



National Aeronautics and Space Administration

# GODDARD news

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## Recovery Team Formed To Return TERRIERS Satellite to Operation

The student-built TERRIERS satellite seems to have run out of battery power, according to Boston University team members, who have been unable to communicate with the satellite since its launch on May 18. The spacecraft had been losing power since its launch because it has not been able to orient itself so that its solar panels fully face the Sun.

A recovery team of spacecraft engineers and other experts will be formed to develop a plan to return the satellite to operation. The team will be headed by the Universities Space Research Association of Columbia, Md., which administers the Student Explorer Demonstration Initiative for NASA. TERRIERS (an acronym for Tomographic Experiment using Radiative Recombinative Ionospheric Extreme ultraviolet and Radio Sources) was selected under the initiative and built by students at Boston University. NASA will provide engineering support for the team.

"We remain hopeful that the solar panel will slowly charge the spacecraft and that, in time, the satellite will turn itself on," said Dan Cotton, principal investigator from Boston University. "Current data indicates that the spacecraft is in the correct orbit and spinning appropriately about the right axis."

The project managers are reviewing the data for information on the status of the spacecraft and will continue attempting to contact the spacecraft and monitor its progress.

The spacecraft was successfully launched at 1:09 a.m. EDT May 18 from Vandenberg Air Force Base, Calif., aboard an Orbital Science Corp. Pegasus rocket.

TERRIERS is one of three NASA-funded missions under the Student Explorer Demonstration Initiative (STEDI). The Universities Space Research Association, administers the STEDI program for NASA. Information about STEDI can be found on the Internet at: <http://cass.jsc.nasa.gov/stedi/overview.html> Information about the TERRIERS project is available at the Boston University web site at: <http://www.bu.edu/satellite>

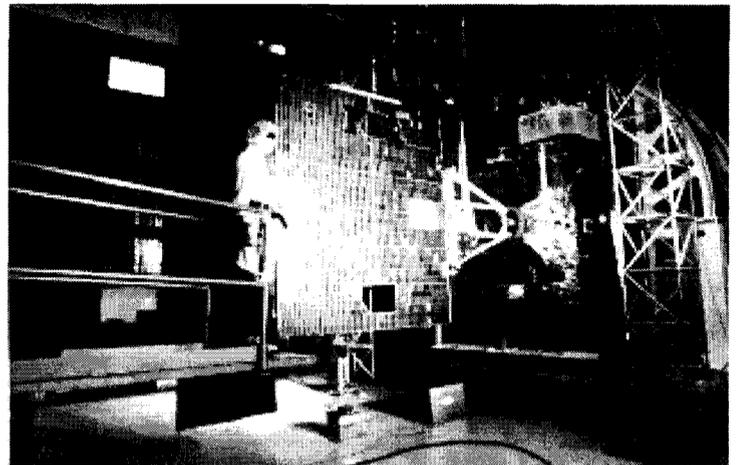
## Launch Dates For Upcoming NASA Spacecraft on Expendable Vehicles Uncertain

Due to the recent anomalies involving expendable vehicles not associated with NASA launches, there is a schedule impact on the near-term NASA manifest. NASA is a participant in the failure investigations and is reviewing the readiness of its missions based on an understanding of the failures and the proposed corrective actions.

The launch of GOES-L for NASA and NOAA aboard an Atlas IIA rocket from Pad 36-A at Cape Canaveral Air Station in Florida has been delayed indefinitely.

The launch of FUSE for NASA and Johns Hopkins University from Pad 17-A at Cape Canaveral will occur no earlier than June 18. This could change to a later date during June.

The launch of QuickScat for NASA and the Jet Propulsion Laboratory aboard a Titan II rocket from SLC-4W at Vandenberg Air Force Base (Calif.) will occur no earlier than mid-June.



*A worker at Astrotech, Titusville, Fla., assist with an illumination test for circuitry verification on a solar panel of the Goddard-managed GOES-L weather satellite. The spacecraft will provide pictures and perform atmospheric sounding at the same time. Once launched, the satellite will be designated GOES-II. The satellite is to be launched from Cape Canaveral Air Station aboard a Atlas II. The launch has been delayed indefinitely until launch vehicle issues are resolved.*

## Olsen Selected As NASA Chief Scientist

NASA Administrator Daniel S. Goldin selected a biologist, Dr. Kathie L. Olsen of the National Science Foundation, as the space agency's chief scientist, effective May 24.

Olsen will be the Administrator's senior scientific advisor and principal interface with the national and international scientific community. She will be responsible for ensuring that NASA programs are universally regarded as scientifically and technologically valid. She also will act as principal advisor to the Administrator on the budget content of NASA's science programs. Olsen will place special emphasis on the biological sciences, particularly biomedical, neuroscience and life sciences.

"NASA's Chief Scientist has a tremendous responsibility to represent the Agency's scientific objectives to the outside world, including other federal agencies, industry, academia, governmental organizations and the international community," Goldin said. "Dr. Olsen is a highly motivated and scientifically focused individual, whose expertise both inside and outside the Agency will serve us well. I am pleased she has agreed to accept this position."

Olsen has most recently been a senior staff associate in the National Science Foundation's Office of Integrative Activities since December 1998. She held numerous other science-related positions within the Foundation dating back to 1984.

Among Olsen's many awards, she earned the National Science Foundation Director's Superior Accomplishment Award and the International Behavioral Neuroscience Society's award for important contributions in that field.

Olsen received her Ph.D. in psychobiology/neuroscience at the University of California at Irvine in 1979 and became a postdoctoral fellow at Children's Hospital of Harvard Medical School in 1979 and 1980. She then spent eight years in various teaching and research positions at the State University of New York - Stony Brook.

## Goddard News Goes Electronic

No more paper! Beginning June 4, the Goddard News will be coming directly to you via email. Goddard employees will receive an abbreviated version of the Goddard News in their computer mailbox. In addition, a complete html version will be posted on the web. Stay tuned for more details.

**Safety -- Our No. 1 Value**

Visit Goddard News on the web at <http://pao.gsfc.nasa.gov/gsfcc/gnews/gnews.htm>



*Goddard scientists take measurements of the thickness of the ice floes during a recent North Pole expedition. The sea ice thickness measurements are being compared with other Arctic ice thickness measurements in the context of climate change*

## Arctic Team Returns with Space "Firsts"

Goddard engineers, scientists and outreach personnel recently returned from an expedition to the "top of the world" where they performed the first-ever live video webcast via the Internet from the North Pole.

The North Pole expedition demonstrated how NASA-developed technology and the Internet have made it possible for scientists working in very remote locations to send and receive data using NASA communications satellites.

But the trip was unique in another way because students worldwide were actively involved, using their personal computers, in a number of the scientific activities conducted by the team at the Pole.

"They were virtually there with the NASA team," said expedition leader Michael Comberiate, EOS PM Project, Code 422 "They chatted with us using their own computers and watched live video demonstrations by the scientists. This was no TV show, it was virtual reality at the individual level," Comberiate said.

Topics of the webcasts included Inuit culture, sea ice, ozone, remote sensing and discussions of the satellite images that these students could also download. During the webcast from the Qarmartalik School, cultural themes were exchanged between the local Inuit students and students from schools in the United States.

Three separate communications packages were demonstrated during the thirteen-day expedition. All three systems were developed at Goddard and used NASA's F1 Tracking and Data Relay Satellite to complete the communication links.

Science observations and measurements also were conducted as an integral component of the expedition. The team collected ozone measurements with a hand-held MicroTops photometer provided by Gordon Labow of Code 916; Global Positioning System measurements with a Trimble GPS Unit provided by Steve Cohen and Erricos Pavlis of Code 921; and sea ice thickness measurements were drilled with both powered and manual ice augers.

"We were pleased to measure ice thicknesses well exceeding the values found by the Sheba expedition last year, which were much lower than anticipated," said Dr. Claire Parkinson, Code 971. Measurements taken by the Sheba expedition, which Parkinson said were collected in a different region of the Arctic, recorded no thicknesses greater than 1.8 meters, and led to concerns that the Arctic ice cover might be thinning. "Our measurements establish that at least some of the Arctic ice still exceeds 4 meters thick, with values well in line with traditional expectations for the thickness of the ice in the vicinity of the Pole," said Parkinson

For the complete story, check the following web address: <http://pao.gsfc.nasa.gov/gsf/gnews/052199/052199.htm#pole>

## African American Open House Coming Up

The African American Organizations of Goddard are sponsoring an open house Wednesday, June 2.

The purpose of the event is to inform the Goddard community of goals and missions of the different African American organizations. The open house will mark the first time that each of the African American Organizations at Goddard will be represented at one site, together. The open house will allow the organizations to reach out to the community to get support for their various planned activities. It is also a great opportunity for you to talk with the representative from the different groups.

Organizations that will be represented are: African American Women At Goddard; African American Advisory Council; Equal Opportunity Programs Office; African American Recognition Committee; Blacks In Government; African Technologies Development Club; African American Advisory Committee At NASA Headquarters; National Technical Association.

The open house is scheduled for the Goddard Recreation Center from 11:30 a.m. - 1:30 p.m. Food will be served. The African American Organizations at Goddard would like to extend an invitation to all of Goddard to come join us at this affair. Come be a part history.

## Special session with Harley Davidson VP Will Focus on Customer

Bring your motorcycle to work for the May Center Director's Colloquium and hear Steve Phillips, Vice President of Quality, Reliability, and Technical Service for Harley-Davidson Motor Company, talk about Harley's "close to the customer" model of success.

Join Phillips and other members of the Goddard community for a candid look at how Harley-Davidson recreated their company into a flat, flexible, fast, fulfilling and fun organization dedicated to customer focus.

The colloquium will be held Tuesday, May 25, 10-11:30 a.m. in the Building 8 Auditorium. The day also will feature exhibits by six of Goddard's own customer-focused organizations and an afternoon discussion (2-3:30 pm in Building 8 Auditorium) with Steve Phillips to learn more about the Harley-Davidson way of building customer relationships, as a primary means to mission success. Special "Motorcycle Only" parking arrangements have been made from 9:30 am to noon, in front of Building 8.

For more information, contact Denise Konopka, 6-1382, Gail Williams, 6-0159 or Dave Rosage, 6-5226.

For the complete article, check the following web address: <http://pao.gsfc.nasa.gov/gsf/gnews/052199/052199.htm#hd>

## STS-96 Mission Press Kit Available Online

The press kit for the flight of Discovery on the STS-96 mission to the International Space Station is now available online.

The STS-96 press kit can be found at the following URL: <http://www.shuttlepresskit.com/STS-96>

For more detail information on the two Goddard payloads flying on STS-96, check the following web addresses: Starshine - <http://www.azinet.com/starshine/> and Shuttle Vibration Forces experiment - <http://sspp.gsfc.nasa.gov/current/current>

The press kit contains more information than ever before, including updated graphics as well as additional facts and statistics. Discovery is scheduled to launch from NASA's Kennedy Space Center, Fla., no earlier than May 27 to carry seven astronauts to visit the orbiting outpost in space and prepare the space station for the March 2000 arrival of the first resident crew. The new press kit contains detailed information about the planned 10-day mission, its objectives and its crew members

## ISO 9001

### Goddard's Quality Policy

With customer satisfaction as our primary goal:

- GSFC is committed to meeting or exceeding our customer's requirements.

- We achieve excellence in all of our efforts.



Visit ISO at <http://arioch.gsfc.nasa.gov/iso9000/index.htm>

## Mission Success Starts With Safety

staff

Executive Editor: James Sahl  
 Managing Editor: Susan Hendrix  
 Contributing Editor: Nancy Neal  
 Senior Photographer: Mark DeBord  
 Submission deadline: Friday each week  
 Submissions subject to editing  
 For additional information contact:  
 Susan Hendrix 301-286-7745

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Contact:  
 Gwenny Durrah, Code 239  
 Jim Sahl, Code 130  
 Bob Wilson 301-422-8334