## **Media Relations**

June 17, 2013

## Discover the Moon at the McAuliffe-Shepard Discovery Center



About four and a half billion years ago, a Mars-sized planetary body slammed into Earth. The resulting debris eventually evolved into the moon. Credit Lunar and Planetary Institute. Artist's depiction of the Lunar Reconnaissance Orbiter with the CRaTER the instrument. Illustration by Chris Meaney/NASA.

DURHAM, N.H. — On Sunday, June 23, 2013, the McAuliffe-Shepard Discovery Center in Concord, in collaboration with the University of New Hampshire and the National Aeronautics and Space Administration (NASA), will celebrate the grand opening of "Lunar Recon: Spacecraft, Craters and Cosmic Rays," a new exhibit highlighting the scientific discoveries of NASA's Lunar Reconnaissance Orbiter (LRO) mission as well as various historic aspects of lunar exploration.

"Lunar Recon" features visual displays and hands-on activities and, for the opening event, LRO scientists will give talks and informal presentations throughout the afternoon about the mission, its instruments and findings, and the moon itself. Visitors will get an inside look at how scientists and engineers team up to design, build, test, and send a spacecraft to the moon, and hear 19th century English astronomer Sir Richard Carrington (as played by a UNH space scientist) explain how he was the first person to

demonstrate the existence of solar flares.

Launched June 18, 2009 and now in a two-hour polar orbit around the moon, the LRO satellite was a preliminary step toward returning astronauts to the moon. It was designed to map out possible landing sites and characterize the radiation hazards astronauts would encounter as a result of galactic cosmic rays and the other high-energy sources that bombard the lunar surface.

To accomplish that, LRO carries a payload of seven precision instruments, including the shoebox-sized Cosmic Ray Telescope for the Effects of Radiation, or CRaTER, which is led by scientists at the University of New Hampshire's Institute for the Study of Earth, Oceans, and Space (EOS).

"The moon is our nearest neighbor in space, and if we want to learn how to live for a long time in another place in the solar system, it's a good place to start," says CRaTER scientist Andrew Jordan of EOS. "The moon has many of the environmental factors that we'll have to face in other places—harsh space radiation, very fine and abrasive dust, and no atmosphere."

Jordan will discuss the LRO mission and CRaTER during the exhibit's opening and demonstrate how high-energy particles can be seen using a "cloud chamber"—a small, sealed container in which these particles leave a visible trail when passing through. Visitors will have the opportunity to build their own cloud chambers and assemble a model of the LRO spacecraft.

"We are delighted to be able to team with UNH and NASA to share the latest scientific findings on Earth's nearest neighbor with our visitors," says Discovery Center executive director Jeanne Gerulskis. She adds, "As commander of Apollo XIV, New Hampshire's own Alan Shepard walked on the moon in 1971. Now, 42 years later, the Granite State is continuing its key role in lunar exploration."

Admission to the grand opening is free with paid admission to the Discovery Center. For full details on Lunar Recon: Spacecraft, Craters, and Cosmic Rays, visit <a href="http://crater.sr.unh.edu/craterexhibit.shtml">http://crater.sr.unh.edu/craterexhibit.shtml</a>.

The Discovery Center features 21st century interactive exhibits on aviation, astronomy, Earth and space sciences, a state-of-the-art planetarium, and a variety of science and engineering programs. The educational programs are designed to engage families, teens, seniors, students, community groups, and lifelong learners. The center includes facilities for conferences and special events, and a NASA Educator Resource Center. For more information, visit <a href="https://www.starhop.com">www.starhop.com</a>.

The University of New Hampshire, founded in 1866, is a world-class public research university with the feel of a New England liberal arts college. A land, sea, and space-grant university, UNH is the state's flagship public institution, enrolling 12,200 undergraduate and 2,300 graduate students.

-30-

Photographs to download: <a href="http://www.eos.unh.edu/newsimage/moon\_treasurehunt\_lg.jpg">http://www.eos.unh.edu/newsimage/moon\_treasurehunt\_lg.jpg</a>

http://www.eos.unh.edu/newsimage/Iro\_crater\_lg.jpg

**Captions:** About four and a half billion years ago, a Mars-sized planetary body slammed into Earth. The resulting debris eventually evolved into the moon. Credit Lunar and Planetary Institute.

Artist's depiction of the Lunar Reconnaissance Orbiter with the CRaTER the instrument. Illustration by Chris Meaney/NASA.

Media Contact: <u>David Sims</u> | 603-862-5369 | Institute for the Study of Earth, Oceans, and Space

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