
Introduction: Since 2003 the High Resolution Stereo Camera (HRSC) experiment on Mars Express is in orbit around Mars. First images were sent to Earth on January 14th, 2004. The main motivation in contributing to the public perception and to the success of the mission is to make the work and results accessible for scientists as well as for the international public by HRSC data dissemination.

The Planetary Sciences and Remote Sensing Group [1] at Freie Universität Berlin (FUB) offers a web-based data access using the interactive HRSCview interface [2] and a modern MapServer setup [3]. Besides regular website releases of image data products the group contributes to coordinated HRSC-releases by product creation and presentation. Close collaborations with exhibitors as well as print and digital media representatives allows for regular and directed dissemination of HRSC PR products (conventional imagery, orbital/synthetic surface epipolar images, and video footage) including high-resolution displays for special exhibitions.

Press Releases: On a monthly basis comprehensive press releases are provided by FUB in close collaboration with the European Space Agency (ESA) and the German Aerospace Center (DLR) [4]. Moreover, FUB releases own products on the basis of HRSC science outcome and improved higher-level data products.

Since the beginning of the mission, obligation for preparing HRSC press releases is fulfilled by FUB. A typical press release comprises different views of a scene taken from an HRSC image of the Martian surface: panchromatic top views from the nadir channel, color scenes from the four color channels refined with the higher-resolution nadir channel, anaglyphs, and perspective color views. The views are provided at the best possible resolution. In addition, a context map is produced to show the footprints of the processed HRSC stripes and the position on the Mars surface. Descriptive texts in English and German come with the press products and fulfill both scientific correctness and popular science claims.

More sophisticated press products include elaborate animations and simulated flights over the Martian surface, perspective views of stereo data combined with color and high resolution, mosaics, and perspective views of mosaics. Due to the high effort, they are produced at irregular intervals. Altogether 970 high quality PR products and 15 movies were created at FUB during the last decade and published via FUB/DLR/ESA platforms.

Educational and Outreach Events: The Planetary Sciences and Remote Sensing Group supports educational outreach events, as well as permanent and special exhibitions, to establish a regular communication with the public. Educational outreach events include the yearly “Long Night of the Sciences” and the “Girls Day” which is a practical science day especially for girls 10-15 years old.

Figure 1: HRSC color mosaic of Kasei Valles, Mars (part of a press release from June 2013)

Figure 2: Girls working on a model of the solar system during the “Girls Day” in 2011
Remote Sensing Group. The exhibition “Mars Mission and Vision” which is on tour until 2015 through 20 German towns shows 3-D movies and images of the HRSC camera experiment. It was especially created for families and kids, who can take part in an “astronaut camp”. Until mid 2014 a 1:1 HRSC camera model owned by the group is on loan to the Technical Museum of Vienna.

These events stimulated the public interest, but were also favored by teachers and school classes in and around Berlin. As a result, press and media appearances, talks to the public and to school classes were given. We plan to make the exhibits produced for these events accessible to the public via short term loans to planetaria and observatories in future.

Web Applications and User-Optimized Platforms: For HRSC data dissemination the group uses digital platforms. Since 2007 HRSC image data can be viewed and accessed via the online interface HRSCview [2]. It is a cooperation of the Planetary Sciences and Remote Sensing Group at the Institute of Geosciences at FUB and the DLR Institute for Planetary Research in Berlin-Adlershof. Additionally HRSC ortho images (level 4) can be downloaded from our website in GIS-read format since end of 2013 [3].

Archiving: HRSC data are delivered to the Planetary Science Archive (PSA) of ESA [5] and to the Planetary Data System (PDS) of NASA, also available at the Geosciences Node of the Washington University in St. Louis [6], on a regular basis. The data that can be downloaded freely include all radiometrically corrected level-2 and map-projected level-3 data, digital terrain models (DTMs), and ortho-images.

References:
[1] www.fu-berlin.de/planets

Additional Information: We are happy to provide HRSC-related material for your PR purposes and to answer any question you might have to the experiment. Please contact us.

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