



Tile work continues, evaluation of data under way on Discovery



▲ Shuttle Update:

Processing on Discovery continues for NASA's second space shuttle mission in the return-to-flight sequence. Wire inspections and chafe protection installation continue on the vehicle's reaction jet driver. The nose landing gear was cycled Dec. 8 to support tile work on the shuttle's heat shield.

The Orbiter Boom Sensor System is in the transfer aisle of the OPF, awaiting installation in the vehicle. The boom installation was moved to this week to allow for final work on the pedestals and latches. Technicians continue to remove and replace gap fillers in a main-priority area at a rate of about 100 gap fillers per day.

Engineers are evaluating data from two catch bottles that indicate higher levels of oxygen than expected in the shuttle's aft compartment during this summer's launch. A total of six bottles automatically capture samples for two seconds in pairs at precise times after launch and through the first two minutes of flight. While the higher readings have been categorized as a formal in-flight anomaly, the readings could result from a mistake in the analysis. During Discovery's launch, all three main engines performed normally, indicating there wasn't a significant oxygen leak from the engines in the aft compartment. Engine performance

and the catch bottles are the only way to detect in-flight leaks.

▲ ISS Update: Last week, Expedition 12 Commander Bill McArthur and Flight Engineer Valery Tokarev focused on keeping the International Space Station in good working condition as managers reviewed plans for the changeout of cargo vehicles at the complex.

On Dec. 5, McArthur finished repairing an atmospheric contaminant monitor called a "volatile organic analyzer" in the Destiny Lab. He replaced thermal fuses in the device, which measures amounts of gases in the cabin air. He was scheduled to replace a circulation fan for the rack the unit is housed in. He will activate and check the apparatus this week.

In the Russian segment, the crew members performed routine cleaning of the smoke detectors in the Zarya module. Tokarev repaired air ducts to improve airflow into the U.S. segment. In addition, Tokarev installed an adjustable fan with mufflers in the sleeping quarters to reduce the amount of noise the fan produces.

McArthur updated the operating software of the five racks designed to house science experiments in the Destiny lab. He also prepared the canisters of a materials exposure experiment for installation on the outside of the complex during the next space shuttle mission.

Expedition 12 crew makes repairs on space station



■ Healthy Holiday Eating Workshop —

The December N.E.W.S. (Nutrition Education for Workers at the Spaceport) workshop will focus on healthy holiday eating. The workshop will be held from 11:30 a.m. to 12:30 p.m. **Wednesday** in the OHF Library Conference Room.

■ Reminder — Ticket deadline is Wednesday for NASA KSC Civil Service traditional holiday dinner.

The traditional holiday dinner and celebration will be held from 11:30 a.m. to 3 p.m. Dec. 16 at KARS I. Advance tickets are required and are available online through Dec. 14 at <http://holidaydinner.ksc.nasa.gov>. This event, funded by the NASA Exchange Council, is free to all KSC NASA civil service personnel.

■ NASA Guest Operations/Protocol Office Relocates — The NASA Guest Operations/Protocol Office has relocated to the west side of the KSC Visitor Complex, into the lower wing of the building parallel to the Rocket Garden. The move will be complete on Thursday.

■ Did You Know? There will be a 20 percent discount in the NASA Exchange on all memorabilia items marked with a WM, WW or SM code through Dec. 23. As always, all items purchased in the NASA Exchange stores are tax free.