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Searching for water on the moon: The LCROSS impact Planetarium to showcase footage of LCROSS impact to public

SALT LAKE CITY (October 1, 2009) – After 112 days in orbit, [NASA's](#) Lunar Crater Observation Satellite ([LCROSS](#)) is slated to impact the moon at approximately 5:30 a.m. (MDT) on October 9, 2009. Since most of the general public will not be able to directly view the flash of the impact itself, [Clark Planetarium](#) will host a special presentation and lecture highlighting the Lunar Reconnaissance Orbiter ([LRO](#))-LCROSS missions and their search for water on the moon on Saturday, Oct. 10, 2009.

The target for the LCROSS spacecraft is “Cabeus,” a 60-mile wide crater near the lunar South Pole. According to NASA, the crater was selected after an extensive review of the most likely places at the lunar South Pole to excavate water ice through the use of a high-energy impact. After the Centaur upper stage rocket impacts the moon, LCROSS will follow the rocket into the plume, taking direct measurements before crashing onto the lunar surface at over 5,000 miles an hour. The blast and resulting debris plume of this impact will not be visible to the naked human eye, but it will be closely studied by space and ground-based telescopes.

To help the public gain a better understanding of the importance of this mission [Clark Planetarium's](#) Production Manager, Mike Murray, will give a public lecture on the LRO-LCROSS missions on Saturday, October 10 at 3:30 p.m. in the planetarium's Hansen Dome Theatre.

“This mission is one of the most significant explorations of the moon in the last 10 years and we want people to have the opportunity to see imagery from the impact. Our domed theatre is an ideal venue because we have the ability to show these images in high resolution on a 360-degree screen,” said Murray.

Included in this presentation will be video and still images from the LCROSS spacecraft as it impacts the moon's surface, images from the LRO companion craft which will be in position to photograph the event, images from ground-based professional and amateur observatories and the Clark Planetarium original production, [Flight to the Moon](#).

Flight to the Moon was a joint project between Clark Planetarium and NASA to explain in high visual detail the LRO/LCROSS missions and the importance of searching for water on the moon. In addition to playing in the Hansen Dome Theatre, [NASA](#) has been promoting the 10-minute production to science and education facilities around the country as a method of illustrating the significance of the project.

Tickets for the event will go on sale to the public on October 1, 2009 at a cost of \$1 each. They can be purchased online at www.clarkplanetarium.org or at the ticket window.

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Clark Planetarium's mission is to create and present stimulating educational programs that effectively share astronomy and space exploration information with Salt Lake County residents, Utah students, educators and families, and visitors from around the country and the world.

SIDEBAR:

About LRO and LCROSS

NASA's Lunar Reconnaissance Orbiter ([LRO](#)) is now circling the moon in a low polar orbit, reaching as close as 30 miles of the lunar surface, to photograph the moon with more than ten times the detail of any previous lunar survey. The LRO will map the Moon's chemical resources, look for ice, search for potential landing sites and measure the radiation environment.

The second spacecraft, the Lunar Crater Observation and Sensing Satellite ([LCROSS](#)) rode piggybacked on the LRO until shortly after the Centaur upper stage rocket accelerated them on a course for the moon. After this final burn of the Centaur rocket, the LCROSS and LRO separated. LRO took a course into lunar orbit while LCROSS's path (both the Centaur rocket and the LCROSS observing platform) will be directed towards an impact near the moon's South Pole, where water ices are thought to exist within lunar craters that are in perpetual shadow.

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