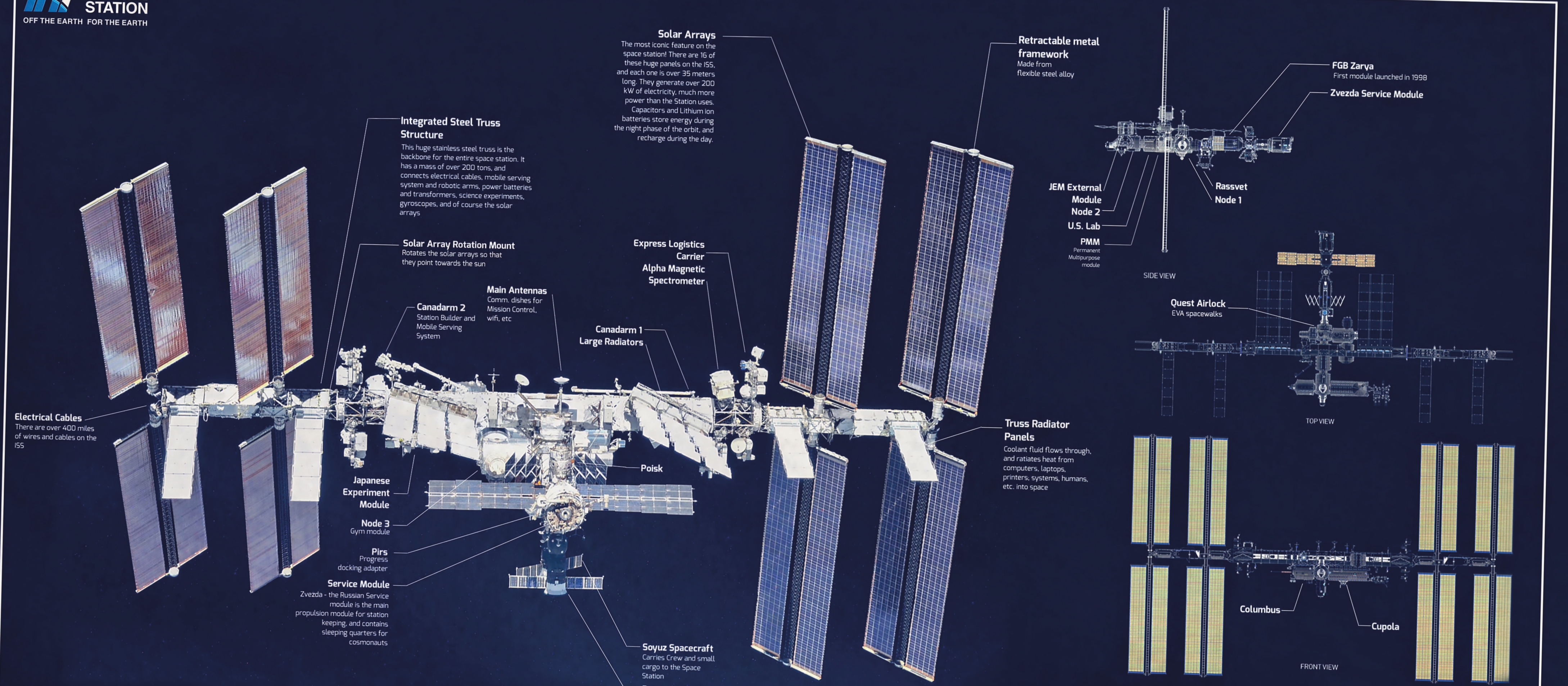




# Rücksturz



# International Space Station - ISS



The International Space Station (ISS) is the largest, most complex, most iconic and most beautiful space station ever built! It spans nearly 110 meters wide, 75 meters long and 25 meters high - 23% larger than a football field. It has mass of 419,455 kg, and internal volume equal to the cabin of a Boeing 747. It's home to currently 6 crew, and has a theoretical max capacity of around 30 astronauts. Hundreds of astronauts have visited or stayed aboard this amazing complex, and the station serves as a science and bio laboratory, earth observation, technology development and engineering outpost in space. Conceived in 1984, and launched in 1998, the International Space Station has been operating continuously to this day and beyond, hopefully to around 2030 onwards. Built by the primary users - the United States and Russia, and with the co-operation of 15 countries, it's truly the biggest international space project in history.



## International Space Station

Overview diagram

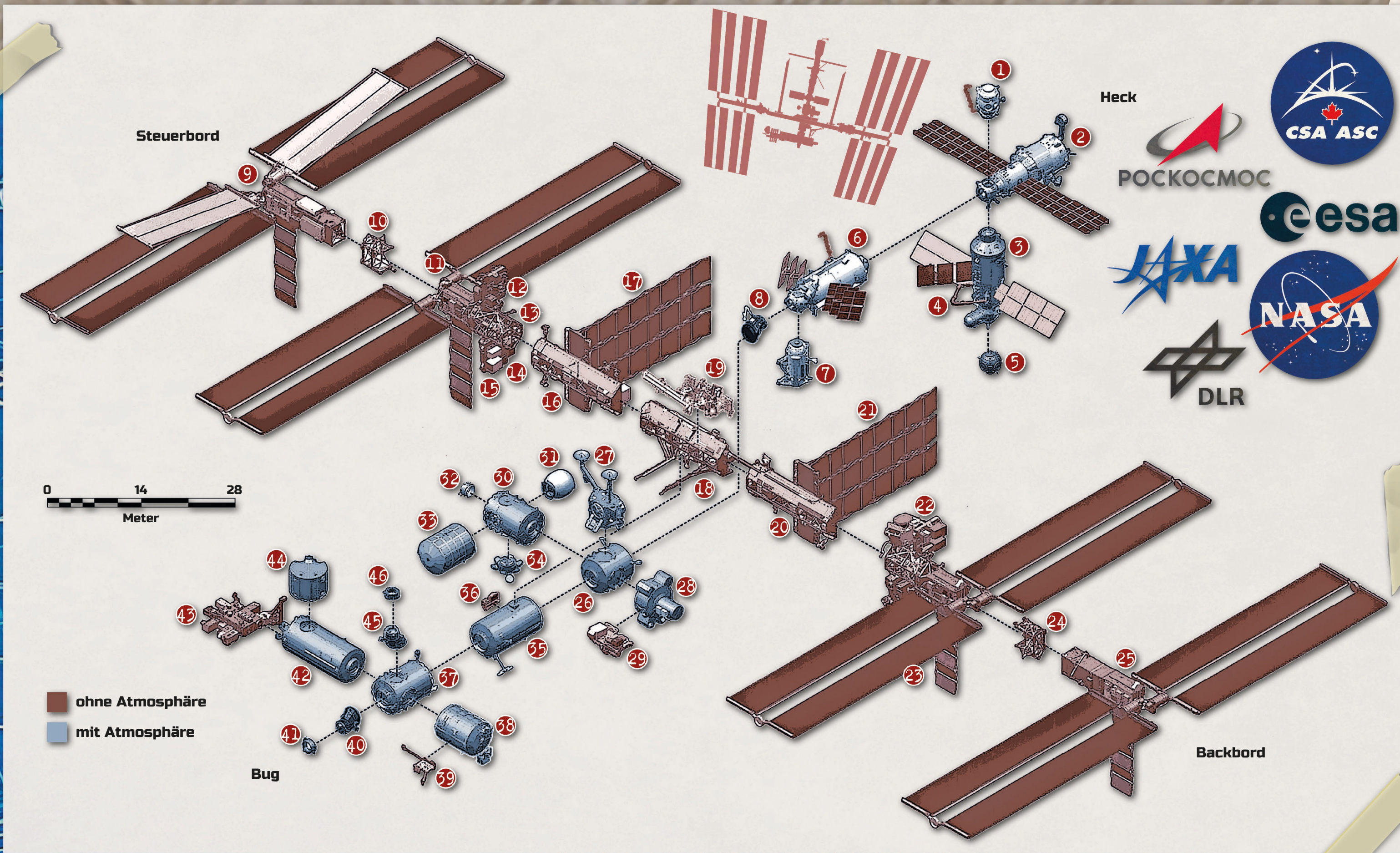
1998-037A

Blueprint no. 1

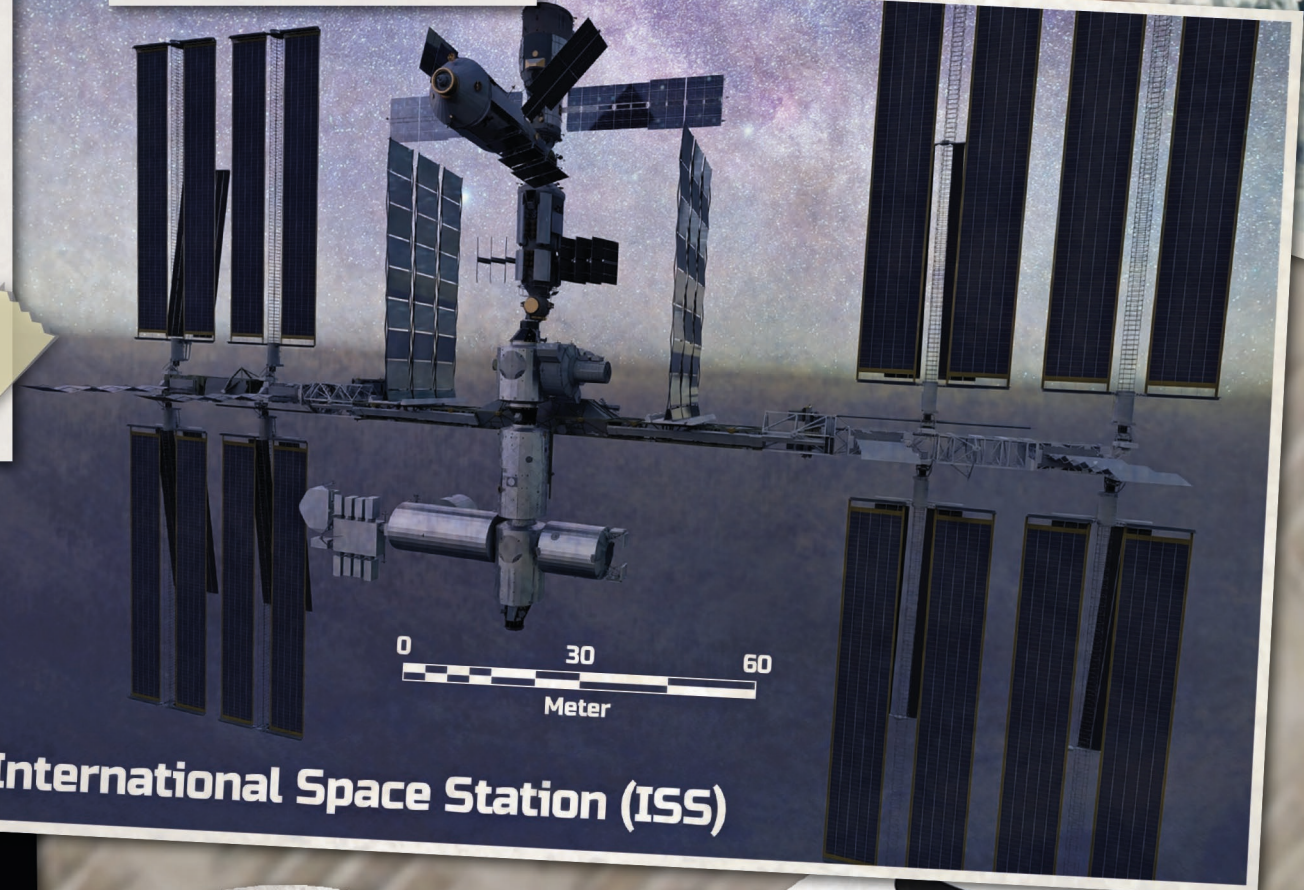
ISS-0419455



# International Space Station - ISS



- Legende:**
- 1. Poisk (MRM-2) - Dockingmodul, Strela-1
  - 2. Swesda (SM) - 2 Schlafkabinen
  - 3. Nauka (MLM) - Fracht-/Labormodul Russland
  - 4. European Robotic Arm (ERA, Greifarm)
  - 5. Pritschal (UM) - Knotenmodul
  - 6. Sarja (FGB) - Fracht-/Kontrollmodul Russland, Strela-2
  - 7. Rasswet (MRM-1) - Fracht-/Kopplungsmodul Russland
  - 8. Kopplungsadapter (PMA-1)
  - 9. S6 (ITS)
  - 10. S5 (ITS)
  - 11. S3/S4 (ITS)
  - 12. NICER - Röntgenteleskop
  - 13. Spektrometer (AMS)
  - 14. Stauplattform (ESP-3)
  - 15. Logistikplattform (ELC-2/ELC-4)
  - 16. S1 (ITS)
  - 17. Starboard Radiator (HRS)
  - 18. S0 (ITS)
  - 19. Mobile Servicing System (MSS), Canadarm 2 (Greifarm), Dextre (SPDM)
  - 20. P1 (ITS)
  - 21. Port Radiator (HRS)
  - 22. Logistikplattform (ELC-1/ELC-3)
  - 23. P3/P4 (ITS)
  - 24. P5 (ITS)
  - 25. P6 (ITS)
  - 26. Unity Verbindungsknoten (Node 1)
  - 27. Zenit 1 - Gitterelement
  - 28. Quest - Luftschleuse
  - 29. Stauplattform (ESP-2)
  - 30. Tranquility Verbindungsknoten (Node 3)
  - 31. BEAM - Stauraum Testmodul
  - 32. Bishop - Druckschleuse für Kleinsatelliten
  - 33. Leonardo (PMM) - Logistikmodul
  - 34. Cupola - Aussichtsmodul
  - 35. Destiny - Labormodul USA
  - 36. Stauplattform (ESP-1)
  - 37. Harmony Verbindungsknoten (Node 2) - 4 Schlafkabinen
  - 38. Columbus - Labormodul Europa
  - 39. Bartolomeo - Außenplattform
  - 40. Kopplungsadapter (PMA-2)
  - 41. Dockingmodul (IDA-2)
  - 42. Kibo - Labormodul Japan mit Roboterarm JEMRMS (Greifarm)
  - 43. Kibo - Außenplattform (EF)
  - 44. Kibo - Logistikmodul (ELM-PS)
  - 45. Kopplungsadapter (PMA-3)
  - 46. Dockingmodul (IDA-3)





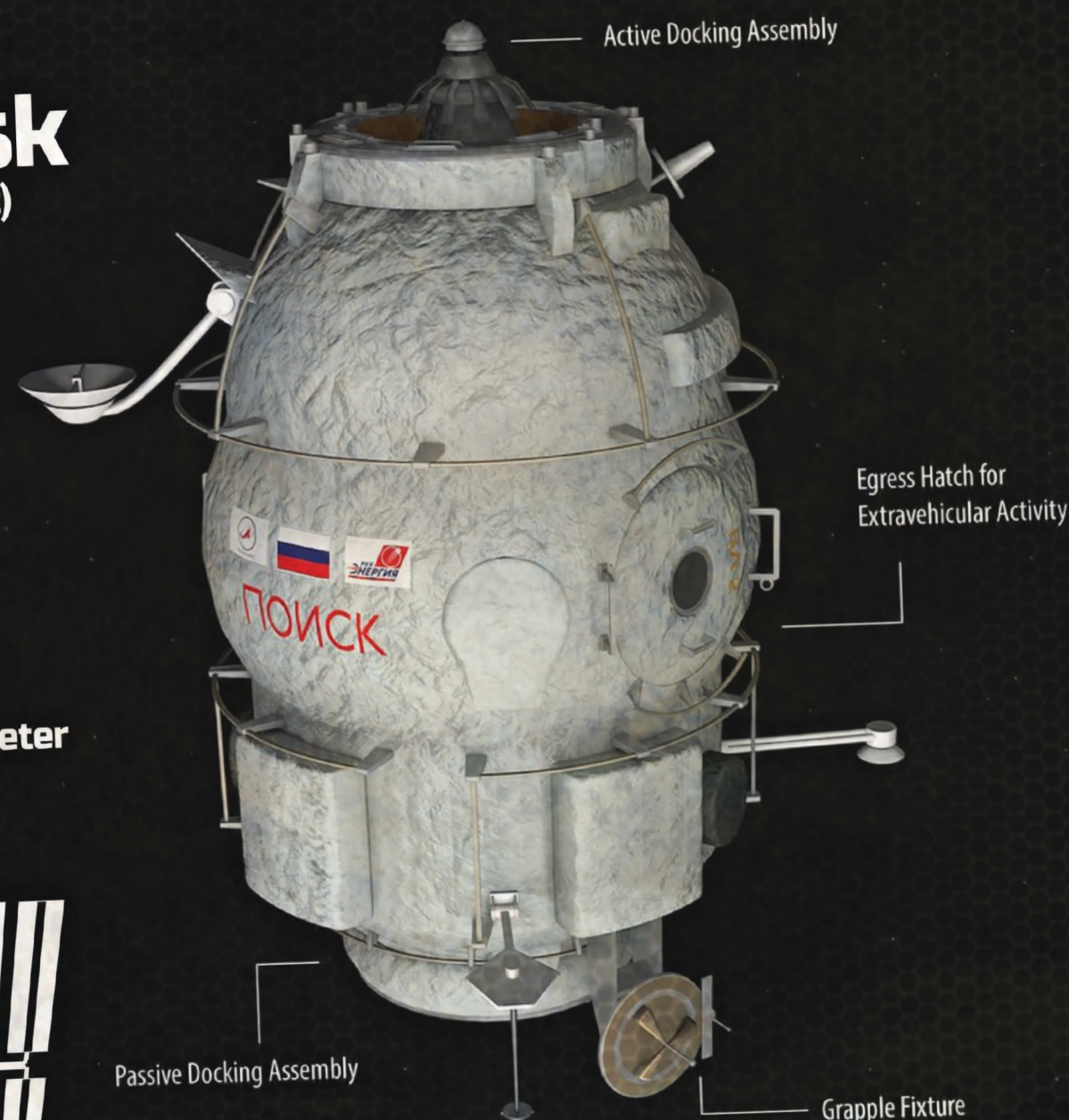
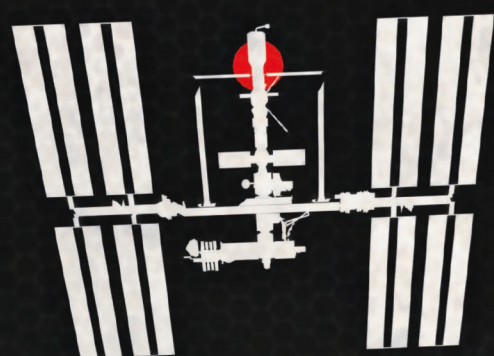
# International Space Station - ISS

1

## Poisk (MRM-2)

Länge: 4,91 Meter  
Durchmesser: 2,55 Meter

Position ●

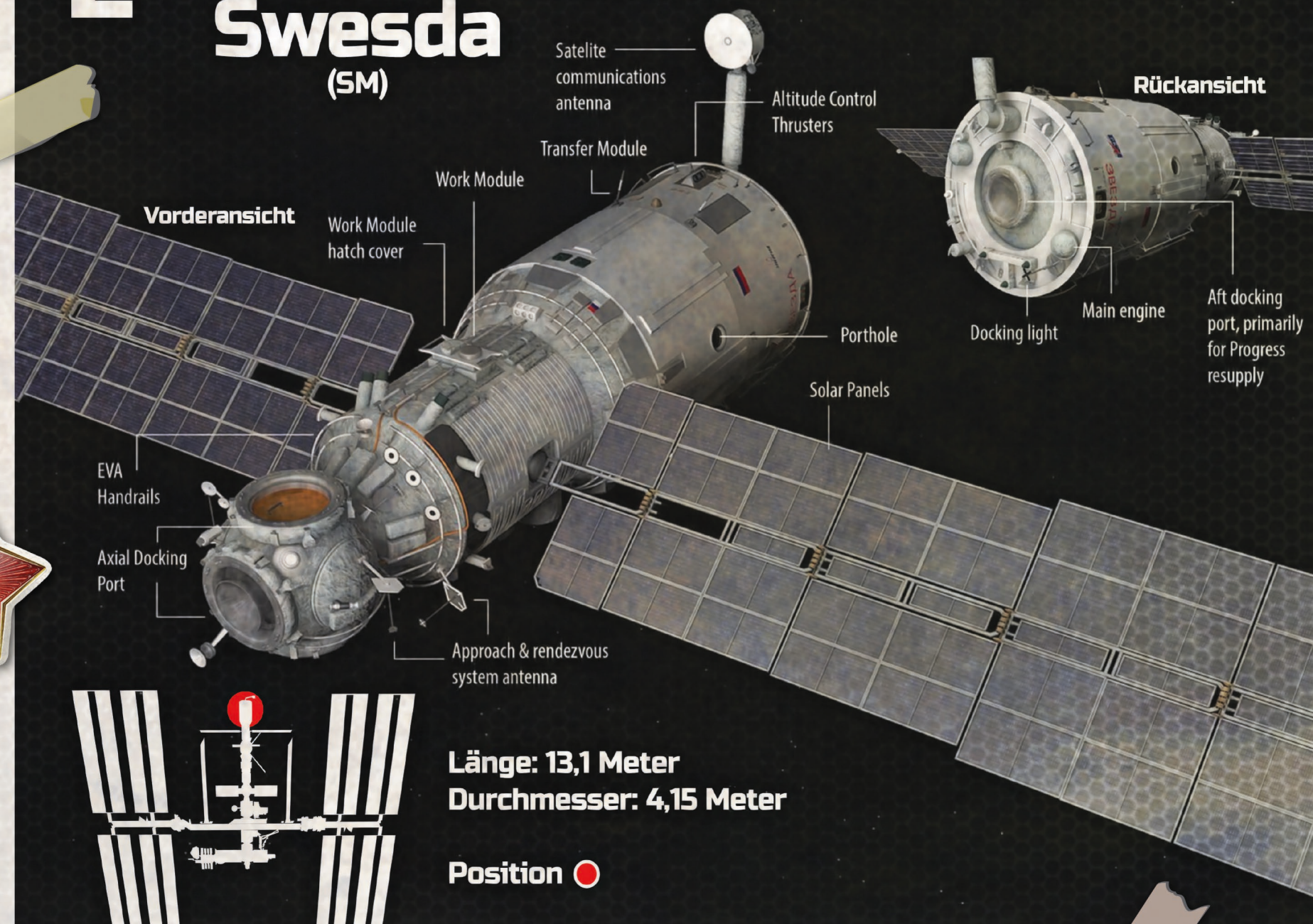


2

## Swesda (SM)

Länge: 13,1 Meter  
Durchmesser: 4,15 Meter

Position ●

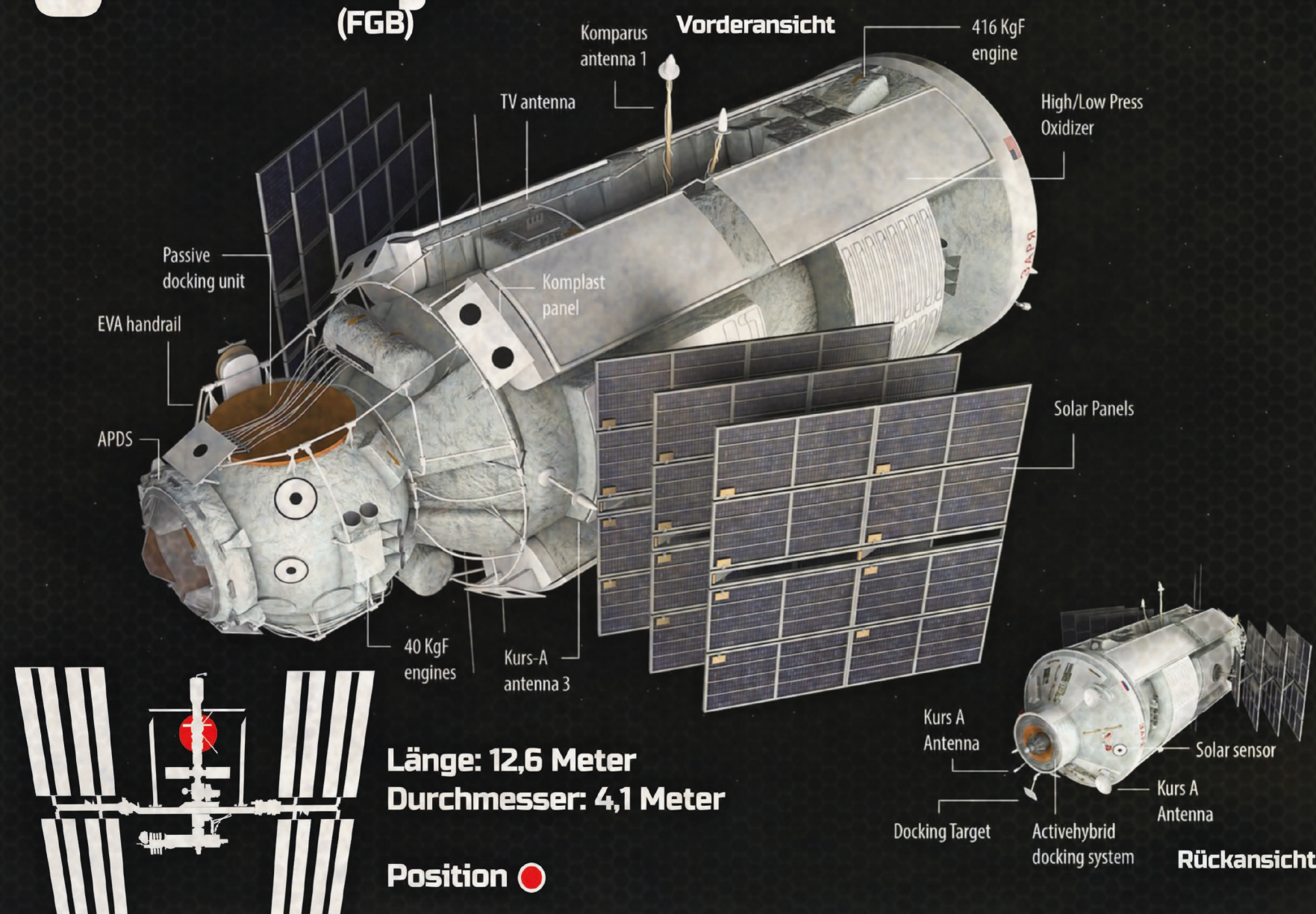


6

## Sarja (FGB)

Länge: 12,6 Meter  
Durchmesser: 4,1 Meter

Position ●

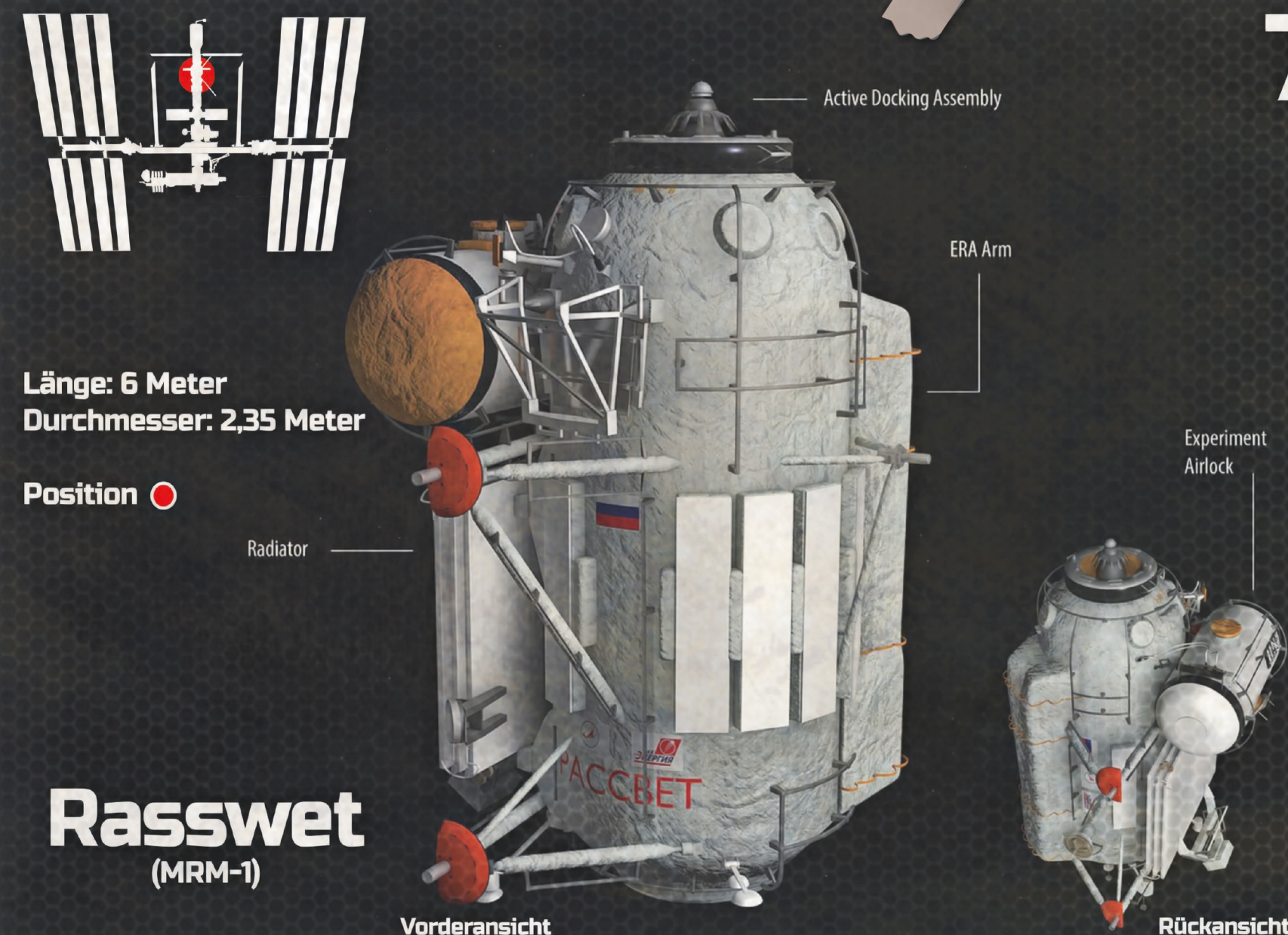


7

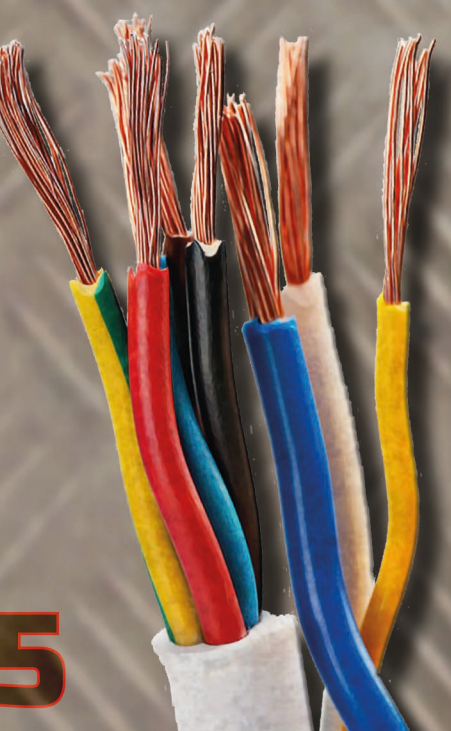
## Rasswet (MRM-1)

Länge: 6 Meter  
Durchmesser: 2,35 Meter

Position ●



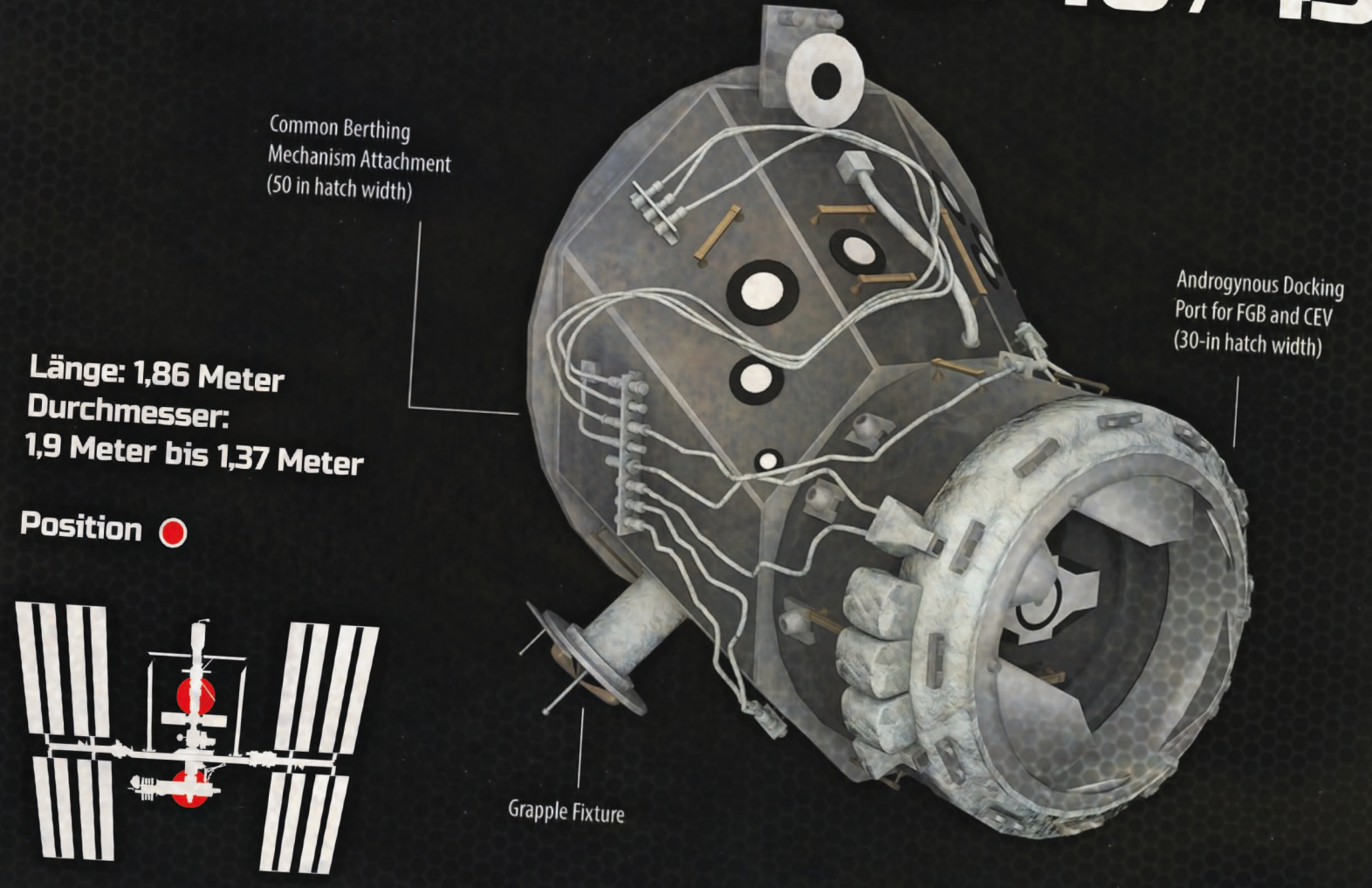




# Kopplungsadapter

(PMA-1, PMA-2 und PMA-3)

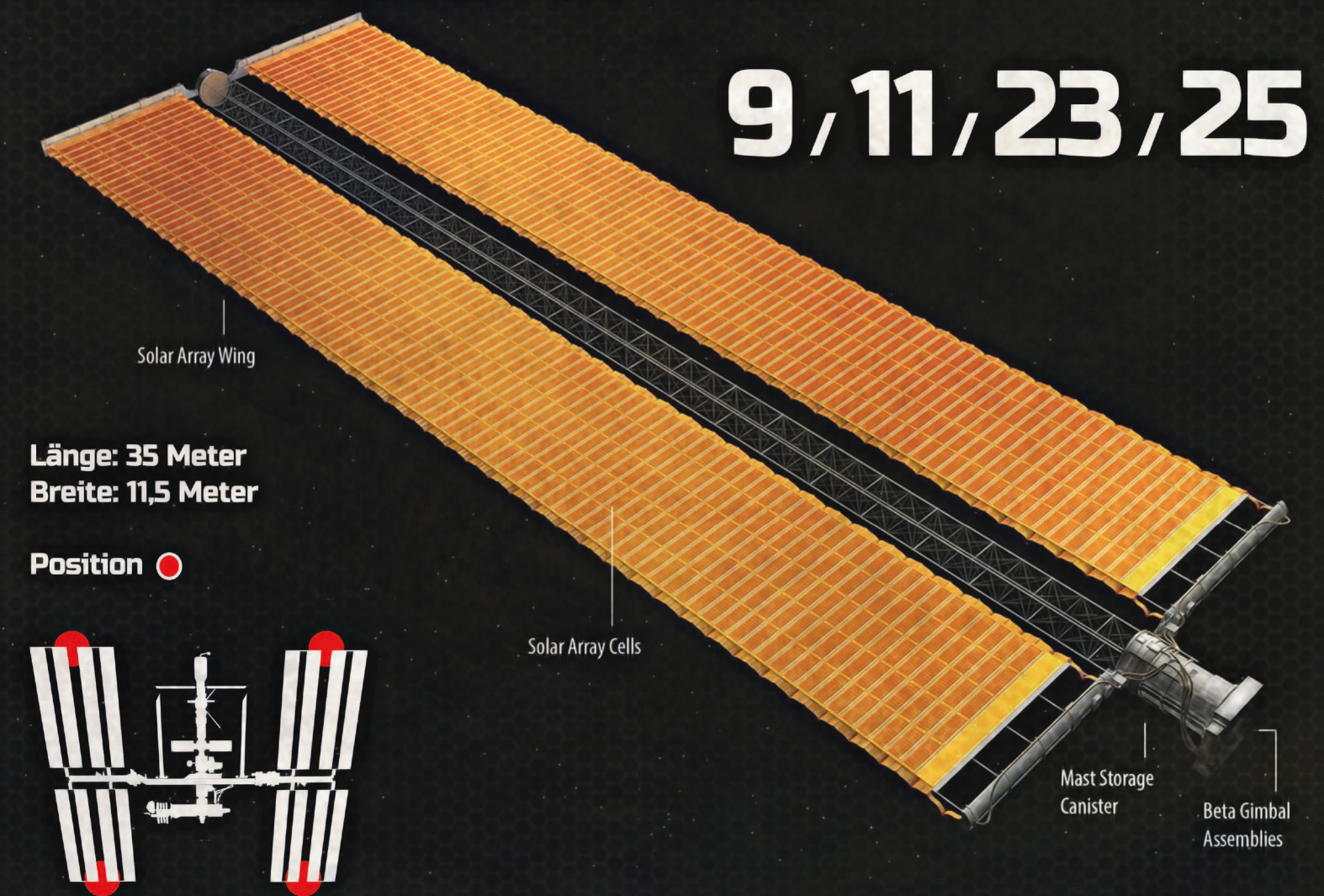
## 8, 40, 45



# Integrated Truss Structure

(Photovoltaic Arrays an S6, S3/S4, P3/4, P6)

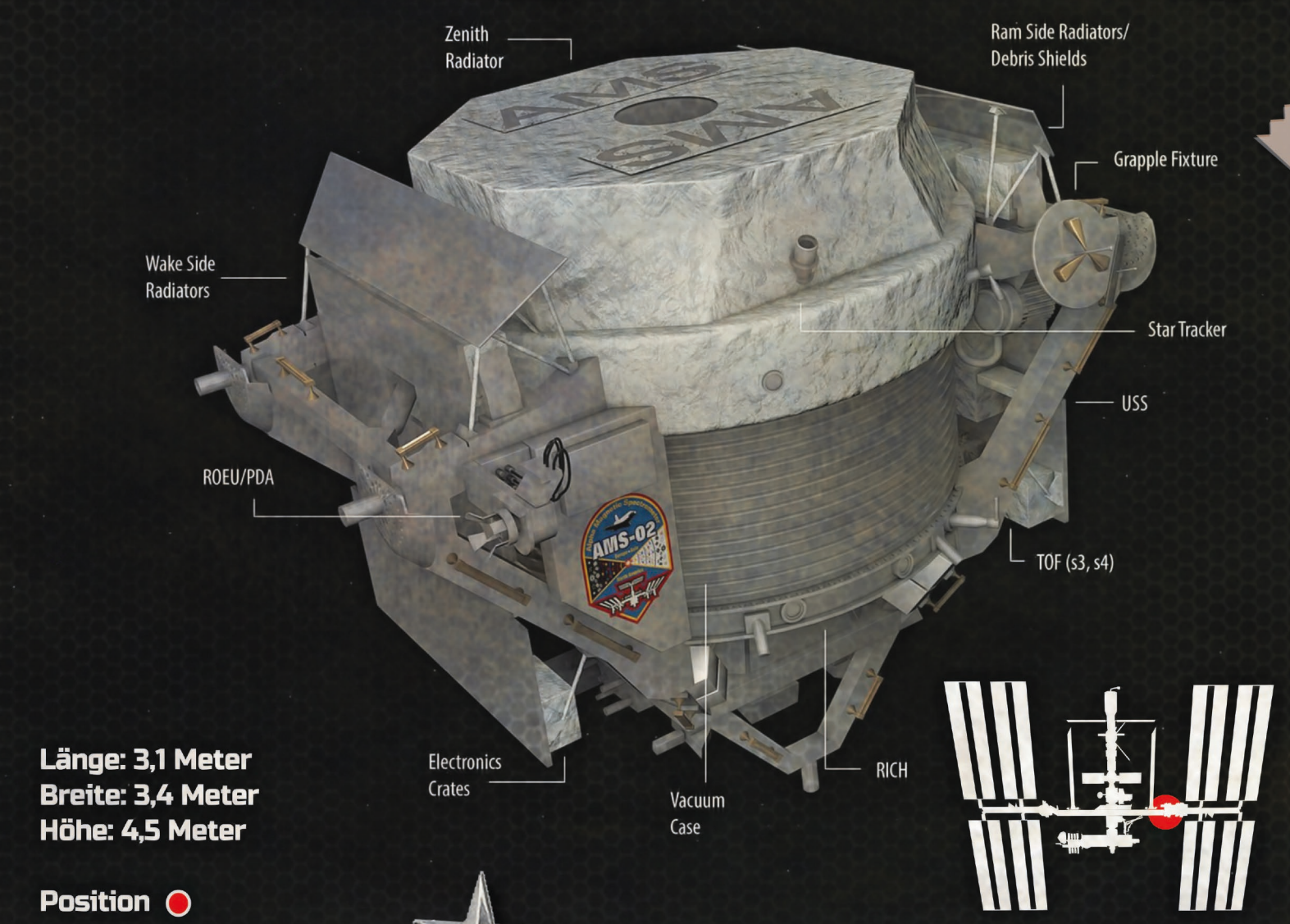
## 9, 11, 23, 25



# Alpha-Magnet-Spektrometer

(AMS)

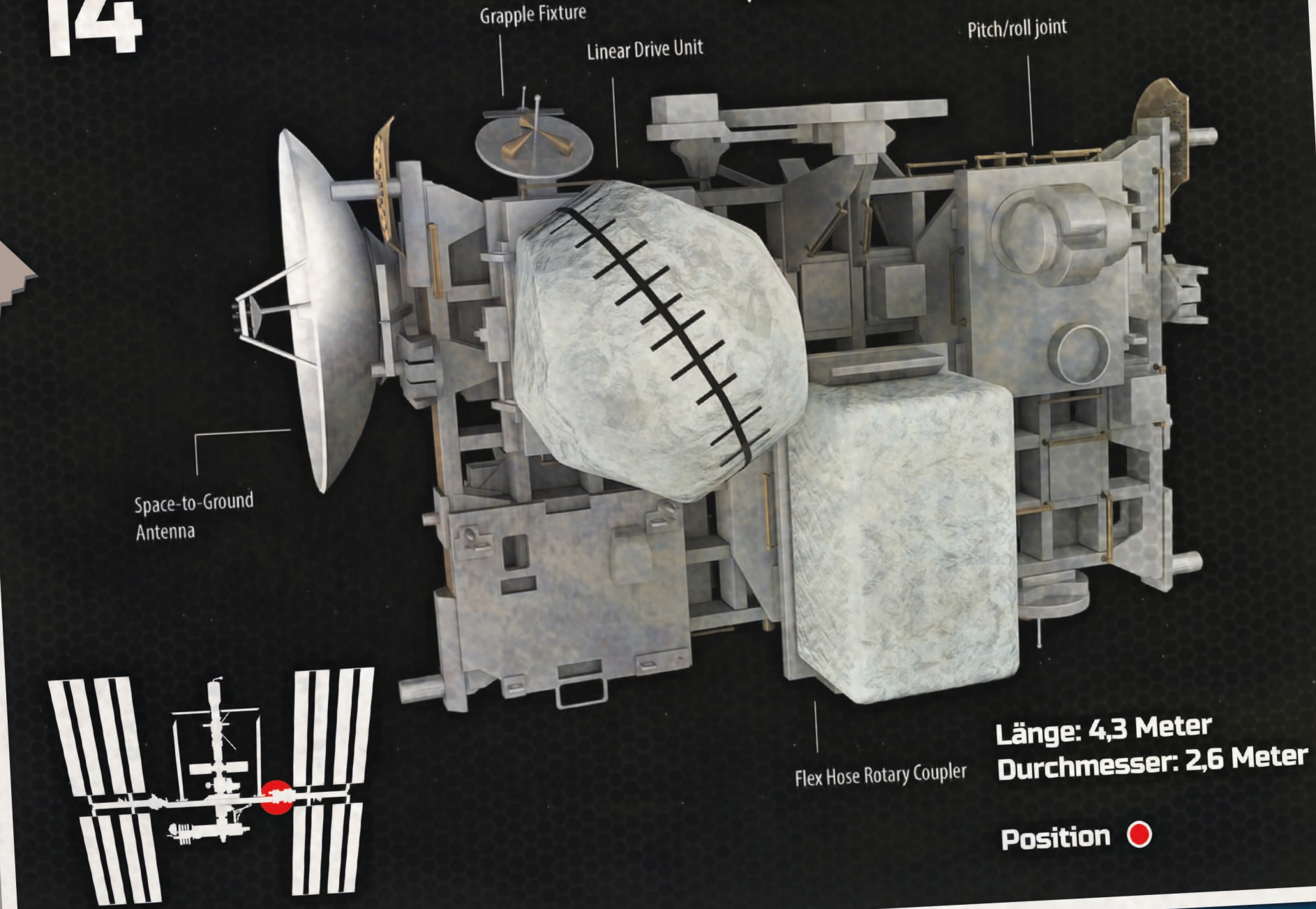
## 13



# External Stowage Platform

(ESP-3)

## 14





15

Express Logistics Carrier

ELC-2

ELC-4

Länge: je 5,0 Meter  
Breite: je 4,0 Meter

Position ●

18

Integrated Truss Structure  
(Stationsgerüst - S0)

Länge: 13,4 Meter  
Durchmesser: 4,6 Meter

Position ●



19

Remote Manipulator System  
Canadarm 2

Länge: 17,6 Meter

Position ●

17, 21

Thermal Control System  
(Starboard-/Port-Radiator)

Länge: 7,2 Meter  
Breite: 4,4 Meter

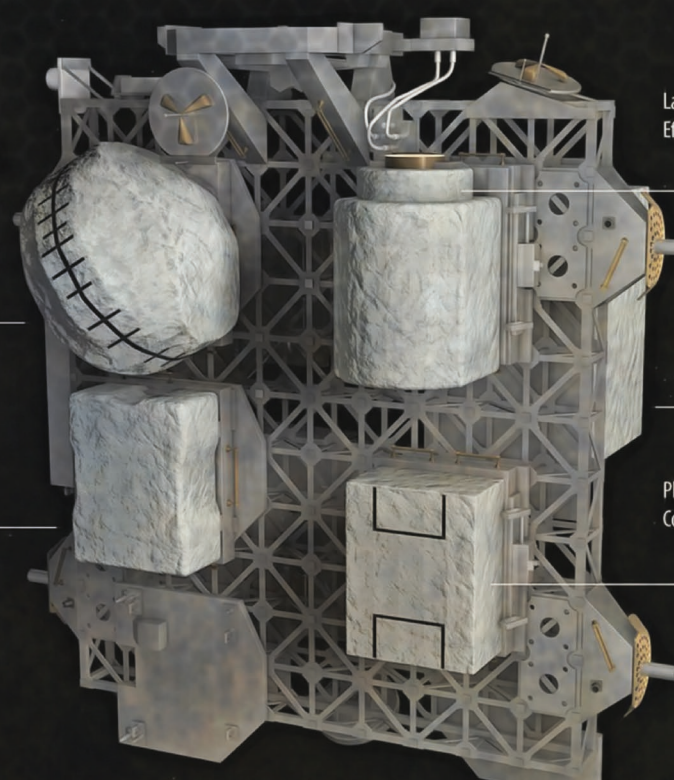
Position ●





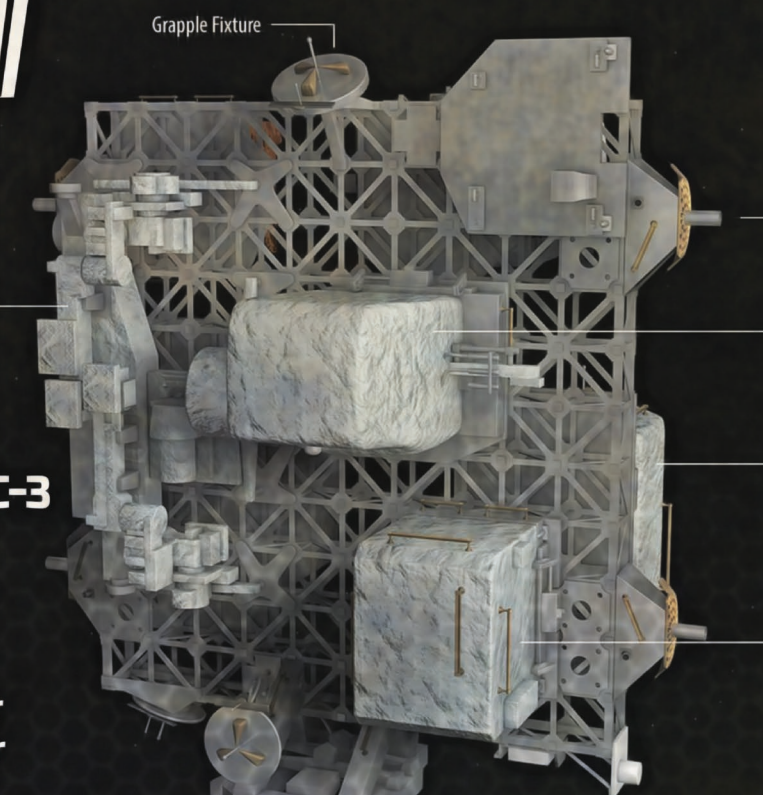


# 22 Express Logistics Carrier



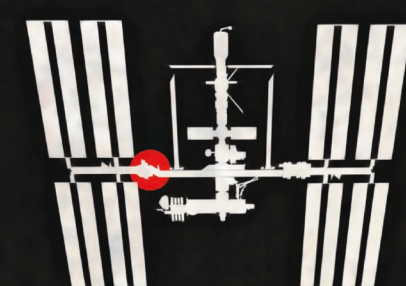
ELC-1

- Control Moment Gyroscope
- Battery Charger Discharge Unit
- Latching End Effector
- Ammonia Tank Assembly
- Plasma Contactor Unit



ELC-3

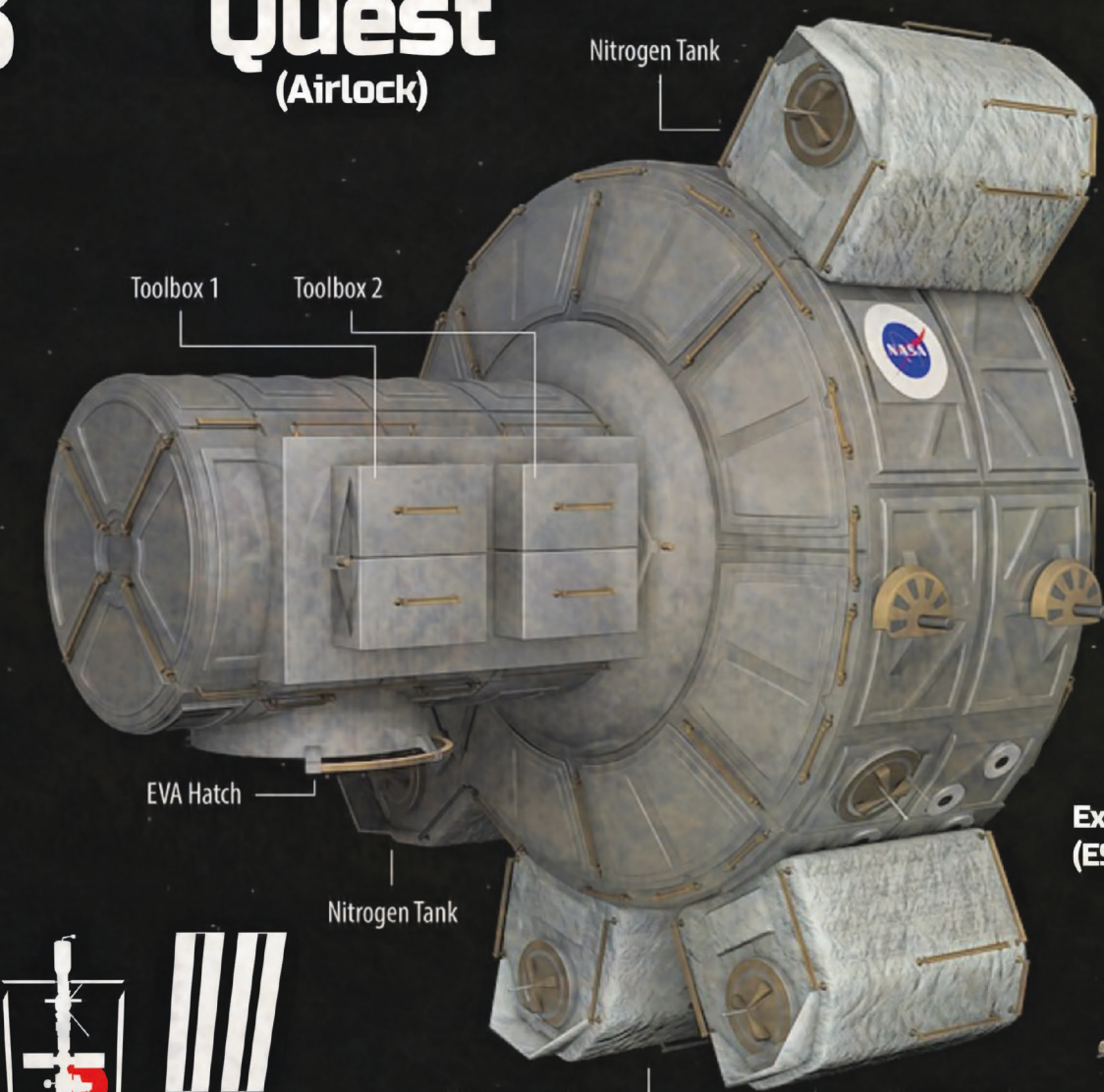
- Grapple Fixture
- Trunnion
- Special Purpose Dexterous Manipulator Arm
- S band Antenna Sub-System Assembly
- High Pressure Gas Tank
- Space Test Program-Houston 3



Länge: je 5,0 Meter  
Breite: je 4,0 Meter

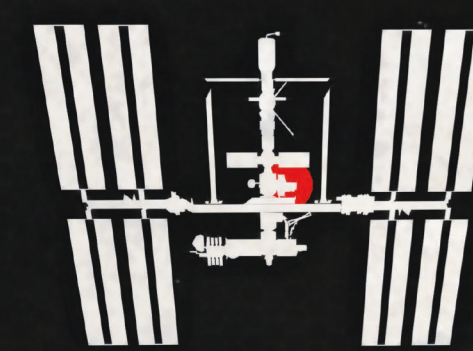
Position ●

# 28 Quest (Airlock)



Quest (Airlock)

- Nitrogen Tank
- Toolbox 1
- Toolbox 2
- EVA Hatch
- Nitrogen Tank
- Nitrogen Tank
- Nitrogen Tank



Länge: 5,5 Meter  
Durchmesser: 4,0 Meter

Position ●

# 29 External Stowage Platform (ESP-2)



ESP 2

- Nitrogen Tank
- EVA Hatch

# 26 Unity (Node 1 mit PMA-1)



Unity


- Hatch
- Trunnion
- PMA-1



Länge: 5,47 Meter  
Durchmesser: 4,57 Meter

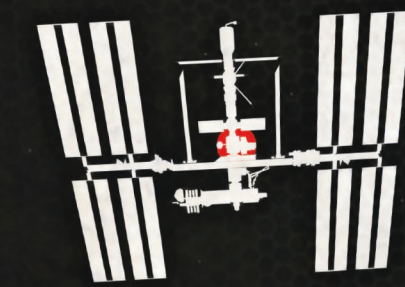
Position ●

# 27 Zenit 1 (Truss Segment)



Zenit 1 (Truss Segment)

- Ku-band boom and antenna assembly
- RTAS Mechanism Housing (4 total on Zenith Bulkhead)
- SGTRC
- Keel Pin Stowage location
- ETSD
- Vorderansicht
- MBM Berthing Ring
- Z1 Fluid Line Cable Tray
- Rückansicht
- Trunnion Pin and scuff plate



Länge: 4,9 Meter  
Durchmesser: 4,2 Meter

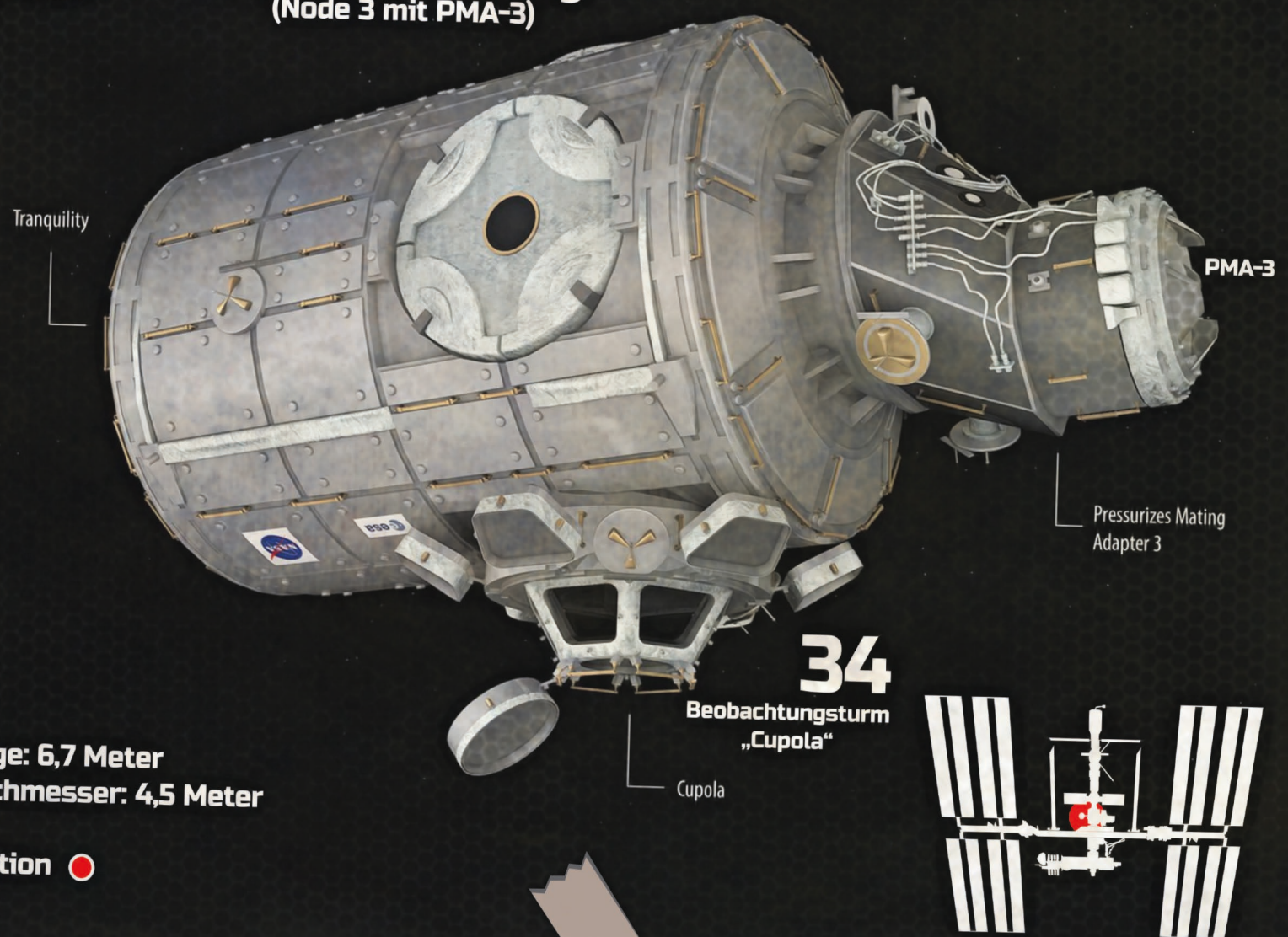
Position ●





# International Space Station - ISS

## 30 Tranquility (Node 3 mit PMA-3)

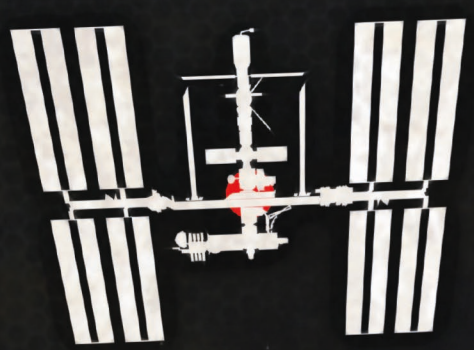
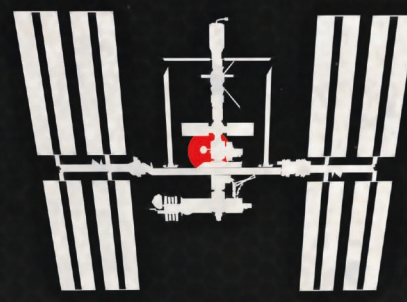


## Bigelow Expandable Activity Module (BEAM)

31

Länge: 4,01 Meter  
Durchmesser: 3,23 Meter

Position ●



Länge: 6,6 Meter  
Durchmesser: 4,57 Meter

Position ●

## Leonardo Permanent Multipurpose Module (PMM)

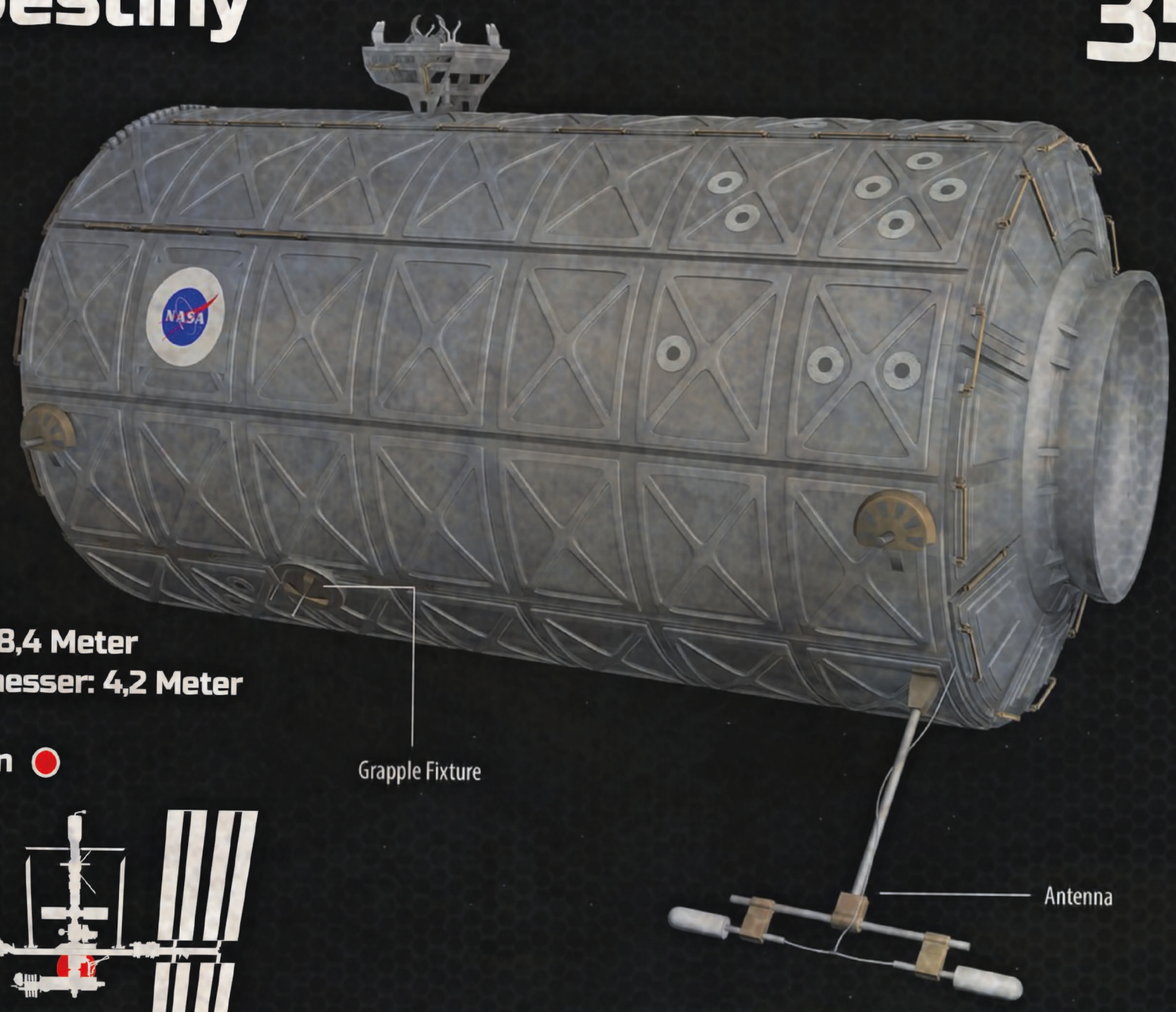
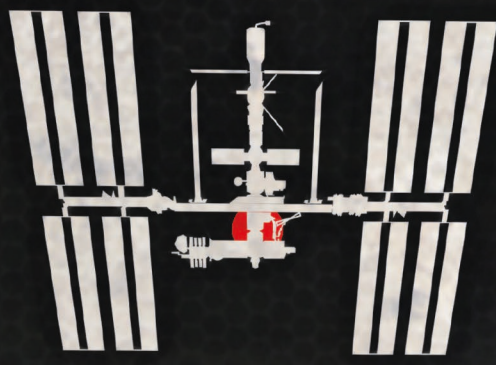


33

## Destiny

Länge: 8,4 Meter  
Durchmesser: 4,2 Meter

Position ●



35



...mission before  
...ed orbit, and  
...ed just before  
...uch used the  
...maneuvering  
...the conclusion  
...the orbiter fired  
...st and reenter.  
...The orbiter was  
...reentry by its  
...thermal protection system tiles,  
...and it glided as a spaceplane to

...0,000 kg  
...0,000 lb  
...OSTERS)  
...o fuel rocket  
...rs  
...0 kN  
...0,000 lb  
...ammonium  
...lorate compo  
...ropeellant)

...BATTERY  
...25 engines  
...ed on Orbiter  
...0 kN  
...0,000 lb  
...7 LOX

...CITY  
...000 kg  
...600 lb  
...220 kg  
...100 lb  
...500 kg  
...010 lb  
...270 kg  
...000 lb

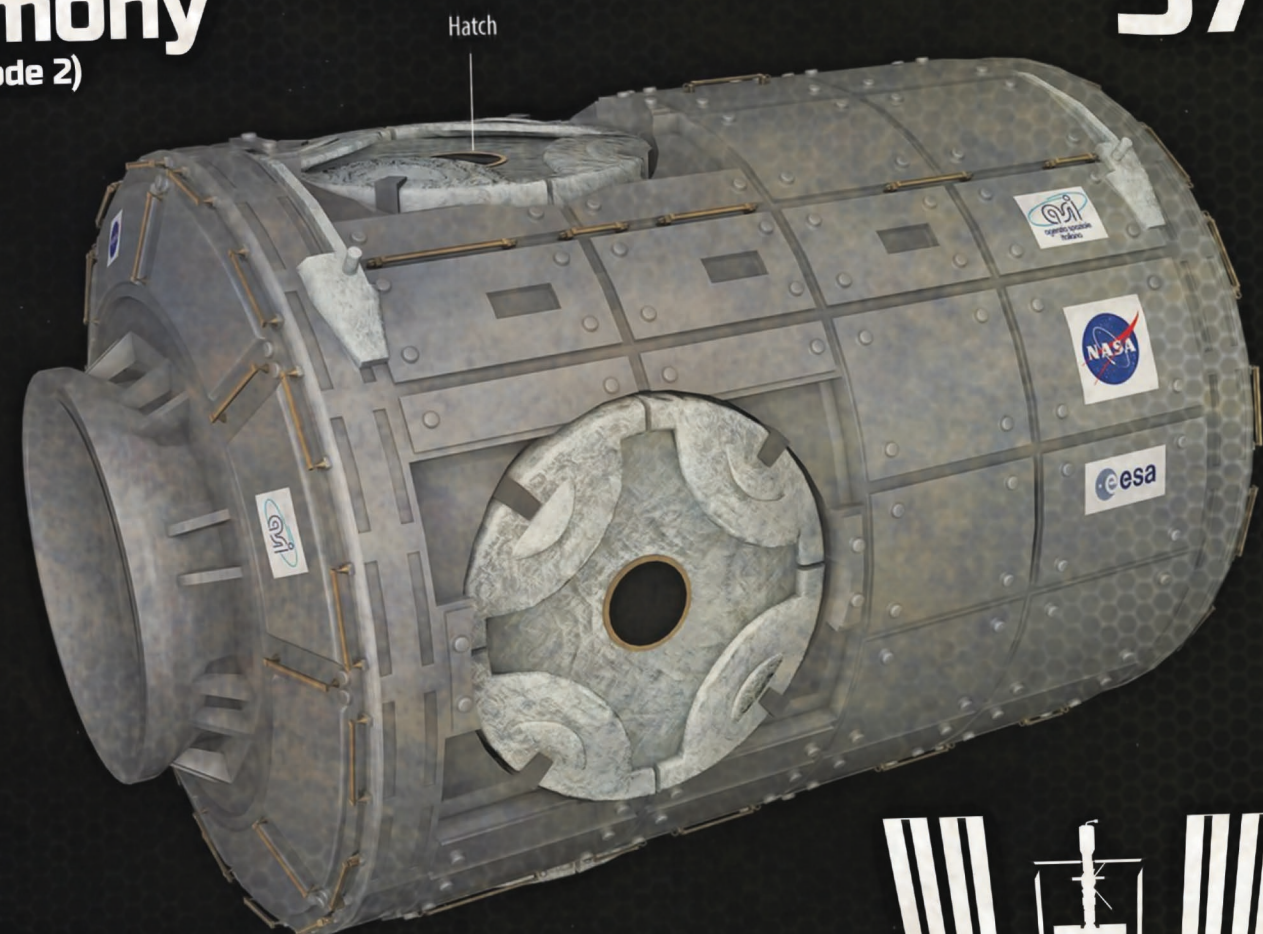




# Harmony

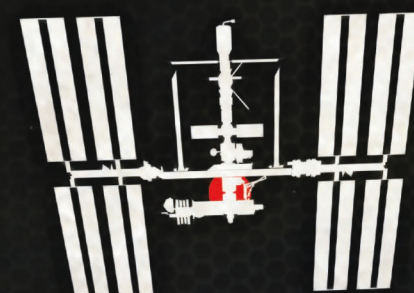
(Node 2)

37



Länge: 7,2 Meter  
Durchmesser: 4,4 Meter

Position ●



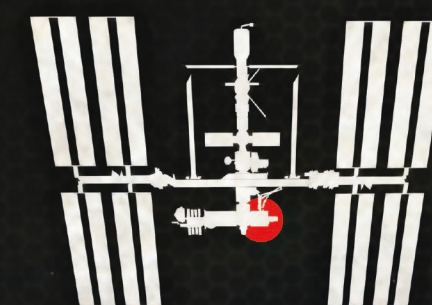
38

# Columbus



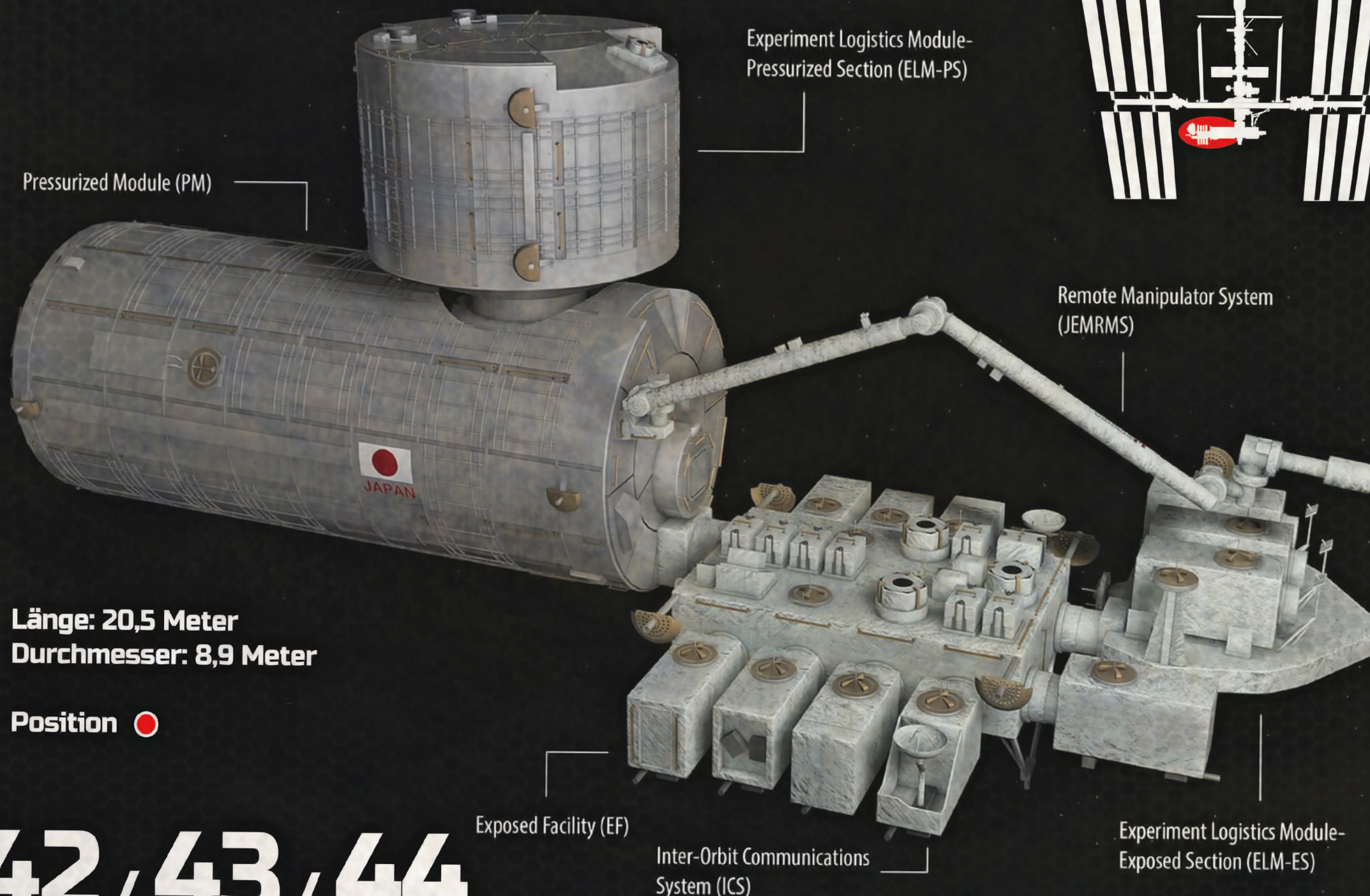
Länge: 7,0 Meter  
Durchmesser: 4,5 Meter

Position ●



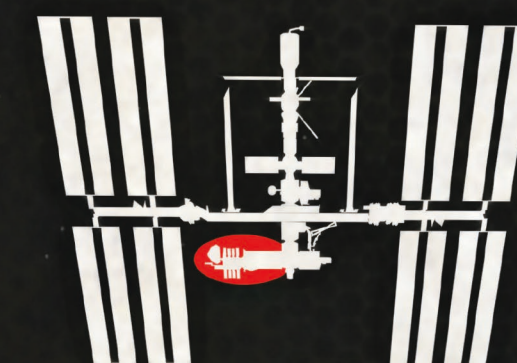
# Japanese Experiment Module

(JEM - Kibo)



Länge: 20,5 Meter  
Durchmesser: 8,9 Meter

Position ●



42,43,44

ONE  
MENTAL  
BREAKDOWN  
LATER...

OPEN FOR  
IDEAS

