

Mars rover. It is scheduled to be launched in fall 2009 and will carry several science experiments. The Geosciences Node will archive data from the Alpha Particle X-ray Spectrometer (APXS), the Chemistry and Micro-Imaging experiment (ChemCam), the Chemistry and Mineralogy XRD/XRF (CheMin), the Dynamic Albedo of Neutrons (DAN), and the Sample Analysis at Mars (SAM) experiment, a mass spectrometer, laser spectrometer and gas chromatograph. MSL also carries several cameras, a radiation detector, and a meteorological station.

NASA's exploration of the Moon resumes with the launch of the Lunar Reconnaissance Orbiter (LRO) in October 2008. LRO data to be archived at the Geosciences Node include data from a laser altimeter (LOLA), neutron detector (LEND), radiometer (Diviner), and synthetic aperture radar (Mini-RF). The first LRO data will be released in April 2009. Piggy-backing on the LRO launch vehicle is the LCROSS experiment (Lunar Crater Observation and Sensing Satellite), which will drop an empty fuel tank onto the lunar surface and observe the impact with a suite of cameras and spectrometers, before impacting itself.

In addition to NASA missions, the Geosciences Node is also working with the Mini-RF radar instrument team on the Indian lunar orbiter Chandrayaan-1, which will be launched in September 2007, to archive its data at the Geosciences Node.

Where to Get the Data: All data archived within PDS are available to the public. The Geosciences Node maintains its holdings online at its web site, <http://pds-geosciences.wustl.edu/>. The site allows the user to browse through data sets sorted by planet and mission, and to download selected data products. Announcements of new data releases are shown in the "What's New" section of the home page. Interested users may sign up for email notification of new releases of data sets by using the Subscription Manager service on the PDS web site, <http://pds.nasa.gov/>.

Tools for Data Search and Access: The PDS web site offers a data search capability for all PDS holdings, including those at the Geosciences Node. See the Data Search service at <http://pds.nasa.gov>. The Geosciences Node provides additional specialized search services for particular data sets.

The Odyssey Gamma Ray Spectrometer (GRS) data sets can be queried using a web interface provided by the GRS Data Node, a satellite of the Geosciences Node, at <http://grspds.lpl.arizona.edu/>. The interface allows the user to create custom-generated GRS data products for a specified time or latitude-longitude range.

The MER Analyst's Notebook at <http://pds-geosciences.wustl.edu/meran/> provides a wealth of detail for science users interested in Mars Exploration Rover data. The Notebook integrates raw and derived science data with daily mission activity plans, site and traverse maps, quick-look data, and other resources. There are plans to create Analyst's Notebooks for the Phoenix and MSL missions.

The CRISM Spectral Library is a collection of laboratory spectra of Mars-analog materials developed by members of the MRO CRISM Science Team. The Library is accessible via a web interface at http://pds-geosciences.wustl.edu/missions/mro/spectral_library.htm. Spectra may be selected, plotted online, and downloaded.

The Orbital Data Explorer (ODE) is a tool currently in development at the Geosciences Node for conducting searches of orbital data sets, beginning with the Mars Reconnaissance Orbiter data and later adding data from other Mars missions and lunar missions. It will enable cross-instrument and eventually cross-mission searches by time, latitude, and longitude, using a map-based user interface.

Contact Information: The Geosciences Node welcomes questions and comments from the user community. Please send email to geosci@wunder.wustl.edu.

Table 1. Links mentioned in this abstract

PDS Geosciences Node web site	pds-geosciences.wustl.edu
PDS web site	pds.nasa.gov
Odyssey GRS Data Node	grspds.lpl.arizona.edu
MER Analyst's Notebook	pds-geosciences.wustl.edu/meran
MRO CRISM Spectral Library	pds-geosciences.wustl.edu/missions/mro/spectra_library.htm
Geosciences Node email contact	geosci@wunder.wustl.edu