42 Flights to ISS - 11/98-8/04

16 shuttle flights

STS 88 2A U.S. Node
STS 96 2A.1 Logistics
STS101 2a.2a Logistics
STS106/ 2B.2B Logistics
STS 92/3A Z-1 Truss
STS 97 P6 Solar Array
STS 98/5A (Destiny Lab)
STS 102/5A.1 (MPLM, Expedition 2)
STS 100/6A (CanadArm2)
STS 104/7A (U.S. Airlock)
STS 105/7A.1 (MPLM, Expedition 3)
STS 108/UF1 (Expedition 4)
STS110 8A (S0 Truss)
STS 111/ UF2 (Science and Expedition 5)
STS112 /9A (S1 Starboard Truss)
STS 113/ 11A (P1 Port Truss)

26 Russian flights

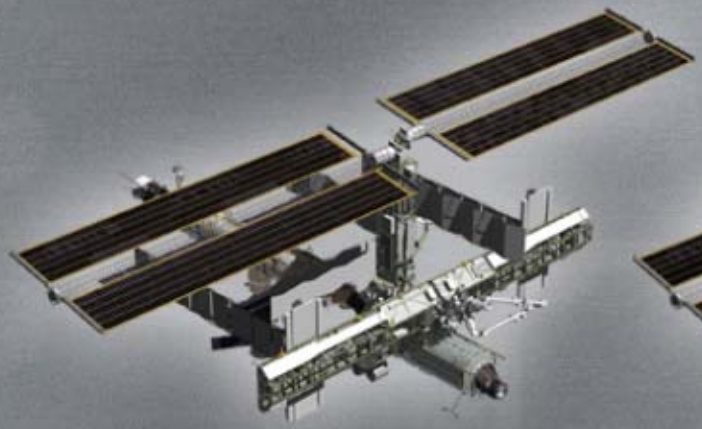
2 Proton, (FGB, Service Module)
15 Progress re-supply ships
8 Manned Soyuz
1 Unmanned Soyuz, (Docking Compartment)

ISS Assembly History

2A
Zarya/FGB
Unity Node 1

3A
Zvezda Service Module
Z-1 Truss w/Early Comm

4A
P6 Truss
w/Solar Array



11A
P-1 truss
Current Configuration

9A
Pirs Airlock
S-0 Truss
S-1 Truss

7A
Destiny Lab
CanadArm2
Quest Airlock

ISS Launch Vehicles now and in the future

Shuttle

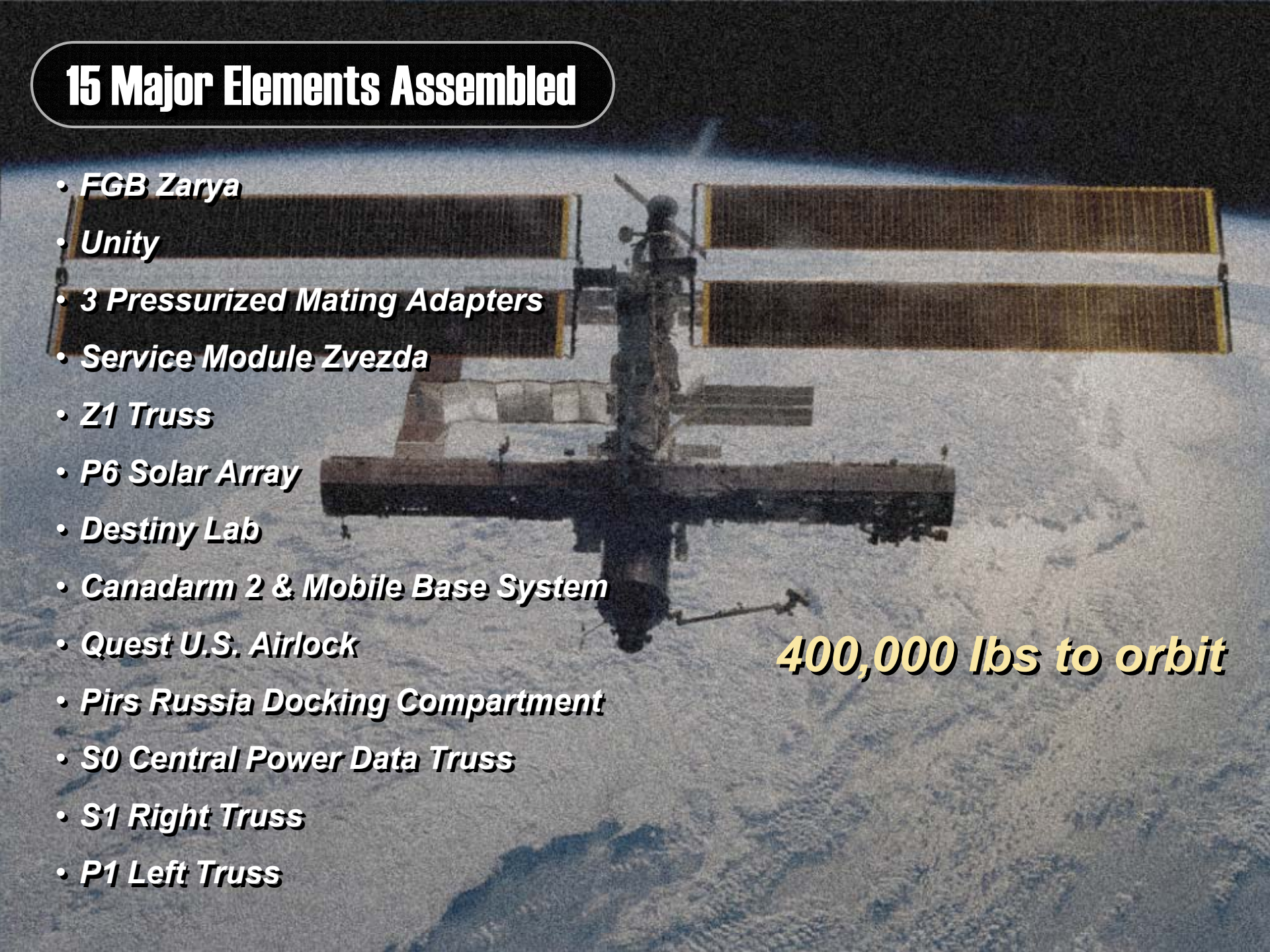
Proton

Soyuz

Ariane&
ATV

HIIA & HTV

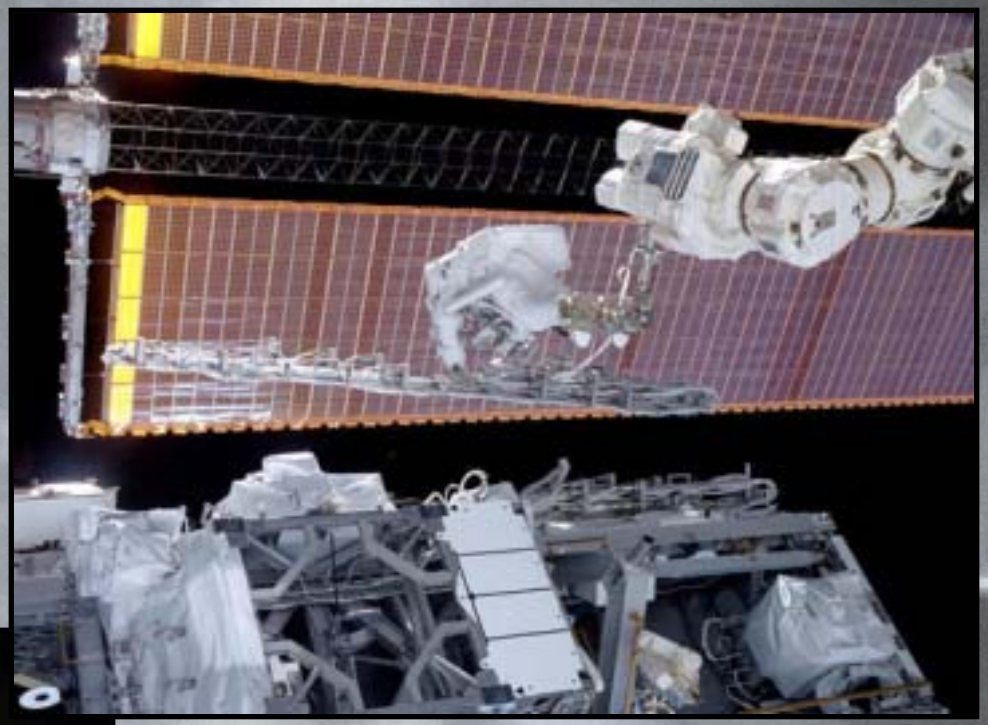
15 Major Elements Assembled

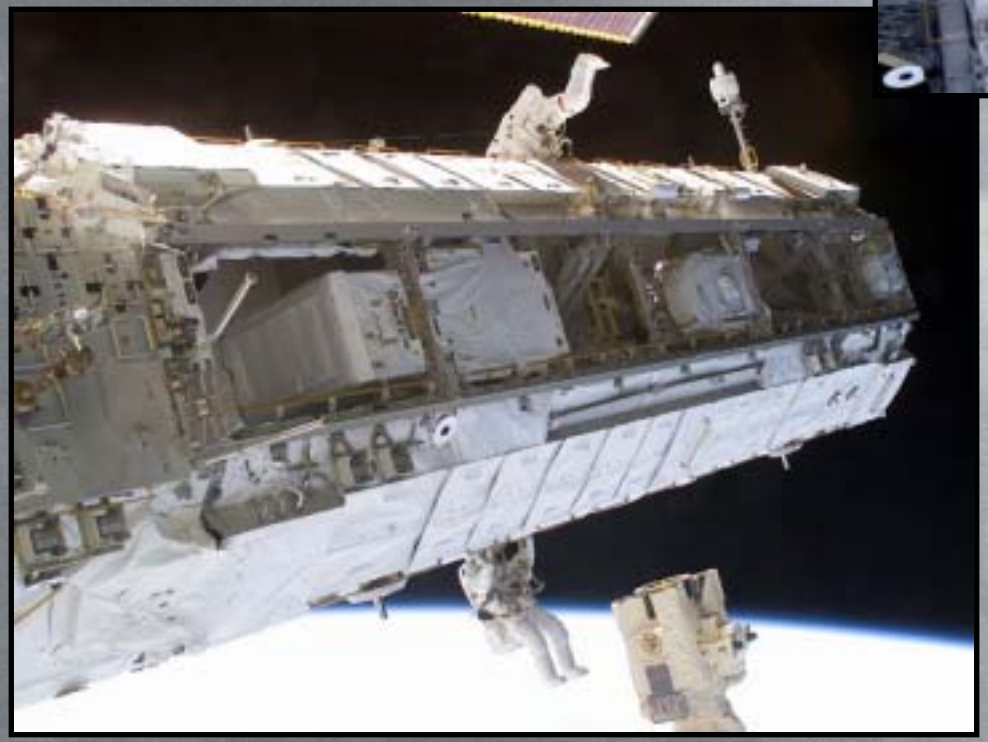


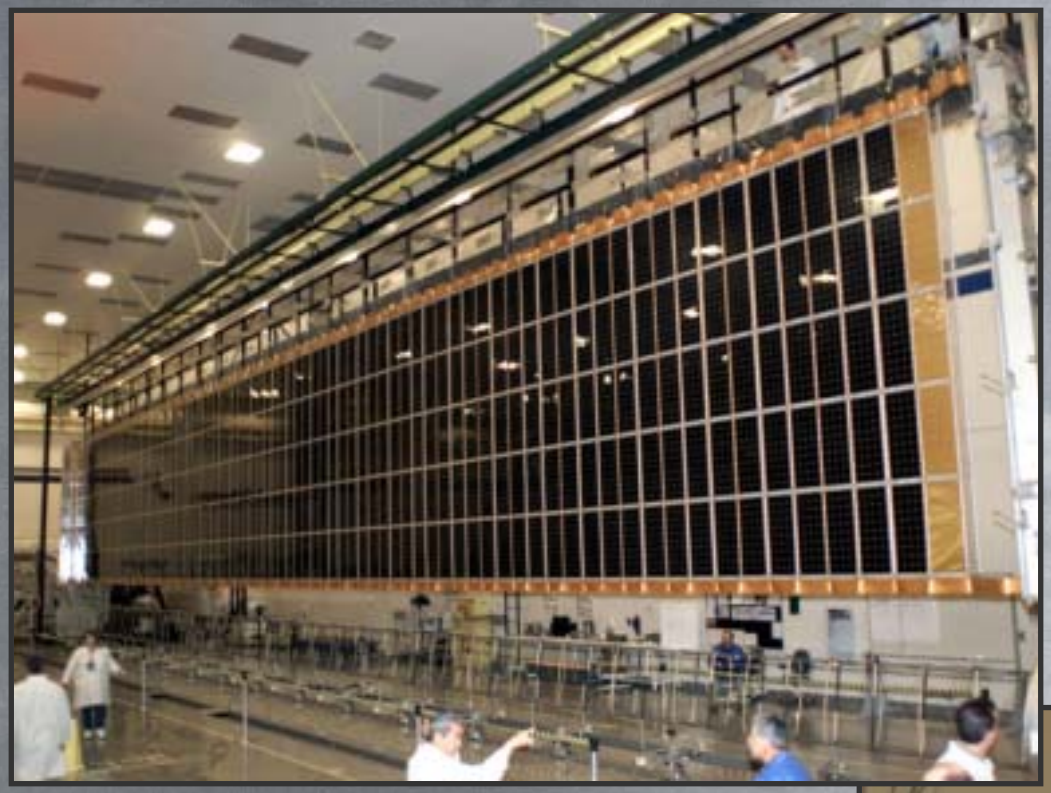
- FGB Zarya
- Unity
- 3 Pressurized Mating Adapters
- Service Module Zvezda
- Z1 Truss
- P6 Solar Array
- Destiny Lab
- Canadarm 2 & Mobile Base System
- Quest U.S. Airlock
- Pirs Russia Docking Compartment
- S0 Central Power Data Truss
- S1 Right Truss
- P1 Left Truss

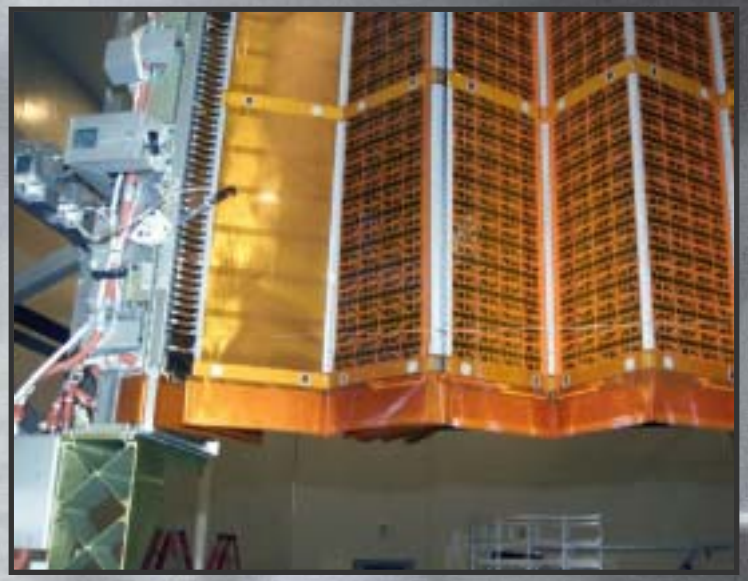
400,000 lbs to orbit

In 2001 and 2002, 160,000 lbs of hardware was lifted to the International Space Station, building mainly the backbone Truss structure.









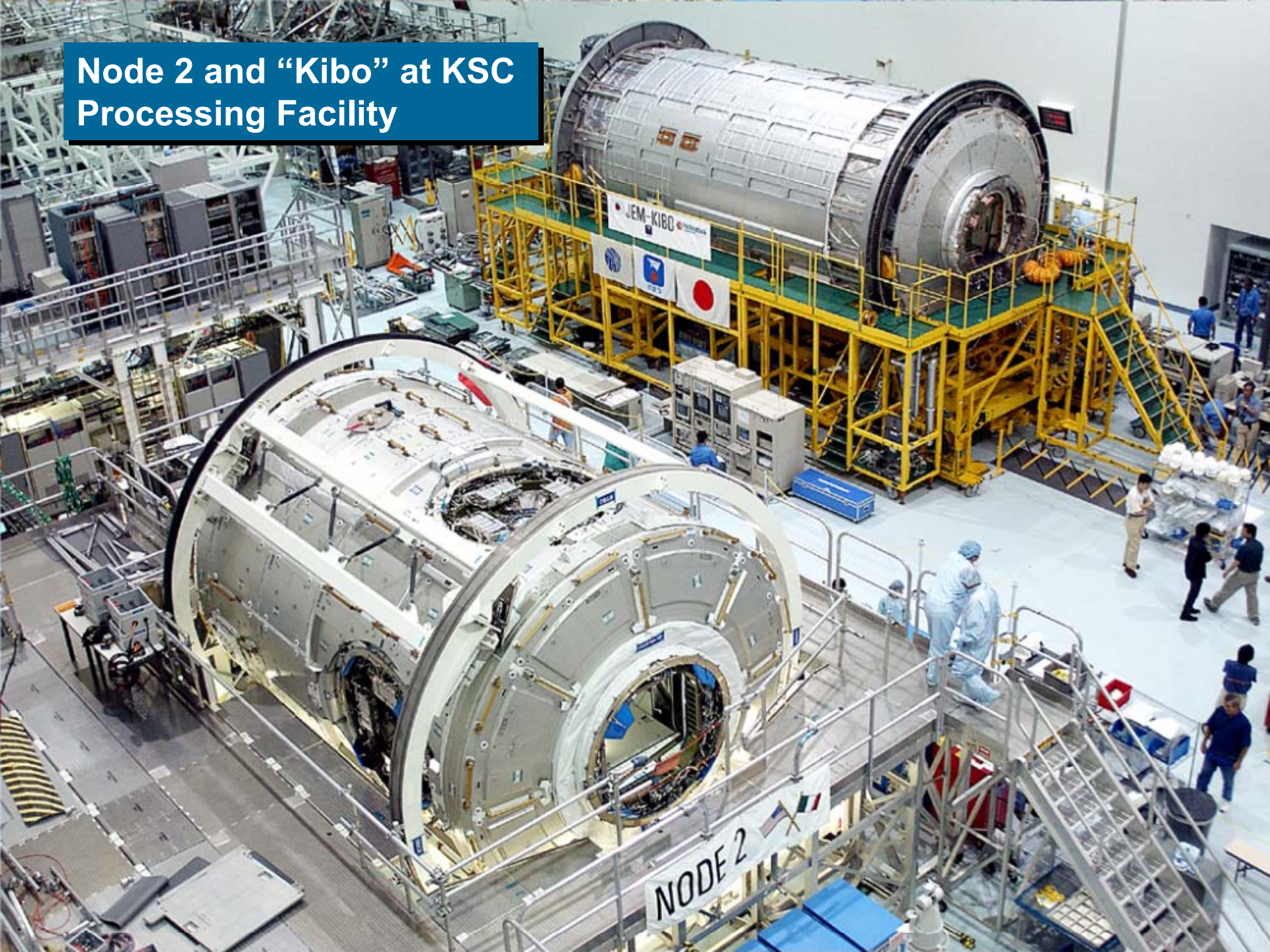
Once ISS assembly resumes after Shuttle return to flight, NASA will focus on completing the massive U.S. Solar Arrays that provide the electricity needed to operate the ISS

ISS Elements at Kennedy Space Center

Space Station Processing Facility (SSPF)

Operations and Checkout Facility (O&C)

Node 2 and “Kibo” at KSC Processing Facility



EVA Challenge