

Availability of Previously Unprocessed ALSEP Raw Instrument Data, Derivative Data, and Metadata Products

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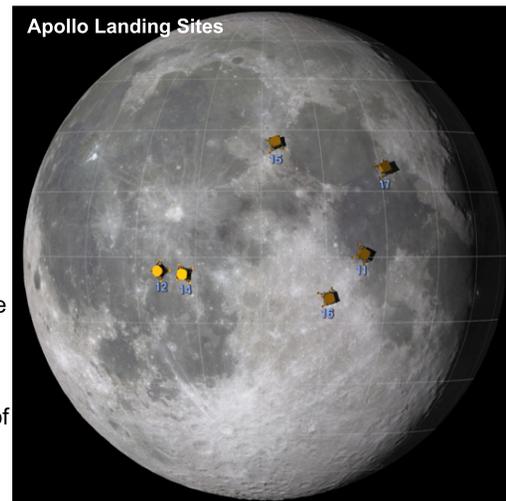
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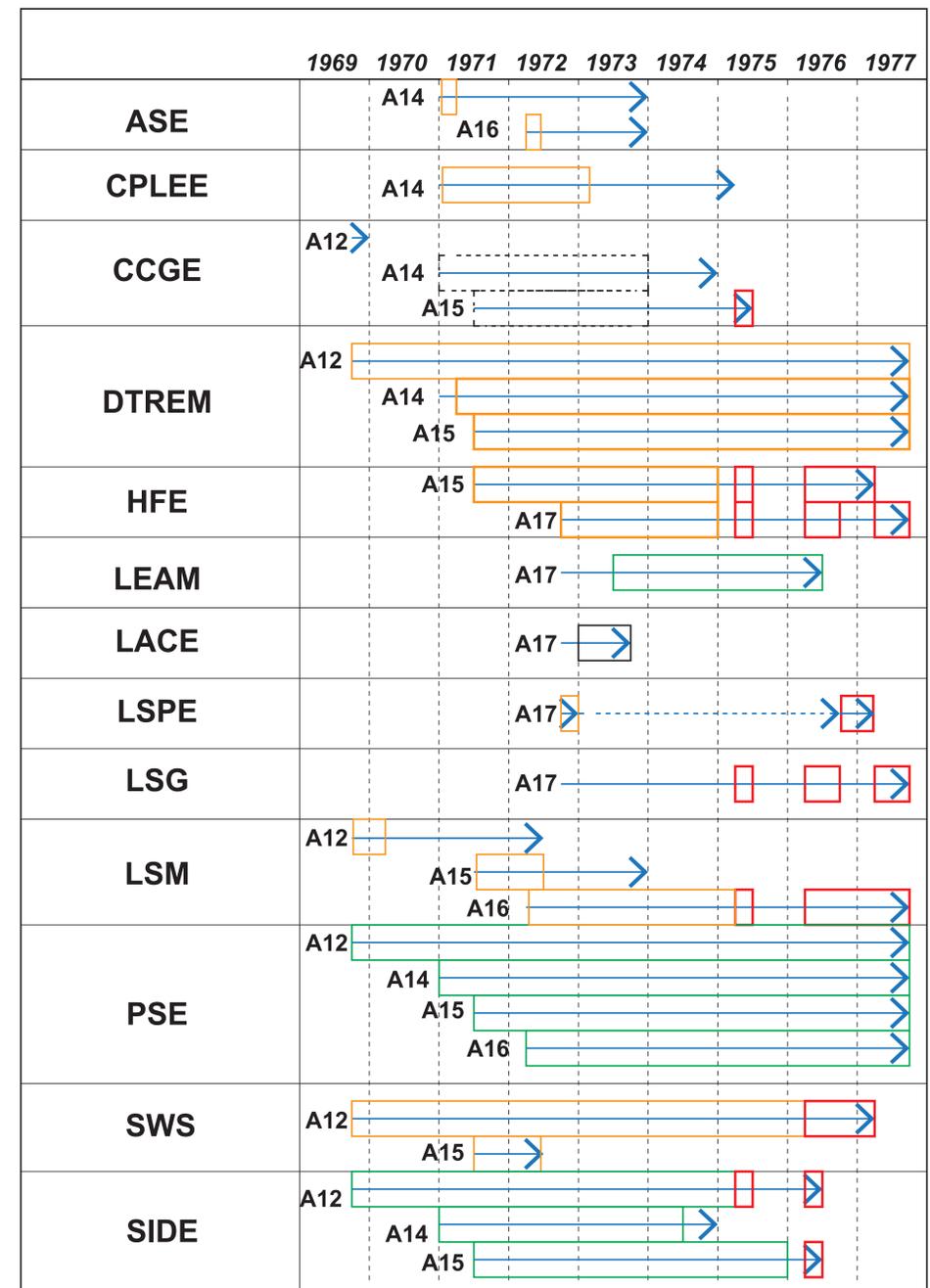
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Narrative

In year 2010, 440 original data archival tapes for the Apollo Lunar Science Experiment Package (ALSEP) experiments were found at the Washington National Records Center. These tapes hold raw instrument data received from the Moon for all the ALSEP instruments for the period of April through June 1975. We have recently completed extraction of binary files from these tapes, and we have delivered them to the NASA Space Science Data Coordinated Archive (NSSDCA). We are currently processing the raw data into higher order data products in file formats more readily usable by contemporary researchers. These data products will fill a number of gaps in the current ALSEP data collection at NSSDCA. In addition, we have established a digital, searchable archive of ALSEP document and metadata as part of the web portal of the Lunar and Planetary Institute. It currently holds ~700 documents totalling ~40,000 pages.



Current Availability and Future Processing Plans for the Individual ALSEP Experiment Data by Apollo Flights



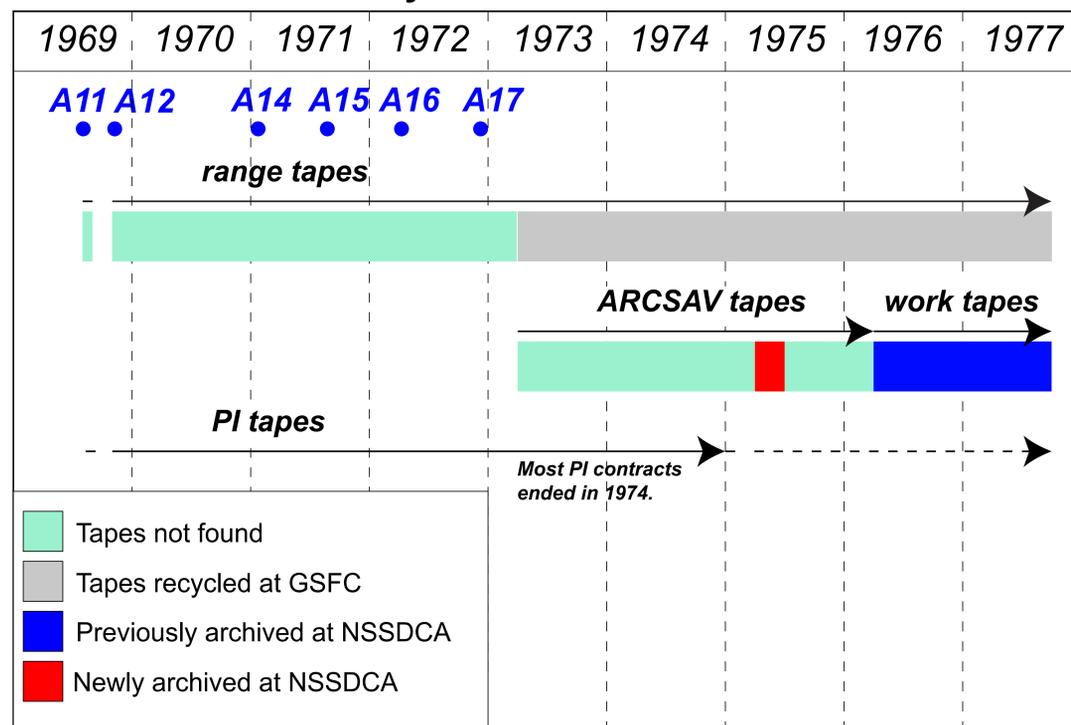
Only analog data available
 Only L-0 available
 L-1, or 2 already available or pending
 L-1, or 2 to be created from the raw tape data
 L-1, or 2 to be converted from the data submitted by the experiment PIs previously
→ Period of instrument operation

The newly processed Level-0 data are available from the NASA Space Science Data Coordinated Archive (<http://nssdc.gsfc.nasa.gov/>) upon request.

ALSEP metadata and related documents can be accessed at LPI's Lunar Science and Exploration web portal (<http://www.lpi.usra.edu/lunar/ALSEP/>).

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Production Timeline of the ALSEP Raw Data Archival Tapes and Their Current Availability



Definition of the ALSEP Data Product Levels

Data Product	Description
Level 0	Raw binary files extracted from the ARCSAV tapes, the work tapes, or the PI tapes without any modification.
Level 0a	Level 0 data quality-controlled for obvious bit errors resulting from tape-reading errors and data transmission errors (from the Moon to the Manned Space Flight Network stations).
Level 1	Level 0a data repackaged for individual ALSEP experiments in formats appropriate for modern computers.
Level 2	Individual experimental data fully processed (or translated) into scientifically meaningful numbers.