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NASA's LRO satellite will offer bird's eye view of moon

High-resolution photos will be used to find fertile ground for lunar base

By Lucas Mearian

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March 11, 2009 (Computerworld) A lunar satellite with special cameras NASA plans to launch in May will send back the highest-resolution photographs ever taken of the [moon's surface](#), providing scientists -- and the public -- with a virtual view that's close to the real one [found by astronaut Neil Armstrong](#) in 1969.

Scientists say the 10000-by-1000 resolution images from the [Lunar Reconnaissance Orbiter Camera](#) (LROC) will equal roughly one foot of Moon surface for every pixel. The satellite will orbit about 31 miles above the moon. "I believe we'll have better public imagery of some parts of the moon than we do of some parts of the earth," said Dan Stanzione, director of Arizona State University's [Fulton High Performance Computing Initiative](#).

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The LROC is part of NASA's [Lunar Precursor Robotic Program](#) and the first spacecraft to be built as part of NASA's plans to return to the Moon."



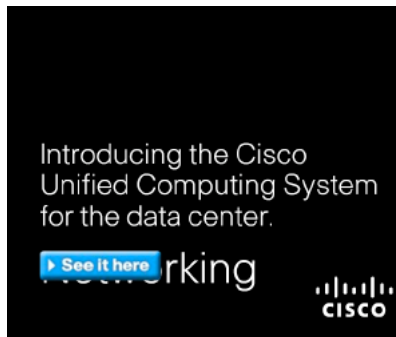
NASA will use the photos to explore for a Moon base location

Arizona State has partnered with NASA and the Johnson Space Center to compile a digital archive of thousands of new images from the LROC as well as images from past Apollo mission flight films for the world to view. The [Apollo film archive project](#) started in June 2007 and is expected to be completed this summer.

The images from the LROC will be transmitted from the satellite to Arizona State for systematic processing. The images will be stored in the school's main data center on NetApp arrays, and will then be replicated to secondary campus sites. At the same time, the images will also be replicated off-site onto systems within the [Storage Delivery Network](#) cloud computing service from Nirvanix.

Stanzione, who oversees the high-resolution photo project, said the satellite will launch around May 22 and that its images will take about 90 days to process. They will first be accessible by NASA scientists and soon thereafter to the public via Arizona State's Web servers. A graphical user interface will allow viewers to specify the region of the moon they want to explore.

The photography of the moon will begin with a scan of the lunar north



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pole region, which measures about 134 miles by 20 miles, according to Ernest Bowman-Cisneros, manager of the LROC Science Operations Center at Arizona State's School for Earth and Space Exploration.

In the satellite's first year of orbiting, more than 130TB of image data is expected to be stored in the school's servers. "Officially, this is a one-year mission, but if it's successful and the spacecraft still works, an extended mission may go out several years and it will produce data at that rate," Stanzione said. NASA spokesman Grey Hautaluoma added, "The LROC could be up there for five years or more. We've had a pretty good track record of things lasting longer than the initial phase was planned for."

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Yeah

Submitted by Anonymous on March 12, 2009 - 09:50.

Finally something with the resolution to shut the lunar landing hoax people up. Well at least until they cry photoshop.

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Perhaps these photos will

Submitted by Anonymous on March 12, 2009 - 12:58.

Perhaps these photos will not be classified as previous photos. Why would there even be classified photos if there wasn't something to hide?

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Corrections

Submitted by Anonymous on March 12, 2009 - 13:24.

Dan Stanzione does a fine job at HPC, but he doesn't oversee the camera project. The principle investigator is Dr. Mark Robinson, also with ASU.

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Also, there are two narrow angle cameras (NACs) for double the imaging fun.

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