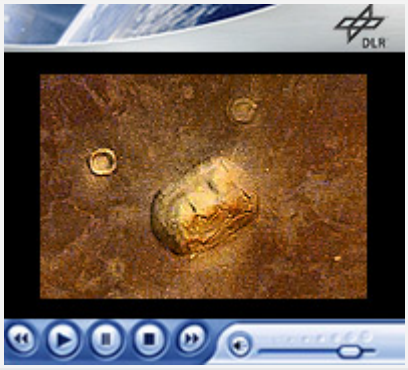
News Archive until 2007

Cydonia's 'Face on Mars' in 3D animation

23 October 2006

Recently, ESA's Mars Express delivered photos of the famous 'Face on Mars' in the Cydonia region. The DLR-operated High Resolution Stereo Camera (HRSC) images are some of the most spectacular views of the Red Planet ever taken. Now, there's a stunning 3D animation of the area.

The High Resolution Stereo Camera (HRSC) science team have produced a dramatic 3D animation that beautifully simulates a flight over the Cydonia's 'Face on Mars', one of the most famous surface features on the planet.



Cydonia's 'Face on Mars' in 3D animation, produced through a combination of digital data from the DLR-operated HRSC and NASA's Mars Global Surveyor camera (MOC). Video: Copyright ESA/DLR/FU Berlin (G. Neukum)/MSSS.

The movie sequence was produced through a 'mash-up', or combination of digital data, from the DLR-operated HRSC and NASA's Mars Global Surveyor camera (MOC), in a technique similar to that used to create the Cydonia 'Face' 3D still images published on the DLR web portal in September 2006. The 3D animation starts looking towards the East, and finishes with a still image looking South.

The Cydonia region lies at approximately 40.75 degrees North and 350.54 degrees East, and is located in the Arabia Terra region on Mars, in the transition zone between the Southern Highlands and the planet's northern plains.

The famous 'face' - actually a remnant massif - was first observed in a photo taken on 25 July 1976 by the American Viking 1 orbiter. Shortly afterwards, a NASA press release said the formation "resembles a human head." At the time, NASA scientists had already correctly interpreted the image as an optical illusion caused by the illumination angle of the Sun, the formation's surface morphology and the resulting shadows, giving the impression of eyes, nose and mouth. The new HRSC images confirm again the natural origin of this geological feature.

The High Resolution Stereo Camera (HRSC) experiment on ESA's Mars Express mission is led by the Principal Investigator (PI) Prof. Dr Gerhard Neukum, who also designed the camera technically. The science team of the experiment consists of 45 co-investigators from 32 institutions and 10 nations.

The camera was developed at the German Aerospace Center (DLR) under the leadership of the PI, G. Neukum, and built in cooperation with industrial partners (EADS Astrium, Lewicki Microelectronic GmbH and Jena-Optronik GmbH).

The experiment on Mars Express is operated by the DLR Institute of Planetary Research, through ESA/ESOC. The systematic processing of the HRSC image data is carried out at DLR. The scenes shown here

were processed by the PI Group at the Institute for Geosciences at the Freie Universitaet Berlin (Free University of Berlin) in cooperation with DLR's Institute of Planetary Research, Berlin.

Contact

Elke Heinemann
German Aerospace Center (DLR)
Corporate Communications, Online Communication - DLR Web Portal
Tel: +49 2203 601-2867
Fax: +49 2203 601-3249
E-Mail: elke.heinemann@dlr.de

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