National Aeronautics and Space Administration

# countdown

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## STS-118 crew practices for launch in 3-day TCDT

◆ **Shuttle Update:** The STS-118 crew is at Kennedy for training activities in the terminal countdown demonstration test, or TCDT, from M-113 driving on Tuesday *(see Mission Specialist Alvin Drew, below)* to the simulated launch countdown today. To keep up with their activities, visit the photo Web site at **http://mediaarchive.ksc.nasa.gov/search.cfm?cat=81**.

◆ **ISS Update:** A new oxygen generation system tested between July 11 and 14 aboard the International Space Station will allow the orbiting laboratory's crew size to increase in 2009. The hardware is part of the station's environmental control and life support system and will be used to augment the Russian Elektron oxygen generator. With the increased capability to produce oxygen, the station can better support six crew members as they work and live aboard the outpost.

During normal operations, the new system will generate about 12 pounds of oxygen per day, enough for six people. However, it can provide as much as 20 pounds of oxygen per day, enough for as many as 11 people. It is designed to replace oxygen consumed through breathing or lost during experiment use and airlock depressurization. During last week's test, which started Wednesday and ended Saturday, the system generated approximately 10 pounds of oxygen.

Currently, oxygen on the station comes from four sources: the Russian-built Elektron system, Russian supply vehicles, storage tanks in the U.S. Quest airlock and solid fuel oxygen generators called candles.

The new oxygen generation system in the U.S. Destiny laboratory is one of two primary components in the station's regenerative environmental control and life support system. The other component, the water recovery system, is planned to be installed on the space station in 2008. Periodically, NASA will activate and operate the new oxygen generator to ensure the system remains ready for its integration with the water recovery system.

Did You Know? You can go to the Web site http://spaceflight.nasa.gov/ for information on the ISS crew's activities aboard the space station, future launch dates, as well as station sighting opportunities from anywhere on Earth. Details on station science operations can be found at http://scipoc.msfc.nasa.gov/, a site administered by the Payload Operations Center at NASA's Marshall Space Flight Center in Huntsville, Ala.

## ISS crew tests new oxygen generation system

■ **July Health Education Information Table —** Summer is here with its hot temperatures during work and play! Especially in Florida, everyone must be careful not to let a heat-related illness catch you by surprise. The July Health Education and Wellness Program topic covers heat-related illnesses and prevention. The monthly health education table will be set up from 11 a.m. to 1 p.m. **today** in the SSPF cafeteria so that the program's staff can distribute the July packet on heat-related illnesses and other heat safety information. Hardcopies of the packet will also be available at all medical and fitness facilities. If you or your department or organization would like to be added to the monthly packet hardcopy distribution list, please e-mail or call Kris Calderon at 867-3414. The packet is also available online at the program's Web site, **http://hewp.ksc.nasa.gov,** under "Monthly Health Topics."

■ **NASA Science —** Accelerating from 0 to 60 mph, then slowing down for a stoplight is no problem for an ordinary automobile. But piloting a rocketship wouldn't be so easy. Most rocket engines are designed to burn full-on (liftoff!) or full-off (coasting through space) with no in-between. And that can be a problem -- namely, how do you land this thing? Learn how engineers are developing technology for throttling the next-generation lunar landers at Web site **http://science.nasa.gov/headlines/y2007/16jul_cece.htm?list29875**.

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