

Educational Outreach Activities at the Planetary Sciences and Remote Sensing Group, FU Berlin

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Objectives

The European Mars mission “Mars Express” has been successfully operating since 2003. Our working group is processing images taken by the High Resolution Stereo Camera (HRSC), under responsibility of the Principal Investigator Prof. Gerhard Neukum. These images are regularly presented to a broad audience, not exclusively to scientists, via web-based press releases at the three main Mars Express portals at

European Space Agency
http://www.esa.int/esaMI/Mars_Express/

Freie Universität Berlin
<http://www.geoinf.fu-berlin.de>

German Aerospace Center (DLR) Berlin
<http://www.dlr.de/mars>

In addition to this, we show and explain these products to classes and to the interested public. Beyond this, everybody is invited to visit the webpage of HRSCview at FUB, and interactively make investigations and explore HRSC image and topography data:

<http://hrscview.fu-berlin.de>

The HRSC products are also released via the ESA Planetary Science Archive:

<http://www.rssd.esa.int/index.php?project=PSA>

Additionally you find the products at the Geosciences Node of the Washington University:

<http://pds-geosciences.wustl.edu/>

Activities

Outreach efforts include major events such as the Girls’ Day, and the “Lange Nacht der Wissenschaften” where the institute is open for the

general public and where a program designed especially for children is offered. Apart from this, we also provide a program for school visits and small groups visiting the university.

From 26 February to 22 May 2008 the German Space Agency (DLR) and the Freie Universität Berlin (FU) presented an exhibition on “the new picture of our neighbour Mars”. The event took place at the university campus of Dahlem in Berlin. Results of the European Mars mission “Mars Express” were presented, in particular images taken by the High Resolution Stereo Camera (HRSC). We prepared a guided tour through the images and movies on display. During the exhibition we coached several groups of youngsters with different age: starting from 4 to 15 years. Especially the younger children showed a strong interest and also a quite good background knowledge of the topics.

Teaching Material

To demonstrate how the solar system works, and how planets and planetary processes interact, we made simple models for children, such as sand-box experiments to show impact cratering processes. Most children favoured to recapitulate their knowledge by solving a quiz. So we prepared age-dependent sheets which we gave to the children after each lesson. To give a real 3-D impression of the Mars surface we show special fly-over animations by using a GeoWall display and by working with anaglyph movies. Especially for HRSC data, we make use of the press-release data and modify it appropriately so that children of all ages are able to extract the most important information.



Cooperation

We benefit from the collaboration with Dr. Marion Müller, GeoNatKassel, who provided us with ideas and tips for working with groups and classes. We hope to establish a collaboration network in the future and to share our expertise and ideas with others. Members of universities, as well as school teachers and educators are welcome to contact us.

Acknowledgement

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