



countdown

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Atlantis, Endeavour getting ready for fall missions



◆ Shuttle Update:

On **Atlantis**, heat shield installation on the space shuttle main engines is complete. A reinforced carbon-carbon panel on

the right wing leading edge was adjusted. Atlantis will fly on the STS-125 Hubble repair mission targeted for launch Oct. 8.

For **Endeavour**, preparations are under way in the VAB for stacking of the external tank and solid rocket boosters. The stacking is scheduled to start Friday. Endeavour will stand by for any emergency with the STS-125 mission. For that purpose, its mission is designated STS-400. Following that, Endeavour is targeted to launch on the STS-126 mission to the International Space Station Nov. 10.

◆ **ELV Update:** Another launch tentatively targeted for later this year is the Lunar Reconnaissance Orbiter/Lunar Crater Observation and Sensing Satellite, or LRO/LCROSS, from CCAFS. The mission objective of the LCROSS are to advance the Vision for Space Exploration by confirming the presence or absence of water ice in a permanently shadowed crater at either the Moon's North or South Pole.

Early in 2009, LCROSS will excavate the permanently dark floor of one of the Moon's polar craters with two heavy impactors to test the theory that ancient ice lies buried there. The impact will eject material from the crater's surface to create a plume that specialized instruments will be able to analyze for the presence of water (ice and vapor), hydro-

carbons and hydrated materials.

LCROSS will also provide technologies and modular, reconfigurable subsystems that can be used to support future mission architectures.



■ More About

Mars — New analysis of Mars' terrain using NASA spacecraft observations reveals what ap-

pears to be by far the largest impact crater ever found in the solar system.

NASA's Mars Reconnaissance Orbiter and Mars Global Surveyor have provided detailed information about the elevations and gravity of the Red Planet's northern and southern hemispheres. The huge crater is creating intense scientific interest.

The mystery of the two-faced nature of Mars has perplexed scientists since the first comprehensive images of the surface were beamed home by NASA spacecraft in the 1970s. The main hypotheses have been an ancient impact or some internal process related to the planet's molten subsurface layers. The impact idea, proposed in 1984, fell into disfavor because the basin's shape didn't seem to fit the expected round shape for a crater. The newer data is convincing some experts who doubted the impact scenario.

A giant northern basin that covers about 40 percent of Mars' surface, sometimes called the Borealis basin, is the remains of a colossal impact early in the solar system's formation, the new analysis suggests. At 5,300 miles across, it is

Lunar ELV mission to search for polar ice

about four times wider than the next-biggest impact basin known, the Hellas basin on southern Mars. An accompanying report calculates that the impacting object that produced the Borealis basin must have been about 1,200 miles across. That's larger than Pluto.

■ **Volunteers Needed For Workplace Conflict Assessment** — You can participate in the data collection of Kennedy's civilian work force conflict sources, factors and issues. Conflict prevention, management and resolution can be achieved with awareness of typical sources of conflict, knowledge of workplace dynamics and identification of personal conflict responses. The collected information will result in training tailored to the KSC work force. Choose from morning or afternoon sessions July 9 and July 10.

For details, please call Rob Grant at 867-9169 or send an e-mail to milton.r.grant@nasa.gov.

■ **Weight Watchers at Work Program** — Weight Watchers starts a new 16-week session on Thursday. The meetings are every Thursday from 11:30 a.m. to noon in the Headquarters Building/Room 2254. If you have specific questions, please contact Marilyn Clark at 504-2979.

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