SBN Report to MC

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Topics

- Introductions
- Progress vis a vis Plan
- Issues for the Future

Introductions

- Ludmilla Kolokolova
  - Will be joining SBN to replace Ed Grayzeck later this month
  - Currently at U. Florida
  - Expert on comets and dust
  - Author of review chapters, e.g., in Comets II book
  - Author of more nearly 100 refereed articles
  - Experienced database manager

Active Missions

SBN Task Plan Milestones
Status as of 6 Sep 2004

done	completed
continuing	progress, on schedule - No worries, mate
continuing	schedule in doubt
problem	will not be completed this year

Task	Status	Comments
Cassini -CDA (1 instr. Only)		
Review & Approve AICD for CDA	delayed	Draft AICD received, met with team to define products
Dawn		
Iterate and approve DMAP	done	approved by SBN
Deep Impact		
Ingest supporting archive of Tempel 1 data	continuing	3 data sets peer reviewed & liens being resolved, Therma data expected Aug
Complete work on AICD for images and spectra	progress	Expected approx Aug-Sep
Deep Space 1		
MICAS	problem	unexpected lack of imaging node role; progress on image not on spectra
Ingest PEPE	problem	liens not resolved by team
Ingest IDSP, SPICE, Shape Models, Ground-based data	done	peer reviewed, liens resolved

Active Missions p2

Galileo

Ingest dust data	delayed	effort focused on OLAF and Cassini instead of Galileo

Hayabusa

Work with team to write archive plan and design data products	problem	Limited by lack of activity by US project; recent identification of UAz staff to work with project is first sign of progress

NEAR

Support DAP, online distribution of data	done	searchable web interface in place and in use
Resolve geometry discrepancies	continuing	NAIF has developed (not yet announced) new capability to deal with shape models with more plates. Need this to proceed.

Rosetta

Support design, review of pipeline issues	problem	EAICDs late, especially science cameras and lander - peer review in early CY2005
provide support for archiving issues such as keywords	done	no more issues pending (for now)
Assist US teams in EAICD	continuing	Reviewed & iterated as fast as updated by teams

Stardust

Complete ingestion of pre-Wild 2 data	done	
Acquire and review data from Wild 2 encounter	continuing	acquired more than in plan, peer review Oct 14-15

Ulysses

Ingest dust data	delayed	effort focused on OLAF and Cassini

Other Planned Items

Support missions: MUSES-C, New Horizons, Dawn		
Work with mission on archive definition	continuing	Muses C - team meeting in August Dawn - draft archive plan exists
Support AISRP		
Consult on standards adherence, formats, review	continuing	Road-show of OLAF for users has begun
Baseline		
Implement high speed data access	done	new server installed on 1GB fiber to campus backbone (will share intermittently with Deep Impact server)
DVD system backup	done	nearly all DVDs now duplicated onto high-speed disks
Data		
Review asteroid data, e.g. occultation diameters	done	5 new data sets & 5 dataset updates peer-reviewed, all in lien resolution
Ingest VEGA TVS data	deferred	other work considered higher priority
Ingest IRAS data (Tempel 1)	progress	preliminary review completed, returned to DI for modification
Review 2 MASS products for ingestion	deferred	other work considered higher priority

Accomplishments Not in Plan

CONTOUR		
Safe all ground calibration data	done	Completed
Ingest ground-based images of s/c after loss	progress	should be complete by end of FY04
New Horizons		
Iterate and Approve AICD	continuing	iterating AICD but progress slow by team (SBN support deleted in POP process)
Stardust		
Acquire shape model for Wild 2	in process	promised by fall 2004
Acquire calibrated Navcam images	in process	promised by fall 2004
Acquire HiRateAttitudeData and Radio Data	in process	delivered but work by team needed
DS 1		
MICAS images	done	reformatted as FITS images for user who could not read ISIS format
Acquire and ingest shape models	done	acquired, peer reviewed, liens resolved
Supporting Data		
Cometary database	done	reviewed additional datasets, in lien resolution; other dataset in acquisition phase
Baseline		
IDL Support	continuing	pdsread procedure enhanced to deal with additional SBN-supported products; ver 4 released
Operating system and Oracle	done	upgrades complete to newest version
Standards	done	major effort to support preparation of Proposer's Archive Guide
Standards	done	major effort to develop Local Data Dictionary to support requests from multiple missions
Standards	continuing	effort to improve details of many standards
Interface to locate HST cometary spectra	done	released; will need annual or semi-annual update

Issues for Discussion

- Non-NASA missions
- On-the-fly calibration
- Minimizing formats

Non-NASA Missions

- Issue
  - Current PDS monthly reporting asks NASA for advice on how to deal with non-NASA missions (mainly foreign but DoD also relevant)
  - NASA needs us to recommend the approach, which they can then approve or veto, *e.g.,* via POP process
- Proposed approach
  - Non-NASA missions are identified by anyone - DN, CN, PDS Mgmnt, NASA
  - Lead discipline node (or nodes) decide whether US investigators would benefit from access to data
  - If no, no further action across all of PDS
  - If yes
    - See next page!

Non-NASA Missions p2

- If mission has value to US investigators
  - and if DN reports some likelihood of public, PDS-compatible archiving
    - CN &/or DN report interest to NASA HQ via PE (automatic if US instruments are involved)
    - PE ensures archiving commitment in MOU with non-NASA agency
    - DN works with foreign mission to ensure PDS-compatible, publicly available archive
    - Lead DN and all relevant supporting nodes put appropriate resources in next POP proposal budget (NASA's chance to say yes or no)
    - Support services (NAIF, DSN, etc.) that mainly help the project do not expend resources unless HQ approves in POP process

Non-NASA Missions p3

- Additional Points
  - PDS (via PE) should be involved in MOU discussions from the beginning
  - PDS must be kept informed of status and relevant content of MOU
  - Arrangements will probably vary from one mission to another
  - These missions should, in POP process, be presented at lower priority than NASA's missions

On-the-fly Calibration

- Long-lived instruments gradually improve calibration retroactively
  - Probably already experienced in some Mars missions
  - Now becoming an issue for SBN (Rosetta, Dawn, New Horizons)
  - Galileo did not archive calibrated products but this was as an exception
  - Likely will be an issue for Cassini
  - If data volumes are small, instrument teams can recalibrate entire historical dataset periodically
    - Does not work for large volumes of data

On-the-fly p2

- Recommend long-term goal - PDS steps up and supports software (with requirements on delivered software) for on-the-fly calibration of selected missions
  - On-the-fly calibration is routine at STScI
  - On-the-fly calibration is expensive, but better scientifically for a long-lived mission (but NOT for a short duration mission!)
  - PDS must be more familiar with the data than is often the case now
  - Instrument teams must provide software and data under rigidly controlled conditions
  - Must start with some simple example cases to estimate scope of problem and to demonstrate capability

Limiting Formats

- On-the-fly calibration will require minimizing formats
- Users want number of formats minimized for ease of reading into analysis environments
- We continue to allow almost anything
- Are nodes officially authorized to limit formats?