



# **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  
Complete work on AICD for images and spectra

continuing

 3 data sets peer reviewed & liens being resolved, Therma data expected Aug  

progress

 Expected approx Aug-Sep

#### Deep Space 1

MICAS  
Ingest PEPE  
Ingest IDSP, SPICE, Shape Models, Ground-based data

problem

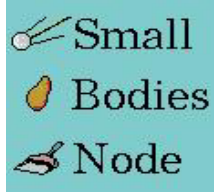
 unexpected lack of imaging node role; progress on image not on spectra  

problem

 liens not resolved by team  

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

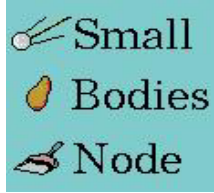
acquired more than in plan, peer review Oct 14-15

## 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)

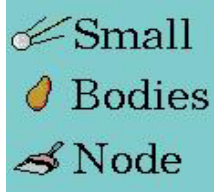
progress

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  
Ingest ground-based images of s/c after loss

done Completed  
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  
Acquire calibrated Navcam images  
Acquire HiRateAttitudeData and Radio Data

in process promised by fall 2004  
in process promised by fall 2004  
in process delivered but work by team needed

## DS 1

MICAS images  
Acquire and ingest shape models

done reformatted as FITS images for user who could not read ISIS format  
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  
Operating system and Oracle  
Standards  
Standards  
Standards  
Interface to locate HST cometary spectra

continuing pdsread procedure enhanced to deal with additional SBN-supported products; ver 4 released  
done upgrades complete to newest version  
done major effort to support preparation of Proposer's Archive Guide  
done major effort to develop Local Data Dictionary to support requests from multiple missions  
continuing effort to improve details of many standards  
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 Mgmt, 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?