

NASA Commits to return to the Hubble Space Telescope

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In the November 3, 2006, the American Astronomical Society, the largest professional organization for research astronomers in the United States, released the following statement on the approval of a servicing mission for the *Hubble Space Telescope*.

"The American Astronomical Society applauds NASA Administrator Michael Griffin for approving the servicing of the Hubble Space Telescope. By orbiting above the Earth's atmosphere, HST has the best site for astronomical observation and has used that unique advantage to uncover more about our Universe than any previous telescope. From planets in our Solar System to the furthest reaches of the Universe, HST has peered deeper and seen farther. Approving the use of the space shuttle to provide new instruments and repair aging equipment on the HST shows that NASA understands the value of scientific research to the public. We thank the Administrator and the talented astronauts who will perform this servicing mission. They will enhance this national resource and extend its life."

Upon releasing the statement, President J. Craig Wheeler said, "We owe a debt of gratitude to Administrator Griffin for making this critical decision, and to the astronauts, whose personal skills, training, and courage will get the job done."

A successful servicing mission will add the Cosmic Origins Spectrograph and the highly capable near-ultraviolet-to-infrared Wide Field Camera 3, and repair the Space Telescope Imaging Spectrograph. We are also exploring whether there is any way we can repair the Advanced Camera for Surveys, which we so catastrophically lost in January this year. These repairs depend on the ingenuity and skills of the *Hubble* project and astronaut team—and I have learned in the last 18 months never to underestimate the creativity and determination of that partnership. SM4 will rejuvenate *Hubble* and enable our community to tackle some of the most exciting topics in astrophysics. These will range from the acceleration of the universe under the influence of dark energy, to the development of structure under the influence of dark matter, the



Figure 1: The astronauts selected for the final shuttle mission to perform work on the *Hubble Space Telescope* pose for a group photo. From left to right are astronauts Megan McArthur, Michael Good, Gregory C. Johnson, Scott Altman, John Grunsfeld, Michael Massimino, and Andrew Feustel.

creation of the first galaxies after the Big Bang, and the physical properties of extrasolar planetary systems.

Not until the launch of the *James Webb Space Telescope* in 2013 will the astronomical community have access to such a large and capable space-based telescope as the 2.4-m *Hubble*. Even after *Webb* is launched, *Hubble* will retain its unique advantage in the ultraviolet and optical wavelength range. The bravery, skills, and commitment of the astronauts promise to make the next decade of *Hubble* science as exciting as the previous 16 years. What an incredible and privileged time it is to be an astronomer! Ω