

SBAG ROADMAP: DATA PRODUCTS, ARCHIVING, AND ACCESS

OUTLINE - 7/19/10

I. Introduction

- A. Data is the principle product returned from missions, it is an important product generated by research programs, it allows for continuing return on tax-dollar investment in missions.
 - 1. This requires data be in a form and sufficiently documented to be usable beyond the life of the data provider.
 - 2. In general, planetary data does not have a shelf-life. A means of providing long-term archiving is required.
 - 3. Accessibility
 - 4. Adequate support for data generation and archiving in missions is needed.
 - 5. Adequate support for data analysis is needed.
- B. NASA spacecraft data rights and data release policies
 - 1. No proprietary periods
 - 2. Data to be archived in PDS 6 months after acquisition
- C. NASA Planetary Data System and the Small Bodies Node
- D. Other Data Archives
 - 1. PSA
 - 2. Astrophysics Data System
 - 3. Emerging systems in other countries

II. Review of Small Bodies Data Products in the PDS (this may be condensed to largely tabular form)

- A. Planetary Division Missions
 - 1. Imagery
 - 2. Spectra
 - 3. Spectral Mapping
 - 4. Gamma-ray/X-ray/Neutron Data
 - 5. Magnetometer data
 - 6. Plasma data
 - 7. Radio science
 - 8. Impact data
 - 9. Mass spectroscopy
 - 10. Laser Altimetry
 - 11. Impact data
 - 12. SPICE
 - 13. Higher-level mission data products
- B. Astrophysics Missions
 - 1. Imagery
 - 2. Photometry/Radiometry
 - 3. Spectroscopy
 - 4. Higher-level data products

- C. Groundbased Telescope data products
 - 1. Imagery
 - 2. Spectroscopy
 - 3. Photometry/Radiometry
 - 4. Radar
 - 5. Higher-level data products

- III. Product Usability
 - A. Data formats (mission teams versus the broader community versus future users)
 - B. Low-level versus high-level data products (missions focus on minimum requirements)

- IV. Comparison of Delivered Mission products and promised mission products
 - A. Planned products at mission outset
 - B. The impact of mission cost overruns and unscoped level of effort (historically, mission product generation - particularly for higher level products - is inadequately budgeted and low priority of archiving translates to reallocation of funds to cover other mission expenses as needed - something to discuss)

- V. Accessing Small Bodies Data in the PDS
 - A. Search interfaces available for data identification
 - B. PDS performance assessment for range of queries
 - 1. Standard queries desired by researchers (a list of dataset names is rarely adequate)
 - 2. Data display options (content lists, target lists, data type visualization in response to queries)
 - C. Identifying ancillary support information
 - D. Data downloading
 - 1. Format options
 - 2. Data transfer options

- VI. Archiving data in the PDS
 - A. Funding opportunities (PMDAP, others?)
 - B. PDS support for missions and researchers

- VII. Desired Directions in Data Products, Archiving, and Access
 - A. Product generation
 - 1. The need for higher-level mission data products
 - 2. The need to capture data generated by research programs
 - B. Data accessibility
 - 1. The need to easily identify desired data within PDS holdings
 - 2. The need to download data in usable formats
 - C. Archiving

VII. The Path Forward

- A. Providing adequate mission budgets and level of efforts for data product generation and archiving
- B. Protecting mission budgets for data product generation and archiving
- C. Identifying archival data formats to be used by all missions
- D. Providing translation services for converting archival data formations to formats commonly used by researchers
- E. Providing robust search interfaces meeting researcher needs
- F. NASA Headquarters enforcement of data policies