1600 Character limit, including spaces

Restoration of Apollo Data by the NSSDC and the PDS Lunar Data Node

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The Lunar Data Node (LDN), under the auspices of the Geosciences Node of the Planetary Data System (PDS), is restoring Apollo data archived at the National Space Science Data Center. The Apollo data were archived on older media (7-track tapes, microfilm, microfiche) and in obsolete digital formats, which limits use of the data. The LDN is making these data accessible by restoring them to standard formats and archiving them through PDS. The restoration involves reading the older media, collecting supporting data (metadata), deciphering and understanding the data, and organizing into a data set. The data undergo a peer review before archive at PDS.

We will give an update on last year's work. We have scanned notebooks from Otto Berg, P.I. for the Lunar Ejecta and Meteorites Experiment. These notebooks contain information on the data and calibration coefficients which we hope to be able to use to restore the raw data into a usable archive. We have scanned Apollo 14 and 15 Dust Detector data from microfilm and are in the process of archiving the scans with PDS. We are also restoring raw dust detector data from magnetic tape supplied by Yosio Nakamura (U.T. Austin). Seiichi Nagihara (Texas Tech Univ., see abstract) and others in cooperation with NSSDC are recovering ARCSAV tapes (tapes containing raw data streams from all the ALSEP instruments). We will be preparing these data for archive with PDS. We are also in the process of recovering and archiving data not previously archived, from the Apollo 16 Gamma Ray Spectrometer and the Apollo 17 Infrared Spectrometer.

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Otto Berg Notebooks

Opportunity to obtain GRS data

Dust Detector Scans

ARCSAV Tapes

While we have been concentrating on the surface data returned by the ALSEP (Apollo Lunar Surface Experiments Package) instruments, which represent the only long-term in-situ information about the Moon's surface environment, we have also been restoring orbital and astronaut-run experiments. We will report on restorations including data from the Solar Wind Spectrometer, Soil Mechanics, X-Ray Spectrometer, Lunar Atmospheric Composition Experiment, Heat Flow, Charged Particle Lunar Environment Experiment, and Active Seismic Experiment.

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Longer versions

The Lunar Data Node (LDN), under the auspices of the Geosciences Node of the Planetary Data System (PDS), is restoring Apollo data archived at the National Space Science Data Center at Goddard Space Flight Center. The original Apollo data were archived on older media, including 7-track magnetic tapes, microfilm, and microfiche, and in obsolete digital formats, which make access to and use of the data difficult. The goal of the LDN is to make these data easily accessible and useful by restoring them in standard, widely-used formats and archiving them through the PDS. The restoration involves reading the older media, collecting the necessary supporting data (metadata), deciphering and understanding the data, and organizing the information into a coherent data set. The data then undergo a peer review and are archived online at the PDS.

The data have been prioritized in terms of relevance to future exploration, external scientific interest, and ease of restoration. While we have been concentrating on the surface data returned by the ALSEP (Apollo Lunar Surface Experiments Package)

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