National Aeronautics and Space Administration

KSC Countdown

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Closeouts on Discovery prepare vehicle for stacking Nov. 1

◆ **Mission Update:** Technicians continue performing final closeouts on **Discovery** in preparation for rollover to the Vehicle Assembly Building, currently scheduled for Nov. 1. The work to repair the damage to orbiter Discovery's right-hand external tank door mechanism is finished and the door functional test is complete.

The team completed orbiter aft closeouts last weekend. The right- and left-hand wing box and wing doors were installed for flight on Oct. 19. The Ku-band antenna test was successfully completed, and the antenna was stowed for flight on Oct. 18.

In the Vehicle Assembly Building, technicians will complete closeouts in preparation for orbiter Discovery to be mated to the tank, designated ET-123, on Nov. 1.

◆ **ISS Update:** Last week, Expedition 14 Commander Michael Lopez-Alegria replaced equipment in the Carbon Dioxide Removal System, used to remove impurities from the station's atmosphere. Only one of its two systems designed to purge carbon dioxide from the air has been operating due to particulate matter clogging an air valve.

He also joined Flight Engineer Mikhail Tyurin in inspecting and photographing the Zvezda Service Module windows and conducted a video tour of the station for training of future Expedition crews.

Lopez-Alegria and Tyurin completed a medical officer proficiency training session.

European Space Agency Flight Engineer Thomas Reiter began the first of three runs of the Analysis of a Novel Sensory Mechanism in Root Phototropism, or TROPI experiment, in the European Modular Cultivation System. Seeds will sprout next week in the EMCS facility where plants and other small organisms can grow in variable gravity conditions using a centrifuge. This study will increase the understanding of the different systems plants use to determine what direction their roots and shoots should grow and which genes are responsible for successful plant growth.

On Monday, flight controllers were scheduled to begin a five-day checkout of the Thermal Radiator Rotary Joints on the S1 and P1 trusses that will rotate once the station's upgraded external thermal loops are activated on the STS-116 mission. The test will enable the radiators to "autotrack" or revolve when required to dissipate heat from the trusses' avionics equipment.

■ **2006 Family Day —** On Nov. 18, badged KSC, CCAFS and contractor employees can bring family and friends to tour facilities, meet coworkers, and see their work environment at the 2006 Family Day. Gates will open at 9 a.m. and close at 3 p.m., but launch pad viewing will end at 2:30 p.m. This event is only for employees and their guests and **a badged employee must be present in all vehicles (no vehicle can be larger than a seven-passenger van).**

New ISS crew busy with maintenance, experiments

Currently, the main attractions at KSC will be the shuttle pads, an Orbiter Processing Facility, the Vehicle Assembly Building, the Launch Control Center, the crawler-transporter, a mobile launcher platform, the Shuttle Landing Facility, the Apollo Saturn V Center, and the International Space Station Center. There will be many more exhibits and facilities to see, as well. On the Cape Canaveral Air Force Station, the main attractions include the Air Force Space Museum, several launch complexes (1-4, 5, 6, 14, 34, 37 and 41), and a drive-by of the Lighthouse.

If you have questions, please call the Family Day hotline at 867-2343 and leave a message. Someone will call you back with an answer.

■ **Sky Watch —** Mark your calendar on Nov 8. The planet Mercury will pass directly in front the sun. The transit will begin at 2:12 p.m. and will last for almost five hours. Read the full story at **http://science.nasa.gov/headlines/y2006/20oct_transitofmercury.htm?list29875**.

■ **Did You Know?** The Indian River Bridge (NASA Causeway) will be reduced to one lane between 8:30 a.m. and 2:30 p.m. on Tuesday and Wednesday.

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