Inside Wallops

National Aeronautics and Space Administration
Goddard Space Flight Center
Wallops Flight Facility, Wallops Island, Va.

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NASA Satellites Aid in Chesapeake Bay Recovery

NASA explores some of the most far-out parts of space, but NASA also does research much closer to home. In fact, NASA Earth Science satellites are taking part in the management and recovery of an ecosystem right in our own backyard, the Chesapeake Bay.

By studying the landscape around the Chesapeake, NASA spacecraft such as Landsat, Terra and Aqua are helping land managers figure out how to battle the harmful pollutants that have added to the destruction of the bay's once legendary productivity.

While still a commercially important ecosystem — home to some 3,600 species — four centuries of local population growth have crippled the bay's health, earning it a place on the U.S. Environmental Protection Agency's "dirty waters" list and a 2007 overall grade of C-minus by the University of Maryland Center for Environmental Science.

Many of these harmful pollutants come from the Chesapeake Bay's watershed, an area of about 64,000 square miles that covers parts of six states.

Water from this massive region constantly drains into the bay, carrying with it sediments from erosion, excessive nutrients and other contaminants that hurt the bay's water quality.

This runoff also feeds large algae blooms that consume oxygen in the water; oxygen that crabs, fish and other bay species rely on.

"The impervious, tree cover and land cover type map products derived from Landsat data are used on a daily basis by the Chesapeake Bay Program," says Scott Goetz, a NASA-funded scientist at Woods Hole Research Center, whose team used Landsat data to create a series of Chesapeake watershed maps.

The Chesapeake Bay Program is a unique regional partnership that leads and directs the restoration of the bay. They often use Landsat data to help build models that predict the location of nutrient loads and identify areas where managers should take action towards conservation, restoration and growth.

In addition, NASA sensors SeaWiFS and MODIS detect water color, and are used to calculate sediment and chlorophyll concentrations.

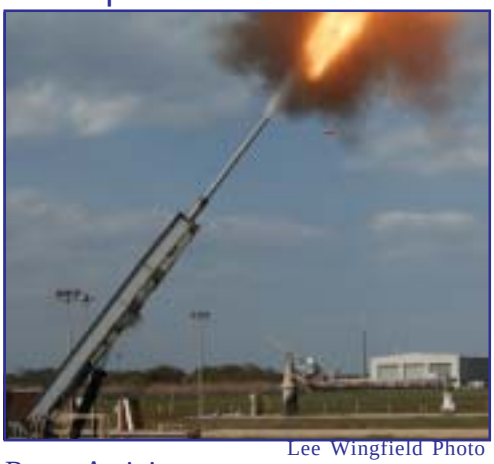
The National Oceanic and Atmospheric Administration's CoastWatch program provides this type of oceanographic data in near real-time to federal, state and local marine scientists, coastal resource managers and the general public.

Other organizations, such as the Virginia Department of Conservation and Recreation and the Maryland Department of Natural Resources, also use NASA-derived information to prioritize land conservation efforts.

If the bay is ever to recover enough to be taken off the "dirty waters" list, NASA data will be essential for deciding how to best care for our troubled neighbor.

To view Landsat images of the Chesapeake Bay and a video flyover of the Chesapeake Bay's watershed visit: http://www.nasa.gov/centers/goddard/news/topstory/2008/chesapeake.html

Wallops Shorts.....



Lee Wingfield Photo

Range Activity

A Navy Advanced Modular Gun team from Dahlgren, Va., completed six gun firings from Wallops Island on April 30. The firings (above) included one dummy test slug, three un-instrumented long range test projectiles, and two instrumented long range test projectiles. Two firings reached a range of over 70 nautical miles.

The 15th Annual Runway Friction Workshop will take place May 12 – 16. Approximately 100 visitors are expected from 14 countries. Be advised there will be congestion at the gate on Monday morning, as well as throughout the week at the cafeteria and around the Building N-159 hangar. As always, employees are to remain clear of the runways and taxi ways without consent from the Air Traffic Control Tower.

Launch

A NASA Terrier-Black Brant sounding rocket was launched from White Sands Missile Range, N.M., on May 1. The 935 pound payload was an X-ray Quantum Calorimeter. Dr. Dan McCammon, University of Wisconsin was the experimenter. Initial indications show good science was obtained. Jay Scott, NSROC, was the mission manager.

On the Road

Rich Rogers and Cate Fairchild, NASA Aircraft Office; Mike Hitch and Scott Schaire, NASA Advanced Projects Office, took part in a Career Day event at Fruitland (Md) Intermediate School on May 1.

Aerosonde Team Receives President's Award

AAI Photo

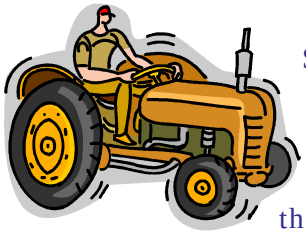
(left to right) Daniel Fowler, David Smith, Fred Strader, Roger Levasseur, Brent Philson, Peter Bale, and David Storey

The Aerosonde team recently received the "President's Award of Excellence" for the Hurricane Noel Mission. The award presented by Fred Strader, AAI CEO, recognizes the high quality performance, determination, dedication, and hard work of the team.

NASA Wallops Flight Facility and the National Oceanic Atmospheric Administration (NOAA) have used AAI Aerosonde aircraft for three consecutive hurricane seasons to provide real-time, near-surface hurricane data, a task too risky for manned flight missions. Manned/unmanned teaming allows the Aerosonde aircraft to chase hurricanes at an extended range and provide critical velocity, temperature, and path data quickly and from sensors located close to the surface of the ocean.

The Aerosonde unmanned aircraft system is a product of Aerosonde Pty Ltd., of Victoria, Australia, a wholly owned subsidiary of AAI Corporation.

A Farmer's Delight by Ted Wilz, Senior Meteorologist



Spring had a dry beginning in March. April proved to be just what the farmer's needed; a wet, mild month. Measurable rain fell on 11 days in April, totaling 3.63 inches. This is well above the monthly norm of 2.84 inches. The most rain occurred on the 4th and the 28th, when we received .76 inches or rainfall on each day.

April also was a mild month with an average temperature of 55.6 degrees, which is 2.4 degrees above normal.

While we set no new record highs for the month, temperatures got into the 70's on eight days and into the 80's twice.

The temperature reached the monthly high of a summer-like 83 degrees on April 18. On the morning of April 16, we had a low of 32 degrees. This was the coldest day of the month and tied a record low for the date.

A 51 degree change in temperature over two days shows the variability of springtime weather on the Eastern Shore.

Although not quite as windy as March, April also was a breezy month. We had 11 days with winds of 30 mph or greater. The strongest winds occurred on April 6 with gusts reaching 38 mph.

In addition to the beginning of the annual hurricane season, June usually brings measurable precipitation in the form of rain and showers on 10 days during the month, totaling 3.39 inches.

High temperatures start out in the upper 70's and warm to the low 80's by month's end. Overnight lows start in the upper 50's, increasing to the mid to upper 60's as July approaches.

The warmest day on record at Wallops for June occurred on June 10, 1964, when we reached 97 degrees. The coldest day of the month was a chilly 40 degrees on the morning of June 1 and 2, 1967.

Wallops Exchange & Morale Association's Morale Activities Committe

Invite you to a

Cinco de Mayo Party

Today, May 5
Rocket Club
5 p.m.

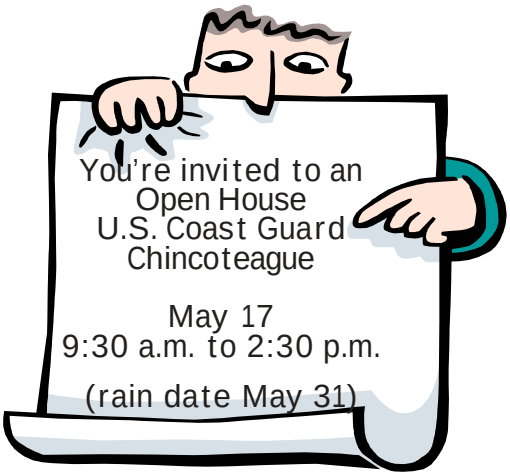
Free Food

NASA 50 Years of Exploration and Discovery

April 28, 1961
NASA successfully tests the Mercury capsule's abort system at Wallops Island. The Little Joe (LJ-5B) rocket flew the capsule on a lower trajectory than planned, but the escape rockets performed well and the Mercury capsule survived in good shape.

April 29, 1954
The first three-stage rocket launches from Wallops Island. The sounding rocket, built by the National Advisory Committee for Aeronautics' Pilotless Aircraft Research Division, consisted of two Nike rockets topped by a Deacon rocket.

"Never discourage anyone...who continually makes progress, no matter how slow"..... Plato



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