

#782

SAN MARCO D/L
DRAG BALANCE INSTRUMENT
88-026A-01B

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1. INTRODUCTION:

The documentation for this data set was originally on paper, kept in NSSDC's Data Set Catalogs (DSCs). The paper documentation in the Data Set Catalogs have been made into digital images, and then collected into a single PDF file for each Data Set Catalog. The inventory information in these DSCs is current as of July 1, 2004. This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system. The information existing in the DSCs is now not needed for locating the data files, but we did not remove that inventory information.

The offline tape datasets have now been migrated from the original magnetic tape to Archival Information Packages (AIP's).

A prior restoration may have been done on data sets, if a requestor of this data set has questions; they should send an inquiry to the request office to see if additional information exists.

2. ERRATA/CHANGE LOG:

NOTE: Changes are made in a text box, and will show up that way when displayed on screen with a PDF reader.

When printing, special settings may be required to make the text box appear on the printed output.

Version	Date	Person	Page	Description of Change
01				
02				

3 LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC INFORMATION SYSTEM:

<http://nssdc.gsfc.nasa.gov/nmc/>

[NOTE: This link will take you to the main page of the NSSDC Master Catalog. There you will be able to perform searches to find additional information]

4. CATALOG MATERIALS:

- a. Associated Documents To find associated documents you will need to know the document ID number and then click here.
<http://nssdcftp.gsfc.nasa.gov/miscellaneous/documents/>

- b. Core Catalog Materials

SAN MARCO D/L

DRAG BALANCE INSTRUMENT (DBI)

88-026A-01B SPTH-00009

THIS DATA SET CONSISTS OF 13 DISKETTES. THE FIRST DISK IN THE DATA SET CONTAINS THE PI-PROVIDED FORTRAN PROGRAMS TO CALCULATE ORBITAL PARAMETER FOR THE NORAD ORBITAL ELEMENTS; THE NORAD ELEMENTS FILE IS INCLUDED ON THE DISKETTE. IN ADDITION THE DISKETTE CONTAINS A README FILE THAT EXPLAINS THE DIFFERENT DATA FILES AND THEIR FORMAT. THE REMAINDER OF THE DISKETTES CONTAIN THE DRAG BALANCE INSTRUMENT (DBI). THE KF NUMBERS FOLLOW:

KF#	FILES
-----	-----
KF000092	4
KF000093	214
KF000094	213
KF000095	205
KF000096	210
KF000097	53
KF000098	27
KF000099	55
KF000100	42
KF000101	38
KF000102	45
KF000103	25
KF000104	24

San Marco D/L ---- Drag Balance Instrument (DBI) --- l-s Data

README FILE

The filename convention for the files on these diskettes is as follows:

nnXXXXmm.pp

nn=TA tape recorded data; 1st measurement period
during orbit XXXX
=TB tape recorded data; 2nd measurement period
.. ..
=TH tape-recorded data; 7th measurement
=TX all later meas. periods during orbit XXXX
=PS real-time data

XXXX= orbit number

mm=R1 data up to the 1st data gap within a specific measurement
period; if there are no data gaps than this is the only file

=R2 data from the 1st data gap up to the second data gap
... ..

pp=D1 files with orbit and instrument status information
=D2 data files with time and the measured total density

The time in the data files is given relative to the beginning of the specific measurement period. To get the actual time and date one has to retrieve the start time from the corresponding D1 file. Date and time are given as an integer array IT(6) with six elements (yy,mm,dd,hh,mm,ss).

IT(6) can then be used with subroutine ULPAOR to initialize the COMMON/ORB/

and then also in subroutine NOI to compute the required orbit parameters. The first call to NOI should be with IFLAG=1 to initialize the program. The recommended orbit generator is SGP4 (IEPT=2). Please do not forget to also assign the parameter values for the constants in COMMON /CONST/ (REQ=6378.1).

In addition to time and density each data record also includes a quality mark:

* density data lack
** noise transition
*** bias irregular (hole)

A	209 KB	4F
1	1.386 MB	214F
2	1.32 MB	213F
3	1.31 MB	205F
4	1.32 MB	210F
5	392 KB	53F
6	412	
7	1414	
8	1427	
9	1433	
10	1418	
11	1384	
12	1427	

161705
36737
1745
8939

POLICY GUIDELINES FOR DATA SET CATALOGS (DSCs)

January 20, 2005

Hills, Post, Schneider, McCaslin

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Appendix B: Overview of the production of online PDF versions of DSCs at NSSDC

Appendix C: Configuration Management for DSCs in NSSDC FTP site

Appendix D: Responsibilities of a Document Control person

INTRODUCTION:

The digital images of the Data Set Catalogs (DSCs) will be stored in PDF files using filenames of the form `dsc_mmmmm_vnn.pdf`, where `mmmm` is the DSC number and `nn` is a version number, starting with 1. The most recent version of each DSC will be publicly available on `nssdcftp`. The controlled copy of all versions will be maintained in an appropriate directory on `nssdcftp` or on an Oracle database yet to be established.

This policy document will address the procedures for updating, correcting, or adding to a DSC that has been written to `nssdcftp`. The DSC files will be under configuration control. Here we address only the way that updates are to be entered, regardless of how that is to be carried out via the configuration control procedures. In general, this document will address the short-term requirements and solutions; the long-term solution is more vague.

An example DSC following the policies described herein is shown as Appendix A of this document.

Details of the production of the online PDF versions of the DSCs are contained in Appendix B of this document

Details of the configuration control procedures will be addressed in a separate document.

Appendix D of this document will address the responsibilities of a Document Control person, if and when such a position is established. There should be a person responsible for Document Control of all documents throughout the NSSDC, although we are in a position to establish such control only over those operations pertaining to the Data Set Catalogs and other activities related to the migration of the offline archive to online. We suggest that this control be implemented first for this migration project, and then later expanded (if/as appropriate) after we have experience in its use.

Because the `readme.txt` file was or will be put onto `NSSDCFTP` automatically and gives the link (URL) to the DSC, we need not put the DSC link in the BD.

The TRF will apparently need a new valid entry for "Location", indicating the new database-managed online retrieval interface (when available), and perhaps a short-lived DSC directory also. This "Location" is really an "Access Path". We also need a similar "Access Path" field in NIMS for each data set (for all data sets, not just those involved in this migration). Eventually, we will need to specify a document by its identifier in a database. We could have a hyperlink to the DSC itself, but this couldn't be a validated entry. However, there could be a validated entry for the directory, or for a retrieval interface.

The DSCs will be in PDF format. If changes are needed, the revised version will also be in PDF, and the change will be documented briefly in a change log to be kept near the beginning of each DSC PDF. The goal will be to keep each change log entry to one or two lines.

Inventory information doesn't belong in the DSC, but rather should be in IDA and its successor(s) (JIN). Thus there will be no updates to the data inventory page(s) in the DSC, but we will not go to the trouble of removing the inventory information.

CHANGES to a DSC:

The simple change log will consist of dated short entries. A blank version of this log will be inserted during the initial writing of the DSC. The entries will be in chronologic order, with the latest change last in the list. A brief note at the top of the log will say: "Changes are made in a text box superimposed on the original, and will show up that way when displayed on screen with a PDF reader. When printing, special settings may be required to make the text box appear on the printed output."

The description of the change should be brief; some imaginary examples are:

Version	Date MM/DD/YY	Person	Page	Description of Change
01	11/13/03	R. Post	12-3	In "Experiment Operation" section, Corrected the frame accumulation time in the 3rd paragraph.
		G. Schneider	73	Added the document B12345: "User note addendum for Experiment A-NAME Data" by inserting page with active hyperlink reference to the document, which is in the NSSDC controlled digital document library."
02	01/03/04	H. K. Hills	23	Inserted a paragraph clarifying the cycling of the energy and pitch-angle steps.

When a relatively simple change is to be made to an existing page, that change is made in a text box superimposed on the original text. The "text box" is outlined with black lines. If the changes are extensive, the whole page might be covered by the text box containing the change. Earlier versions of the whole document are always available upon request.

When the change is the addition of one or more pages, they are inserted in the appropriate place, with pages numbered and marked with the change date. The inserted page(s) are numbered by adding a "-A", "-B", ... to the previous page number, or to the following page number if the insertion is at the beginning of a section where the sections have unique page numbering. If the original page number ends in a letter, then add "-1", "-2", ... instead of the letters.

APPENDIX A

January 20, 2005

DATA SET CATALOG DSC_0067

This is the official version, which will be kept up-to-date as needed.

TABLE OF CONTENTS

1. INTRODUCTION
2. CHANGE LOG
3. LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC INFORMATION SYSTEM
 - a. URL to S/C "Brief Description", "Remarks", and "Materials" fields
 - b. URL to Experiment "Brief Description", "Remarks", and "Materials" fields
 - c. URL to Data Set "Brief Description", "Remarks", and "Materials" fields
 - d. Item c is repeated for additional data sets from this experiment, if needed
 - e. Items b - d are repeated for additional experiments from this s/c, if needed
 - f. Items a - d are repeated for additional spacecraft, if needed
4. CATALOG MATERIALS

1. INTRODUCTION:

The documentation for this data set was originally on paper kept in NSSDC's Data Set Catalogs (DSCs). The offline tape datasets have now been migrated from the original magnetic tape to magnetic disk (starting in mid-2004). Accordingly, statements in the format descriptions that address such tape-relevant factors as blocking and bit density are no longer applicable. The paper documentation in the Data Set Catalogs have been scanned and made into digital images of the pages, then collected into a single PDF file for each Data Set Catalog.

The inventory information in these DSCs is current as of July 1, 2004. This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system, and the user should go to that interface (JIN) if further information is desired on possible later changes to the inventory information. The information existing in the DSCs is now not needed for locating the data files, but we did not go to the trouble of removing that inventory information.

If the insertion is a document, that document should first be entered into TRF and inserted into the digital document library; then it is inserted into the DSC by inserting a copy of the first page of the document, with a superimposed document ID number (TRF B-number) and active hyperlink to the document in NSSDC's digital document library.

We will write (in an automated mode) hyperlink pointers to the "Brief Description", "Materials for distribution", and "Remarks" fields of NIMS, at the s/c, exp, and data set levels. These will be inserted into the DSC PDF immediately before the digitized DSC materials, i.e., these will be the first pages of the new DSC PDF. These pages will contain, in order, a statement (see next paragraph) about the migration of the data and the DSC documentation to online magnetic disk, a brief Table of Contents (no page numbers, just section titles), the Change Log, first page with appropriate column headings, and hyperlinks to a WWW interface that will display the fields "Brief Description", "Remarks", and "Materials for distribution" for the given s/c, exp, or data set. These items may be seen in Appendix A, which is a sample Data Set Catalog.

The old and new IDs associated with each data set catalog will be obtained from database output reports generated by Dave Guell. These reports will be used by Kent Hills to generate the sets of new pages noted above to be inserted as the first pages in each DSC.

2. CHANGE LOG:

NOTE: Changes are made in a text box superimposed on the original, and will show up that way when displayed on screen with a PDF reader. When printing, special settings may be required to make the text box appear on the printed output.

Version	Date	Person	Page	Description of Change
01				
02				

3. LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC INFORMATION SYSTEM:

[NOTE: Each of these links retrieves three fields for the object in question: "Brief Description", "Remarks", and "Materials for Distribution". Any of the retrieved information fields might be blank.]

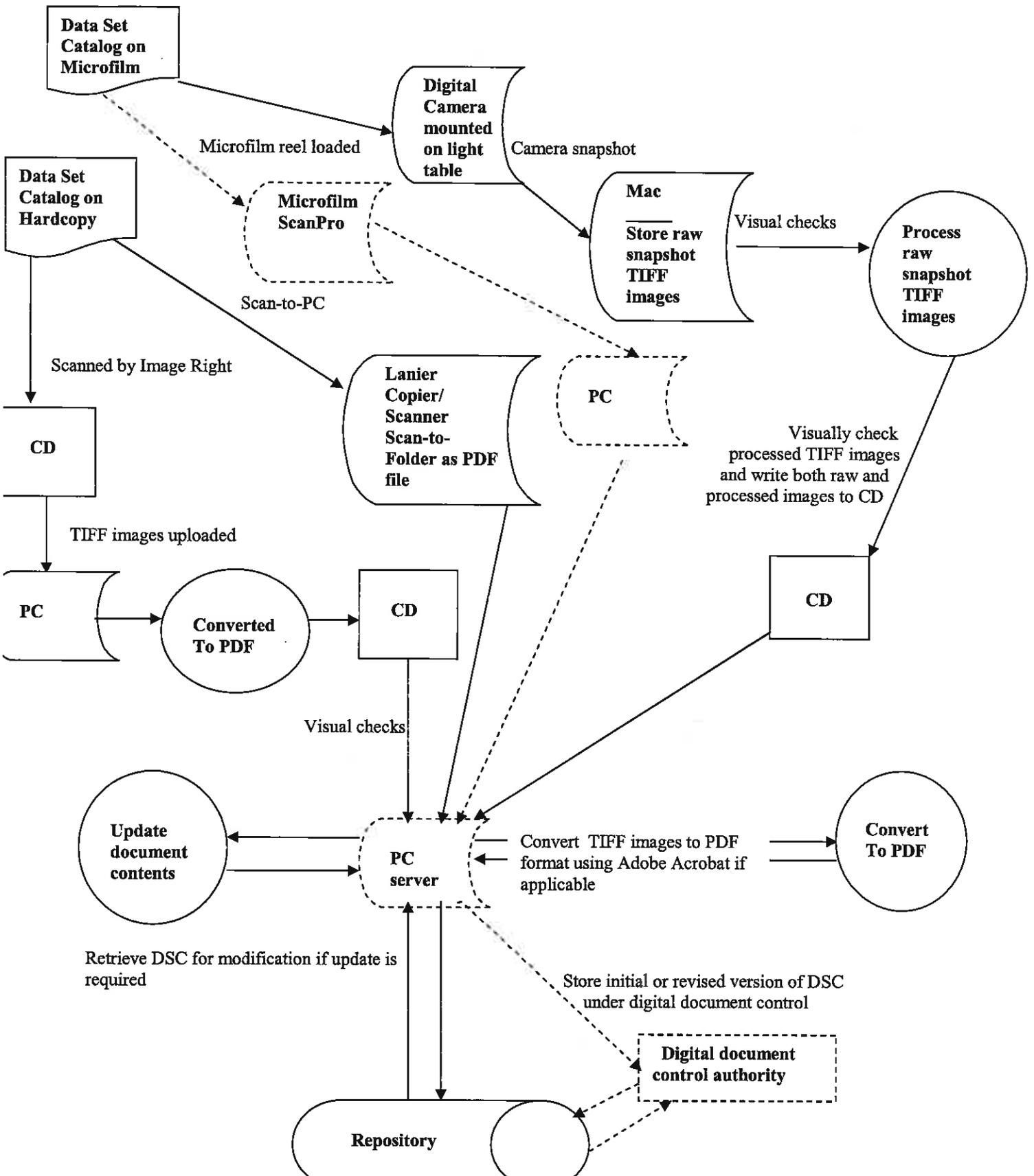
- Fields for ISEE 1
 - Fields for ISEE 1 Fluxgate Magnetometer
 - Fields for Fluxgate Magnetometer data set Quick Look Data Pool
 - Fields for Fluxgate Magnetometer data set 4-second Averages
 - Fields for Fluxgate Magnetometer data set 4-s CDAW 9 PROMIS Events A-E
 - Fields for ISEE 1 Fast Plasma and Solar Wind
 - Fields for Fast Plasma and Solar Wind data set 12 and 48 Second Averaged 3-Dimensional Fast Plasma Data
- Fields for ISEE 3
 - Fields for ISEE 3 exp 3 [0] of ISEE 1
 - Fields for exp 3 [0] of ISEE 1 data set 128- & 512-Second Resolution Hot Plasma Data
 - Fields for ISEE 3 Magnetic Field Experiment
 - Fields for Magnetic Field Experiment data set 60-s Avg B, Multicoordinates, Definitive
- Fields for ISEE 2
 - Fields for ISEE 2 Helium Vector Magnetometer
 - Fields for Helium Vector Magnetometer data set Data Pool Tape -- ISEE 3
 - Fields for Helium Vector Magnetometer data set 5-min Average Magnetic Field
 - Fields for ISEE 2 LEPEDA
 - Fields for LEPEDA data set Solar wind plasma data, 24-sec
 - Fields for LEPEDA data set 84-Second Electron Mom Geotail
 - Fields for LEPEDA data set Merged Plasma and Magnetic Field (1-Min) Geotail Data (Inc. Ephemeris Data)
 - Fields for LEPEDA data set SW Plasma Proton Bulk Flow Latitude Angle, 5-Min. Resolution, 8/78 - 2/80

4. CATALOG MATERIALS:

APPENDIX B

JANUARY 26, 2005

OVERVIEW of the PRODUCTION OF ONLINE PDF VERSIONS OF DSCs at NSSDC



APPENDIX C

DMS Initial draft 2004-09-09

CONFIGURATION MANAGEMENT for DSCs in NSSDC FTP SITE

It has been proposed that the data set catalogs (DSCs) should be maintained and updated as PDFs, and that these PDFs will be the controlling form for DSC information. Other non-electronic forms (hardcopy, film) may eventually be eliminated. However there needs to be a process that controls updates to these DSCs as they are usually important parts of the PDI and Representation information for one or more data set collections.

It is expected that at some point in the future, these DSCs will be managed under Oracle. However for the purposes of this appendix, they are assumed to be managed in a directory on the NSSDC FTP site.

Access to these documents is proposed to be unrestricted. The process for entering these documents or for updating them is under the control of the Operations CM Document Agent (hereafter, Document Agent or DA).

Process Steps:

1. Submission for entry or update must come from an approved list of individuals who have been instructed in the policy and criteria for submission and update.
 - a. Requests for being added to this list will go to DA who will ensure proposed Submitter is familiar with policy and criteria for submission and update. Submitter must be employed by NSSDC.
2. Submission must include not only the new or revised DSC, but other key information, including:
 - a. Name of the Submitter
 - b. Date of submission
 - c. Is this a revision of an existing DSC that deprecates the previous version because it adds or corrects information? (yes or no)
(note: The previous version will be retained but will be less visible)
 - i. If 'yes', then DSC number must be provided by Submitter
 - ii. If 'no', then a DSC number will be assigned by DA
 - d. Format of DSC (always PDF for DSCs as currently proposed. May become PDF-A in future.)
3. DA receives DSC and related attributes, and verifies that DSC meets policy guidelines for update and/or new DSC.
 - a. If update, verify that DSC number provided is correct by comparing with previous version of DSC.
 - b. If guidelines are not met, DA responds to submitter with note of deficiency and also returns the DSC.
4. DA updates directory location under
/nssdcftp.gsfc.nasa.gov/documentation/data_set_catalogs/ with new/revised DSC.
 - a. If this is a new DSC, then the DSC is placed in a directory labeled 'dsc_nnnn'.
 - b. If this is a revised DSC, then the previous version will be placed in a subdirectory of this DSC that is labeled 'revised_dsc_nnnn' and the new version will take the place of the older version.
(note policy on naming directories and files)

5. DA updates the TRF with the new version number, Submitter's name, date of original submission, and format (PDF). (note: do we want to go the CA route and have a list of approved Submitters and/or Submitter 'Roles' for each document? In such a case, the Submitter will need to also provide this 'Role' list.)
6. DA informs the Submitter that the DSC has been entered/updated and includes any additional comments as appropriate.

====Note; it is assumed that the actions of the CM Agent are captured via the TRF updates; does this work in principle? ====

====More detailed procedures could spell out sending e-mail with DSC attachment, or using a WEB form, etc. =====

====Note: Use of DSC numbers and TRF numbers are potentially redundant. Needs discussion. Both should be at the 'class' level, not the instance level. =====

APPENDIX D

January 20, 2005

RESPONDIBILITIES OF A DOCUMENT CONTROL PERSON

There should be a person responsible for Document Control of all documents throughout the NSSDC, although we are in a position to establish such control only over those operations pertaining to the Data Set Catalogs and other activities related to the migration of the offline archive to online. We suggest that this control be implemented first for this migration project, and then later expanded (if/as appropriate) after we have experience in its use. The Document Control person will be responsible for the following activities:

- a. Receive the digital document and post it in a specified public-access location, keeping only the latest version in that location. This could be as simple as a managed directory, especially initially. But it should eventually be something like an Oracle database that can store and retrieve the digital document as a stored object, and where the database can be accessed via a suitable online interface.
- b. Ensure that appropriate approvals have been made for accepting and describing the document. The document must be entered into NSSDC's Technical Reference File (TRF). The initial set of DSCs is automatically accepted. For other documents an acquisition scientist makes the approval and the necessary keywording for TRF. The detailed highly-automated mechanism for efficiently entering all of the DSCs into TRF is yet to be worked out, but need not be specified here.
- c. Maintain a repository of all documents, including all versions of those documents. Earlier versions are to be made available to users upon request.
- d. Establish and maintain links between the repository and the posted documents, and make sure that all links remain operable forever.