



# countdown

August 28, 2008

Vol. 13, No. 65

## Difficulty attaching fuel line to Atlantis under review



### ◆ Shuttle Update:

Engineers are discussing possible solutions after technicians encountered difficulty attaching the liquid

hydrogen umbilical line from the external fuel tank to space shuttle Atlantis. A guide pin became stuck as workers were turning a bolt to connect the main liquid hydrogen line from the tank to the shuttle.

Managers are looking to move space shuttle Atlantis to its launch pad no earlier than Tuesday morning. Liftoff on its STS-125 mission is targeted for Oct. 8.

◆ **ELV Update:** At Vandenberg Air Force Base in California, NASA's Interstellar Boundary Explorer, or IBEX, spacecraft has undergone spin-balance testing. Other testing continues this week. A flight simulation is scheduled for Sept. 4. Mating to its Pegasus XL rocket is scheduled for Sept. 8-9.

The IBEX satellite will make the first map of the boundary between the solar system and interstellar space. IBEX is the first mission designed to detect the edge of the solar system. IBEX is targeted for launch Oct. 5.

■ **KSC Combined Federal Campaign Testimonials** — The 2008 CFC committee is looking for personal testimonials from employees on how one of the many CFC-sponsored charities has touched their life. If anyone has a testimonial they would like to share, please e-mail Patty Hepburn at [Patty.A.Hepburn@nasa.gov](mailto:Patty.A.Hepburn@nasa.gov).

## Testing underway on IBEX before flight simulation

■ **Did you know?** You can save enough energy to operate a television for six hours by recycling just two aluminum cans! Every can, every bottle, every piece of paper counts. Recycle!

■ **KEA Events For September** — Please mark your calendars for the KSC Engineering Academy events listed below and stay tuned for more information. As always, NASA and contractor personnel are invited to attend. The location for all events is the KSC Training Auditorium.

**Sept. 3** — *KEA-27: Safe and Effective Processing: Avoiding the Common Errors.* Presenter: Fernando Santos. Time: 10–11 a.m.

**Sept. 10** — *KEA-28: Columbia Debris Loan Program.* POC: Rick Russell. Time: 9–10:30 a.m.

**Sept. 16** — *KEA-29: Columbia STS-107 Foam Impact Analysis.* POC: Michael Bell. Time: 9–10:30 a.m.

Questions and comments should be sent to *KSC-Engineering-Academy@mail.nasa.gov*. To view future event dates or past KEA events, please go to: <http://kea.ksc.nasa.gov/>.

■ **NASA News** — NASA's Mars Exploration rover Opportunity is heading back out to the Red Planet's surrounding plains nearly a year after descending into a large Martian crater to examine exposed ancient rock layers. Having completed its job in the crater, Opportunity is now preparing to inspect loose cobbles on the plains. Some of these rocks, approximately fist-size and larger, were

thrown long distances when objects hitting Mars blasted craters deeper than Victoria into the Red Planet. Opportunity has driven past scores of cobbles but examined only a few.

Engineers are programming Opportunity to climb out of the crater at the same place it entered. A spike in electric current drawn by the rover's left front wheel last month quickly settled discussions about whether to keep trying to edge even closer to the base of Cape Verde on a steep slope. The spike resembled one seen on Spirit when that rover lost the use of its right front wheel in 2006. Opportunity's six wheels are still working after 10 times more use than they were designed to perform, but the team took the spike in current as a reminder that one could quit.

For more information, visit:

[http://www.nasa.gov/home/hqnews/2008/aug/HQ\\_08-216\\_Opportunity\\_Rover.html](http://www.nasa.gov/home/hqnews/2008/08/aug/HQ_08-216_Opportunity_Rover.html).

■ **Reminder** — Help KSC/CCAFS save energy dollars this upcoming holiday! Before going home at the end of the week, please remember to turn off your equipment, appliances and lights. Also, close window blinds.

■ Due to the Labor Day holiday on Sept. 1, *Countdown* will not be published Sept. 2.

*Countdown* is published every Tuesday and Thursday for NASA KSC employees. Deadlines are 10 a.m. Mondays & Wednesdays. E-mail news to [anita.barrett@jbsc.ksc.nasa.gov](mailto:anita.barrett@jbsc.ksc.nasa.gov). For questions or information, e-mail or call 321-867-2815. You can also find PDF editions of *Countdown* on the Web at [http://www.nasa.gov/centers/kennedy/news/countdown/countdown\\_toc.html](http://www.nasa.gov/centers/kennedy/news/countdown/countdown_toc.html).