

## International Space Station status report: SS07-16

*by Bend\_Weekly\_News\_Sources*

HOUSTON - The Expedition 14 crew of the International Space Station was busy this week performing fitness evaluations, working on scientific experiments and preparing for the arrival of the Expedition 15 crew. Cosmonauts Fyodor Yurchikhin, Expedition 15 commander, and Oleg Kotov, Expedition 15 flight engineer, and spaceflight participant Charles Simonyi, a U.S. businessman, are scheduled to launch from the Baikonur Cosmodrome in Kazakhstan at approximately 12:30 p.m. CDT Saturday. Their Soyuz TMA-10 spacecraft is scheduled to dock with the station at approximately 2:12 p.m. Monday. The Expedition 14 crew, Commander Michael Lopez-Alegria and Flight Engineer Mikhail Tyurin, will return to Earth with Simonyi on April 20. In preparation for their departure, Lopez-Alegria and Tyurin reviewed descent procedures. Suni Williams, who joined Expedition 14 in progress, will remain on the station as an Expedition 15 crew member for the first part of its increment. The two crews held a space-to-ground conference on Wednesday discussing upcoming mission activities. On Monday, Lopez-Alegria set a new U.S. single-mission spaceflight record, passing the 196-day mark previously set by station crew members Dan Bursch and Carl Walz in 2001 and 2002. The Expedition 14 crew performed periodic fitness evaluations this week. Additionally, they worked on a video tape recorder and on a faulty light of an ophthalmoscope that was used during a health check. They downloaded information from the Internal Wireless Instrumentation System, or IWIS, which monitors the health of the station's systems. The crew continued scientific activities aboard the station. Williams tested a bacteria detection instrument developed by researchers at Marshall Spaceflight Center in Huntsville, Ala., and industry partners. The device, Lab-On-a-Chip Application Development Portable Test System (LOCAD-PTS) is a portable bacteria detection system small enough to fit into a compact ice cooler. Four more sessions with LOCAD-PTS are planned for upcoming weekend science sessions. Lopez-Alegria and Tyurin tested their hand-eye coordination by completing their sixth sessions with the Test of Reaction and Adaptation Capability (TRAC) experiment. The experiment studies whether the decline of motor skills during spaceflight is a result of the brain adapting to space. The hand-eye coordination test is performed before, during and after the mission. The crew also continued their work with the Anomalous Long-Term Effects in Astronauts' Center Nervous System (ALTEA) experiment. Using an instrumented helmet, the experiment measures the cosmic radiation that passes through a crew member's head, brain activity and visual perception. The experiment should help researchers better understand what levels of cosmic radiation crew members are exposed to and develop countermeasures for future long-duration spaceflights.

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