## Hubble Reflecting Sunlight at Time of Release





This NASA image depicts Hubble when astronauts aboard *Discovery* (one of America's Space Shuttle orbiters) released it into space.

Notice how the new orbiting space telescope reflects sunlight.

NASA tells us more about this significant moment, in 1990, when Hubble first began its low-Earth orbit to discover what mankind had never-before seen:

In this photograph, the Hubble Space Telescope (HST) was being deployed on April 25, 1990. The photograph was taken by the IMAX Cargo Bay Camera (ICBC) mounted in a container on the port side of the Space Shuttle orbiter Discovery (STS-31 mission).

The purpose of the HST, the most complex and sensitive optical telescope ever made, is to study the cosmos from a low-Earth orbit for 15 years or more. The HST provides fine detail imaging, produces ultraviolet images and spectra, and detects very faint objects.

Two months after its deployment in space, scientists detected a 2-micron spherical aberration in the primary mirror of the HST that affected the telescope's ability to focus faint light sources into a precise point. This imperfection was very slight, one-fiftieth of the width of a human hair.

A scheduled Space Service servicing mission (STS-61) in 1993 permitted scientists to correct the problem. During four spacewalks, new instruments were installed into the HST that had optical corrections.

The Marshall Space Flight Center had responsibility for design, development, and construction of the HST. The Perkin-Elmer Corporation, in Danbury, Cornecticut, developed the optical system and guidance sensors.

What no one realized, at the time Hubble was first released, was that the awesome orbiting space telescope had a vision problem. Another shuttle crew, aboard *Endeavour*, would have to make another trip to cure that problem.

Click on the image for a much-better view.

## Credits:

Image depicting photo by NASA/Smithsonian Institution/Lockheed Corporation. Online, courtesy NASA.

See Alignments to State and Common Core standards for this story online at:

http://www.awesomestories.com/asset/AcademicAlignment/Hubble-Reflecting-Sunlight-at-Time-of-Release-0

See Learning Tasks for this story online at:

http://www.awesomestories.com/asset/AcademicActivities/Hubble-Reflecting-Sunlight-at-Time-of-Release-0