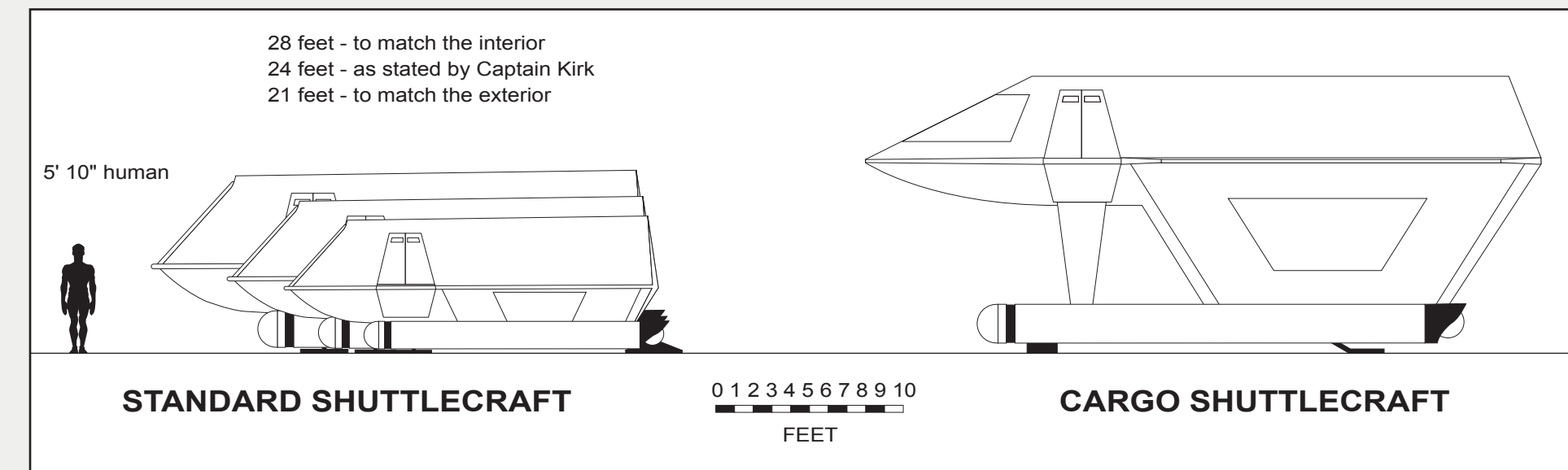


SPACE SHUTTLE
(Shown here for size reference)

SEPARATION PLANE
SEE NOTE "A"

SEPARATION PLANE
SEE NOTE "A"

SEE NOTE "1"



1/100 scale, if this page is printed at a height of 17 inches

- 1
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BACKGROUND HISTORY

This project is an extrapolation of the U.S.S. ENTERPRISE drawings developed last year. Those drawings were governed by 3 criteria:

- (1) The 11-foot-2.08-inch (3.4-meter) studio model,
- (2) The Writer's Guide, and
- (3) The 79 episodes plus the original pilot.

There are no such criteria to guide these drawings, but the basic design philosophy is to complete this ship in the same style that Franz Joseph (F.J) developed for his Technical Manual and in the same style as his Heavy Cruiser blueprints. The goal is to try and fit all the components inside the hull. But what are "all the components"? What are the roles of "Tenders" in the STAR TREK universe?

A "Tender" was a type of ship used on Earth to service or support larger ships. By the late 20th Century technological improvements allowed navies to operate without depending on "Tenders" for maintenance and supply.

"Tenders" are still used by passenger liners, merchants, etc. They can also serve as lifeboats in emergencies.

There are many specialized "Tenders" ... one of them being a "Buoy Tender." Such ships were used (usually by the Coast Guards of various countries) to maintain and replace navigational buoys.

According to the FASA Ship Recognition Manual, the Derf-class Tender was designed later than the Constitution-class Heavy Cruiser and later than the Larson-class Destroyer. Elements from both were used on this ship. The lower decks of the Primary Hull were extensively modified to contain the repair facilities for navigational beacons. Before this class of ship was introduced, buoys and beacons had to be retrieved and returned to a repair facility for service. Now, they can be repaired or replaced on-site.

The Derf-class Tender has two Phaser Banks. The FASA Manual says this ship carries 7 shuttlecraft and has a crew of 72.

This layout retains the lines as established by FASA, but there were some problems which had to be resolved, and some modifications that had to be made to ensure the details on the 3-view drawings are consistent.

NOTES

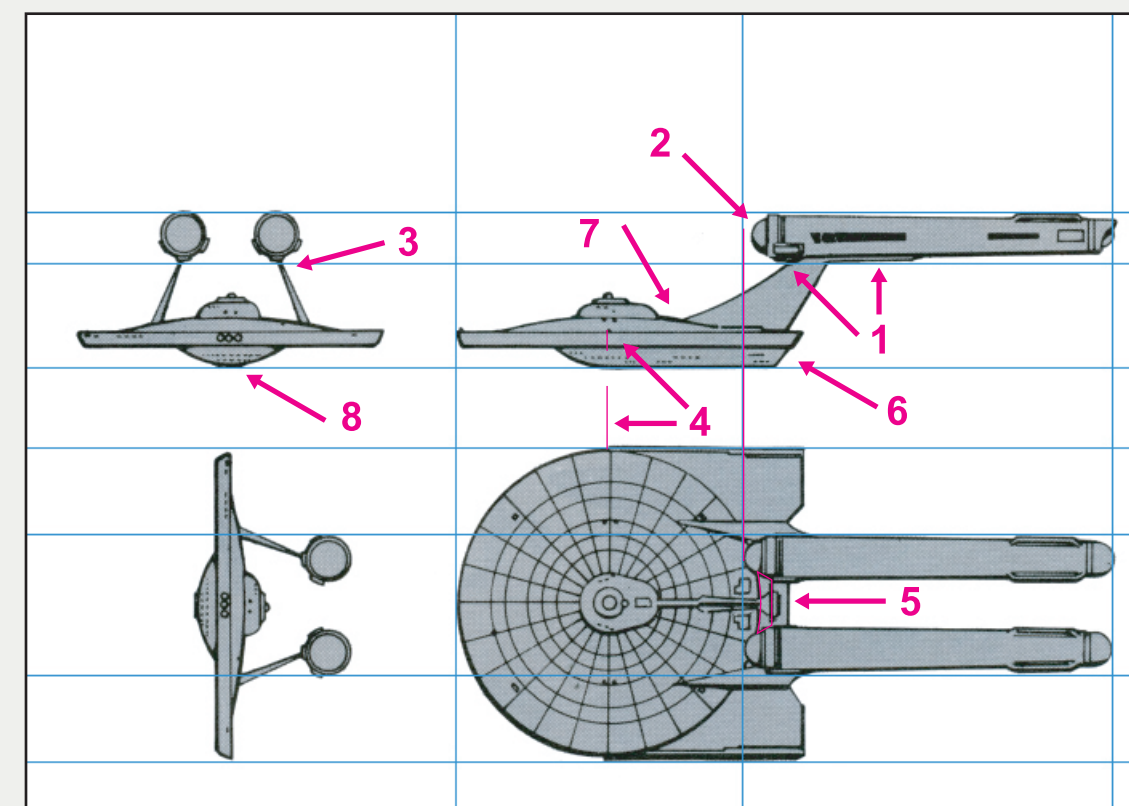
There have been many interpretations of this design. Starting with the original FASA drawing (see image at right) we can see some problems:

- (1) The pylon attachment point conflicts with the Intake Flow Sensors and Antimatter Ejection Panel,
- (2) Depending on the view, the Warp Engine is not at a consistent distance behind the Primary Hull,
- (3) The pylon is very thin where it attaches to the Warp Engine,
- (4) The Primary Hull extends beyond the original diameter but it is not drawn correctly (see pink lines),
- (5) The Impulse Engine has been moved aft from the trailing edge of the Primary Hull,
- (6) The trailing edge of the Primary Hull's lower decks cannot extend beyond the Impulse Engine,
- (7) There is a bulge shown behind the B-C decks (especially visible in the top view),
- (8) The Lower Sensor Dome has been deleted.

Here are the corrections:

- (1) Pylons similar to the ones on the Larson-class are used, plus the added extension is not as long,
- (2) The pylons determine the attachment point and the location of the engines,
- (3) The pylons are thicker than originally drawn,
- (4) The Primary Hull is not extended to the sides, only to the rear,
- (5) The Impulse Engine was moved aft, thus providing space for the Power Conduits to reach the pylons,
- (6) The trailing edge of the Primary Hull's lower decks was adjusted,
- (7) This bulge raises the Piping / Wiring Trunk, which allows Deck 5 to continue further aft,
- (8) The Lower Sensor Dome was not deleted.

Can the engine nacelle be disconnected in an emergency? Can the Primary Hull make an emergency landing? Should the 2 Main Landing Legs be deleted, or should more legs be added? How can this ship carry 7 shuttlecraft? Why so many? Where are they stored? How are they deployed and recovered? Why is there no Main Sensor Dish? The FASA manual explains that the shuttlecraft have Tractor Beams for retrieving navigational buoys, but does the ship have a Tractor Beam too? It also states this class of ship only has a crew of 72. Should I remove all the extra quarters (?) and replace them (?) with cargo holds?



GENERAL NOTES

Are the wide steps in Engineering considered to be "stairs"? Are the steps on the Bridge considered to be "stairs"? Perhaps stairs do not appear in any episodes, but that does not mean they do not exist in Starfleet ships. Therefore:

1. After engine nacelle disconnection and an emergency landing, stairs on Decks 4, 3, and 2 lead up to the hatch, thus allowing the crew to leave the ship quickly.
2. Each of the 2 Recreation Rooms on Deck 7 have balconies on Deck 6. Those balconies have stairs that lead down to their respective Recreation Rooms.
3. Stairs connect the two levels of the Deflector Equipment at the front of the hull.
4. Stairs near the Hangar Bay entrances help connect the outer ring of Deck 7 to Deck 6.

Aside from these stairs, the rectangular ladders (within rectangular alcoves) and the triangular ladders (within circular alcoves) supplement the turbo-elevator system. If that system fails, or in some other emergency, ladders alone would not be very efficient; it is easier to carry something up stairs than up a ladder.

There are external features that do not need to be marked: hatches for the Phasers, hatches for the Photon Torpedo Launchers, and the Primary Hull / Warp Engine disconnection line, to name a few.

These drawings attempt to make sense of the markings that ARE visible on the studio model of the ENTERPRISE, all of which is then extrapolated onto the Destroyer.

More notes relevant to each deck appear on the following pages.

Contradictions and errors exist within the episodes. I am sure 100% continuity is not possible.

I hope these pages provide you with some pleasure, information, and ideas for contemplation / consideration.

If I missed something, please let me know.