

The Small Bodies Node

PDS Management Council

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Overview of SBN Activities

- Mission Activities
 - NASA: **Stardust NExT**, EPOXI, OSIRIS Rex, **Dawn**, LADEE (LDEX only), Cassini (CDA only), Discovery CSR (CHopper)
 - Non-NASA: **Rosetta**, **Hayabusa**, NEOSAT, Luna Glob?
- Archiving Related Activities
 - **OLAF**, **MPC**, **NEO Surveys**
- Other Key Activities
 - **Ferret 2**, **NASA Challenge**, PDS 4
- **AAAS Meeting & Peer Review**



ACCOMPLISHMENTS

- **Stardust NExT**

NAVCAM, DFMI, CIDA and SPICE data reviewed on December 13, 2011
NAVCAM, DFMI, SPICE certified; lien resolution nearly complete
CIDA not certified – lien resolution pending

- **Hayabusa**

Reviewed and certified three data sets:

- Enhancement of AMICA Itokawa images with the addition of geometry backplanes, liens resolved

- Update of the LIDAR data set with improved calibration, liens resolved

- Added groundbased calibration observations for AMICA, lien resolution proceeding

Funding has run out for Hayabusa project archiving and the project is closed. Datasets still missing include

- XRS, RS, and NavCam. (These data sets have not been released by the mission.)

All other Hayabusa data (AMICA, NIRS, LIDAR, SPICE, and Itokawa shape model) have been archived.

- **LADEE LDEX**

SBN will archive LDEX data according to PDS4 standards, using OLAF. A pre-launch review in late 2012 is planned. A final post-launch review will resolve remaining issues before archiving.

LDEX team has submitted pre-launch reduced data products, and SBN has used OLAF and our PDS4 migration tools to produce provisionally validated PDS4 labels for the products. LDEX team plans to submit sample pre-launch data products in calibrated format in April.



ACCOMPLISHMENTS

- **MPC**

- Peer review of initial submission of MPC data underwent peer review. Some liens required for these data, others for subsequent submissions
- MPC still does not have a configuration controlled pipeline so reviews are required for each delivery.
- Probably limits us to one delivery per year instead of per quarter.

- **Ferret-2**

- Completed the Simple Search phase of the SBN Data Ferret and released it at DPS/EPSC in October 2011
- Well received at demos
- Advanced search on hold while staff work on PDS4 version of OLAF for LADEE

- **OLAF (On-Line Archiving Facility)**

- SBN is working on creating a new version of OLAF to produce archive volumes in PDS4 standards. Needed immediately for LADDEE-LDEX, but ultimately for PDS3 --> PDS4 migration.



ACCOMPLISHMENTS

- **NASA Challenge Program**
- Orchestrated by TopCoder
 - Competitive community of programmers
 - Challenged to find new ways to search, visualize or otherwise use NASA data
- PDS Challenge 1
 - Test data were International Halley Watch – missions + remote sensing
 - Resulted in database design for harvesting and storing data and metadata – foundation for future challenges
- PDS Challenge 2
 - Test data expanded to include additional comet data sets, including data from Deep Impact, some ground-based observations and some typical catalogs of physical properties
 - Challenged to come up with new ideas for using PDS data.
 - Upcoming rounds will include challenges aimed at hard science applications, educational uses, and the general public.
- SBN provides data, a CPU and disk space, local support for software installation, reviews and feedback on submissions.
- Rumors of NASA Challenge being featured in a White House Initiative Announcement.



PROBLEMS

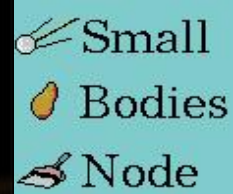
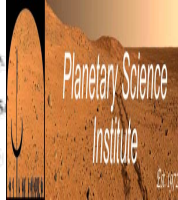
- **NEO Surveys**

- PMDAP provided funding to archive images from NEAT Survey at SBN but nobody told SBN until data provider wanted to deliver
- Large data volume will require addition of new servers and storage
- Software development needed to support the necessary search capabilities.

- Proceeding with the NEAT survey to help them prepare a sample of their data for review. The initial sample was reviewed in June 2011, and reviewers gave useful feedback but said they need a larger sample.
- Talking with the LONEOS survey about the possibility of their preparing their data for submission to PDS.

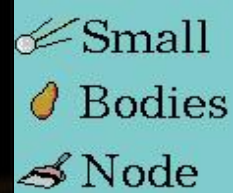
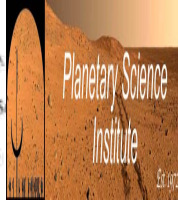
- **Other international missions**

- NEOSAT
 - approached by Canadian PI about archiving
 - One US Co-I on project
- Luna Glob
 - Who should work with Russians?



PROBLEMS

- **Rosetta**
- VIRTIS still has not delivered data from Šteins flyby
- PSA short-staffed and no budget for reviews
 - Pushing to release recalibrated RPS_IEC and ROSINA data without review
 - Pushing to release NAVCAM data without review
- PSA review procedures cause problems for US reviewers
- Commissioning data for Philae lander ready for final archiving
 - PSA not ready to release
- Lutetia flyby (July 2010) data
 - US review panel April 2-3 at University of Maryland (face-to-face)
 - European review panel tentatively scheduled for April 10 at ESTEC (WebEx).
 - 23 datasets from 10 instruments, total volume 38Gb.



New Issue for Thought

- **AAAS Meeting – Session on Making Data Public**
- Talks by medical geneticist, oceanographer, science sociologist
- Strong consensus that
 - All funding agencies should require public release of all data
 - Journals should require data to be public before publishing articles
 - Data should be public very quickly – no peer review
- Is this something to consider for PDS4?
 - SBN has always advocated for rigorous peer review
 - But we also always advocated for narrow format standards