

Inside Wallops

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Deputy Administrator's Corner: Climate Science

NASA drives innovation, creating real benefits for a modest investment of less than six-tenths of one percent of the overall federal budget. NASA's Earth Science Program, with \$1.37 billion requested for FY 2009, is the world's largest, interdisciplinary Earth science research program that is advancing scientific understanding of the causes and effects of climate change. NASA's wide-ranging and balanced Earth science activities include:

- development, launch and operation of Earth-observing space missions
- staging of complex airborne and ground-based campaigns in support of space-borne measurements
- competitively selecting research and analysis conducted by NASA and non-NASA researchers
- participating in applied science projects that help other federal agencies and organizations to efficiently use products from NASA Earth research to advance those organizations' missions
- supporting ongoing technology development efforts to enable the missions of the future
- contributing to education and public outreach programs to make our knowledge of the Earth accessible to the world.

NASA currently operates 14 Earth observing missions that allow an unprecedented view of our planet. These satellites measure and monitor many aspects of our planet's climate including:

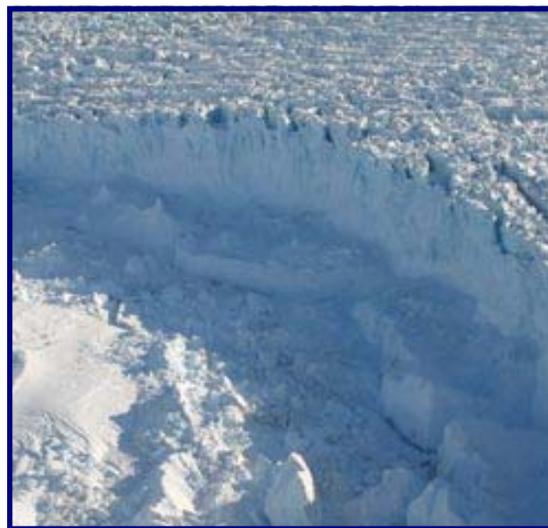
- Sea level rise and land cover change;
- Sea ice cover and ice sheet motions in the Arctic and Antarctic;

- Aerosols, clouds, temperature and relative humidity profiles and radiative fluxes.

Recent NASA observations have detailed remarkable changes in the thickness and extent of Arctic sea ice as well as the movement of Greenland glaciers. NASA investigators continue to research the role of surface melt and glacial ice discharge in controlling changes in ice sheet elevation and topography using both in situ and space-based data. Understanding the processes that control these elevation changes provides clues to the health and stability of the Greenland and Antarctic ice sheets and what their future contributions to sea level are likely to be.

NASA, through the agency's research and analysis program, combines satellite measurements from NASA and non-NASA spacecraft with data from airborne and ground-based field experiments to uncover Earth system processes and feedback mechanisms. The knowledge gained from these studies is used to improve models of Earth processes and the entire Earth system. Even as we are acquiring and analyzing measurements today, we are planning the satellites, field experiments, scientific investigations, and Earth system models of the future. By 2015, NASA plans to launch at least nine new research satellite missions for Earth observation, including the first missions recommended by the National Research Council in its 2007 Decadal Survey Report.

NASA is by far the largest single contributor to the 13-member interagency



This image shows the calving front, or break-off point into the ocean, of Helheim Glacier, located in southeast Greenland. Photo credit: NASA/Wallops

U.S. Climate Change Science Program (CCSP). In fact, much of the science community's present state of knowledge about global change is derived from NASA's Earth Science Program as evidenced by data highlighted in the recent Intergovernmental Panel on Climate Change Assessment Report.

To facilitate data sharing, for nearly a decade NASA has operated and continues to refine a comprehensive, distributed data and information system.

This Earth Observing System Data and Information System processes, distributes, and archives the space-borne Earth observation data, allowing efficient access to NASA Earth information and data products for all global stakeholders.

NASA-driven innovations are benefiting commercial concerns across the country. They prove that the nation's modest investment in NASA produces powerful returns.

Earth Day Activities

Tuesday, April 15, 2008 at 11:30 a.m.

Wednesday, April 16, 2008, at 10:30 a.m.

E-2 Training room

(watch half each day or watch it in its entirety in one day)

View the film, *An Inconvenient Truth* former Vice President Al Gore presents a compelling look at the state of global warming

Thursday, April 17, 2008

“Keep It Cool”

Celebrate Earth Day at the Pavilion!

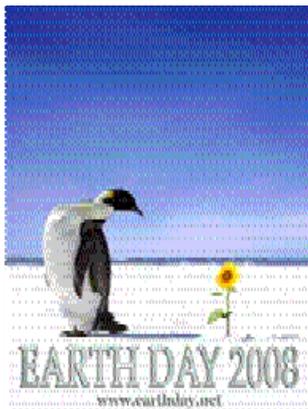
Various displays including hybrid cars, solar powered demonstrations, photo contest winners, poster contest winners, and green cleaning products.

Lunch Choices:

Garden Salad with crackers and soda or water \$4.00

Tuna, Seafood, or Chicken salad with crackers and soda or water \$4.00

Cup of Chicken, Tuna, or Seafood Salad \$3.00



Wallops Shorts...

Launch

A balloon launch took place from Ft. Sumner, New Mexico on April 13, 2008. The experiment was the micro-instrumentation package (MIP). The MIP is a compact telemetry system developed by the Columbia Scientific Balloon Facility for use on lightweight balloon payloads. The MIP will provide uplink and downlink communications, interface to the science package, and housekeeping information, including global positioning system (GPS) position. This was the final flight qualification mission for the MIP. The flight was an operations and mission success. The experimenter was Jill Juneau. Total flight time was 5 hours and 45 minutes.

Website Redesign

Recently, NASA unveiled the new look for NASA.gov. As you may have already noticed, the Wallops web site is enjoying a new look, as well!

The Wallops web site can be found at: <http://www.nasa.gov/wallops>

The Wallops web team has been working hard to make the changes to the site. This change reflects the new Agency look.

If you have any suggestions, comments, or questions about the new site please contact: Rebecca Powell, Angela Walker, or Brandon Wright at the email addresses listed below.

Rebecca.H.Powell@nasa.gov
Angela.S.Walker@nasa.gov
Brandon.K.Wright@nasa.gov

Inspire the Next Generation Day Activities

Inspire the Next Generation Day is Thursday, April 17. Just a reminder for those who are sponsoring students: registration begins at 8 a.m. in the Cropper Center.

All employees should be reminded of the additional amount of people on base Thursday. Please use extra caution when traveling around base.

NASA Credit Union's Youth Week

Stop by the NASA Federal Credit Union table in the Cropper Center for breakfast and giveaways! Can't make it in on April 17th? Don't worry; NASA FCU be celebrating all week long during Youth Week where the festivities will continue through April 25th! Any questions please call us at 1-888-NASA-FCU, ext. 650.

American Red Cross Blood Drive

Thank you to all who donated to the Red Cross on Wednesday

With a Wallops goal of 28, there were 29 people who signed in.

The American Red Cross left with 27 usable units.

Way to go Wallops! Thank you for donating and giving the gift of life!

Food For Thought

“What lies behind us and what lies ahead of us are tiny matters compared to what lies within us.”

—Henry David Thoreau

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.nasa.gov/wallops
Editor Betty Flowers
Asst. Editor Rebecca Powell