

Inside Wallops

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Goddard Space Flight Center
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Scientific Balloons Used as a Platform to Validate Satellite Data



Photos courtesy of Esrance

The Aura balloon campaign, currently taking place from Kiruna, Sweden, is a continuation of earlier campaigns to validate instruments on board NASA's Aura satellite.

The Aura (Latin for breeze) satellite was launched on July 15, 2004, from Vandenberg Air Force Base, Calif. The design life is five years with an operational goal of six years. Aura is part of the Earth Observing System (EOS), a program dedicated to monitoring the complex interactions that affect the globe using NASA satellites and data systems.

Measurements taken from the satellite also offer the potential for new insights into how climate changes influence the recovery of the stratospheric or upper ozone layer, the protective region that shields the Earth from ultra-violet radiation.

The main objective of the balloon campaign is to validate the instruments on board the satellite by means of balloon borne instruments on two flights from the

Swedish Space Corporation's Esrance launch facility. Several instruments and measuring techniques will be used for the validation. The science is focused on the chemical processes responsible for the ozone depletion in the stratosphere.

The three instruments, developed by NASA's Jet Propulsion Laboratory, being flown on the two balloon gondolas are the MkIV interferometer, the Far Infrared Spectrometer, and the Submillimeter Limb Sounder (FIRS2/SLS).

The MkIV interferometer will measure profiles of atmospheric trace gases of relevance to the Aura sensors under cold winter conditions. High signal-to-noise ratio solar occultation spectra will be measured throughout the mid-infrared region at high spectral resolution at sunrise and sunset.

These spectra will allow the simultaneous retrieval of profiles of more than 30 different atmospheric gases that also will be measured by three instruments on board the Aura spacecraft.

A four million cubic foot NASA scientific balloon was launched from Esrance on January 27 carrying the Far Infrared Spectrometer and the Submillimeter Limb Sounder (FIRS2/SLS) payloads. FIRS2 is a high spectral resolution thermal emission Fourier transform spectrometer that observed atmospheric emission spectra over most of the atmospheric Planck curve, from the far infrared into the mid infrared.

The SLS instrument measured the abundance of several atmospheric gases.

Drs. Bob Stachnik and Ken Jucks, NASA's Jet Propulsion Laboratory, were co-investigators for the FIRS2/SLS flight. Total flight time was 3 hours, 24 minutes. The payload was recovered.

Launch operations are being conducted by a team from the Columbia Scientific Balloon Facility. NASA Wallops Flight Facility's Balloon Program Office manages the scientific balloon program for NASA Headquarters.

Ask the Administrator

"Ask a Question", is available to NASA employees in the Administrator's Corner on the InsideNASA Web site at: <http://insidenasa.nasa.gov>

Employees are invited to use the online feature to submit a question regarding the agency and its programs to Administrator Mike Griffin. He will see all questions and make every effort to answer as many questions as possible. Current plans call for posting questions and the administrator's responses at a regular interval.

To submit a question, visit the Administrator's Corner at: <http://insidenasa.nasa.gov> Click on the Ask a Question link and complete the online form. The InsideNASA site will preserve the anonymity of all submitters unless they choose to provide their name.

Groundhog Day, February 2

The day the groundhog predicts if spring will be coming soon. If, on emerging from his hole, he sees his shadow there will be six more weeks of winter — if not, spring is imminent.



Wi-High Team Has Successful Launch



Photo by Lee Wingfield

A student team from Wicomico High School, Salisbury, MD., successfully launched their third Student Education Rocket Initiative (SERI) rocket from Wallops Island on January 24.

The vehicle reached an altitude of approximately 1,400 ft. Good data, from the student sensors and the R-DAS flight computer, was received throughout the entire flight.

Sensors included two thermistors, two photocells and a pressure transducer. One of the thermistors monitored the temperature change and the nitrous oxide vent on the vehicle.

NASA College Scholarship Applications Are Available

The NASA College Scholarship Fund, Inc., a Texas nonprofit corporation, awards scholarships Agency wide to qualified dependents of NASA and former NASA employees.

Up to six scholarships will be awarded in the amount of \$2,000 each in the 2007-2008 school year. The scholarship is renewable for a maximum of \$8,000 over 6 calendar years.

Applications and other information on the scholarship fund are available on the Internet at:

<http://nasapeople.nasa.gov/nasascholarship/index.htm>

All completed application forms, transcripts, scores, reference letters, or materials must be received by, March 20, at the following address:

NASA Johnson Space Center
AH8/NASA College Scholarship Fund, Inc.
Building 12, Room 105
2101 NASA Parkway
Houston, TX 77058

Super Bowl XLI Indianapolis Colts – Chicago Bears



Join us at the Rocket Club, Sunday, February 4. Doors open at 5 p.m.

Wallops Black History Club Evening of Dinner and Entertainment

Saturday, February 17
5 p.m. to midnight
The Cropper Center

Guest Speaker: Dr. James White,
University of Maryland, Eastern Shore
Entertainment: Soloist, Poetry,
and
Comedienne, Sherri Sinclair
Academic Achievement Award Ceremony

Dance featuring DJ BLACK ICE

Tickets are \$30 per person and must be purchased by February 9. For tickets or more information, contact Rebecca Beach, x1625; Cheryl Johnson, x1607; or Freda Johnson, x1466.

Thanks Wallops

The American Red Cross had a goal of 25 donors for the recent blood drive. Thirty nine employees signed in, and the Red Cross was able to obtain 29 usable units. A special thank you to the six new donors!

Donate Your Old Cell Phone

Old cell phones that are no longer of any use to you can be reconditioned and donated to the elderly, the disabled and the women in battered women's shelters for emergency use.



Phones are restored to the original settings and all address books, call logs, messaging info and other personal settings are permanently cleared from the memory. All cell phones are accepted, and donations are tax deductible.

For more details contact:

Cell Phones For Life, Inc.
A Non-Profit Organization
(580) 226-5652 (800) 585-5503 FAX
(800) 585-5925
www.cellphonesforlife.org

Convenient drop-off locations have been established in Building E-2, the Exchange Store, and in Building F-16, the Help Desk, or call Ted Osmon at x1628 or Terry Ewell at x1133 for pickup.

WOW Committee Members

Civil service and contractors are invited to serve on the Women of Wallops (WOW) Committee.

WOW promotes educational and developmental opportunities for women, provides advice, addresses concerns and helps management resolve issues affecting women in the workplace.

While a majority of WOW committee members are women, any interested individual is welcome to apply. Committee members serve a three year term with one third of the members rotating off each year.

Contact Brenda Dingwall, Wallops Equal Opportunity Manager, at x1412 for additional information.

Inside Wallops is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees. Recent and past issues of *Inside Wallops* also may be found on the NASA Wallops Flight Facility homepage: www.wff.nasa.gov
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