Students Set to Send Experiments into Space

High school students from across the United States will see their year of hard work pay off in June when they participate in the final steps for preparing their experiments for flight on the space shuttle and on a suborbital sounding rocket.

Eight student teams and their teacher advisors will journey to the NASA Goddard Space Flight Center’s Wallops Flight Facility, after having their experiments chosen for space flight through the NASA Student Involvement Program (NSIP) flight opportunities competition.

“The purpose of the competition is to provide high school students an opportunity to take what they have learned in the classroom and apply it to the real world environment,” said Lynn Marra, NSIP Officer at NASA Headquarters. “We hope that the students involved in the flights see it as a positive experience and pursue careers in science and engineering.”

Lynee Zielenski, teacher/advisor for student teams from Glenbrook North High School, Northbrook, Ill., said, “The NSIP’s value in education is that it allows students to do real rocket science and engineering. It is not theory or something out of the book. It is what real scientists do...the successes and the failures. It makes students think, problem-solve, articulate, design, build and learn a hundred other skills that today’s businesses are looking for in its future work-force. It truly provides an environment for a musical composition.

“The students will be exposed to the process and many tests, including vibration, that we conduct to prepare an experiment for flight on the space shuttle,” according to Barbara Justis, NSIP/SEM project manager. “At the end of the week we want the students to leave here confident that their experiment will work.”

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During the second week of June the other four teams will arrive to integrate their experiments in a Space Experiment Module (SEM). The students will work with Wallops personnel in the Space Shuttle Small Payloads Office to test their experiments before being integrated with the carrier for flight.

The experiments will investigate materials for future space flight vehicles, study the efficiency of electric motors during rocket flight, measure atmospheric constituents, and gather data on the sounding rocket flight environment for a musical composition.

Shortly after sunrise on June 6, the students hope to see their experiments fly aboard a single-stage NASA Orion sounding rocket to an altitude of more than 28 miles.

“Sounding rockets are an excellent education tool,” said Bobby Flowers, chief of the Sounding Rockets Program Office. “Under NSIP, high school students are able to design and build at low cost an experiment for sounding rocket flight in one school year. In addition, after the launch they get almost immediate feedback on the success of their experiment. It’s very gratifying to see the students’ excitement.”

Four of the student teams will converge on Wallops during the first week of June to participate in the final activities to prepare their experiments for the sounding rocket flight.

Various activities, including the launch of the sounding rocket, will be webcast at the following web site: http://www.wff.nasa.gov/pages/video_schedule.html#launch

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Sun Safety
Sunburn, skin cancers, and other sun-related adverse health effects are largely preventable when sun protection is practiced early and consistently.

Despite the fact that sun tanning and burning increase skin cancer risks, most Americans do not protect themselves from the sun’s damaging rays.

What are the health effects of overexposure to the sun? UV radiation has both positive and negative effects. Positive effects of UV radiation include warmth, light photosynthesis in plants and vitamin D synthesis in the body. UV radiation also increases moods in people and kills pathogens.

Overexposure to UV radiation has adverse health effects. Overexposure to UV radiation is the primary environmental risk factor in the development of UV-related adverse health effects, which include diseases of the eye, immune suppression and skin cancers. Children are most at risk for overexposure to UV radiation.

Sun exposure, especially sunburn during childhood, appears to increase the risk of melanoma, the most serious form of skin cancer. Just one or two blistering sunburns in childhood can double a person’s risk of developing melanoma later in life.

For more on sun protection, go to: http://pao.gsfc.nasa.gov/gsfc/GNEWS/051801/051801.htm#Safety

NASA Visitor Center Events in June
June 2 and 16 — “Model Rocket Launch”
A model rocket launch will be held at 1 p.m. Models of various rockets will be launched. Model rocketeers are invited to bring their own rockets and launch them. The launch will be canceled if it is raining or winds exceed 18 mph.

June 3 — “Biking Tour of the Main Base”
Participants must wear helmets and sign-up at the Visitor Center. The tour starts at 3 p.m., is 3 miles and takes approximately 1 hour. The tour will be cancelled if it is raining.

June 22 - “Launch Bottle Rockets”
Children of all ages can learn how to make and fly a Bottle Rocket between 10 a.m. and noon. Bring a 2-liter plastic soda bottle, all other materials are provided by the Visitor Center. The program will be cancelled if it is raining.

June 24-29 - “Humans in Space”
Sundays: “Humans in Space”
“Humans in space” is the subject of a 30-minute program presented at 11 a.m. on Saturdays and Sundays. Puppet astronauts and Sam the monkey will explore space flight, including the spacecraft. An eight-minute version of the film “Astrosmiles” follows the puppet show. Children will get a paper Space Shuttle glider kit.

Saturdays and Sundays. Puppet shows are presented at 11 a.m. on Saturdays and Sundays. "Puppets in Space", a 10-minute puppet show is presented at 11 a.m. on Saturdays and Sundays.

June 25-29 - “Puppets in Space”
A model rocket launch will be held at 1 p.m. Models of various rockets will be launched. Model rocketeers are invited to bring their own rockets and launch them. The launch will be canceled if it is raining or winds exceed 18 mph.

Upcoming Training
Explosive Safety Management and Engineering
WFF - Building E-2
June 25-29
8 a.m. to 4 p.m.

Blood Pressure Readings
No appointment necessary

Where: WFF Health Unit
Bldg. F-160
For: Civil Service and Contract Employees
When: Monday - Friday
Time: 8:30 a.m. - 4 p.m.

TSP Funds Fluctuate Over Longer Periods
Over the 12 months ending in April, one of the worst stretches for the C fund since its creation in 1988, the C fund was down 12.95 percent, while the S fund’s index dropped 18.99 percent and the I fund’s index was down 16.3 percent.

The new indexes did worse than the C fund in four of the last five calendar years, the exception being 1999.

TSP Open Season ends May 15 to July 31, 2001.

Virginia Space Flight Academy Summer 2001
Slots are still available in the Virginia Space Flight Academy Summer 2001. Sessions are June 24-29, July 22-27, July 8-13, August 5-10 and August 12-17. For more information call Bob Marshall, (757) 824-3800.

Contact Information
NASA’s Wallops Flight Facility is located on Wallops Island, Va., approximately 43 miles from White Plains, N.Y.

For more information, go to http://pao.gsfc.nasa.gov/gsfc/GNEWS/051801/051801.htm#Safety

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WFF - Building E-2
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This course is offered at no cost to all NASA and contractor employees.

Employees need to fill out the course registration form which requires their supervisor’s signature. Additional information and course registration form can be found at: http://www.wff.nasa.gov/~code803/pdf/explosafe01.pdf

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