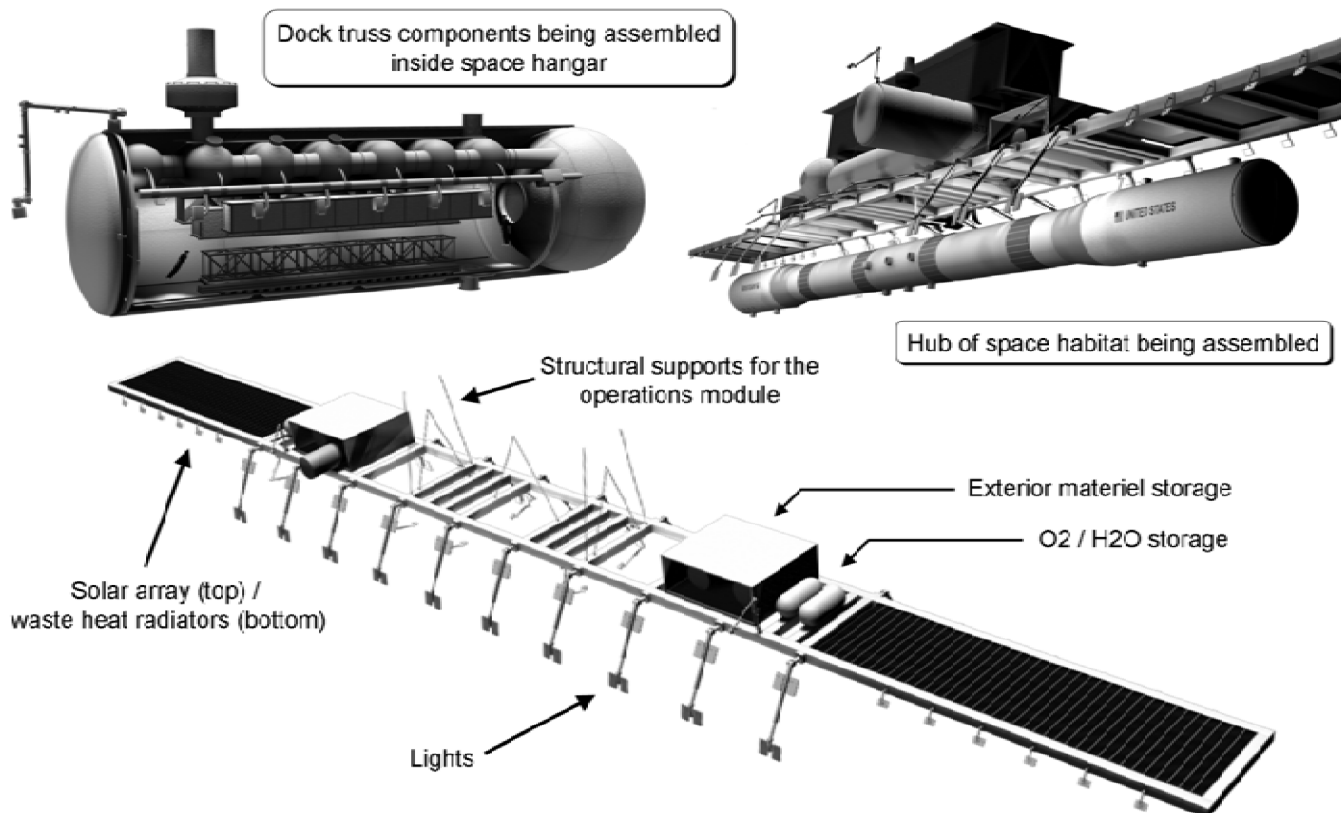


Spacefaring Logistics Infrastructure Fact Sheet



1. System element name: **Space dock (space logistics base)**
2. Infrastructure phase deployed: 2
3. Function: Berth spaceships and support the assemble of space facilities, large space platforms, and large spaceships
4. 2007 Technology Readiness Level: 6-9
5. Description:
 - Primary elements of the space dock are structural truss, lights, robotic arms, solar electric arrays, waste heat generators, non-pressurized materiel storage, pressurized fluid storage tanks, and structural supports for attaching the space hangars and operations module.
 - Structural truss elements are assembled inside the space hangar from prefabricated components and then assembled into the large rectangular array using the space tug.
 - Because the space logistics base is oriented with the solar arrays facing the sun, the work area below the dock is always in shadow. The large lights provide uniform lighting of the entire work area regardless of whether the base is in sunshine or the Earth's shadow.

This also helps to provide thermal control of the work area to minimize differential thermal expansion effects during component assembly.

- High-capacity robotic arms, similar to those used on the International Space Station, are able to “walk” along the structural truss to provide materiel handling, secure assembled components, and berth spaceships.
 - The structural truss includes both active and passive vibration and deflection control systems.
 - Unpressurized material storage “space barns” protect against space debris and micrometeoroid damage.
6. Technical data (initial estimate)
 - Dock length: ~850 ft
 - Dock width: ~60 ft