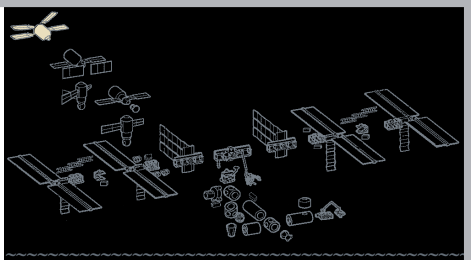
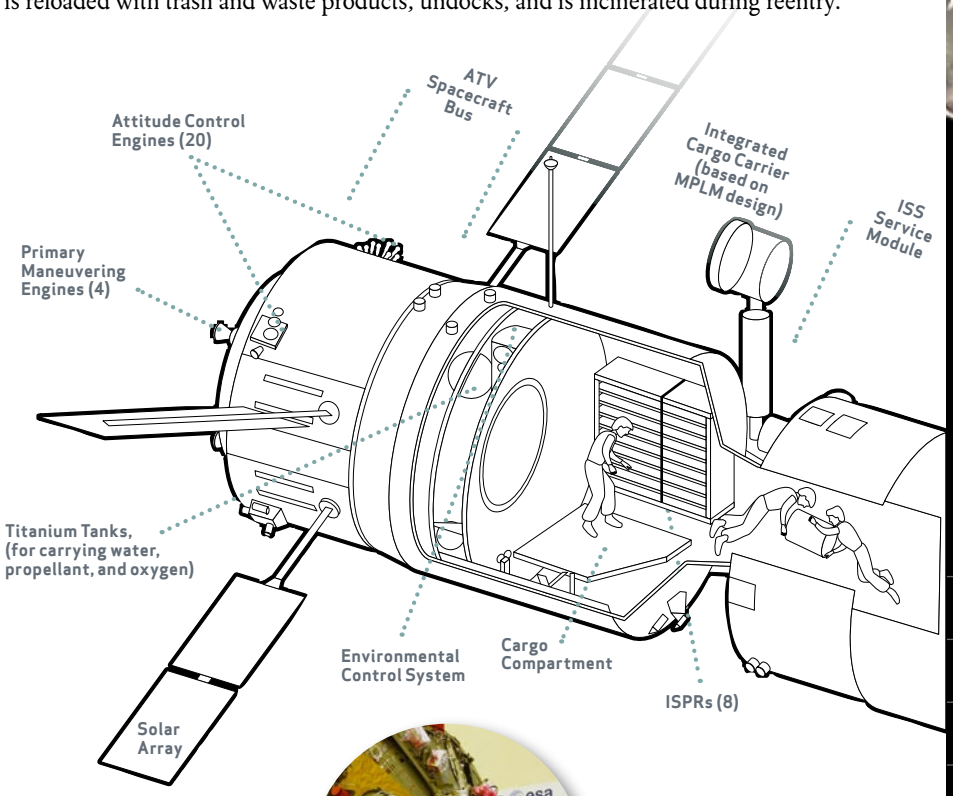
Automated Transfer Vehicle (ATV)

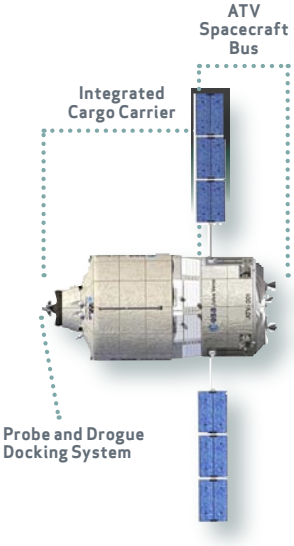
European Space Agency (ESA)/European Aeronautic Defence and Space Co. (EADS)

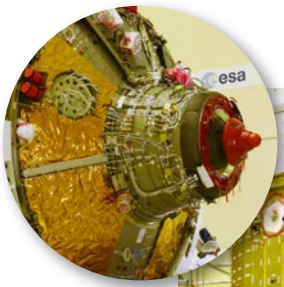
The European Space Agency Automated Transfer Vehicle is an autonomous logistical resupply vehicle designed to dock to the International Space Station and provide the crew with dry cargo, atmospheric gas, water, and propellant. After the cargo is unloaded, the ATV is reloaded with trash and waste products, undocks, and is incinerated during reentry.



Artist's rendering shows the ATV approaching the ISS.







Russian-built probe and drogue docking system.

The ATV during manufacture.

Length	10.3 m (33.8 ft)
Maximum diameter	4.5 m (14.8 ft)
Span across solar arrays	22.3 m (73.2 ft)
Launch mass	20,750 kg (45,746 lb)
Cargo upload capacity	7,667 kg (16,903 lb)
Engine thrust	1,960 N (441 lbf)
Orbital life	6 mo
Cargo Load	
Dry cargo such as bags	5,500 kg (12,125 lb)
Water	840 kg (1,852 lb)
Air (O_2, N_2)	100 kg (220 lb)
Refueling propellant	860 kg (1,896 lb)
Reboost propellant	4,700 kg (10,360 lb)
Waste capacity	6,500 kg (14,330 lb)