

***International Space Station  
On-Orbit Assembly Sequence***

**As of December 2000**



1ar

- **First launch - Zarya Control Module. Early power and propulsion**
- **Launched November 20, 1998 on a Russian Proton vehicle**



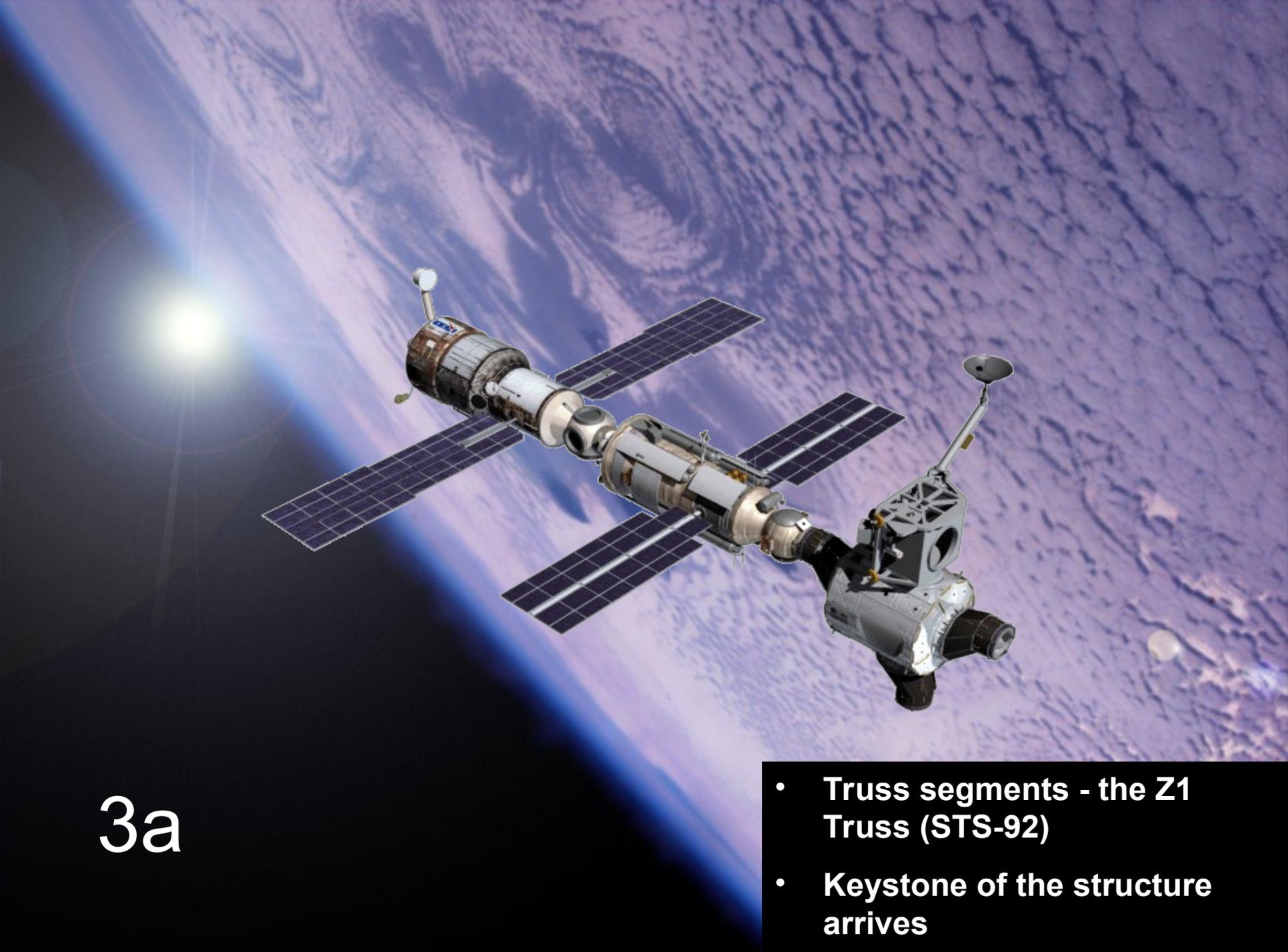
2a

- **Unity connecting module with 2 mating adapters**
- **Launched December 4, 1998 on Space Shuttle Mission STS-88**



1r

- **Zvezda Service Module provides early living quarters and utilities**
- **Launched July 11, 2000 on a Russian Proton vehicle**



3a

- Truss segments - the Z1 Truss (STS-92)
- Keystone of the structure arrives



2r

- **People - Expedition One crew arrives aboard a Russian Soyuz Spacecraft**



4a

- **Power - First of 4 giant solar arrays provide renewable electric power**
- **(STS-97)**



5a

- **US Destiny Laboratory Module**
- **Launched February 7, 2001 aboard Shuttle STS-98**



6a

- **Canada's Robotic Arm**
- **Ultra High Frequency (UHF) antenna**
- **Shuttle mission STS 100**



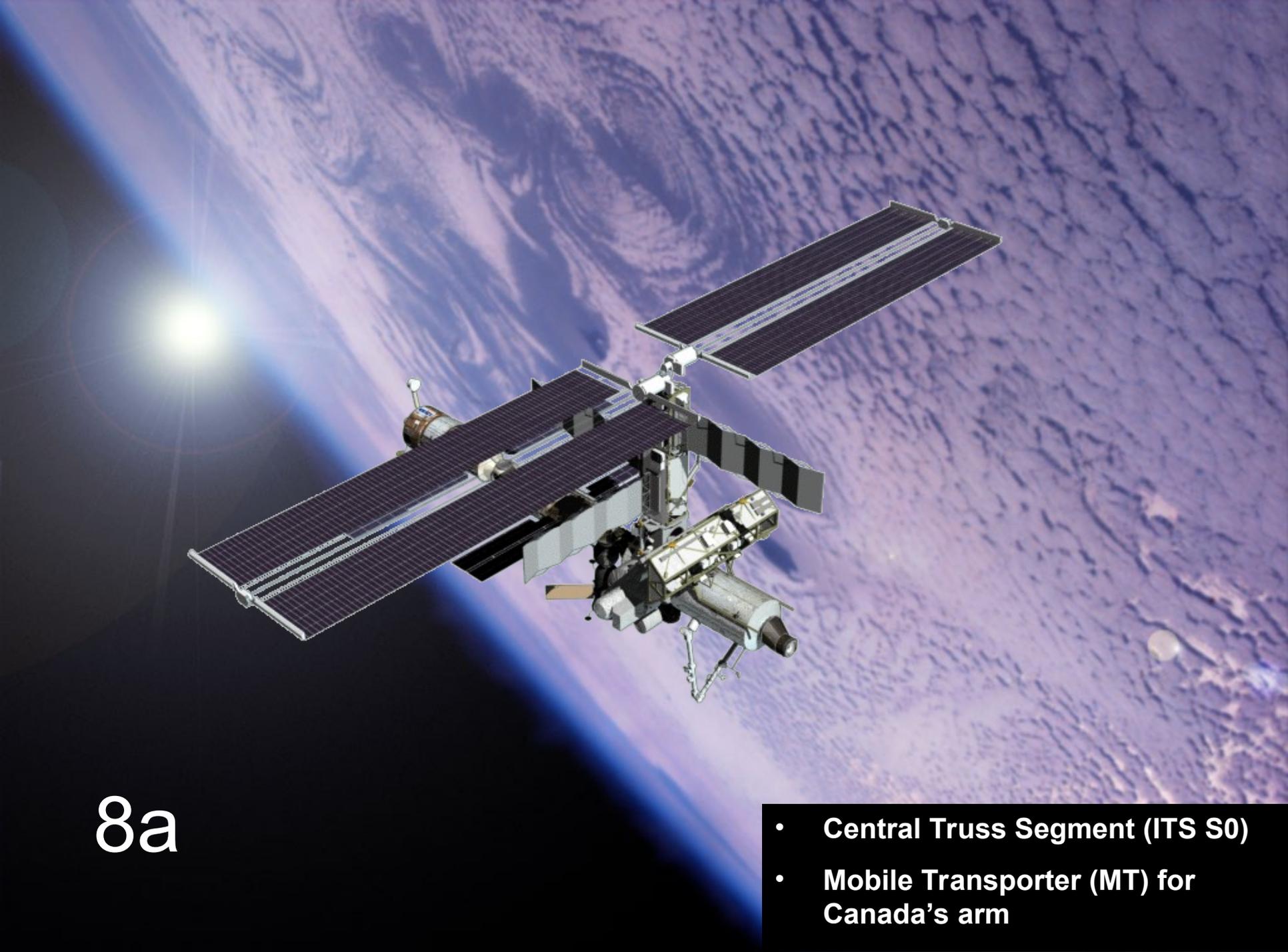
7a

- **Airlock & High Pressure Gas Assembly - Allows Space walks without the Shuttle present**
- **Shuttle mission STS-104**



4r

- Russian Docking Compartment 1 and Strela Boom (out of view)
- Launch on Soyuz vehicle



8a

- **Central Truss Segment (ITS S0)**
- **Mobile Transporter (MT) for Canada's arm**



9a

- First right-side truss segment (ITS S1) with radiators
- Crew & Equipment Translation Aid (CETA) Cart A



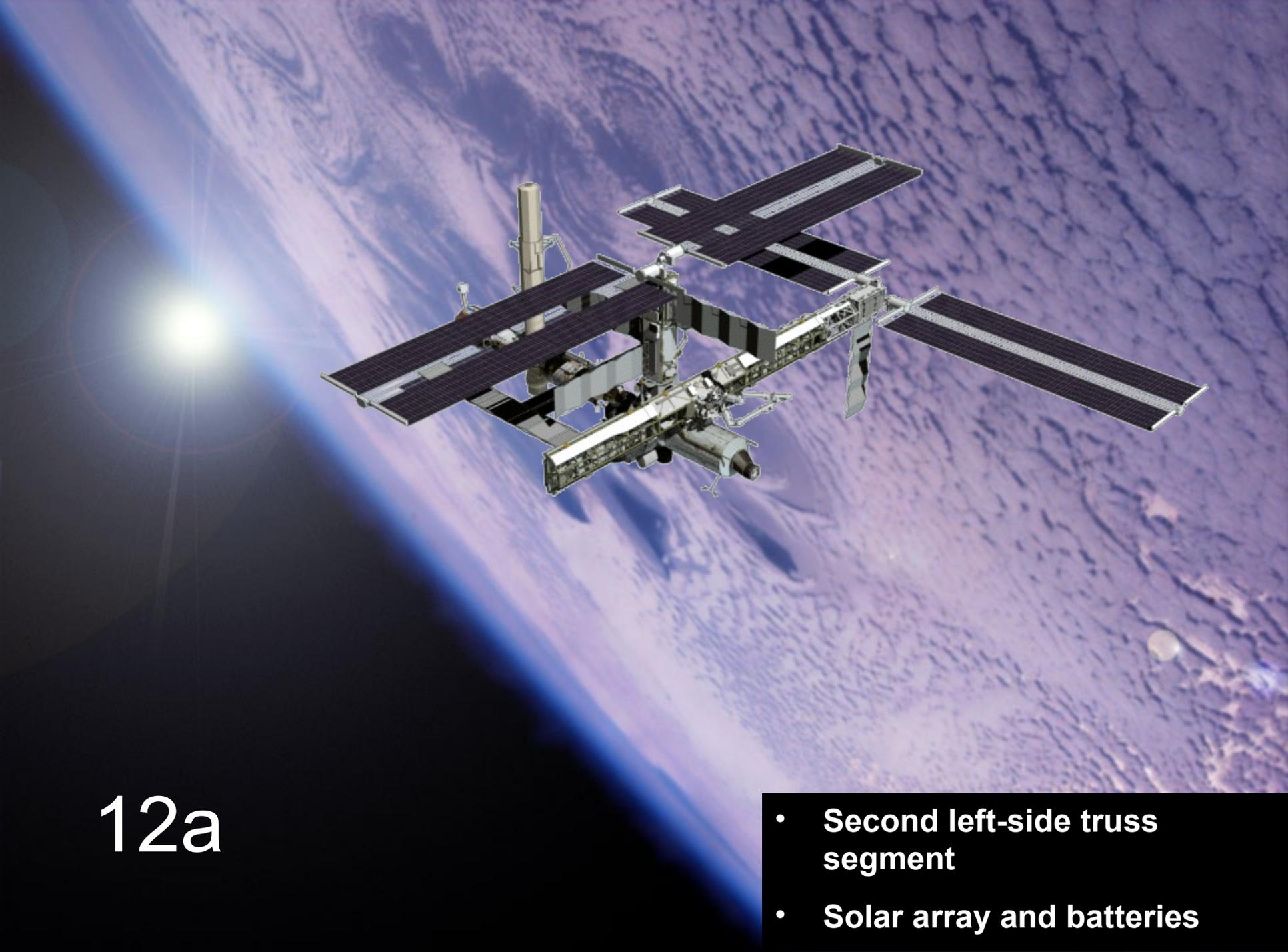
11a

- **First left-side truss segment**
- **Crew & Equipment Translation Aid (CETA) Cart B**



9a1

- Russian provided Science Power Platform (SPP) with four solar arrays



12a

- **Second left-side truss segment**
- **Solar array and batteries**



12a1

- Third left-side truss segment
- Logistics and Supplies



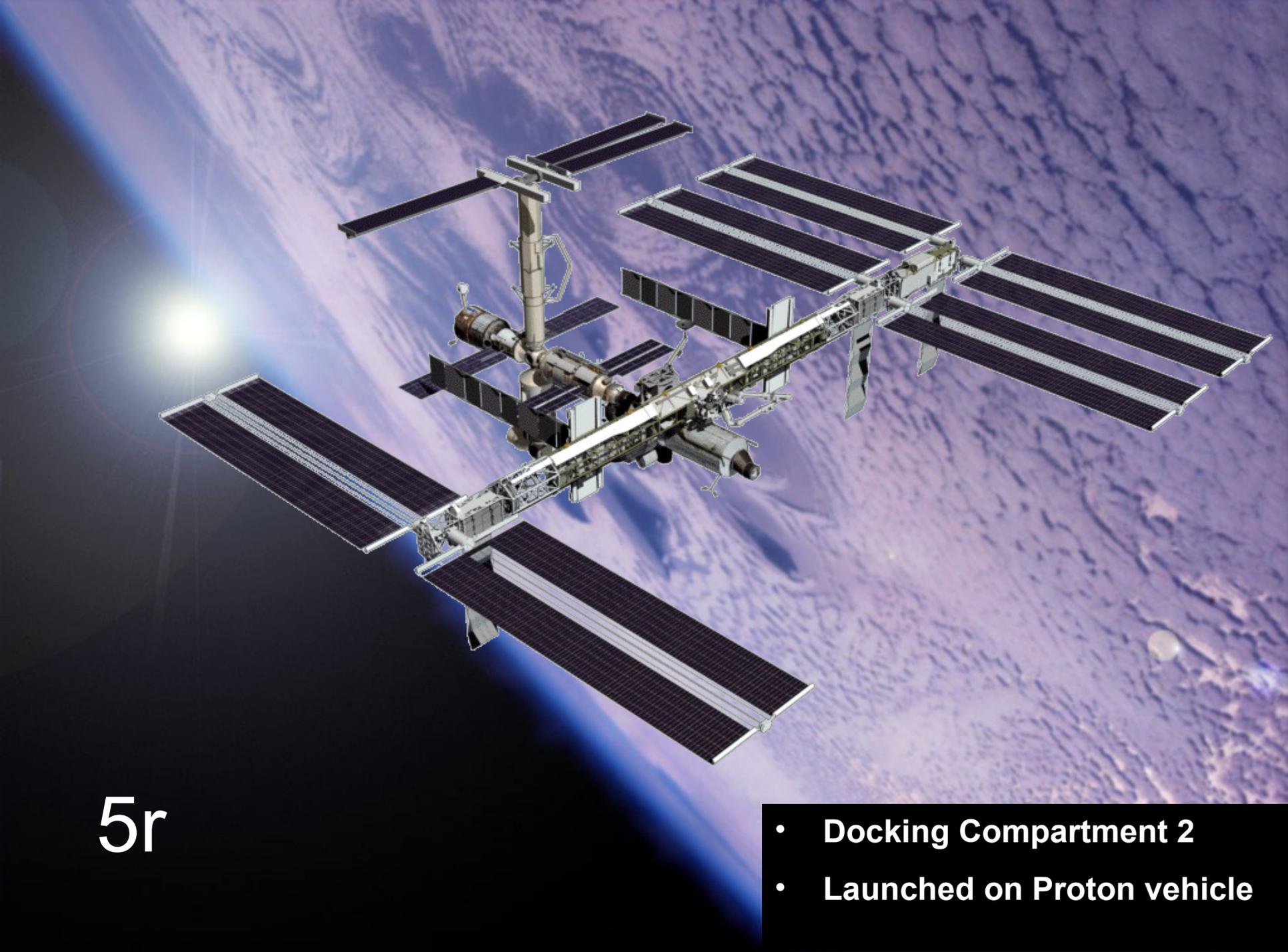
13a

- **Second right-side truss segment (ITS S3/S4)**
- **Solar array set and batteries (Photovoltaic Module)**



3r

- **Russian Universal Docking Module (UDM)**
- **Launched on Proton vehicle**



**5r**

- **Docking Compartment 2**
- **Launched on Proton vehicle**



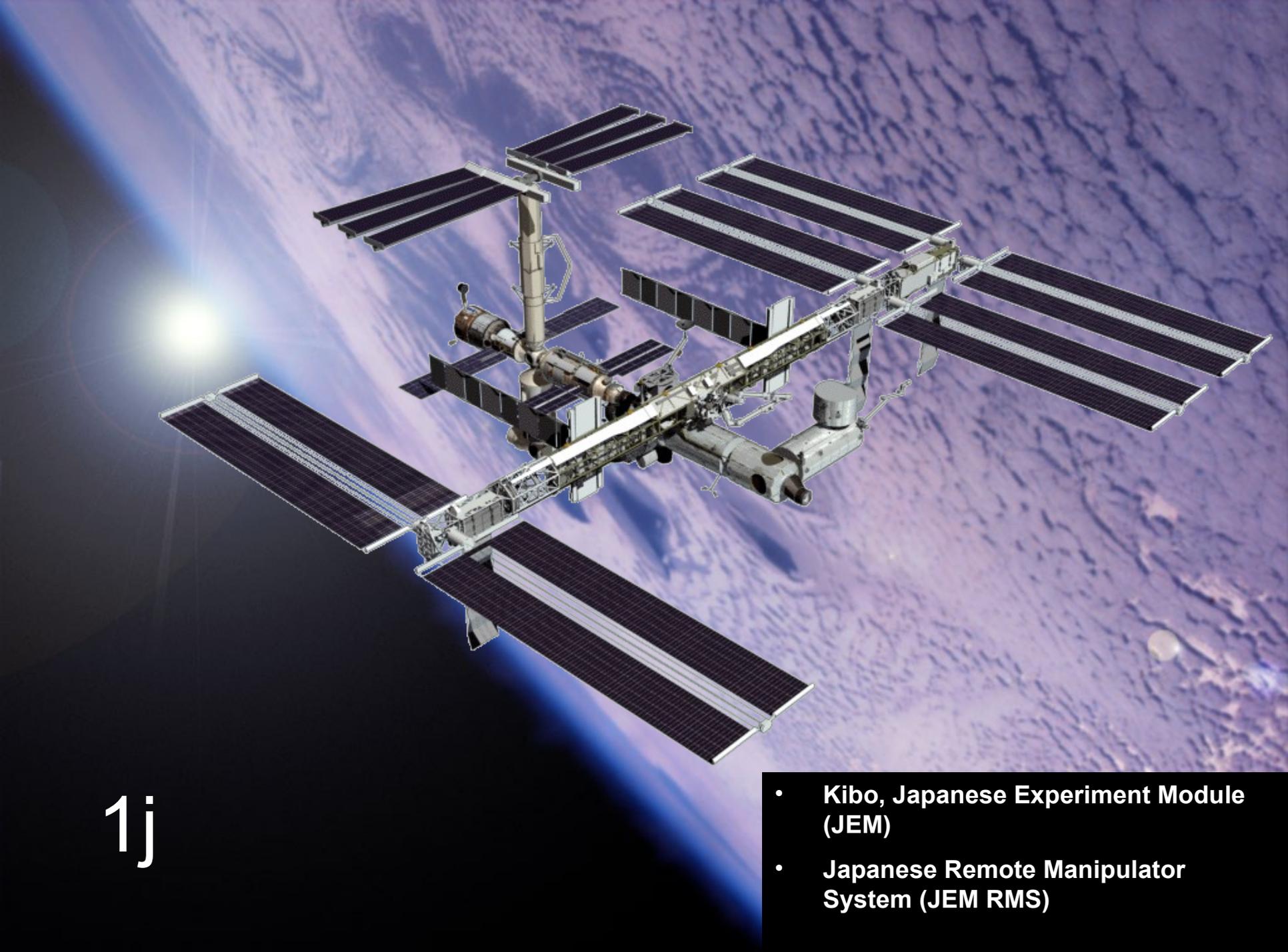
10a

- U.S. Node 2
- Launched on Shuttle



1ja

- Japanese Experiment Module Experiment Logistics Module (JEM ELM PS)
- Russian Science Power Platform (SPP) solar arrays with truss



1j

- **Kibo, Japanese Experiment Module (JEM)**
- **Japanese Remote Manipulator System (JEM RMS)**



10a1

- Propulsion Module
- Space Shuttle



1e

- **European Laboratory–Columbus Module**
- **Launched on Shuttle**



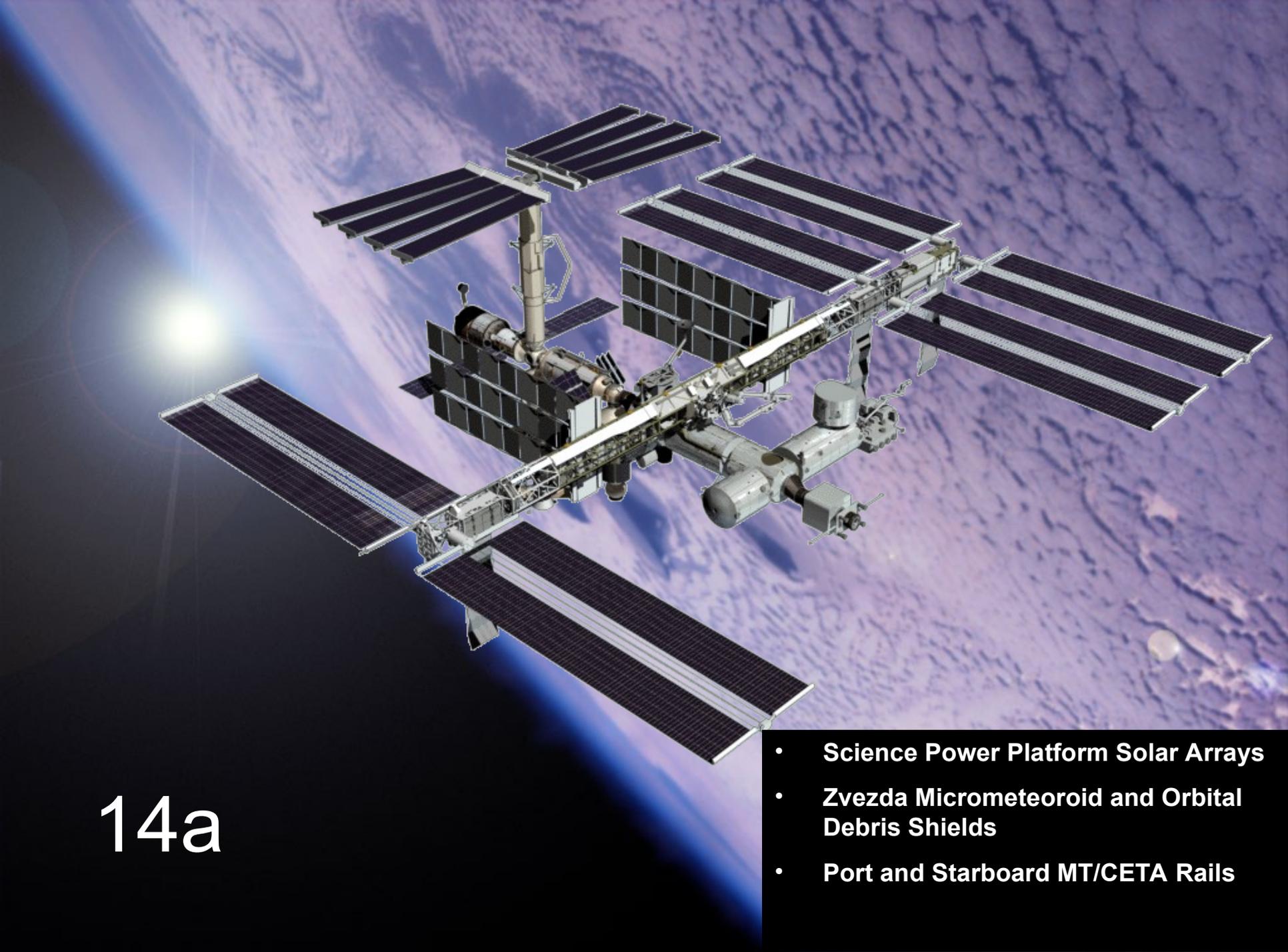
2ja

- Japanese Experiment Module Exposed Facility (JEM EF)
- Solar Array Batteries
- Cupola



9r

- Russian Docking and Stowage Module
- Launched on Proton vehicle



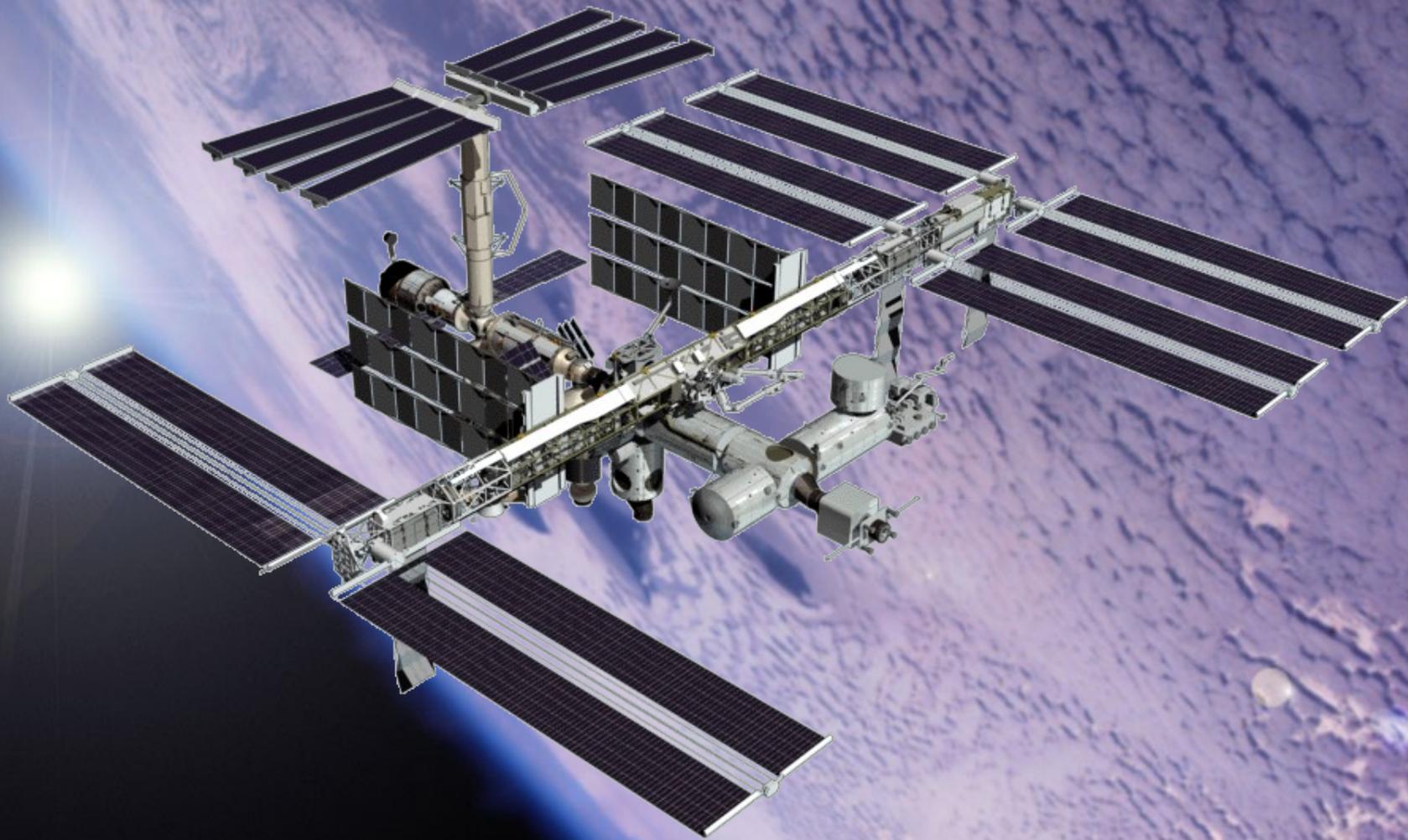
14a

- Science Power Platform Solar Arrays
- Zvezda Micrometeoroid and Orbital Debris Shields
- Port and Starboard MT/CETA Rails



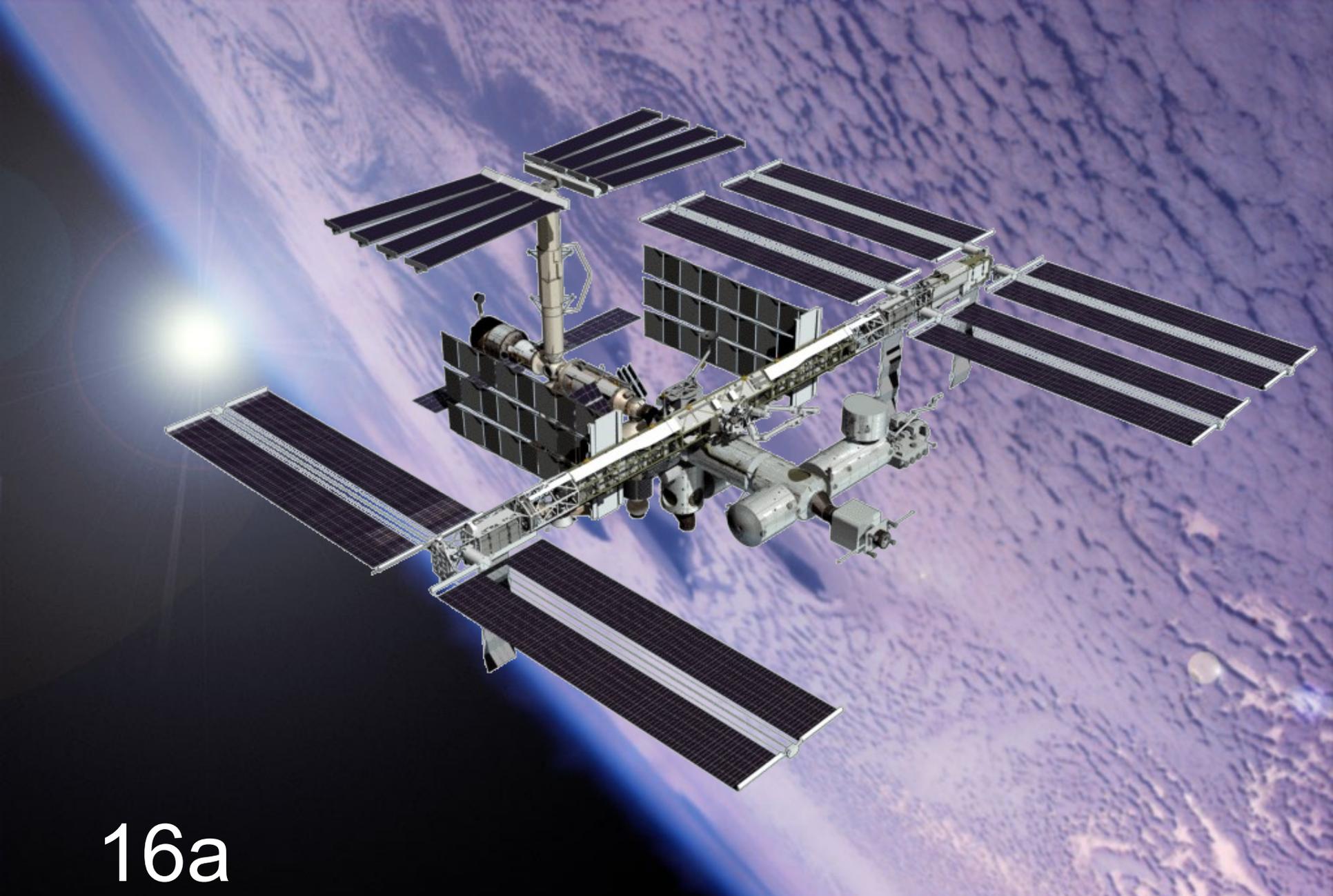
20a

- US Node 3
- Launched on Shuttle



8r

- **Russian Research Module 1**
- **Launched on Soyuz vehicle**



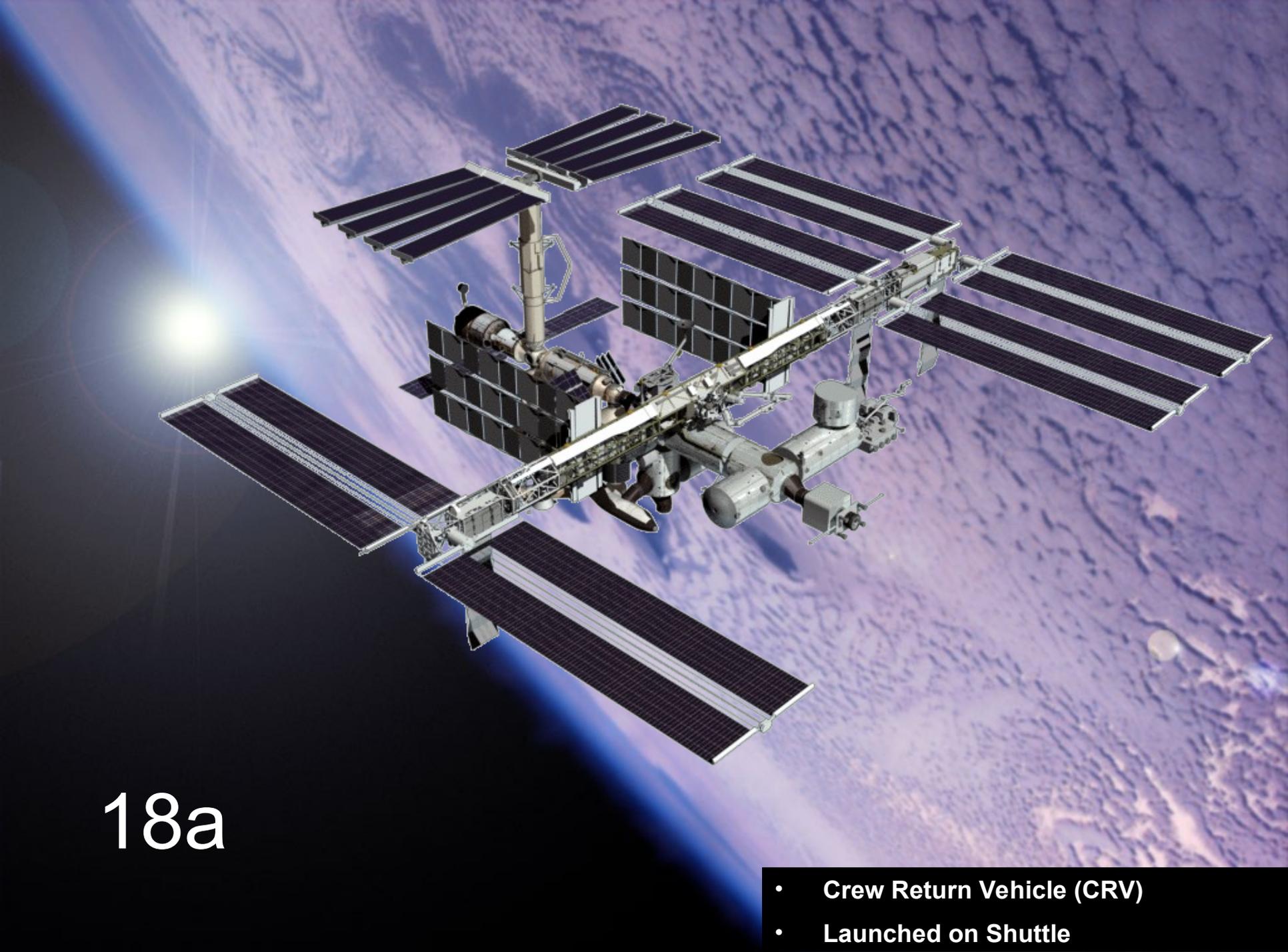
16a

- US Habitation Module



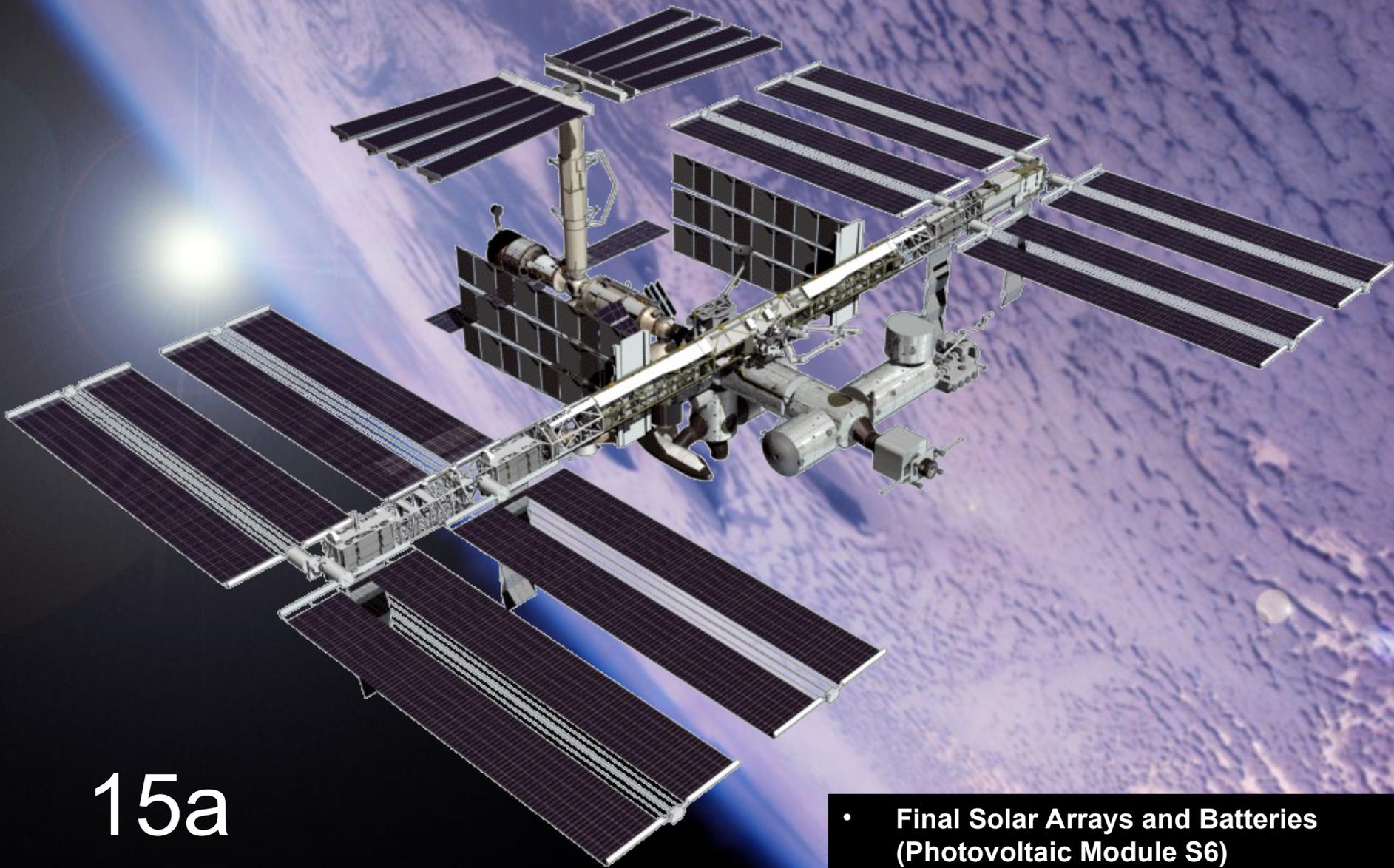
17a

- Racks for Destiny Laboratory
- Common Berthing Adapter (CBA—interface between CRV and Node 3)
- Launched on Shuttle



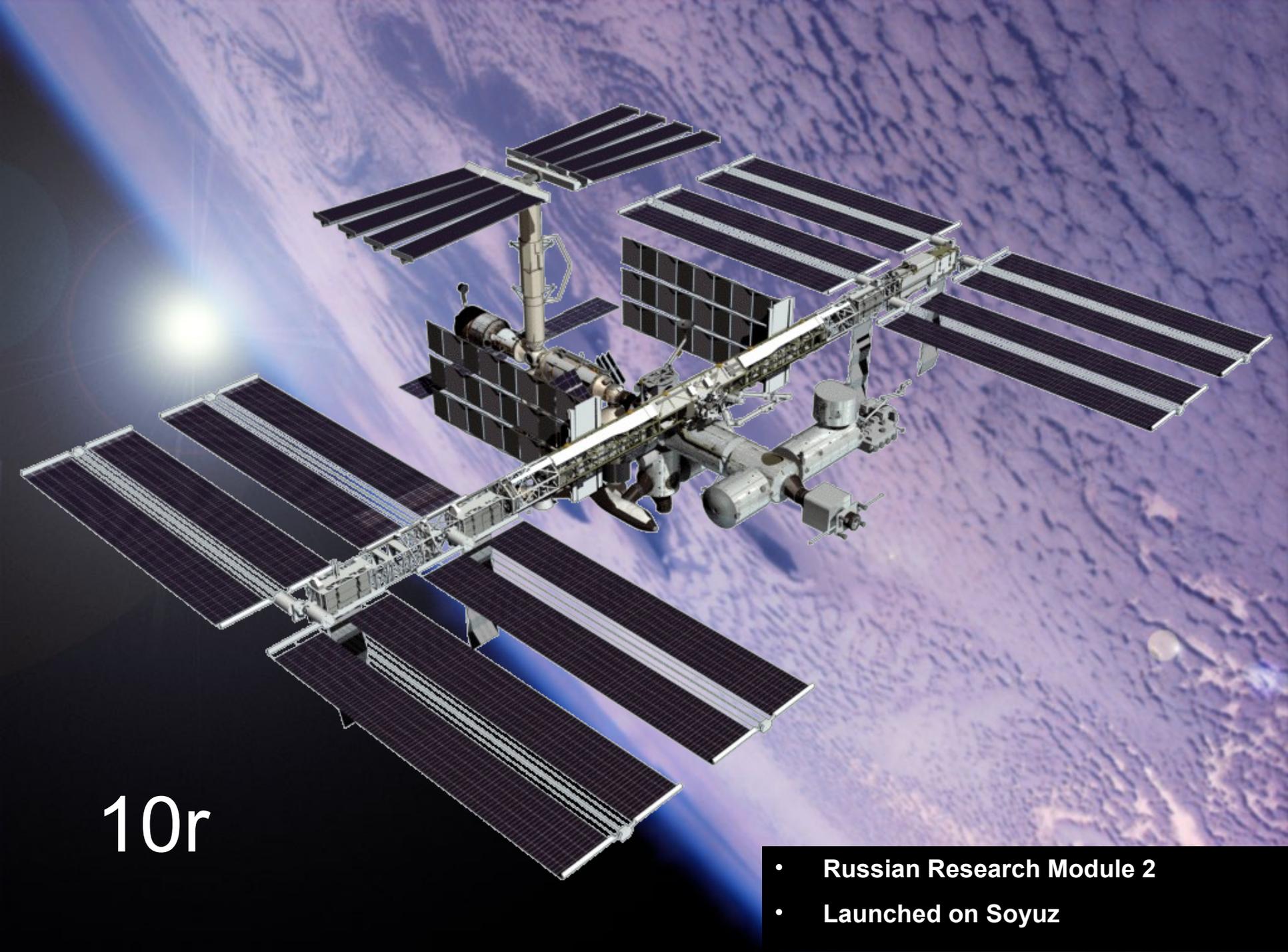
18a

- Crew Return Vehicle (CRV)
- Launched on Shuttle



15a

- Final Solar Arrays and Batteries (Photovoltaic Module S6)
- Launched on Shuttle



10r

- Russian Research Module 2
- Launched on Soyuz



uf7

- Centrifuge Accommodation Module
- Launched on Shuttle



**NASA**

Discovery