



# countdown

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## NASA, network giant give public 3-D view of Mars

## Software glitch shakes space station, no damage detected

### ◆ NASA and Google Launch Virtual Exploration Of Mars —

NASA and Google announced Monday the release of a new Mars mode in Google Earth that brings to everyone's desktop a high-resolution, three-dimensional view of the Red Planet.

Besides providing a rich, immersive 3D view of Mars that will aid public understanding of Mars science, the new mode, Google Mars 3-D, also gives researchers a platform for sharing data similar to what Google Earth provides for Earth scientists.

The mode enables users to fly virtually through enormous canyons and scale huge mountains on Mars that are much larger than any found on Earth. Users also can explore the Red Planet through the eyes of the Mars rovers and other Mars missions, providing a unique perspective of the entire planet.

Users can see some of the latest satellite imagery from NASA's Mars Reconnaissance Orbiter and other probes orbiting the Red Planet.

Viewers can learn about new discoveries and explore indexes of available Mars imagery. The new Mars mode also allows users to add their own 3D content to the Mars map to share with the world.

◆ **ISS Update:** Information about the issues concerning the reboost of the International Space Station was released:

- An oscillation was experienced after a set of Russian software control parameters were uplinked in error to the vehicle. These parameters are used to control operation of the gimbals on the service module thrusters. The control perform-

ance was altered such that the reboost burn dynamics coupled into the natural frequency of the space station. This resulted in oscillations and higher loads to station components than desired. The crew was awake and reported a fairly healthy vibration throughout the station.

- It was human error; improper values for key parameters were uplinked. The Russians are investigating ways to prevent future or similar occurrences. This shows the criticality of software to proper operation of systems. In the past, NASA made similar errors in shuttle uplinks.

- NASA analysis shows that the station was not structurally damaged by the reboost vibrations, but NASA is conducting more detailed analysis along with other international partners.

- The oscillation incident will not have an impact on the station's life through 2015.

■ **NASA College Scholarship Fund Inc.** — The NASA College Scholarship Fund, Inc. is a non-profit organization that awards undergraduate scholarships to qualified NASA dependents pursuing a course of study in science or engineering. Up to five scholarships will be awarded this year. Applications are now being accepted and must be received by the corporation scholarship committee at JSC no later than March 20.

Information and guidelines for applying for the scholarship can be found at the Web site:

<http://nasapeople.nasa.gov/nasascholarship/index.htm>. For additional details, please contact Debbie Bitner at

[Deborah.L.Bitner@nasa.gov](mailto:Deborah.L.Bitner@nasa.gov) or by phone at 867-0510.



### ■ Education Opportunities — *Florida Institute of Technology*: Complete a master's degree in two years,

two courses per term! Florida Tech is now accepting applications for the summer term April 27 - Aug. 7. Master of Science degrees are in space systems, space systems management, computer information systems, computer science and software engineering. Classes are held from 5 to 8 p.m. one night a week in Rockledge, at KSC, and online. For more information, go to: [www.uc.fit.edu](http://www.uc.fit.edu).

■ **National Graduate School Master's Program:** The National Graduate School Master's Program begins April 8. The school is repeating its successful dual-credential Master of Science degree in Quality Systems Management with a Lean Six Sigma Black Belt for KSC employees. Classes will be held every Wednesday evening from 4:30 to 9 p.m. in Cocoa Beach. A program representative will be on site in February to answer any questions and assist enrollment decisions. For more information, visit the Web site at: [www.ngs.edu](http://www.ngs.edu).

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