

Fact Sheet

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Technical Specifications NASA's Aura Spacecraft

Size

Stowed

8.8 ft (2.68 m) x 7.6 ft (2.34 m) x 22.5 ft (6.85 m)

Deployed

15.4 ft (4.70 m) x 55.9 ft (17.03 m) x 22.5 ft (6.85 m)

Weight

6,542 pounds (2,967 kg)

Spacecraft

3,896 pounds (1,767 kg)

Instruments

2,646 pounds (1,200 kg)

Structure

Graphite central cylinder and cone, and graphite equipment panels with aluminum honeycomb core

Electrical Power

A single wing, 12-panel rigid graphite silicon solar array provides in excess of 4,440 watts of power (end of life)

C&DH

4-processor for distributed processing; 1553 bus for commands, housekeeping telemetry & low rate science data; 104 Gbits (BOL) Solid State

	Recorder for 2 orbit data storage (47 Gbits per orbit for mission requirement)
Antenna	Single, earth coverage X-band antenna for science data
Telemetry	S-band (TDRSS and Deep Space Network /Ground Network Compatible)
Data recording	Solid-state recorder 104 gigabits of recording capacity (beginning of life)
Propulsion	Hydrazine blow-down system; Four pairs of 1 lb. space thrusters Propellant: Sufficient for 7 years life on-orbit
Safing	On-board fault management system detects faults and transitions spacecraft into safe mode, and if necessary, into a survival mode.
Orbital data	438 miles (705 km) polar, sun synchronous orbit, 1:45 p.m. ascending node INCLINATION: 98.2 degrees REPEAT CYCLE: 16 days, 233 revolutions
Launch Vehicle	Delta class 7920-10L
Launch Readiness Date	2004

On-orbit life

Six year design goal

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