

# Shuttle to make final voyage to Hubble

Atlantis's STS-125 flight to the Hubble Space Telescope will mark the fifth and final servicing mission to the orbital observatory since its launch in April 1990. If all goes to plan, the mission will leave the telescope with a full suite of instruments for the first time since 1993

Shuttle Atlantis will grab Hubble with its robotic arm and pull it on to work platform in payload bay

Aperture door closed to protect components

Solar arrays

Hubble Space Telescope has mass of 11,110kg

Atlantis will carry 10,000kg of replacement hardware to HST

Canadian-built robot arm

Work platform

Secondary mirror

## First of five spacewalks

1. Astronauts will replace old camera with **Wide Field Camera 3**, new instrument able to probe deeper into Universe than ever before

2. Highest priority is to replace six gyros that lock Hubble onto distant targets – three gyros have failed

Axial science bay holds four telephone box-sized instruments

Primary mirror

3. New **Cosmic Origins Spectrograph** to replace obsolete Costar instrument

4. Spacewalkers will attempt to replace burnt-out circuit board on **STIS Imaging Spectrograph** and failed electronics on **ACS Advanced Camera for Surveys**

5. **LIDS Low Impact Docking System** installed to enable rocket motor to be attached to de-orbit Hubble