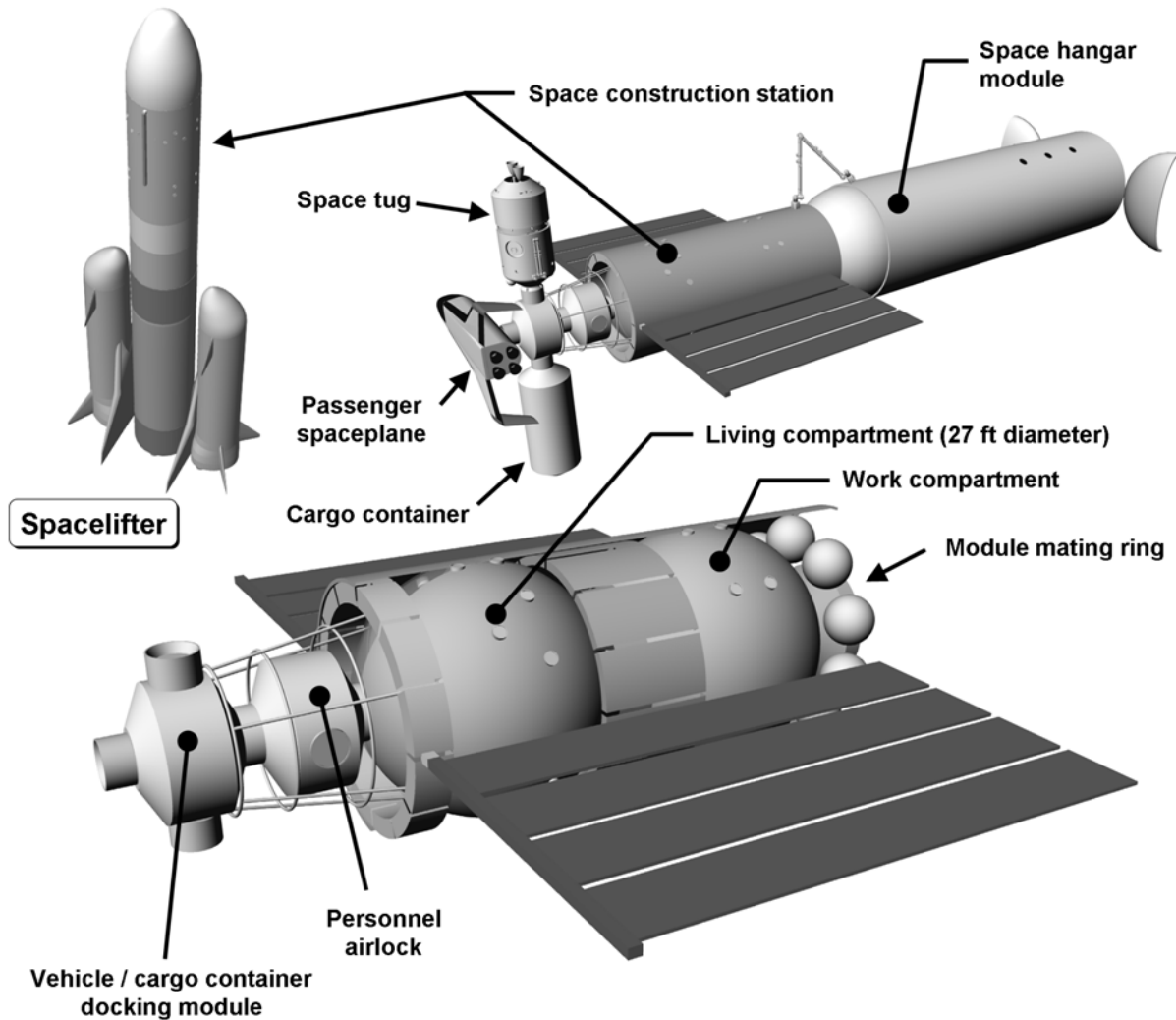


## Spacefaring Logistics Infrastructure Fact Sheet



1. System name: **Space construction station**
2. Infrastructure phase deployed: 2
3. Function: Support the assembly of space facilities and spaceships
4. 2007 Technology Readiness Level: 6-9
5. Description:
  - Deployed using a single Shuttle-derived spacelifter mission.
  - Designed for 10-12 people.
  - Based on the 3-person Skylab concept.
  - Comprised of: two spherical compartments; personnel airlock; vehicle and cargo container docking module; and a module mating ring.
  - One spherical work compartment is used for the crew's living quarters and the other for the work compartment.
  - Both compartments are fully-redundant in terms of life support and power.
6. Technical data (initial estimate)
  - Assembly crews work in two 12-hour shifts of five with one supervisor and two 2-person work crews.
  - Mating ring grapples and secures the station to facility modules providing pressurized access, power, and life support to the modules.
  - Two stations are deployed to each space logistics depot to provide operational redundancy and mutual aid and assistance.
  - Weight: ~100 tons (including initial provisions)
  - Diameter: ~27 ft
  - Length: ~100 ft
  - Combined volume of spherical compartments: ~20,000 ft<sup>3</sup> (about the same as a 2,500 ft<sup>2</sup> home)