

Tuesday, March 8, 2011
POSTER SESSION I: MOON: APOLLO-LUNOKHOD LEGACY
6:00 p.m. Town Center Exhibit Area

Abdrakhimov A. M. Basilevsky A. T. Head J. W. Robinson M. S.
[*Luna 17/Lunokhod 1 and Luna 21/Lunokhod 2 Landing Sites as Seen by the Lunokhod and LRO Cameras*](#) [#2220]

The Soviet Lunokhod rover traverses were recognized by identifying traces on high-resolution LROC images. From the LROC image data, preliminary cumulative crater densities were measured for mare and highland areas traversed by Lunokhod.

Williams D. R. Hills H. K. Guinness E. A. Lowman P. D. Taylor P. T.
[*PDS Lunar Data Node: Restoration of Apollo Surface and Orbital Data*](#) [#2286]

We describe the recovery, restoration, and archive of Apollo orbital and surface data and ancillary information through the PDS Lunar Data Node and other related efforts.

Dawson M. D. Todd N. S. Lofgren G. E.
[*Apollo Lunar Sample Integration into Google Moon: A New Approach to Digitization*](#) [#1783]

The Google Moon Apollo Lunar Sample Data Integration project enhances the Apollo mission data available on Google Moon and provides an interactive research and learning tool for the Apollo lunar rock sample collection.

Garcia P. A. Todd N. S. Lofgren G. E. Stefanov W. L. Runco S. K. Labasse D. Gaddis L. R.
[*Restoration and PDS Archive of Apollo Lunar Rock Sample Data*](#) [#2310]

Scientists at the Johnson Space Center Lunar Sample Lab and Image Science and Analysis Lab are working with Planetary Data System Imaging Node personnel to archive digitized versions of the original film negatives of the Apollo lunar rock samples.

Lofgren G. E. Todd N. S. Runco S. K. Stefanov W. L.
[*Apollo Lunar Sample Photographs: Digitizing the Moon Rock Collection*](#) [#1867]

JSC curation is digitizing pictures of lunar samples taken during initial sample return and subsequent processing. These images will be available via a searchable database on the Curation website as they are produced; 69% are currently available.

Chi P. J. Russell C. T. Williams D. R. Hills H. K.
[*Restoration of Apollo Magnetic Field Data: Accomplishments and Outstanding Issues*](#) [#2444]

We have successfully restored all Apollo Subsatellite Biaxial Magnetometer data and samples of Lunar Surface Magnetometer data available at NSSDC. More work is needed to recover the LSM and SBM data archived at the Federal Records Center.

Nagihara S. Nakamura Y. Lewis L. R. Williams D. R. Taylor P. T. Grayzeck E. J.
Chi P. Schmidt G. K.

[*Search and Recovery Efforts for the ALSEP Data Tapes*](#) [#1103]

This presentation describes the search and recovery efforts for the raw data tapes of the ALSEP instruments by members of the NLSI ALSEP Data Recovery Focus Group.

Lewis L. R. Nakamura Y. Nagihara S. Williams D. R. Chi P. Taylor P. T.
Schmidt G. K. Grayzeck E. J.
[*NLSI Focus Group on Missing ALSEP Data Recovery: Progress and Plans*](#) [#1620]

Most of the ALSEP experiments raw data and about 50 percent of its processed data are not in the GSFC NSSDC archives. A group of mainly volunteers has made significant progress in locating missing data records and data over the last year.

Kim T. Moratto Z. M. Nefian A. V. Ly S. Demonceaux C. Fofi D.

[*Robust Orbital Refinement of the Apollo Trajectory Data for the Ames Stereo Pipeline*](#) [#2680]

Camera positions of the Apollo trajectory data have a large error that throws off the Ames Stereo Pipeline (ASP). An energy-based method is proposed to estimate the orbital trajectory of Apollo satellites and provide an initial estimate to the ASP.

Moratto Z. Nefian A. Kim T. Broxton M. Beyer R. Fong T.

[*Stereo Reconstruction from Apollo 15 and 16 Metric Camera*](#) [#2267]

We have produced digital terrain models and image mosaics that cover the nearside of the Moon at 40 m/px and 10 m/px respectively. These are produced from 2600 images from the Metric Camera aboard Apollo 15 and 16 missions processed by the Ames Stereo Pipeline.

Petro N. E. Bleacher J. E. Gaddis L. R. Garry W. B. Mest S. C. Abercromby A. F. Gernhardt M. L.

[*Digitization and Reanalysis of Apollo Surface Traverses*](#) [#2032]

Apollo surface activities are the best documented events in history. The astronauts' work and the samples and measurements they collected have shaped our understanding of the Moon. We are digitizing and georeferencing data from all Apollo traverses.

Wingo D. R. Byrne C. J.

[*Analysis of Lunar Orbiter Images Recovered from Analog Tape*](#) [#2085]

The analysis of Lunar Orbiter images derived from magnetic tapes have been analyzed to determine whether or not the original data can be processed in a means superior to reprocessing the existing film-based data.

Byrne C. J. Crotts A. P. S.

[*Restoration of Very High Resolution Lunar Orbiter Images*](#) [#2204]

A set of 66 images from Lunar Orbiter mission 5 (1967) have been built from film framelets that were digitized by USGS/Astrogeology. These 1 m resolution images can be compared with those from current missions to show changes over 40 years.

Epps A. D. Sandler M.

[*Recovering Lunar Orbiter Framelets from Digitized Magnetic Tape Record*](#) [#2416]

Discusses the process by which the magnetic tapes from Lunar Orbiter are digitized and processed in order to create framelets that are superior to those available from the film record.