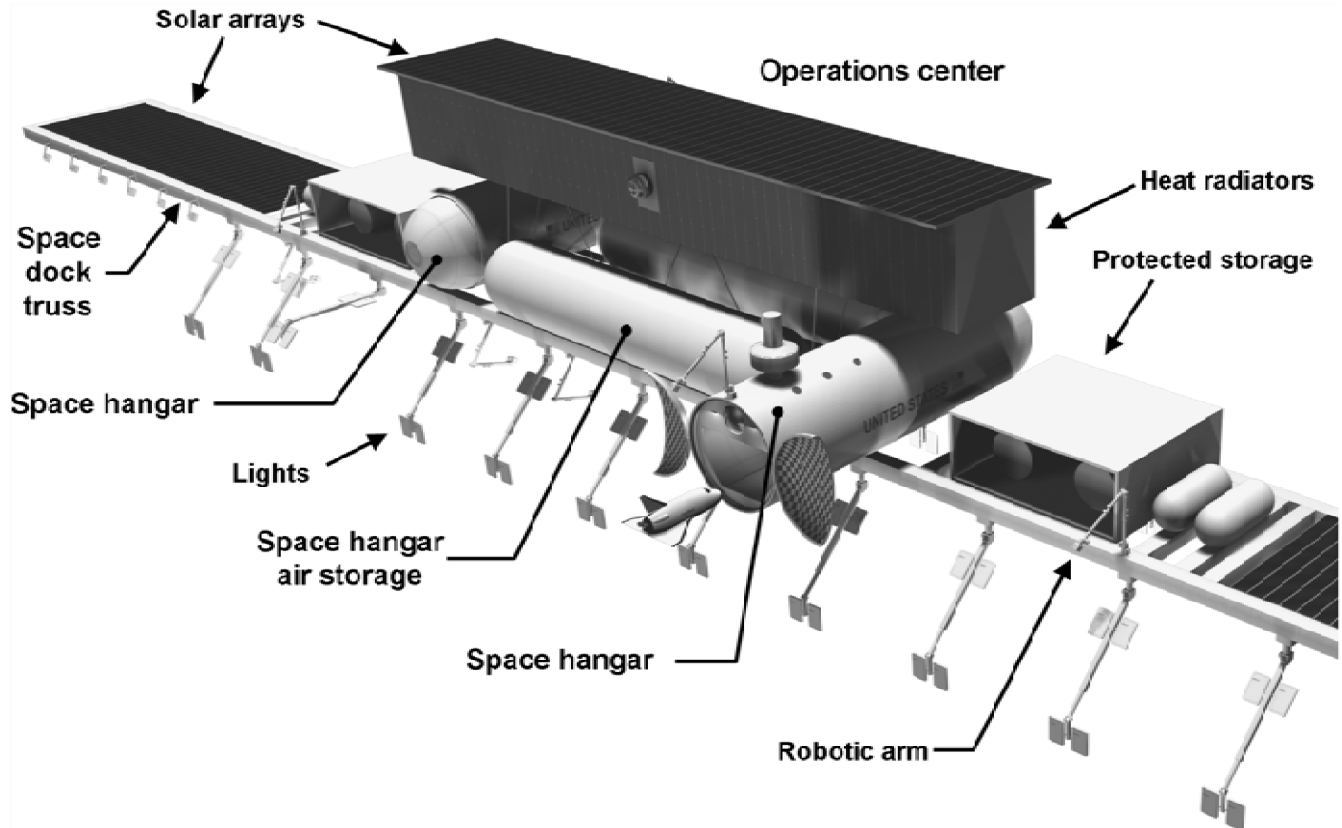


Spacefaring Logistics Infrastructure Fact Sheet



1. System name: **Space logistics base**
2. Infrastructure phase deployed: 2
3. Function: Provides logistics services to support American space enterprise operations
4. 2007 Technology Readiness Level: 6-9
5. Description:
 - Assembled from modules transported to low Earth orbit (LEO) using the Phase 1 Shuttle-derived spacelifter.
 - Primary elements are the operations center, space hangars (2), space hangar air storage system, and space dock.
 - The operations module is comprised of a habitat module, configured as a command and control center, attached to the spacelifter's core propellant tanks. The operations module accommodates 20 operating personnel and 10 visitors.
 - Twin space hangars provide pressurized "shirt-sleeve" work environments to receive and inspect Gen 1 passenger spaceplanes and assemble and service satellites and spaceships.
 - Space hangar air storage system extracts air from the hangars prior to opening the hangars to space, cleans the air, and refills the hangars.
 - Air is stored in the two spacelifter core propellant tanks, using both the oxygen and hydrogen tanks, retained from the spacelifters used to transport the hangar modules to LEO.
 - The space dock is used to assemble large satellites, space facilities, and spaceships and to berth spaceships between missions.
 - Internal and external assembly and servicing operations are conducted manually and remotely. Remote servicing is provided by space maintenance personnel either on the space base or on the Earth as part of their two months in space and four months on the ground work rotation.
6. Technical data (initial estimate)
 - Length of space dock: ~850 ft
 - Operations center diameter: ~ 27 ft
 - Operations center length: ~250 ft
 - Operations center volume: ~120,000 ft³
 - Space hangar diameter: ~33 ft
 - Primary solar-electric power available: ~500 KWe (continuous) and ~1MWe (peak) using 25% cell efficiency solar arrays