Planetary Data System

(PDS)

New Frontiers 4

William Knopf

January 20, 2017
The Planetary Data System (PDS) is an accumulating archive holding the data from NASA’s planetary missions. PDS is a distributed system with major nodes associated with scientific expertise with respect to their holdings. The PDS currently holds 1.3 PB of data.

PDS has as its goal obtaining a complete record of every planetary mission and using formats that can be maintained permanently.

PDS personnel are experienced with all phases of the archive process. PDS is currently archiving, or preparing to archive, data from all active planetary missions.

PDS personnel can help you with the development of your archive plans (Requirement 9) as called out the NF-4 AO.
Mission Statement
The mission of the Planetary Data System (PDS) is to facilitate achievement of NASA’s planetary science goals by efficiently collecting, archiving, and making accessible digital data and documentation produced by or relevant to NASA’s planetary missions, research programs, and data analysis programs.

Our vision
• To gather and preserve the data obtained from exploration of the Solar System.
• To facilitate new and exciting discoveries by providing access to and ensuring usability of those data to the worldwide community.
• To inspire the public through availability and distribution of the body of knowledge reflected in the PDS data collection.

PDS is a federation of distributed discipline and service nodes (shown on next page).
PDS Organization

Current Organization of the Planetary Data System

Discipline Nodes
- Atmospheres NMSU
- Geosciences WUStL
- Cartography & Imaging Sciences USGS Flagstaff
- PPI UCLA
- Ring-Moon Systems SETI Inst.
- Small Bodies U Md

Technical Support Nodes
- NAIF JPL
- Engineering JPL

Project Management Support
Chief Scientist
Radio Science Advisor
Change Control Board

NASA HQ

PDS Project Office NASA GSFC
Contacting PDS

The AO indicates there are several possible NASA-approved archives to which the data may be submitted. For most New Frontiers proposals the PDS is likely to be the appropriate archive. PDS archives are compliant with the current International Archiving Standard for Planetary Data, PDS4.

**PDS on the WEB**
Main Page: [https://pds.nasa.gov](https://pds.nasa.gov)
NF AO4 Direct link (also available through main page): [https://pds.nasa.gov/pds4/nf/nf.shtm](https://pds.nasa.gov/pds4/nf/nf.shtm)

**Specific PDS Node Points of Contact for New Frontiers**
PDS personnel listed by node in the next 2 slides can provide technical advice on validation and documentation, on peer review, and on adequate resource levels to process the data and complete submission to the PDS.

*The individuals listed below will treat your questions confidentially.*
Contacts

Geosciences Node
Susan Slavney, slavney@wunder.wustl.edu, 314-935-9295
Ed Guinness, guinness@wunder.wustl.edu, 314-935-5493

Cartography & Imaging Sciences Node
Lisa Gaddis, lgaddis@usgs.gov, 314-935-5609
Sue LaVoie, slavoie@jpl.nasa.gov, 818-354-5677

Navigation and Ancillary Information Facility (NAIF)
Chuck Acton, charles.acton@jpl.nasa.gov, 818-354-3869

Atmospheres Node
Reta Beebe, rbeebe@nmsu.edu, 575-646-1938
Nancy Chanover, nchanove@nmsu.edu, 575-646-2567
Lyle Huber, lhuber@nmsu.edu, 575-646-1862
Lynn Neakrase, lneakras@nmsu.edu, 575-646-2566
Contacts (continued)

**Planetary Plasma Interactions Node**
Todd King, tking@igpp.ucla.edu, 310-206-7201
Steve Joy, sjoy@igpp.ucla.edu, 310-622-3462

**Ring-Moon Systems Node**
Mitch Gordon, mgordon@seti.org, 276-393-8822

**Small Bodies Node**
Ludmilla Kolokolova, ludmilla@astro.umd.edu, 301-405-1539
Anne Raugh, raugh@astro.umd.edu, 301-405-6855
Carol Neese, neese@psi.edu, 520-382-0591

**PDS Project Manager**
Tom Morgan, thomas.h.morgan@nasa.gov, 301-286-1743

*Please contact us if you have questions.*
PDS Organization (continued)

**Discipline Nodes**

- **Atmospheres Node:** New Mexico State University, Las Cruces, New Mexico (Nancy Chanover, Manager)
- **Geosciences Node:** Washington University in St. Louis, Missouri (Ray Arvidson, Manager)
- **Cartography & Imaging Sciences Node:** US Geological Survey, Flagstaff, Arizona (Lisa Gaddis, Manager)
- **Planetary Plasma Interactions Node:** University of California, Los Angeles, California (Raymond Walker, Manager)
- **Ring-Moon Systems Node:** SETI Institute, Mountain View, California (Mark Showalter, Manager)
- **Small Bodies Node:** University of Maryland, College Park, Maryland (Michael A’Hearn, Manager)

**Support Nodes**

- **Engineering Node:** Jet Propulsion Lab, Pasadena, California (Dan Crichton, Mgr.)
- **Navigation and Ancillary Information Facility:** Jet Propulsion Lab, Pasadena, California (Chuck Acton, Mgr.)

**Management**

- **William Knopf:** Program Executive, NASA Headquarters
- **Micheal New:** Program Scientist, NASA Headquarters
- **Ralph McNutt:** PDS Chief Scientist, JHU Applied Physics Lab
- **Tom Morgan:** Project Manager, NASA GSFC
Planetary Data System

(PDS) Backup Slides

William Knopf

January 20, 2017
Requirement 9

The Archiving requirement is captured most directly in Requirement 9.

Requirement 9. Proposals shall include an archive plan to calibrate (both preflight and inflight), analyze, publish, and archive the data returned, and shall demonstrate, analytically or otherwise, that sufficient resources have been allocated to carry out that plan within the proposed mission cost. The archive plan shall discuss and justify any data latency period (see Appendix B, Section E, for additional detail). The archive plan shall contain a section covering the data management plan, and both shall be in compliance with terms and conditions stated in the NASA Plan: Increasing Access to the Results of Scientific Research.

Preparing such an archive plan requires time, and the results will influence other portions of your proposal. Consider at least outlining your archive plan early in the process of writing your proposal.