

Thursday, March 16, 2006
POSTER SESSION II: SPECIAL SESSION: PLANETARY CARTOGRAPHY
7:00 p.m. Fitness Center

Clark C. S. Stooke P. J. Clark P. E. De Hon R. A.

A More Topological Planetary Cartography: World Maps with Constant Scale Natural Boundaries (CSNB) [#1207]

A novel method of cartography is described and illustrated with constant scale natural boundary maps and folded forms of Earth, Mars and 433-Eros.

Dobinson E. Curkendall D. Plesea L. Hare T. M.

Adaptation and Use of Open Geospatial© Web Technologies for Multi-Disciplinary Access to Planetary Data [#1463]

We are adapting the fast-developing and well-supported open geospatial standards and technologies, as defined by the Open Geospatial Consortium©, for the access, processing, and display of geospatial data to the planetary domain.

Archinal B. A. Rosiek M. R. Kirk R. L. Redding B. L.

Completion of the Unified Lunar Control Network 2005 and Topographic Model [#2310]

A new Unified Lunar Control Network has been completed, unifying the previous ULCN and the Clementine LCN. Since point locations were solved for in 3D, this also comprises a new global topographic model for the Moon. Final analysis is underway.

Archinal B. A. Tomasko M. G. Rizk B. Soderblom L. A. Kirk R. L. Howington-Kraus E. Cook D. A. Becker T. L. Rosiek M. R. Galuszka D. Redding B. L. Hare T. L. DISR Science Team

Topographic Mapping of the Huygens Landing Site on Titan: New Results and Error Analyses [#2089]

A new DTM of the hills near the Huygens landing site on Titan is presented, as generated from five DISR images. We describe our investigation of possible error sources, such as from the merging of DTMs from stereo pairs and from camera calibration.

Curkendall D. Hare T. Anderson R. Dobinson E. Plesea L.

Mars GIS Landing Site Suitability Models [#2110]

We have explored the use of GIS suitability models for the screening and analyzing of potential sites for Mars landers using engineering and scientific constraints in an iterative and interactive manner.

Skinner J. A. Jr. Hare T. M. Tanaka K. L.

Digital Renovation of the Atlas of Mars 1:15,000,000-Scale Global Geologic Series Maps [#2331]

We have manually re-digitized the Viking-based 1:15M scale geologic maps using MDIM 2.1 and MOLA shaded-relief images as base images. These efforts have produced fully-registered geologic maps with structure and associated metadata.

Roark J. H. Seifter A. B. Frey H. V.

Enhancements to Gridview: Software for Topography Analysis [#1434]

Gridview is a software application designed to aid researchers in their efforts to analyze, measure and visualize gridded data products such as planetary topography. The application can be downloaded at <http://geodynamics.gsfc.nasa.gov/gridview>.

Gehrke S. Lehmann H. Köhring R. Wählisch M. Albertz J. Neukum G. HRSC Co-Investigator Team
Iani Chaos in Three Scales — A Topographic Image Map Mars 1:200,000 and Its Subdivisions [#1325]

The presentation will illustrate both quality of Mars Express HRSC image and DTM data as well as cartographic concept and flexibility of the standard map series. A regular sheet (200k) and two subdivisions in larger scales (100k and 50k) are shown.

Hare T. M. Skinner J. Jr. Liszewski E. Tanaka K. Barlow N.

Mars Crater Density Tools: Project Report [#2398]

Crater density plots provide researchers the means to interpret the age and geologic history of planetary surfaces. We have created a Mars crater density tools for the planetary community and provide a brief progress report.

Salamunićar G. Lončarić S.

Estimation of Ground Truth for Evaluation of Crater Detection Algorithms [#1137]

Catalogue of 17582 craters was assembled, wherein each crater is aligned with MOLA topography and confirmed by three independent sources. It can be used as ground truth in future evaluations of crater detection algorithms.

Salamunićar G. Lončarić S.

Estimation of False Detections for Evaluation of Crater Detection Algorithms [#1138]

A method for estimation of false detections for crater detection algorithms is proposed. In combination with known ground truth and other available analyses, the proposed method can improve evaluation of crater detection algorithms.

Bue B. D. Stepinski T. F.

Machine Detection of Martian Craters from Digital Topography [#1178]

An automated crater detection algorithm based on Martian DEM data is developed and its performance is compared to the image-based catalog of Martian craters manually compiled by N. Barlow.

Oberst J. Hoffmann H. Matz K. D. Roatsch T. Wählisch M. Giese B. Neukum G.

New Observations of Phobos and Its Shadow with the HRSC/SRC on Mars Express [#1312]

The Mars Express spacecraft occasionally approaches the martian satellite Phobos. During 25 individual flybys Phobos was observed from ranges between 5000 km and 150 km. In addition, the Phobos shadow on the surface of Mars was captured on four occasions.

Hare T. M. Archinal B. Plesea L. Dobinson E. Curkendall D.

Standards Proposal to Support Planetary Coordinate Reference Systems in Open Geospatial Web Services and Geospatial Applications [#1931]

The abstract outlines a proposal to improve support for planetary coordinate reference systems within existing open geospatial standards and applications. This will help on-line and local mapping applications to recognize and share planetary data.