

What's Wrong with Hubble?

August 12 2004



Hubble Space Telescope

The Space Telescope Imaging Spectrograph (STIS), installed during the second Hubble servicing mission in 1997, suspended operations Tuesday, August 3. There was an anomaly in the STIS that led it to autonomously enter a "suspend" state, shutting off some components and suspending STIS observations. It is confirmed that the power supply has failed. Hubble's other instruments, the Near Infrared Camera and Multi-Object Spectrometer (NICMOS), the Advanced Camera for Surveys, and the Wide Field/Planetary Camera 2 are all operating normally.

STIS suffered a similar problem in 2001. The Space Telescope Imaging Spectrograph (STIS) was installed on Hubble on 1997-Feb-14, replacing the GHRS spectrograph. STIS provides spectra and images at ultraviolet and visible wavelengths, probing the Universe from our solar system out

to cosmological distances.

Currently, the Hubble is busy with studying the dynamics of "groups of dwarfs", using ACS - Advanced Camera for Surveys. NASA is planning unmanned mission in 2007 to fix the Hubble STIS.

About STIS

Second-generation imager/spectrograph. STIS is used to obtain high resolution spectra of resolved objects. STIS has the special ability to simultaneously obtain spectra from many different points along a target. STIS has three large-format (1024 x 1024 pixel) detectors:

CCD: Scientific Image Technologies (SITE) CCD with ~ 0.05 arcsecond square pixels, covering a nominal 52 x 52 arcsecond square field of view (FOV), operating from ~ 2000 to $10,300 \text{ \AA}$.

NUV-MAMA: Cs₂Te Multi-Anode Microchannel Array (MAMA) detector with ~ 0.024 arcsecond square pixels, and a nominal 25 x 25 arcsecond square field of view (FOV), operating in the near ultraviolet from 1600 to 3100 \AA .

FUV-MAMA: Solar-blind CsI MAMA with ~ 0.024 arcsec-pixels, and a nominal 25 x 25 arcsecond square FOV, operating in the far ultraviolet from 1150 to 1700 \AA .

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