DATA MANAGEMENT PLANNING FOR NASA SUPPORTED PLANETARY ANALOGUE SCIENCE

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Introduction: All proposals submitted to NASA ROSES are required to provide a data management plan (DMP)[3]. The reasons why are outlined in NASA’s Plan for Increasing Access to the Results of Scientific Research [1]. While preliminary data or analyses, laboratory notebooks, physical objects, laboratory samples or specimens are exempted from the DMP, the information has use for other data archives and sample repositories. The repository selected and data captured should minimally conform to NASA guidelines for data archiving, e.g. NASA Planetary Data System (PDS)[2].

Here we outline the data management plan resources available outside of NASA PDS and a COTS Database that can manage all aspects of a data management plan, from initial data collection through data archiving.

Next Steps:
Streamline installation of Medusa (in progress)
- Image and create standalone server
- Development of field ready hardware
- API for Apple/PC portable devices

AMASE data testing with Medusa
- Build metadata for AMASE data
- Data cleanup for final archiving
- Discover/gather analytical data from AMASE samples
- Submit AMASE sample data to SESAR for IGSN

A solution: DREAM-Medusa. DREAM (Depository of References for Earth and Analytical Materials) is an institutional-level, archival system for managing geologic samples selected as a pilot database system for PAMS. The system and software (called Medusa) were designed and implemented at the Institute for the Study of the Earth Interior (ISEI) of Okayama University in Milasu, Japan [6]. DREAM builds on the efforts of IEDA data repositories by including architecture that manages field data, samples and analytical data in a laboratory setting, and it documents curation activities. The DREAM system was selected because the design can be used to help develop protocols for data capture and management. The database schema and metadata are consistent with many IEDA data archives [7].

Resources:
http://dream.misasa.okayama-u.ac.jp/documentation/
http://www.iedadata.org/
https://www2.usgs.gov/datamanagement/plan/dmplans.php
http://www.geosamples.org/
http://www.iedadata.org/

References:
[7]Lehnert

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