

Inside Wallops

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New Rocket Technologies Getting a Flight Test

New technology that may one day improve the capabilities of rocket systems and the process for launching them will be tested during a suborbital rocket flight July 9 from the NASA Wallops Flight Facility.

The two-stage NASA Terrier-Orion sounding rocket will carry instruments to test new tracking, data processing, payload positioning, power and communication systems.



NASA Terrier-Orion

File Photo

The new technologies are being developed by personnel at the Wallops Flight Facility and the NASA Kennedy Space Center, Fla.

“The only way to measure the true performance of these instruments and technologies is to test them through an

actual rocket flight,” said Phil Eberspecker, chief of the NASA Sounding Rocket Program Office at Wallops.

“This suborbital sounding rocket project, dubbed Sub-TEC 2, allows to efficiently test multiple technologies during a single flight,” he added.

“If these systems pass the test, they may one day be integrated into both suborbital and orbital rockets and payloads. This will improve our capabilities for conducting science missions,” Eberspecker said.

In addition to the rocket systems, the flight will provide testing for new rocket range support technology that will show personnel in the Control Center the position of the rocket in real-time during the flight.

“We are excited about the use of the new rocket display tool for the Control Center that will allow personnel monitoring a rocket flight to better determine the performance of the vehicle, thus providing improved safety for the public,” said Jay Pittman, chief of the Wallops range and mission management office.

The mission is scheduled for launch between 5:30 and 7 a.m. The back-up launch day is July 10.

Potterton Joins the Alumni Association

Terry Potterton retired from NASA Wallops Flight Facility, effective July 3, 2008, with 34 years of government service. Potterton graduated from the University of Arkansas in 1974 with a bachelor of science degree in mechanical engineering. He served in the U.S. Army from 1974 to 1977 and in the U.S. Air Force from 1977 to 1986. Potterton came to NASA WFF in 1986. At the time of his retirement, he was head of the Safety & Mission Assurance Branch.

Debbie Parks Receives Budney Award

Debbie Parks, NASA System Software Engineering Branch, was recently selected to receive the Applied Engineering & Technology Directorate’s, (AETD), Thomas J. Budney award for engineering integrity in recognition of her commitment to engineering integrity and dedication to safety and mission success in support of system testing of the mission critical Radar Data and Acquisition Computer (RADAC) for the TacSat-2 and NFIRE Minotaur launch missions at Wallops Flight Facility.

The RADAC provides the Wallops launch range with redundant real-time data, including impact prediction, for range safety and other test range requirements. Following the success of TacSat-2, a RADAC modification was proposed to remove the existing Real-Time Computer System (RTCS) and replace it with the new Data Quality Computer A (DQCA) system in the Range Control Center. This is a new version of the RADAC that operates on a different platform.

Despite overwhelming pressure to accept the seemingly simple and obvious change, Parks opposed the proposed modification until more rigorous testing could be accomplished. She painstakingly outlined an alternative plan that included gradual, best-practice steps and appropriate testing that would provide a measured level of success and confidence in the performance of the new configuration.

Eventually, her recommendations were fully recognized and implemented with the real-time computer system remaining in the Control Center. This proved to be particularly significant when NFIRE pre-launch testing resulted in failures of the DQCA and the backup system.

The Thomas J. Budney Award for Engineering Integrity award is AETD’s highest recognition for AETD civil servants and contractors that best exhibit the qualities of engineering integrity.

Wet and Warm in June by Bob Steiner, Meteorologist

The average temperature during June was 75.1 degrees, which is 3.7 degrees above normal.

There were 21 days and 21 nights when temperatures were above average. The highest temperature recorded was 94 degrees on June 8 and again on the 10th.

The coolest reading, 55 degrees, occurred on the morning of June 18. No record temperatures were set or tied.

Measurable precipitation occurred on 13 days, 10 is normal. The total rainfall for June was 4.28 inches, 0.89 inches above normal.

Almost half of that precipitation fell in a 24 hour period between June 4 and 5 when 2.11 inches was recorded.

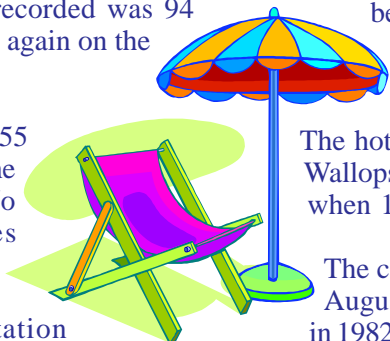
Winds calmed down quite a bit during June. We only saw 4 days with 30 mph winds. The strongest gust occurred at 9:57 p.m. on the June 4.

Daily high temperatures in August should begin in the mid 80's, (84 to 86) and decrease slightly to 82 degrees by months end.

The hottest day in recorded history at Wallops for August is the 10th in 1977 when 101 degrees was recorded.

The coolest temperature recorded in August is the 47 degrees on the 30th in 1982.

August brings us to the middle of summer. Hurricane activity in the North Atlantic Ocean begins to pick up so be ever aware and attentive to the daily weather and predictions for the possibility of a hurricane impacting the mid-Atlantic coastal sates.



Sympathy is extended to the family and friends of Reginald Justice, Sr. (Jake) who died July 3. A viewing will be held tonight from 6 to 8 p.m. at the Cooper & Humbles Funeral Home, Accomac, Va. The funeral will be at 1 p.m tomorrow (July 8) at the Metompink Baptist Church, Lankford Highway, Parksley, Va.

Jake retired from NASA WFF with 37 years of service, working mostly in the M-Area. He is survived by a daughter and a son, Yvonne Nock and Reginald, Jr., that both work at Wallops for NSROC and a son-in-law, Robert Nock in the NASA Safety Office.

Software Reliability Overview

August 7
8:30 a.m. to 4:30 p.m.
Bldg. E109, Room 107

Overview: the basic concepts and activities of software reliability engineering

Target Audience: software, system, and hardware engineers

Scope: how the basic concepts of design, analytical techniques and methods are used to assess and improve the reliability of software systems

Objective: practical suggestions instead of theoretical discussions

To sign up for the class, contact Donna Smith at x1346.

NASA Deputy Administrator's Corner

NASA drives innovation, creating real benefits for a modest investment of less than six-tenths of one percent of the overall federal budget.

One example is the Ad Astra Rocket Company, which was founded by retired astronaut Dr. Franklin Chang Díaz.

Formed through a privatization agreement of the NASA technology, the Ad Astra Rocket Company goal is to commercialize the VASIMR™ system in the emerging market of private space operations and services.

To read the full article, check out the Deputy's Administrator's Corner at:http://insidenasa.nasa.gov/nasa_stories/Ad_Astra_Rocket_Company.html .

Notes from the Mail Room

Are you mailing letters or other materials through the U.S. Postal Service, (USPS) Wallops Post Office?



If you work for a contractor, ensure that a return address for your company is visible in the upper left-hand corner of the envelope.

If you work for NASA, insert your mail code on the blank line in the pre-printed return address located in the upper left-hand corner of the envelope.

The Wallops Mail Services Center strives to process mail promptly. If mail is returned by the USPS for any reason, a full return address must be displayed on the envelope in order to return the mail to the sender. Questions, call x1133.

Inside Wallops is an official publication of Goddard Space Flight Center and is published by the Public Affairs Office, x1584, in the interest of Wallops employees. Recent and past issues of *Inside Wallops* also may be found at: <http://www.nasa.gov/centers/wallops/news/newsletters.html>

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