



Engineers still seek answer to faulty sensor reading

▲ **Shuttle Update:** At press time, there was no change in the launch status of Space Shuttle Discovery. Space Shuttle managers said Friday the launch of NASA's Space Shuttle Return to Flight mission, STS-114, will take place no earlier than late this week. Once the problem is resolved and the countdown can be restarted, it will take about four days to launch. A countdown from this point will be a complete start over at T-43 (time minus 43) hours. Currently, there are no plans to roll Discovery back from the launch pad.

▲ **ISS Update:** On Friday, Commander Sergei Krikalev and NASA Science Officer John Phillips tested their Soyuz capsule's motion control system. The test was in preparation for a relocation of the Soyuz spacecraft. The Soyuz is the crew's lifeboat in the event an evacuation of the Station is needed and is also the crew's ride home at the end of its six-month stay on the orbiting laboratory.

With Discovery's launch delayed, managers now plan to have the crew move the Soyuz today from the Pirs Docking Compartment to the Zarya module to clear the way for a spacewalk planned in August. The move, originally planned to take place after Discovery's mission, will free up the Pirs airlock for use by Krikalev and Phillips during that spacewalk.

Expedition 11 crew moves Soyuz to clear way for spacewalk

Using this software, the Space Technology 6 Autonomous Sciencecraft Experiment autonomously tracked changes in the cryosphere, the section of Earth that is frozen, and relayed the information and images back to scientists.

The software, developed by engineers at NASA Jet Propulsion Laboratory in Pasadena, Calif., controls the Earth Observing-1 spacecraft. NASA Goddard Space Flight Center in Greenbelt, Md., manages the satellite. The software has taken more than 1,500 images of frozen lakes in Minnesota, Wisconsin, Quebec, Tibet and the Italian Alps, along with sea ice in Arctic and Antarctic bays.

While other spacecraft only capture images when they receive explicit commands to do so, for the last year Earth Observing-1 has been making its own decisions. Based on general guidelines from scientists, the spacecraft automatically tracks events such as volcano eruptions, floods and ice formation. The most recent software upgrade allows the spacecraft to accurately recognize cryosphere changes such as ice melting.

For more information, visit:

<http://ase.jpl.nasa.gov>

■ **Did You Know?** In an average year, about 1,000 [tornadoes](#) are reported across the United States, resulting in 80 deaths and over 1,500 injuries.

■ **Education Opportunity** — Webster University, Merritt Island Campus, is considering offering at KSC a degree in computer resources and information management beginning in fall 2005. If you are interested in pursuing this degree, please send an e-mail to Carol Marx at marxc@webster.edu with your name, address and phone number, or call 449-4506. In most cases the GMAT and GRE are not required for admission into Webster University. Please pass this information along to a friend or co-worker who may also be interested. For further information about Webster University, call 449-4500 or go to the Web site at <http://www.webster.edu/spacecoast>.

■ **NASA Science** — In 2008, NASA plans to send a satellite to orbit the Moon: the Lunar Reconnaissance Orbiter (LRO). As it surveys the lunar surface, LRO will get clear pictures of Apollo relics for the first time since the 1970s. Read about it at http://science.nasa.gov/headlines/y2005/11jul_lroc.htm?list29875.

■ **Software Learns To Recognize Spring Thaw** — Spring thaw in the Northern Hemisphere was monitored by a new set of eyes this year -- an Earth-orbiting NASA spacecraft carrying a new version of software trained to recognize and distinguish snow, ice and water from space.

