

Caltech alumni help make over the moon

April 19 2012, By Katie Neith



Credit: Sky & Telescope magazine

An entirely new globe of the moon—the first in over 40 years—is now available, thanks, in part, to Caltech alumni. Using images from NASA's Lunar Reconnaissance Orbiter Camera, a team at Sky & Telescope magazine, including senior contributing editor Kelly Beatty (BS '73), developed the updated model. In addition to publishing a monthly astronomy magazine, S&T also develops a variety of space-related products like globes, sky atlases, books, and posters.

Previous moon globes have used artistic renderings of the [lunar](#) surface. As Beatty noted in an S&T article, the surface detail on older models "doesn't look anything like what you'd see in the eyepiece [of a telescope]—there's little distinction between the dark lunar maria and the brighter highlands, for example. That old globe, while serviceable, just wasn't satisfying. So for years I've been prowling around for a suitable database of lunar photos to make a new one."

The hi-res photos that the team eventually used came from a modified version of the cameras designed for the Mars Reconnaissance Orbiter and developed by Malin Space Science Systems, headed by Michael Malin (PhD '76). The Lunar [Reconnaissance Orbiter](#) Camera, launched aboard a NASA spacecraft in 2009, was used, in part, to assess meter-scale features of the moon and complete a global mapping effort with 100-meter resolution.

"The final mosaic consisted of more than 15,000 images acquired between November 2009 and February 2011, with the sun shining on the surface at incidence angles between 55° and 70° at the equator, lighting favorable for identifying surface features," writes Beatty.

After nearly a year of planning, the final result is an illustrated globe that actually looks like the [moon](#), says Beatty, and includes over 850 labeled lunar features including craters, valleys, Apollo landing sites, and many more.

More information: [www.skyandtelescope.com/news/S...
Globe-145987805.html](http://www.skyandtelescope.com/news/S...Globe-145987805.html)

Provided by Caltech

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