Planetary Data System

Mission Archive Close-out Plan

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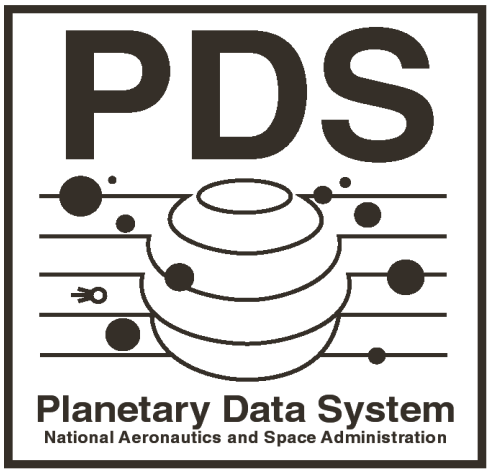

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Mission Archive Close-out Plan

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CHANGE LOG

Revision	Date	Description	Author
Start Draft	2007-04-12	First Draft	B.Sword
Version 0.1	2007-05-08	Draft with MGS appendix	B.Sword
Version 0.2	2007-06-04	Added minor changes from Ron Joyner; Ed Guinness	B.Sword

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1. INTRODUCTION

1.1 Purpose

The purpose of this document is to provide a plan for handling the archiving aspects of the End of Mission (EOM) phase of the archive life cycle.

1.2 Overview

At the End-of-Mission for a planetary mission archiving data with the Planetary Data System, there are steps that should be taken to make certain that data and information is captured prior to the end of Mission funding. These are responsibilities of the Mission, Instrument Teams, Instrument Data Nodes where applicable, and the PDS Nodes (Discipline, Lead, and Engineering). This document delineates those steps and levies responsibilities. It also specifies which items must be completed prior to EOM due to the requirement for Mission or Instrument Team support, and which may be completed after EOM.

1.3 Scope

Mission archive close-out activities fall primarily into two categories: (1) those having to do with the archive data; and (2) those having to do with the cataloguing of the meta data. This document covers both areas.

2.0 DATA-RELATED CLOSE-OUT REQUIREMENTS

2.1 Peer Review and Archive Status

It should be assured that all data sets and related archive materials have passed the PDS peer review process and are PDS-compliant (i.e., the data sets and metadata are complete and have been assigned a final Archive Status appropriate to an archival product). It should be determined if additional materials, such as Mission web pages, are to be treated as "SAVED" data and stored at a Discipline Node.

2.2 Data Location

The location of all copies of a data set should be determined and recorded. This may include hard copies (CDs, DVDs, tapes, et.al.) and also on-line repositories. Each of the copies should be tested to ensure they are intact (i.e., the transfer process did not introduce bit loss, file corruption, or missing files).

2.3 Data Node close-out

The close-out of any external Data Node should be arranged with the related Discipline Node. This may include special arrangements for the transfer of hardware, and transfer of software licenses if applicable.

2.4 Transfer to NSSDC

It should be assured that the transmission of a copy of all archived data to the "deep archive" at NSSDC has taken place or is scheduled and the process is well understood.

2.5 User Notification

For Missions that have used the PDS Subscription Service, notification should be made to users of the final updates and status. After the final notification, the PDS Subscription Service should be updated to note to users that after the final scheduled delivery, future release notifications will be limited to cases of revised data sets, or new derived data sets.

3.0 CATALOG RELATED CLOSE-OUT REQUIREMENTS

3.1 Catalog Review and Update

Catalog files should be reviewed to determine need for any updates. This may include simple modifications to STOP_TIMEs and ARCHIVE_STATUS, or more extensive re-writes of catalog files to reflect the final mission phase, summaries of data confidentiality, etc. At a minimum, the MISSION.CAT file should be updated, and possibly the INSTHOST.CAT and REF.CAT files.

Updated files should be ingested in the central PDS catalog.

The PDS catalog resource link information should also be reviewed and updated if necessary. It should be determined if some resources are no longer valid, such as Mission web pages. Resource links to any Instrument Data Node that is terminating should be replaced or removed; the links should be updated if a Discipline Node is taking over the resource.

3.2 Catalog Reconciliation

The Mission data holdings of the various Discipline Nodes and the PDS Engineering Node should be reconciled.

4.0 RESPONSIBILITIES

The responsibilities for the above activities fall upon the Mission (M), and PDS Lead Node (LN), Discipline Node (DN), Instrument Team (IT), Instrument Data Node (IDN) and Engineering Node (EN). Table 1 lists the tasks and specifies responsible parties at the Mission level and Table 2 lists these for the Instrument level. Appendix A provides example tables for Mars Global Surveyor.

At least six months prior to EOM, PDS and Mission representatives should confer to make certain that adequate resources will be made available to complete the archive task and that any discrepancies with the task as described in the Archive Plan are understood.

Representatives of PDS and the Mission will meet approximately monthly beginning at least six months before the final scheduled delivery, to work out details and to complete the Mission-specific portions of this document.

MISSION	**Provided by:**	**Due by**
Ascertain if resource needs will be met; understand any discrepancies with the Archive Plan.	M, LN	EOM - 6mos
Review and update catalog files, (MISSION.CAT, INSTHOST.CAT) and update PDS catalog.	M, LN, EN	EOM

Table 1 – Mission-level close-out actions and responsible parties

INSTRUMENT (1 – n)	**Provided by:**	**Due by**
Inventory data sets and verify archive status of each; determine existence of new products and establish peer review / delivery schedule.	IT, DN	EOM – n months
Inventory: locate all (multiple) instances of each data set; validate each data set for data integrity, if not previously validated.	IT, DN, EN	Delivery + n mos.
Final delivery and validation – Complete validation and release of final delivery	IT, DN	Delivery +
Complete validation of new derived products	IT, DN	Delivery +
Hand-over of Instrument Data Node holdings, if applicable, or extension of contract. Ascertain if any hardware, or software and licenses must be transferred.	IDN, DN	
Review and update instrument catalog files (INST.CAT, DATASET, REF.CAT, PERSON.CAT) and update PDS catalog.	IT, DN, EN	
NSSDC – Plan for delivery / confirm delivery	DN	Delivery + n months
Update resource links if needed	DN, EN	

Table 2 – Instrument-level close-out actions and responsible parties

APPENDIX A – MARS GLOBAL SURVEYOR

MISSION	Provided by:	Due	Status
Ascertain if resource needs will be met; understand any discrepancies with Archive Plan.	M, LN	EOM - 6mos	
Review and update catalog files: MISSION.CAT, INSTHOST.CAT, REF.CAT, update PDS catalog, if needed	M, LN EN,	EOM	

Table 1 – Mission-level close-out actions and responsible parties

INSTRUMENT	Provided by:	Due	Status
Accelerometer (ACCEL)/ DN = Atmospheres			
Provide status of all planned deliveries	IT, DN		
Delivery, validation and release of final products	M, DN		
Delivery of products to NSSDC	DN		
Update catalog files and PDS catalog if needed	IT, DN, EN		
Update resource links if needed	DN, EN		
Inventory: locate all (multiple) instances of each data set; validate each data set for data integrity.	IT, DN, EN	Delivery + n mos.	
Magnetometer/Electron Reflectometer (MAG/ER) / DN = Planetary Plasma Interactions (PPI)			
Delivery, validation and release of final products (one more delivery plus one new ER product in Peer Review as of May, 2007)	M, DN		
Delivery of products to NSSDC	DN		
Update catalog files and PDS catalog if needed	IT, DN, EN		
Update resource links if needed	DN, EN		
Inventory: locate all (multiple) instances of each data set; validate each data set for data integrity.	IT, DN, EN	Delivery + n mos.	
Mars Orbiter Camera (MOC) / DN = Imaging			
Delivery, validation and release of final products	IT, DN		Complete, 4/2007
Delivery of products to NSSDC	DN		
Update catalog files and PDS catalog if needed	IT, DN, EN		
Update resource links if needed	DN, EN		
Inventory: locate all (multiple) instances of each data set; validate each data set for data integrity.	IT, DN, EN	Delivery + n mos.	
Mars Orbiter Laser Altimeter (MOLA) / DN =			

Geosciences			
Delivery, validation and release of final products	IT, DN		Complete, 4/2007
Delivery of products to NSSDC	DN		
Update catalog files and PDS catalog if needed	IT, DN, EN		
Update resource links if needed	DN, EN		
Inventory: locate all (multiple) instances of each data set; validate each data set for data integrity.	IT, DN, EN	Delivery + n mos.	
Radio Science Subsystem (RSS) / DN = Geosciences			
Delivery, validation and release of final products	IT, DN		
Delivery of products to NSSDC	DN		
Update catalog files and PDS catalog if needed	IT, DN, EN		
Update resource links if needed	DN, EN		
Inventory: locate all (multiple) instances of each data set; validate each data set for data integrity.	IT, DN, EN	Delivery + n mos.	
SPICE / DN = NAIF			
Delivery, validation and release of final products	IT, DN		
Delivery of products to NSSDC	DN		
Update catalog files and PDS catalog if needed	IT, DN, EN		
Update resource links if needed	DN, EN		
Inventory: locate all (multiple) instances of each data set; validate each data set for data integrity.	IT, DN, EN	Delivery + n mos.	
Thermal Emission Spectrometer (TES) / DN = Geosciences			
Instrument Data Node transfer / document transfer of hardware and/or software and licenses.	IDN, DN		Extended To 5/31/09
Delivery, validation and release of final products	IDN, DN		Complete, 2/2007
Delivery of products to NSSDC	DN		
Update catalog files if needed	IDN, DN		
Update resource links if needed	DN, EN		
Inventory: locate all (multiple) instances of each data set; validate each data set for data integrity.	IT, DN, EN	Delivery + n mos.	

Table 2 – Instrument-level close-out actions and responsible parties