NASA Explorer Schools News
A monthly newsletter for the teachers of tomorrow's explorers

In January 2004, after seven months of flight, two NASA "robotic geologists" will land on the surface of Mars. This issue of NASA Explorer Schools News highlights the 2004 Mars Mission.

Featured Mission

Looking for Water on Mars

Two new golf cart-sized Mars rovers, *Spirit* and *Opportunity*, are scheduled to land on Mars on January 4 and 25, 2004, respectively. Larger and better equipped than the earlier Mars Pathfinder rover, these new rovers will search for evidence that water once existed on Mars. This evidence could help determine if the planet was once capable of supporting life. Each rover carries a panoramic camera that will send images of Mars surface back to Earth. The rovers are also equipped with Rock Abrasion Tools (RAT) to bore small holes into a rock allowing the rovers' other instruments to analyze the newly exposed rock surface. Visit the NASA JPL Mars Page at mars.jpl.nasa.gov.

Teachers' Corner

EVENTSCOPE

EventScope is a 3-dimensional game-like computer interface that allows students to explore Mars virtually. Students apply scientific theories and principles with real-world data from NASA sites. They can operate a panoramic camera to view the surface of Mars. Eventscope can be downloaded for free at www.eventscope.org. Lesson plans are available on the web site. (Eventscope requires Windows to run.) For more great Mars activities, check out *Imagine Mars!* (imaginemars.jpl.nasa.gov/index3.html) and the ASU Mars Page (marsed.asu.edu/activities.php).

Bytes and Bits

Universal Time: Times for all NASA space expeditions are recorded in "Universal Time" (or UT), which refers to the time at the Prime Meridian (longitude zero) in Greenwich, England. Times given in UT are in terms of a 24-hour clock. Thus, the Mars Rover *Spirit* is scheduled to land on Mars on 1/4/04 at 11:35UT, or 6:35 a.m. EST/3:35 a.m. PST.

What is cool about your school? The NES News team is soliciting 60-second video spots from NASA Explorer Schools. Tell us the name of your school and what cool activities you are doing with NASA. More information is on the web: learners.gsfc.nasa.gov/T4.

NASA Explorers are people like you

Name: Brian P. Ottens
Education: B.S. Mechanical Engineering, M.S. Electrical & Computer Engineering
Job Title: Electrical Engineer

Brian is an engineer at NASA's Goddard Space Flight Center. He is currently part of a team that is developing a device that will detect cracks in the leading edge of the space shuttle's wings. Brian began his interest with technology when he was 11 years old and assembled a radio-controlled car kit. That experience taught him lessons in electronics that he still uses today in his work with NASA. In his spare time, Brian volunteers to help the elderly and mistreated animals.

NES Spotlight

Langston Magnet Elementary, hssd.net/langston/index.htm
Students: 460
Teaching staff: 49

Langston Magnet Elementary is located in Hot Springs National Park, AR. The school is in a building that was once an all black high school before integration. The Langston building is proud of its alumni, one of whom is Glen Mahone, Assistant Administrator for NASA Public Affairs. Langston Elementary has several facilities that encourage inquiry-based learning, including a science lab for environmental studies, a space lab for NASA experiences and technology, a Lego® adventure lab for engineering activities, the Columbia courtyard for outdoor activities, and a natural habitat area to study wildlife. The school also plans to construct a "mission control room" to house a television studio for students to broadcast to their classrooms and perform mock space flight missions. To learn more about this school, visit the NES News website.

Teacher Tech Talk Tuesday

Computer problems? *Where do I plug this cable in? How do I save these images? How do I turn off that Paper Clip?* IT expert, Shane Keating, and a team of guest "geeks" will help you learn about technology in webcasts on the 1st and 3rd Tuesday of each month. Send us your questions and they will be answered on air. So tune in! learners.gsfc.nasa.gov/T4

January schedule: January 6: Connecting to the Internet,
January 20: Firewalls.

Aired live at 7:30 AM PST ***and*** 3:30 PM EST.