



KSC Countdown

Dec. 5, 2006

www.nasa.gov

Vol. 11, No. 87

KSC counts down to launch at 9:36 p.m. Thursday

Added station elements shift mass, balance and affect software

◆ **Shuttle Update:** The STS-116 crew arrived late Sunday afternoon to prepare for the launch of Space Shuttle Discovery on Dec. 7. The countdown officially began Monday night at 11 p.m. Final vehicle and facility closeouts have begun, with a checkout of backup flight systems. Today, flight software stored in mass memory units and display systems will be reviewed. The backup flight system software will be loaded into Discovery's general purpose computers. Flight-deck platforms will be removed. Preparations have begun to load the power reactant storage and distribution system. Also, navigational systems will be activated and tested. On Wednesday, operations will begin to load cryogenic reactants into Discovery's fuel cell storage tanks.

This mission is the 117th space shuttle flight, the 33rd flight for Discovery and the 20th U.S. flight to the International Space Station. STS-116 is scheduled to last 12 days with landing approximately 4:35 p.m. on Dec. 19 at Kennedy.

◆ **ISS Update:** Flight controllers worked on two problems aboard the space station last week, neither of which is expected to affect Discovery's launch or mission. An attempted reboost of the space station's altitude was cut short Nov. 27. Russian flight controllers suspected that sensitive software detected a slight shift in the orientation of the station as the

thrusters were fired. The change in orientation is believed to be normal, but it is new for the station due to the changes in its mass and balance resulting from the addition of the new solar arrays and truss segment in September.

Flight controllers are also analyzing a problem that occurred during testing of a new software package used to detect and solve problems with the station's giant Solar Alpha Rotary Joint. The joint is used to rotate the new solar arrays, allowing them to track the sun. The new software is designed to automatically realign the teeth of the joint's gears should they become misaligned, rather than requiring controllers to send commands for the realignment.

However, while running through a test of the software on Nov. 26, a remote power controller, or station circuit breaker, opened. The circuit breaker was successfully reset on Nov. 28. Extensive analysis and troubleshooting appears to indicate there is no problem with any equipment aboard the station. Work continues, however, to refine the new software.

■ **Visitor Complex Holiday Discounts for Kennedy Space Center Employees** — Now through Dec. 24, all badged KSC and CCAFS employees receive a 30 percent discount at Visitor Complex retail locations, including the Space Shop at the main Visitor Complex and the gift shop at the U.S. Astronaut Hall of Fame. Se-

lect from hundreds of space-themed items like ornaments, toys, apparel, jewelry, books, mugs, mission merchandise and more.

Present your badge at the will-call ticket window to receive a Limited Admission ticket (Limited Admission does not include the KSC bus tour or IMAX movies). You must present your badge at the time of admission and purchase. This offer is not transferable and cannot be combined with any other discount. For more information, call 321-449-4444.

■ **Florida Tech Seeks To Hire** — Adjunct faculty members are wanted who can teach computer-related courses for the Master of Science in Computer Information Systems degree program. Opportunities exist for the Melbourne campus and for distance learning courses online. Any applicant with a Ph.D. will be considered. Please contact Dr. Rhoda Baggs at rbaggs@fit.edu or at 674-8807.

■ **Did You Know?** The December 2006 cardiovascular disease screening is offered 7- 8 a.m. Wednesday at the OHF (Occupational Health Facility @ KSC) and Thursday at the LAC (Launch Area Clinic/MFF Cafeteria). No appointment is necessary. You must fast for 12 hours prior to screening (water only). The 2-page questionnaire can be picked up at any medical facility or downloaded from the SGS home page/forms: <http://ksbcoc-forms/KSCForms2/ref/KSC28-1010.itr>.