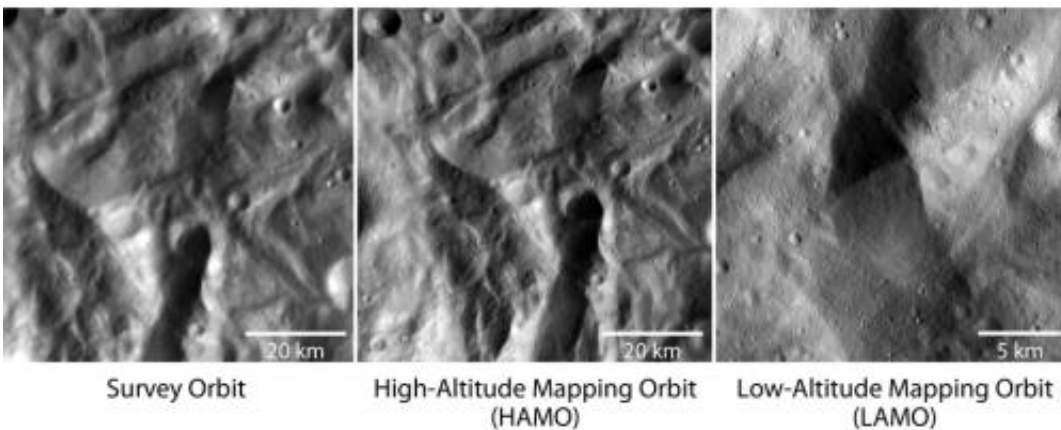


Dawn sends first low altitude images of Vesta

December 21 2011



The two images on the left represent an identical area, first observed during Dawn's survey orbit (far left image). That orbit aimed to obtain a global characterization of the asteroid. The picture in the center is from Dawn's high-altitude mapping orbit (HAMO) when the surface was systematically imaged during September and October 2011 from an altitude of about 430 miles (700 kilometers) with about 230 feet (70 meters-per-pixel) resolution for global high-resolution stereo image data that were used to develop a global shape model and topographic maps. Image credit: NASA/JPL-Caltech/UCLA/MPS/DLR/IDA

(PhysOrg.com) -- NASA's Dawn spacecraft has sent back the first images of the giant asteroid Vesta from its low-altitude mapping orbit. The images, obtained by the framing camera, show the stippled and lumpy surface in detail never seen before, piquing the curiosity of scientists who are studying Vesta for clues about the solar system's early history.

At this detailed resolution, the surface shows abundant small craters, and textures such as small grooves and lineaments that are reminiscent of the structures seen in low-resolution data from the higher-altitude orbits. Also, this fine scale highlights small outcrops of bright and dark material.

A gallery of images can be found online at:
[www.nasa.gov/mission_pages/dawn ... a/gallery-index.html](http://www.nasa.gov/mission_pages/dawn/gallery-index.html) .

The images were returned to Earth on Dec. 13. Dawn scientists plan to acquire data in the low-altitude mapping orbit for at least 10 weeks. The primary science objectives in this [orbit](#) are to learn about the elemental composition of Vesta's surface with the gamma ray and neutron detector and to probe the interior structure of the asteroid by measuring the gravity field.

Provided by JPL/NASA

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