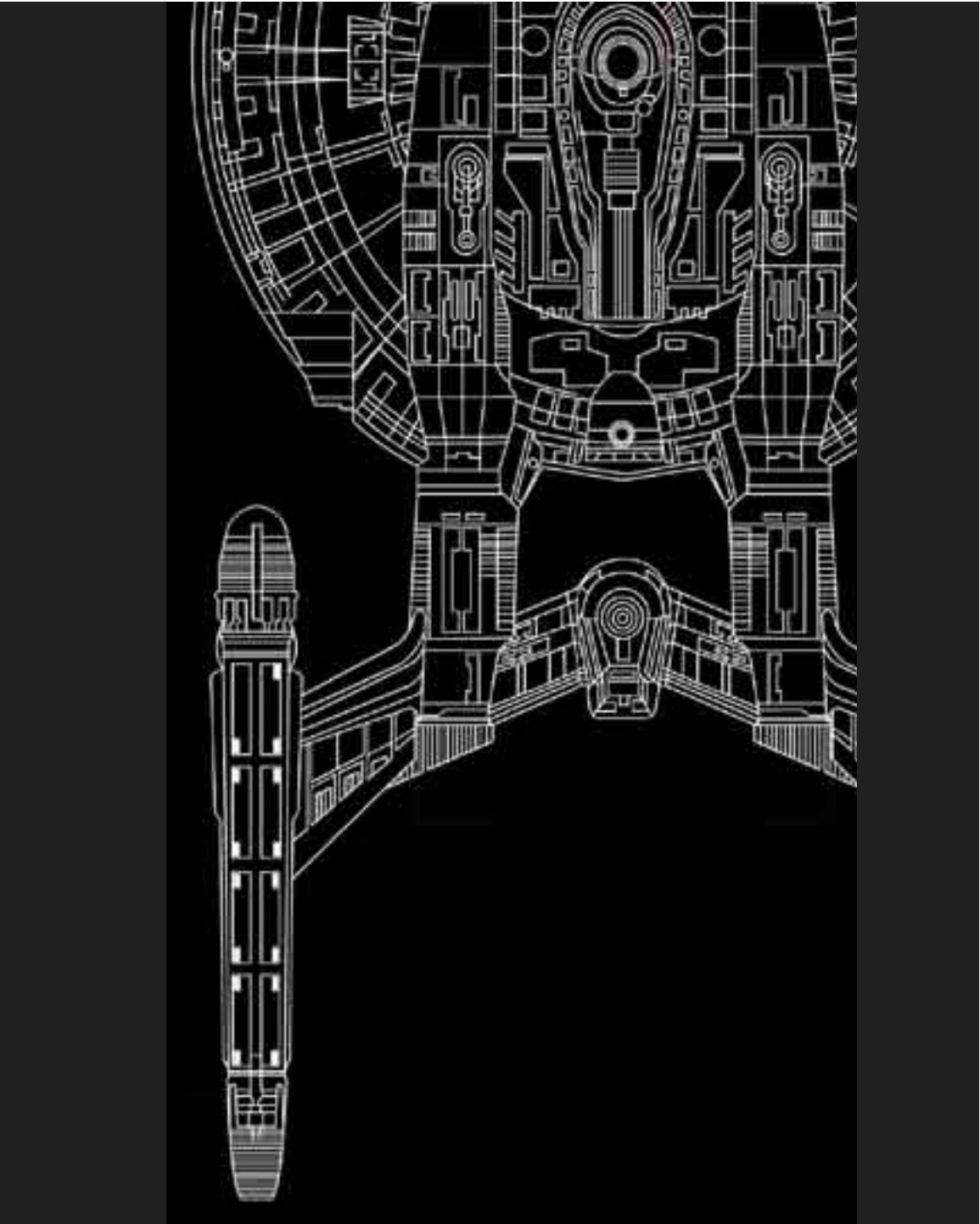


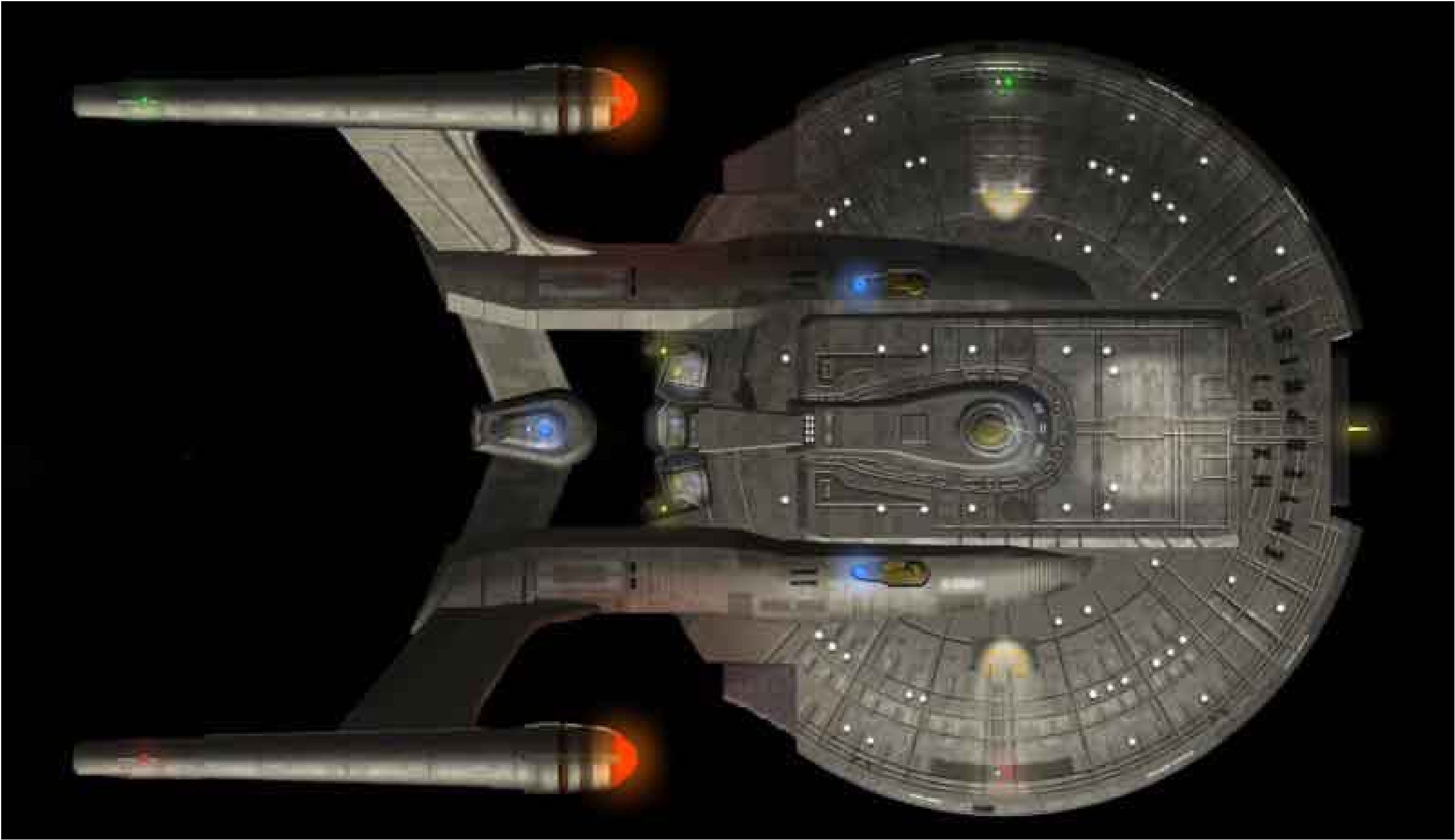


NX CLASS - DORSAL VIEW WITH DIMENSIONS

Enterprise (NX) Class Exploratory Cruiser

Displacement:	280,000 mt	
Overall Length:	225 m	
Overall Draft:	133.5 m	
Overall Beam:	29 m	
Propulsion:	Two PB-05 Mod 1 dilithium-energized antimatter circumferential warp drive units (System Contractor: Cochrane Warp Dynamics, San Francisco, Terra) Two RAA subatomic unified energy impulse units (System Contractor: Scarbak Propulsion Systems, Cairo, Terra) SC21D chemical combustion precise control package (System Contractor: Dennison/Westinghouse, San Francisco, Terra)	
Velocity:	Warp 5.0	Standard Cruising Speed
	Warp 5.2	Maximum Cruising Speed
	Warp 5.3	Maximum Attainable Velocity
Duration:	3 years, standard	
Complement:	20	Officers
	67	Enlisted Crew
	87	Total Crew (Standard)
Embarked Craft:	2	
Navigation:	TAA Warp Celestial Guidance (System Contractor: Mandor Industries Ltd., Dalhalam, Delta IV)	
Computers:	"Venus" Monotronic III (System Contractor: International Business Machines, Armonk, Terra)	
Phasers:	3 banks – 225/21 single surface mount (retractable) (System Contractor: Lockheed-Martin Industries, Seattle, Earth)	
Lasers:	4 pulse cannon in retractable turrets (at launch – replaced with phasers) (System Contractor: Lockheed-Martin Industries, Dallas-Fort Worth, Earth)	
Missiles:	4 tubes, 12 spatial torpedoes each (System Contractor: Lockheed-Martin Missiles, Long Beach, Earth)	
Defense:	Hycor polarized hull plating (System Contractor: Hycor, Woburn, Earth) "Sentry" weapon system with "Sure-Shot" sensor and fire-control system (System Contractor: Hughes Astronautics, El Segundo, Terra) WCRC Type 17A Meteorite Shield (System Contractor: WCRC Industries, Seattle, Earth)	
Life Support:	2R/Centris replacement gravity generator (System Contractor: Cristobal SM/S, Manila, Earth) MP-1A Integrated Radiation Shielding add-on (System Contractor: Cristobal SM/S, Manila, Earth) SARS Synthesizing and Regeneration system (System Contractor: Triax Medifore, Villa Carlos, Bolivia, Earth)	





THE U.S.S. ENTERPRISE (NX-01) ON TRIALS NEAR NEPTUNE





THE U.S.S. ENTERPRISE (NX-01) ON HER FIRST EXTRA-SOLAR WARP TEST

APPENDICES

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