

This cutaway drawing by Flight artist Frank Munger shows Skylab in design configuration, complete with both solar wings and meteoroid shield

Skylab

SKYLAB DIMENSIONS

Skylab Cluster (incl. Apollo CSM) Length 118.5ft, 36m; weight 119,750lb, 90,607kg; volume 12,398 cu ft, 347m³.

Orbital Workshop Length 48.5ft, 14.6m; diameter 21.7ft, 6.6m; weight 78,000lb, 35,380kg; volume 10,426 cu ft, 292m³ (LH2 tank living area), 2,826 cu ft, 80m³ (lox tank refuse dump).

Airlock Module Length 17.5ft, 5.3m; diameter 5.4ft, 1.6m (tunnel), 10ft, 3m (STS); weight 49,000lb, 22,226kg; volume 622 cu ft, 17.4m³.

Multiple Docking Adapter Length 17.3ft, 5.2m; diameter 10ft, 3m; weight 13,800lb, 6,260kg; volume 1,140 cu ft, 32m³.

Apollo Telescope Mount Height 14.7ft, 4.4m; diameter 11ft, 3.3m; weight 24,650lb, 11,180kg.

KEY

ORBITAL WORKSHOP (OWS)

- O1 Instrument unit
- O2 Inertial platform
- O3 Control computers
- O4 Cabin atmosphere distribution ducts
- O5 Fan units
- O6 Distribution fans
- O7 Storage lockers
- O8 Water tanks
- O9 Light unit
- O10 Foot restraint
- O11 Umbilical stowage
- O12 Food freezer stowage
- O13 Waste management compartment fan
- O14 Wardroom, food table and food trays
- O15 Window
- O16 Waste management compartment
- O17 Sleep compartment
- O18 Refuse disposal airlock
- O19 Shower position
- O20 Foot restraint floor grid
- O21 Fireman's pole (collapsible)
- O22 Waste tank separation grid
- O23 Inlet duct
- O24 Portable fan
- O25 Emergency aperture
- O26 Meteoroid shield (deployed)
- O27 Wall insulation
- O28 Solar wing (deployed, 3 panels)
- O29 Solar panel (partially deployed)
- O30 Solar wing deployment spring and damper
- O31 Attitude control thrusters
- O32 Attitude control N₂ bottles
- O33 Ground heat-exchanger/radiator
- O34 Urv telescope stowage (S183)
- O35 Body-mass measurement (M172)
- O36 Metabolic activity (M171) and Vector cardiogram (M093)

- O37 Rotating chain (human vestibular function—M131)
- O38 Chair control
- O39 Sleep monitoring (M133)
- O40 Lower-body negative pressure (M092)
- O41 Foot-controlled manoeuvring unit (T020)
- O42 Astronaut manoeuvring equipment (M509)
- O43 Meteoroid shield
- O44 Discone antennae (2)

AIRLOCK MODULE (AM)

- A1 Window
- A2 Permanent stowage container
- A3 O₂/N₂ control panel
- A4 Heat-exchanger module
- A5 Power and O₂ connector
- A6 Instrument panels
- A7 Molecular sieve
- A8 Flight spares stowage
- A9 Teleprinter paper stowage
- A10 EVA hatch
- A11 Hatch
- A12 Digital display unit (liquid/gas)
- A13 Partial-pressure O₂ sensors
- A14 Battery module
- A15 N₂ tank
- A16 O₂ tank
- A17 Meteoroid curtain
- A18 Fans and muffler
- A19 Flexible bellows linkage

MULTIPLE DOCKING ADAPTER (MDA)

- D1 Axial docking port
- D2 Radial docking port
- D3 Docking target
- D4 Materials processing furnace (M518)
- D5 Materials stowage (M512)
- D6 Exothermic experiment package (M552)
- D7 Single crystal growth box (M555)
- D8 Area fan
- D9 Zero-gravity flammability experiment (M479)
- D10 X-ray spectrograph return package (S054)
- D11 U-v spectrograph and X-u-v coronal spectro-heliograph (S082)
- D12 Radio-noise burst monitor
- D13 Multispectral photographic and Earth terrain cameras (S190)
- D14 Window and safety shield (S190)
- D15 View-finder (S190)
- D16 Infra-red spectrometer (S191)
- D17 L-band radiometer antenna (S194)
- D18 Proton spectrometer
- D19 Inverter/LCA
- D20 Multi-spectral scanner (S192)
- D21 Erep redundant tape recorder
- D22 Stowage (multispectral photography—S190)
- D23 Electronics for multispectral scanner (S192)
- D24 Erep tape recorder
- D25 Microwave radiometer/scattermeter antenna (S193)
- D26 Nuclear emulsion cosmic ray sensor (S009)
- D27 Erep control and display panel
- D28 ATM control and display panel
- D29 Flexible environmental control duct
- D30 CO₂ absorber
- D31 Flight-data file
- D32 Foot restraint
- D33 Secondary oxygen pack
- D34 Contingency tool box
- D35 Intercom
- D36 Film vault
- D37 Area fan
- D38 Fire extinguisher
- D39 Environmental control duct

APOLLO TELESCOPE MOUNT (ATM)

- T1 Deployment release
- T2 Deployment hinge and restraint spring
- T3 Deployment winch and latch
- T4 Launch "rigidising" units (permit limited movement "on station")
- T5 Heat shield
- T6 Control moment gyro (one of three)
- T7 Battery and regulator module
- T8 ATM digital computer star-tracker electronics
- T9 ATM centre work station, canister access
- T10 Foot restraint
- T11 Telescope canister rotation control
- T12 Solar wing deployed (5 panels each)
- T13 Solar wing, partially deployed
- T14 Deployment release
- T15 Deployment motor and cable
- T16 Sunshade and heat shield
- T17 Payload launch-fairing supports
- T18 Main telescope canister

