

Inside Wallops

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Blind Students Exploring Rocketry With NASA

NASA is partnering with the National Federation of the Blind (NFB) to provide 12 blind high school students a unique exploration experience during a rocket science camp August 15 through 21. The program, called *Rocket On!*, is an inaugural project of the NFB Jernigan Institute in Baltimore.

During the week, NASA engineers and

Federation of Blind Jernigan Institute is revolutionary," said Mark Riccobono, manager of education programs for the Jernigan Institute. "For the first time, we are bringing together blind students, blind teachers and NASA scientists and engineers, blind and sighted, to develop the tools and techniques that will get more blind kids excited about science."



Keith Koehler Photo

Mark Riccobono, manager of education programs for the National Federation of the Blind, (right), examines the rocket that will be used in "Rocket On!" with Phil Eberspaker, chief of the Sounding Rockets Program Office at the NASA Wallops Flight Facility. "Rocket On! is a week-long summer camp for 12 blind high school students from across the country. The camp is a partnership between the Federation and NASA.

instructors with the NFB Jernigan Institute, will present workshops at the Institute on the history of rocketry, basic rocket physics, and basic electronics.

In addition, the students will learn basic rocket trajectory planning, build electronic circuits for the sensors they will fly, and practice pad operations for the rocket they will launch August 19 from NASA's Wallops Flight Facility.

Al Diaz, Associate Administrator for NASA's Science Mission Directorate, said, "NASA's partnership with the Federation of the Blind is providing students a unique opportunity to learn about rocketry. This camp is showing all students, regardless of their physical abilities, that they can be part of the nation's Vision for Space Exploration."

"We look forward to the possibility that one day these students will join NASA as scientists and engineers," Diaz said. "What we are doing at the National

While at Wallops on August 18, the students will participate in a launch review with NASA personnel, integrate their experiments with NASA support systems, and conduct a practice countdown.

Reporting for duty at 4 a.m., August 19, the students will begin the countdown procedures towards a 6 a.m. launch of the ten and a half foot rocket.

The launch window is 6 a.m. to 9 a.m. The backup launch day is August 20.

Through audible signals, the students will be able to determine the readiness of their experiments and the rocket. The student-built electrical circuits will allow them to measure light, temperature, acceleration and pressure during the rocket's flight, which is estimated to reach 6,000 feet.

Later that afternoon back at the Jernigan Institute, the students will begin analyzing the data collected from the four sensors during the flight. They will present their preliminary results during presentations on August 20 at the NASA Goddard Space Flight Center, Greenbelt, Md.

The launch will be web cast live on the internet beginning at 5:15 a.m. at:

<http://www.wff.nasa.gov/webcast>

Wallops Shorts.....

Sounding Rocket Launches

Three sounding rockets were launched from Roi-Namur on August 15, as part of the EQUIS II campaign. Two of the three flights were successful.

The first was a NASA Terrier-Malemute carrying an experiment to investigate the electrodynamic of the post-sunset bottom-side equatorial F region ionosphere.

The second launched was a NASA Terrier-Orion that released chemical trails to permit measurement of neutral wind profiles in three distinct locations.

A third rocket, also a NASA Terrier-Orion carrying TMA, underperformed. A review board has been formed to investigate the flight.

Dr. David Hysell, Cornell University, is the principle investigator. John Hickman is the NASA Campaign Manager and Bruce Scott is the NASA Sounding Rocket Operations Contract, (NSROC), Mission Manager.

Balloon Launches

A NASA scientific balloon was successfully launched from Palestine, Texas, on August 9. The 3.46 million cubic foot balloon carried a solar cell calibration instrument to test new solar cell modules in a near space environment. Roger Helizon, NASA's Jet Propulsion Lab, was the principal investigator. All desired science requirements were met. Total flight time was 7 hours, 45 minutes.

A second NASA scientific balloon was successfully launched from Palestine on August 11. The flight of the four million cubic foot balloon was to conduct certification for multiple new components that will be used on future long duration balloon flights. Brian Stillwell, National Scientific Balloon Facility, was the principal investigator. Total flight time was 9 hours, 52 minutes.

A third NASA scientific balloon was successfully launched from Palestine on August 15. The 11.82 million cubic foot balloon was to test Mars Science Lander drogue parachute extraction system and to also determine drag and performance characteristics of a new main parachute design. Dr. Robert Micheltree, NASA's Jet Propulsion Lab, was the principal investigator. Total flight time was 2 hours, 53 minutes.

Return to Kwajalein Rekindles Memories

As part of the large-scale NASA EQUIS II sounding rocket campaign, many Wallops employees are going to Kwajalein Atoll in the South Pacific. Some are going for the first time, while others participated in the EQUIS campaign in 1990 from Kwajalein.



Rebecca Hudson Photo

Don Grant, CSC, returned to Kwajalein on August 6 after being there 60 years prior during his time in the United States Marine Corps.

For one Computer Sciences Corporation (CSC) employee, however, this trip rekindles memories from over 60 years ago. Don Grant, a former United States Marine, will be returning to Roi-Namur after battling there in 1944.

On February 1, 1944, Grant, an 18 year old soldier with the 24th Marine Regiment unit, went ashore on Roi-Namur. The mission was to seize the Japanese held group of islands in the Kwajalein Atoll, which included Roi-Namur. The Americans were successful in their attempt to gain control of the territory from Japanese forces. This battle was part of the World War II

“march” from Guadalcanal to Okinawa.

Because of security requirements, Grant was not able to take pictures or even keep a journal of his experiences on Roi-Namur. After 60 years, few memories remain.

One of the most vivid memories is of a prodigious explosion. A Japanese torpedo storage bunker exploded. Grant recalls the thunderous roar and sky that was blackened from smoke. “It was said that nearly 24 men perished in that explosion,” Grant said.

After the initial explosion, concrete and other debris began falling. Grant had to take shelter by crawling under palm trees. Remnants of the bombed buildings stand on Roi-Namur today. One is a memorial to soldiers who lost their lives during these battles.

From Roi-Namur, American troops went on to various other islands in the South Pacific and ended their expedition on April 1, 1945. Grant completed his war time service in August 1945 in Okinawa.

Grant has worked at NASA Wallops Flight Facility since November 1986. He is currently a safety analyst for CSC. Grant returned to Roi-Namur on August 6 and is providing ground safety support for EQUIS II.

2004 AETD Excellence Award for Clerical Support



Rick Obenschain, Director of the Applied Engineering and Technology Directorate, presented the 2004 AETD Excellence Award for Clerical Support to Audrey Young at the AETD State of the Directorate Address that was held at Wallops recently. Young is the Secretary for the Wallops Electrical Engineering Branch. Congratulations, Audrey, for a job well done.

Beach Cleanup Scheduled

The annual beach cleanup of Wallops Island is scheduled for Saturday, September 18. The activity is part of the U.S. Coastal Cleanup. The cleanup



begins at 9 a.m., takes about two hours and is open to all employees, family and friends.

Material is classified and tabulated. This information goes to the Center for Marine Conservation, which monitors the health of the U.S. coastline.

To register, contact Marianne Simko at Marianne.F.Simko.1@gsfc.nasa.gov or call x2127 by September 13. Participants of foreign nationalities must be submitted by August 20.

Environmental Office Seeking Help

The Environmental Office needs your help. They are currently looking at what impact WFF activities have on the environment around Wallops (your backyard). These activities include everything from improving roads, to constructing and demolishing buildings, to launching orbital rocket, plus many more.

Please review the preliminary draft document, specifically your tasks or program area, by August 20, 2004 and send any comments back to Shari Silbert at extension 2327 or email to Shari.A.Silbert.1@gsfc.nasa.gov.

<http://www.wff.nasa.gov/~code250/Documents/documents.htm>

Webmasters Brown Bag Discussion

When: Tuesday, August 17, 11:30 a.m.
Where: Williamsburg Room, Bldg. E-2

Emma Antunes, the GSFC Web Manager, will be here to discuss Goddard's Strategic Web Plan, the redesigned Wallops Flight Facility website and the future of the NASA's web.

This is an unstructured session, so get your lunch, come into the Williamsburg Room, and ask Emma anything you would like!

For more information, contact Tom Taylor on X1193.

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Editor Betty Flowers
Asst. Editor Rebecca Hudson