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Lunar Reconnaissance Orbiter

NASA's First Step Back to the Moon

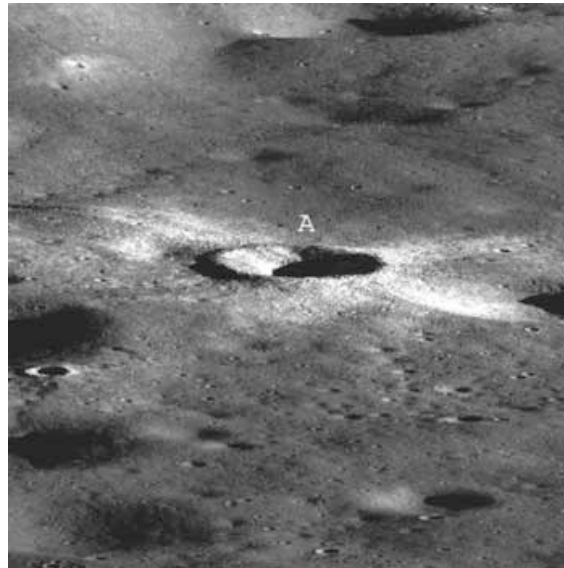
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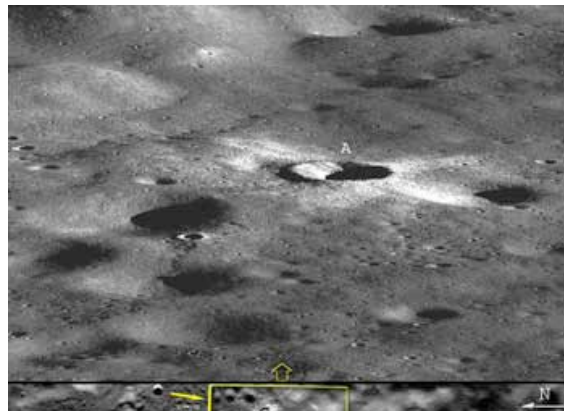
First LROC Stereo Results

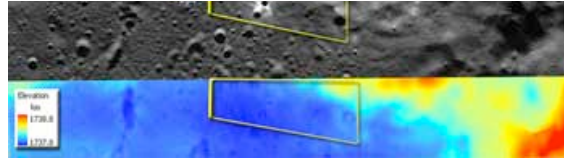
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Synthetic perspective view looking south from the Apollo 16 landing area, topography is rendered naturally (no vertical exaggeration) Credit: NASA/GSFC/Ohio State University

LROC has the ability to acquire stereo views by imaging a target from two separate orbits at different viewing angles. Typically stereo pairs are acquired from adjacent orbits to minimize changes in lighting conditions. Computer methods allow very accurate measurements of parallax between features of the two images, from which topographic maps are made. Such maps are termed digital elevation models, commonly called DEMs.





Perspective view, LROC image, and DEM Credit: NASA/GSFC/Ohio State University

The area covered by this stereo pair shows the topography seen by the Apollo 16 astronauts, including rolling plains with many impact craters. The 3-D DEM is colored showing elevations, ranging over about 1-kilometer. South Ray crater (A) in the perspective view is 750 meters in diameter and approximately 70 meters deep. The surrounding craters range from several meters in diameter to 1,200 meters. The tallest mountain in the southwest corner (lower right) of the DEM is 880 meters above the plain.

The DEM area [NAC images M102064759 and M102057602; centered at 9° S, 15.4° E] is 50 km long and 7 km wide. The LROC images were taken on July 12, 2009 during LRO orbit 218, near the Apollo 16 landing site. Images were processed using software developed by the Mapping and GIS Laboratory at the Ohio State University.

Related Link: > [LROC image page at Arizona State University \(for larger images\)](#)

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Keep comments relevant. Inappropriate or offensive comments may be edited and/or deleted. Line breaks and paragraphs are automatically converted - no need to use <p> or
. Quotes, apostrophes, and double-dashes are automatically converted to smart punctuation. Be careful when copying and pasting portions of entries or other comments.

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<p>On Aug 30, 2009 12:50 AM glenn123 wrote:</p> <p>Very clever: you produced a view showing the correct perspective. What about just posting some stereo sets and allowing us to see the 3d texture of Luna for ourselves? Or at least a link to where you have some 3d sets. thanks!</p>		<p>0  </p>
<p>On Aug 28, 2009 8:39 AM Guest wrote:</p> <p>wow thats better! now can we see the landing sites better?</p>		<p>+1  </p>

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