

Earth and Mars captured together in one photo from lunar orbit (w/ Video)

October 14 2014, by Nancy Atkinson



The Lunar Reconnaissance Orbiter turned for a quick look at Earth and one of our closest planetary neighbors—Mars. Credit: NASA/GSFC/Arizona State University

Wow, this doesn't happen very often: Earth and Mars together in one photo. To make the image even more unique, it was taken from lunar orbit by the Lunar Reconnaissance Orbiter. This two-for-one photo was acquired in a single shot on May 24, 2014, by the Narrow Angle Camera (NAC) on LRO as the spacecraft was turned to face the Earth, instead of its usual view of looking down at the Moon.

The LRO imaging team said seeing the planets together in one image makes the two worlds seem not so far apart, and that the Moon still might have a role to play in future exploration.

"The juxtaposition of Earth and Mars seen from the Moon is a poignant reminder that the Moon would make a convenient waypoint for explorers bound for the fourth planet and beyond!" said the LRO team on their website. "In the near-future, the Moon could serve as a test-bed for construction and resource utilization technologies. Longer-range plans may include the Moon as a resource depot or base of operations for interplanetary activities."

Watch a video created from this image where it appears you are flying from the Earth to Mars:

The LROC team said this imaging sequence required a significant amount of planning, and that prior to the "conjunction" event, they took practice images of Mars to refine the timing and camera settings.

When the [spacecraft](#) captured this image, Earth was about 376,687 kilometers (234,062 miles) away from LRO and Mars was 112.5 million kilometers away. So, Mars was about 300 times farther from the Moon than the Earth.

The NAC is actually two cameras, and each NAC image is built from rows of pixels acquired one after another, and then the left and right images are stitched together to make a complete NAC pair. "If the spacecraft was not moving, the rows of pixels would image the same area over and over; it is the spacecraft motion, combined with fine-tuning of the camera exposure time, that enables the final image, such as this Earth-Mars view," the LRO team explained.

Provided by [Universe Today](#)

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