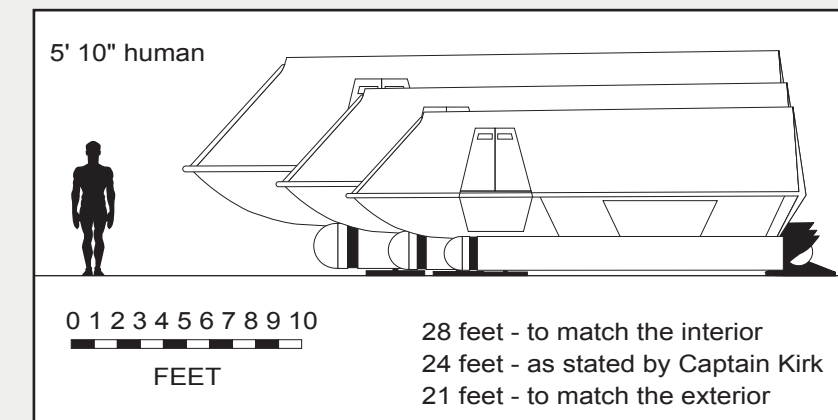
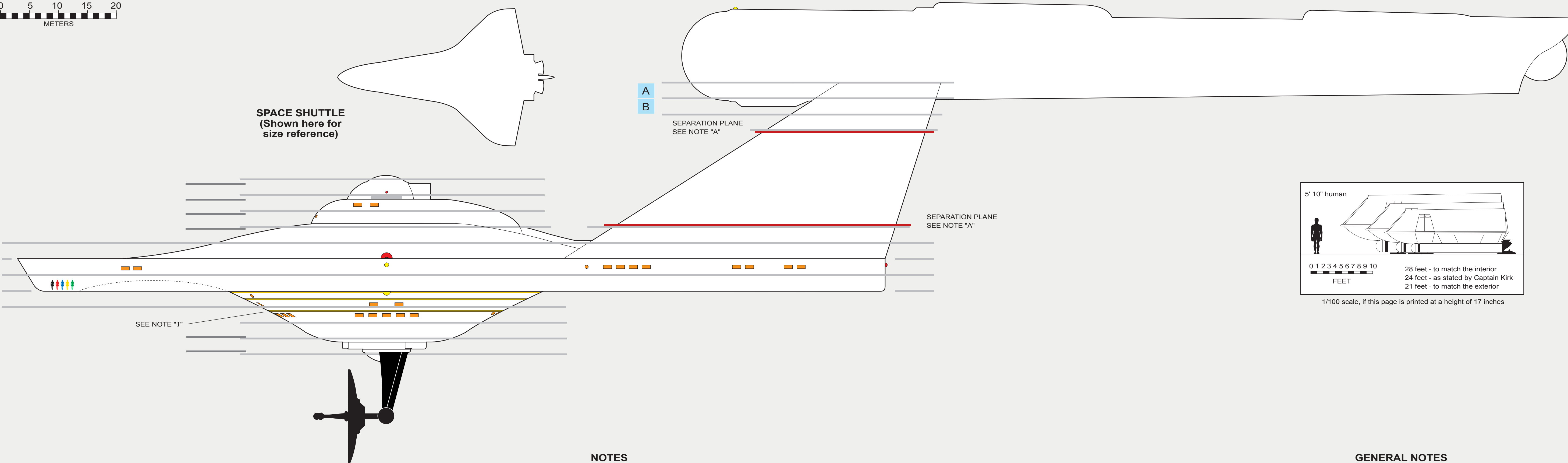


SPACE SHUTTLE
(Shown here for
size reference)



28 feet - to match the interior
24 feet - as stated by Captain Kirk
21 feet - to match the exterior

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

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) Depending on the view, the Warp Engine is not at a consistent height above the Primary Hull,
- (2) Depending on the view, the pylon does not attach to the Warp Engine at a consistent location,
- (3) The trailing edge of the Primary Hull does not coincide in top and side views,
- (4) The Primary Hull extends beyond the original diameter but it is not drawn correctly (see pink lines),
- (5) The angles between the Primary Hull and the pylon is not shown properly (see pink line),
- (6) There is a bulge shown behind the B-C decks,
- (7) The Impulse Engine is shown embedded, not at the trailing edge of the Primary Hull.

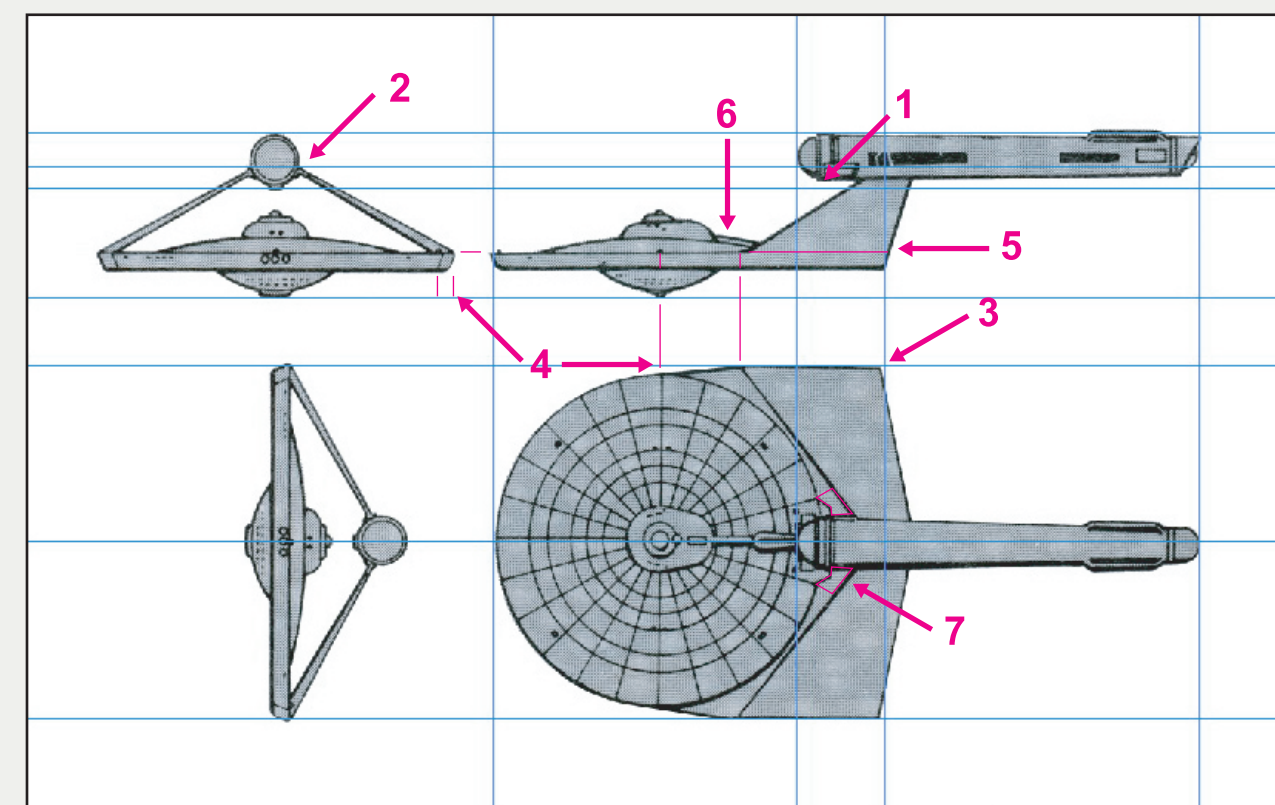
Finally, the dimensions stated in the FASA manual do not match the proportions in the drawing.

Here are the corrections:

- (1) To satisfy the proportions, the pylons are shorter; the Warp Engine is closer to the Primary Hull,
- (2) The pylon (and hence the attachment point) is thicker,
- (3) The discrepancy created by the side view is ignored,
- (4) The Primary Hull is not extended to the sides, only to the rear,
- (5) Lines are added to clearly demonstrate the changes in angles, slopes, directions, etc,
- (6) This bulge raises the Piping / Wiring Trunk, which allows Deck 5 to continue further aft,
- (7) A notch is introduced in the extended, trailing edge of the Primary Hull (see Decks 6, and 7).

One thing not considered is the undercut on the Primary Hull. If there are no decks below the Primary Hull to connect to a Secondary Hull, then Deck 7 is not flattened at the rear. The flat portion allows a turbo-elevator shaft to reach the outer ring of Deck 7, where Main (Impulse) Engineering is located in Constitution-class ships. Without that flat portion, the outer ring of Deck 7 can only be reached from above, via stairs, and perhaps via a turbo-elevator system (which would have to be extended aft).

Why are there 2 pylons? 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? What is the function of the rearward extension of the Primary Hull? How can this ship carry 6 shuttlecraft? Why so many? Where are they stored? How are they deployed and recovered? Why is there no Main Sensor Dish? Does the ship have a Tractor Beam? Where is Main (Warp) Engineering?



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 (FJ) 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 "Destroyers" in the STAR TREK universe?

A "Destroyer" was a type of ship used on Earth. It was a fast, maneuverable, long-endurance warship intended to escort larger vessels in a fleet, convoy or battle group and defend them against powerful short range attackers. Some countries use the term "Frigate" for their "Destroyers" which leads to some confusion. With the advent of missiles, "Guided Missile Destroyers" were developed to carry these weapons and protect the fleet from such threats. By the late 20th Century, many "Destroyers" were built with helicopter flight decks and hangars.

According to the FASA Ship Recognition Manual, the Larson-class Destroyer was designed at the same time as the Constitution-class Heavy Cruiser and therefore shares many of the same features.

The Larson-class Destroyer has three Phaser Banks and one Photon Torpedo Bank. The FASA Manual says this ship carries 6 shuttlecraft.

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.

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.