



Vesta in images - snowmen, craters and hills

31 August 2011

NASA's Dawn spacecraft has been in orbit around the asteroid Vesta since 16 July 2011. A German camera system on board is being used to acquire images of the asteroid's surface. These images show craters, hills and even shapes that remind the researchers of snowmen. The data is being processed by the German Aerospace Center (Deutsches Zentrum für Luft- und Raumfahrt; DLR) to create maps and elevation models of Vesta.

From a distance of just 2700 kilometres, the camera is looking at a rugged and mountainous surface. Since its launch from Cape Canaveral (Florida) four years ago on 27 September 2007, Dawn has travelled 184 million kilometres through space to get this close to the asteroid. The irregularly shaped Vesta is of particular interest to scientists because it has changed very little since it was formed about 4.5 billion years ago. The images produced at the DLR Institute of Planetary Research provide researchers with a snapshot of the birth of the Solar System.

The DLR Institute of Planetary Research publishes new images of Vesta every day.

The mission

NASA's Jet Propulsion Laboratory (JPL), which is a division of the California Institute of Technology based in Pasadena, California, manages the Dawn mission to Vesta and Ceres for NASA's Science Mission Directorate in Washington DC. The University of California, Los Angeles, is responsible for overall Dawn mission science. The camera systems on the spacecraft have been developed and built under the leadership of the Max Planck Institute for Solar System Research, Katlenburg-Lindau, Germany, with significant contributions by the DLR Institute of Planetary Research, Berlin, and the Institute of Computer and Communication Network Engineering, Braunschweig. The Framing Camera project is funded by the Max Planck Society, DLR and NASA/JPL.

Contacts

Manuela Braun
German Aerospace Center (DLR)
Media Relations, Space Research
Tel.: +49 2203 601-3882
Fax: +49 2203 601-3249
Manuela.Braun@dlr.de

Prof.Dr. Ralf Jaumann
German Aerospace Center (DLR)
Institute of Planetary Research, Planetary Geology
Tel.: +49 30 67055-400
Fax: +49 30 67055-402
Ralf.Jaumann@dlr.de

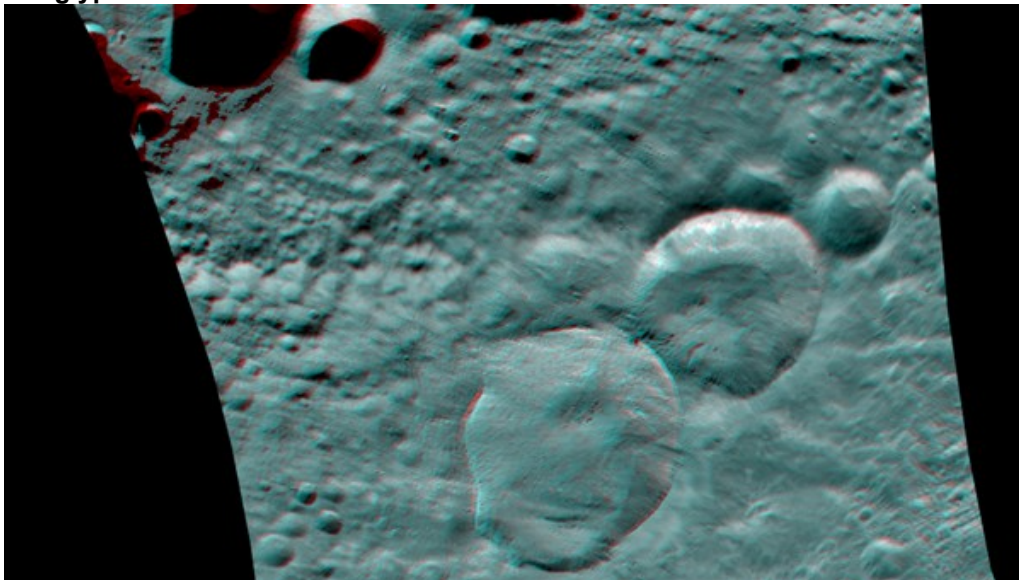
Scarp in the south polar region



NASA's Dawn spacecraft acquired this image with its Framing Camera, using the clear filter, on 12 August 2011. The image has a resolution of about 260 metres per pixel.

Credit: NASA / JPL-Caltech / UCLA / MPS / DLR / IDA.

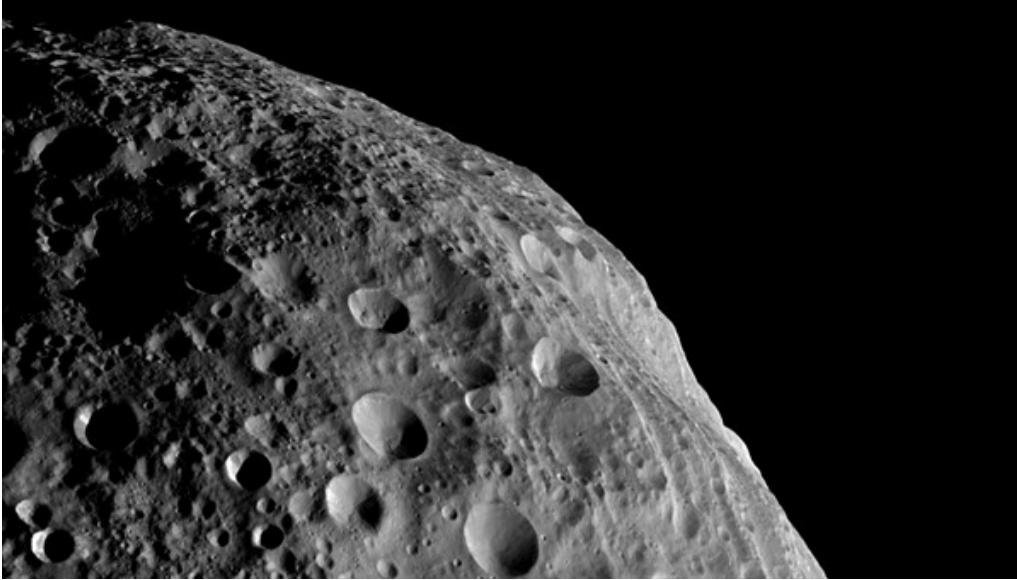
Anaglyphs of the 'Snowman Crater'



This anaglyph image shows the topography of a set of three craters on Vesta that, due to their unusual arrangement, have informally been nicknamed 'Snowman' by the camera's team members. The image data was acquired using the Framing Camera on board NASA's Dawn spacecraft on 6 August 2011. The image has a resolution of about 260 metres per pixel. If you would like to view this image in 3D, you must use red-green (or red-blue) glasses (left: red; right: green [blue]).

Credit: NASA / JPL-Caltech / UCLA / MPS / DLR / IDA.

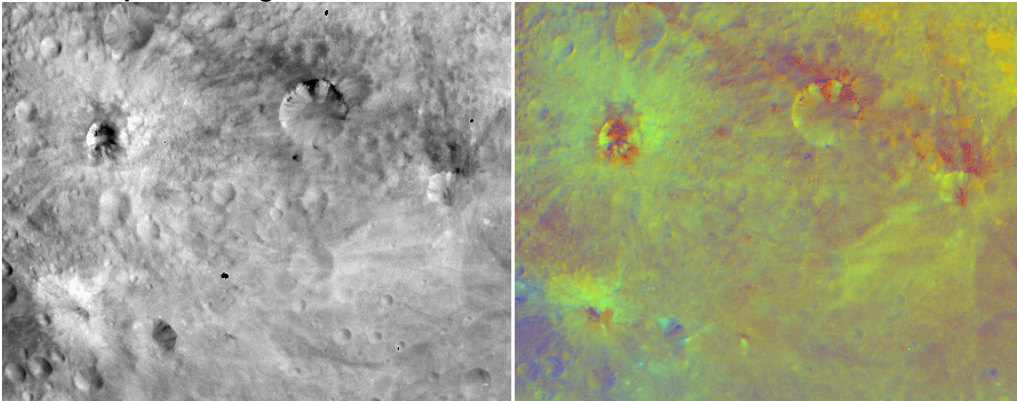
Up and down on Vesta's crater-strewn surface



NASA's Dawn spacecraft obtained this image with the Framing Camera on 11 August 2011 using the clear filter. The image has a resolution of about 260 metres per pixel.

Credit: NASA/JPL-Caltech/UCLA/MPS/DLR/IDA.

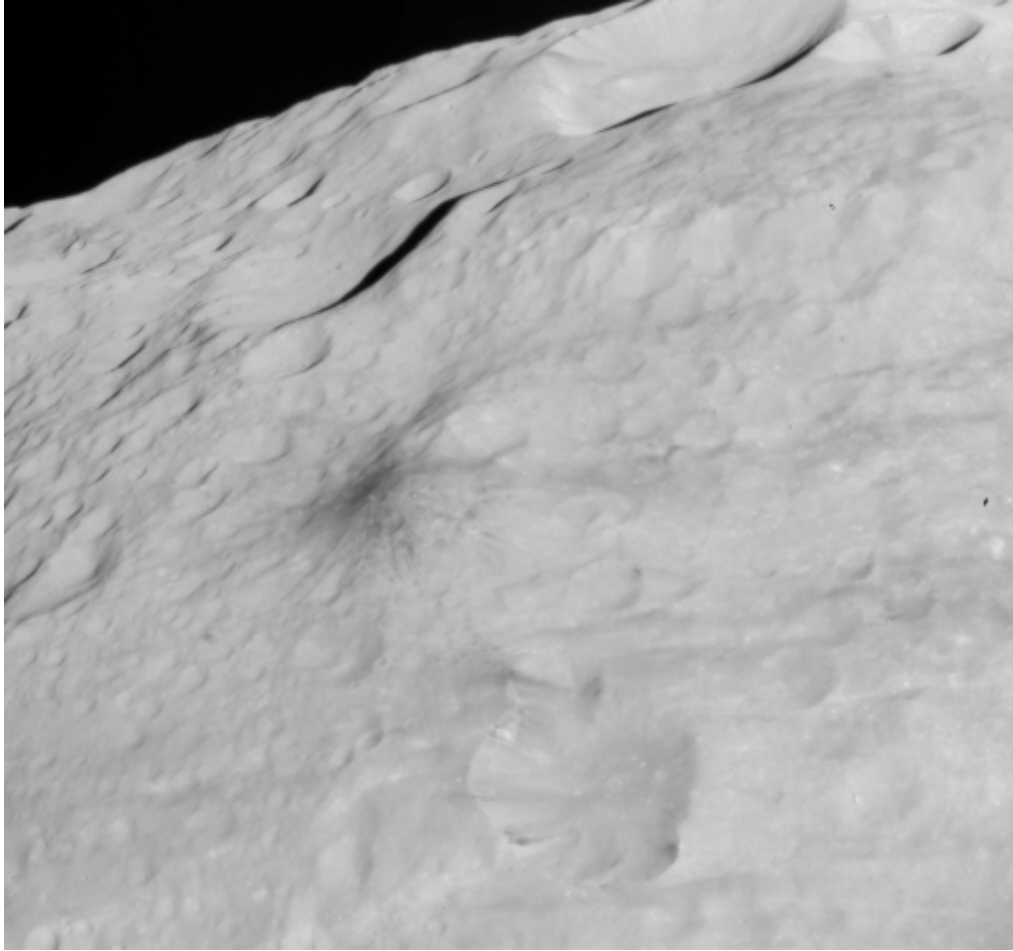
Vesta's equatorial region in false colours



NASA's Dawn spacecraft acquired this false-colour image with its Framing Camera on 25 July 2011. The red–green tones show an increase in luminosity in the visible continuum, while the green tones show its relative decrease in the near infrared caused by iron-containing minerals.

Credit: NASA / JPL-Caltech / UCLA / MPS / DLR / IDA.

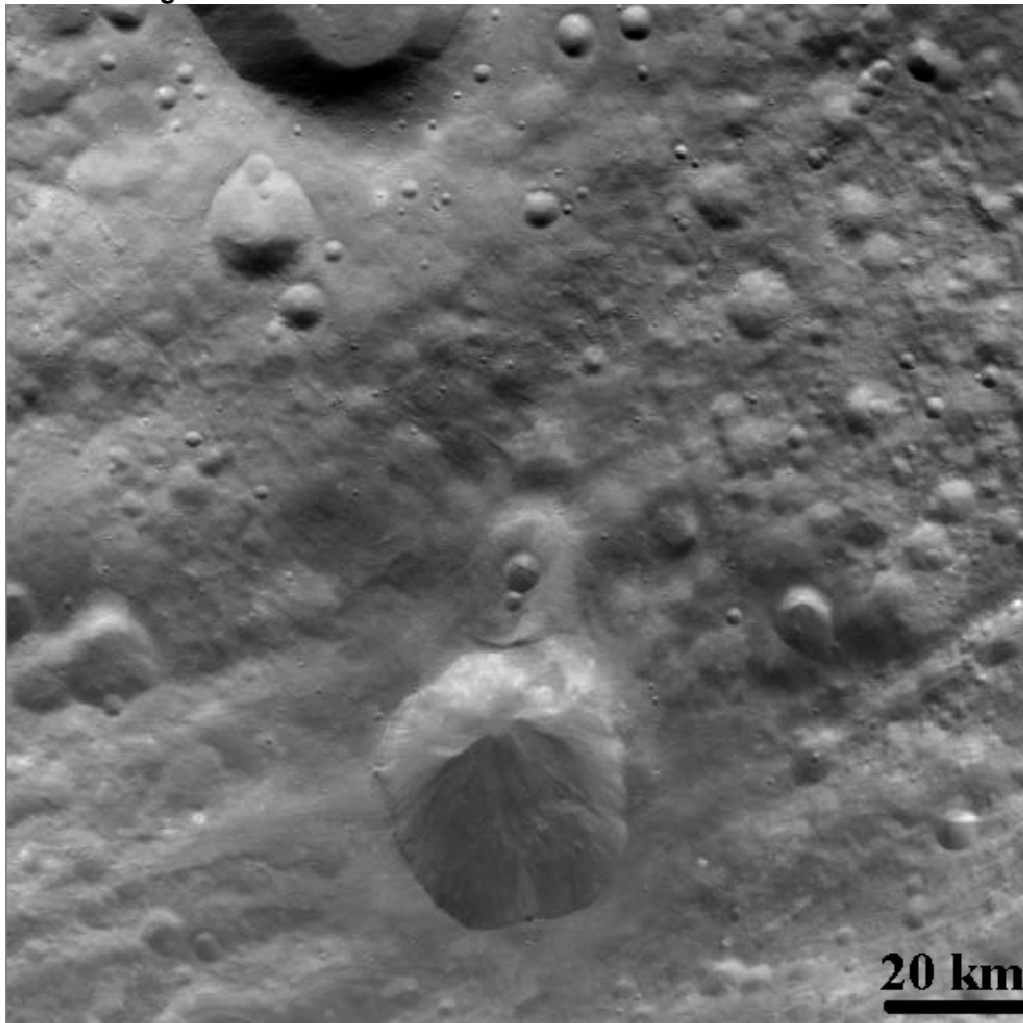
Dark hills



NASA's Dawn spacecraft acquired this image of the surface of Vesta with the Framing Camera, using the clear filter, on 12 August 2011. The image has a resolution of about 260 metres per pixel.

Credit: NASA / JPL-Caltech / UCLA / MPS / DLR / IDA.

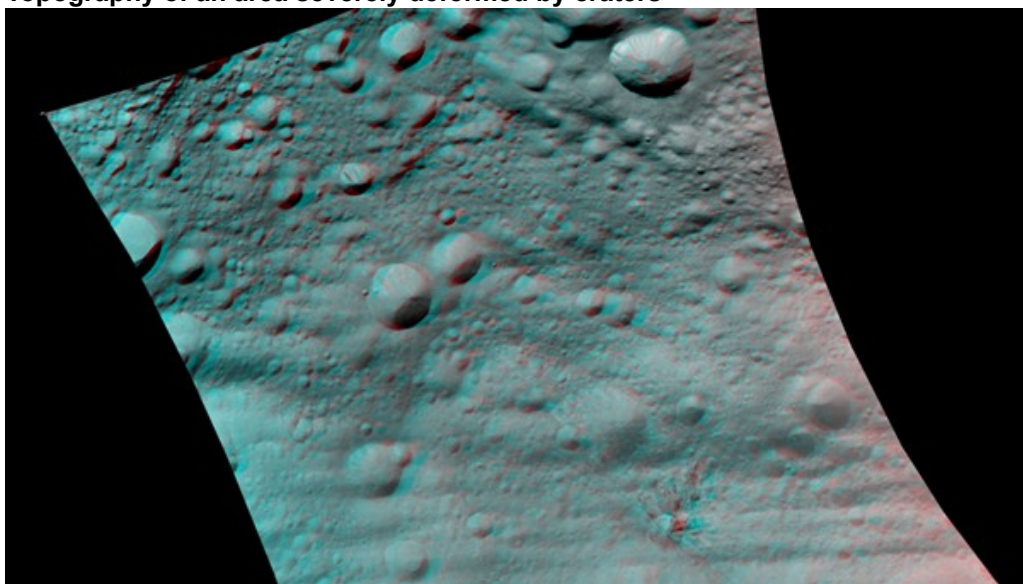
Craters and grooves



NASA's Dawn spacecraft acquired this image of the surface of Vesta with its Framing Camera, using the clear filter, on 11 August 2011. The image has a resolution of about 260 metres per pixel.

Credit: NASA / JPL-Caltech / UCLA / MPS / DLR / IDA.

Topography of an area severely deformed by craters

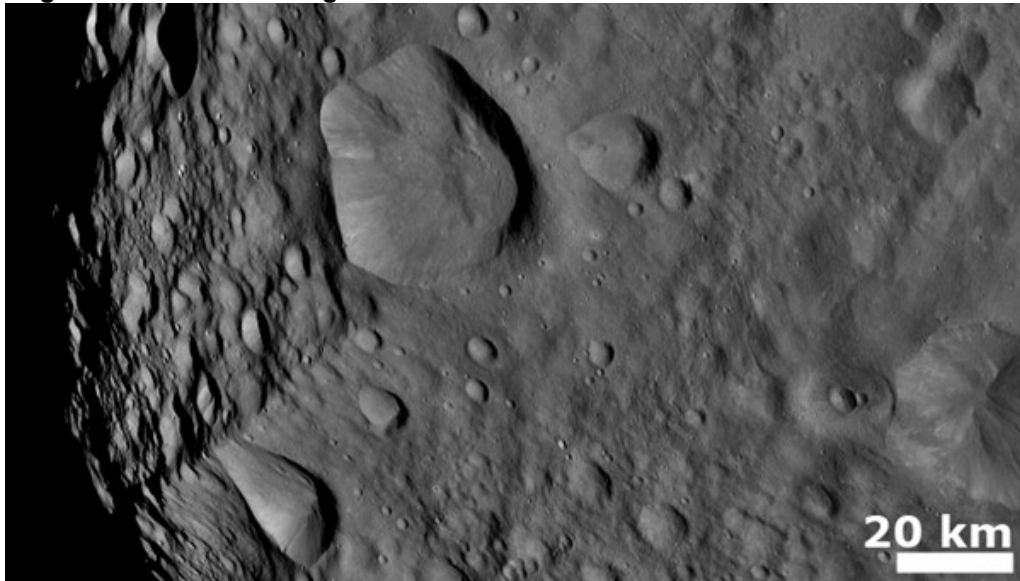


This anaglyph shows the topography of a heavily cratered region on Vesta. The image was acquired using the Framing Camera on the board NASA's Dawn spacecraft on 6 August 2011.

The image has a resolution of about 260 metres per pixel. If you would like to view this image in 3D, you must use red-green (or red-blue) glasses (left: red; right: green [blue]).

Credit: NASA / JPL-Caltech / UCLA / MPS / DLR / IDA.

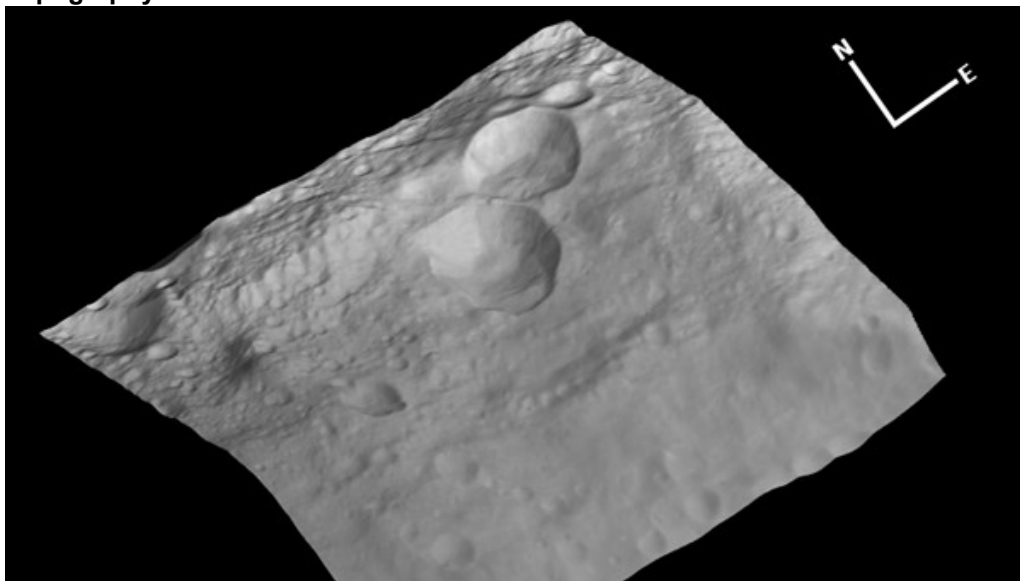
Region with mountain ridges and craters



NASA's Dawn spacecraft acquired this image with its Framing Camera, using the clear filter, on 6 August 2011. The image has a resolution of about 260 metres per pixel.

Credit: NASA / JPL-Caltech / UCLA / MPS / DLR / IDA.

Topography of Vesta's surface



This representation of the surface topography of Vesta was created using a number of images acquired on 6 August 2011 using the Framing Camera and clear filter on board the NASA's Dawn spacecraft. The image has a resolution of 260 metres per pixel. The mosaic photographic image is superimposed on a digital terrain model.

Credit: NASA / JPL-Caltech / UCLA / MPS / DLR / IDA / PSI.

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