University Students Helping NASA With GeneSat Mission

Dozens of university students are helping NASA prepare, monitor and analyze the science from a ‘nano’ satellite scheduled to launch in December.

NASA’s GeneSat-1 satellite is scheduled to ride aboard an Air Force rocket being launched into Earth orbit from NASA Wallops Flight Facility, Wallops Island, Va., on Dec. 11, 2006. The small satellite will carry bacteria that researchers will analyze to determine the effects of space flight on microscopic living things.

The 10-pound (4.5-kilogram) satellite will be a ‘secondary payload’ on an Air Force Minotaur rocket, derived from a Minuteman missile and modified to launch payloads into orbit. The main purpose of the launch is to loft an Air Force TacSat 2 satellite into orbit. NASA’s separate GeneSat-1 will carry bacteria inside a miniature laboratory to study how the microbes may change genetically during spaceflight.

The micro-laboratory includes sensors and optical systems that can detect proteins and specific genetic activity. The student-operated GeneSat communications system, located in the Stanford foothills, will receive data via radio from the satellite’s onboard micro-laboratory after it has completed its observations and tests of the bacteria carried on the spacecraft. This data will be relayed through the Internet to the GeneSat mission operations center at NASA Ames Research Center, located in California’s Silicon Valley.

Santa Clara (Calif.) University students will control the spacecraft from the mission operations center at NASA Ames. The students developed software that will send commands to the satellite, analyze spacecraft health and calibrate biological data.

With this program, NASA continues the agency’s tradition of investing in the nation’s education programs. The program directly ties into the agency’s major education goal of strengthening NASA and the nation’s future workforce. Through this and the agency’s other college and university programs, NASA will identify and develop the critical skills and capabilities needed to achieve the Vision for Space Exploration.

Wallops Shorts.....

In the News

Key West - Keynoter, “Irony: Good Weather Kills Storm Research”

WBOC TV, “Private Spaceport to Launch Large Rockets”

WMDT TV, “History Will Be Made at Wallops Island”

Flight Global, “ATK Unveils Two-Stage Solid-Fuelled Launcher”

Space News, “ATK Views Suborbital Rocket as Precursor to Satellite Launcher”

Eastern Shore News, “Dec. 11 Spaceport Launch Won’t Affect Residents”

On the Road

At right, Tom Millard, LJT & Associates, speaks with Amish visitors at the Dover Air Show, which was held on October 7 & 8.

Numerous Wallops employees staffed both the NASA exhibit and the Wallops Flight Facility exhibit.
**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

**Editor**  
Betty Flowers

**Asst. Editor**  
Rebecca Hudson

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**Daylight Saving Time ends this Sunday morning, October 29.** Don’t forget to set your clock back one hour.

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**Building Z-40’s New Look**

With special thanks to Judy Killmon, Building Z-40, Technical Support Building has a new look!

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**NASA Safety Training Center Courses**

**Electrical Safety Standards**  
November 7 and 9  
8 a.m. to 4 p.m.  
Building E-2, Training Room

**System Safety Fundamentals**  
November 13 and 17  
8 a.m. to 4 p.m.  
Building E-104, Room 310

Courses are offered at no cost to NASA and contractor employees.

For detailed information about each course visit:  

Contact Olive Finney at x2463 for further information.

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**EAP Lunch & Learn**

**Depression or Just the Blues**  
October 26  
11:30 a.m. – 12:30 p.m.  
Bldg E-2 – Williamsburg Room

How does one know if they’re clinically depressed as opposed to a situational funk? You may be surprised how easy it is for circumstances to change your brain chemistry.

Also, what is the difference between typical depression and male depression?

Come and join in the discussion with Employee Assistance Program Counselor, Tom Northern.

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**Diabetes**  
October 31  
Noon – 1 p.m.  
Bldg E-2-Williamsburg Room

Cynthia Lee, RN, Health Educator with Eastern Shore Rural Health will present an overview of diabetes. Her presentation will include:

* types,
* recognizing signs and symptoms,
* treatment,
* how to care for yourself at work,
* how to assist/encourage a co-worker with diabetes.

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**Combined Federal Campaign**

This year’s theme for the Combined Federal Campaign (CFC) is joining hands . . . lifting hearts. These four words vividly capture the spirit of the CFC.

Nearly four million federal employees and military personnel are able to contribute to the charities of their choice during the annual charity drive, which runs from September 1 through December 15. Established in 1961, it is the largest workplace charity campaign in the country and the only campaign authorized to solicit and collect contributions from federal employees in the workplace.

Families of the critically ill, families displaced by fire or flood, families of those with special needs all count on CFC agencies. We can help to make sure that they are not disappointed.

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**CFC Picnic and Fun Run**

The Wallops CFC Picnic will be held on Tuesday, October 24. The picnic will begin at 11:30 a.m. Hot dogs, hamburgers, kielbasa, chips and soda will be available at the picnic. The Black History Club will be sponsoring a bake sale. The Wallops Music Club will provide live entertainment.

The 1st Annual Wallops CFC Fun Run/Walk will begin at 11:00 a.m. Plaques will be awarded to the top three male and female finishers. Same day registration will be at the pavilion from 10 to 10:50 a.m. The registration is $5.00, which will be donated to the CFC.

For further information contact Joel Mitchell at x1127.

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