

GSFC JPSS CMO
July 20, 2022
Released

474-00448-02-07, Revision I
Joint Polar Satellite System (JPSS) Code 474

Joint Polar Satellite System (JPSS) Algorithm Specification Volume II: Data Dictionary for the Ancillary Data Handling Gridding and Granulation



NOAA / NASA

**Goddard Space Flight
Center Greenbelt, Maryland**

Joint Polar Satellite System (JPSS) Algorithm Specification Volume II: Data Dictionary for the Ancillary Data Handling Gridding and Granulation

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Preface

This document is under JPSS Ground ERB configuration control. Once this document is approved, JPSS approved changes are handled in accordance with Class I and Class II change control requirements as described in the JPSS Configuration Management Procedures, and changes to this document shall be made by complete revision.

Any questions should be addressed to:

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Greenbelt, MD 20771

Change History Log

Revision	Effective Date	Description of Changes (Reference the CCR & CCB/ERB Approve Date)	Sections Affected
0200-	Aug 29, 2013	This version incorporates 474-CCR-13-1214 which was approved by the JPSS Ground ERB on the effective date shown.	All
0200A	Jan 30, 2014	This version incorporates 474-CCR-13-1409 which was approved by the JPSS Ground ERB on the effective date shown.	All
0200A1	Oct 23, 2014	This version incorporates 474-CCR-14-2091 which was approved by the JPSS Ground ERB for CO10 on the effective date shown.	All
0200B	Aug 14, 2014	This version incorporates 474-CCR-14-1832 which was approved by the JPSS Ground ERB on the effective date shown.	All
0200C	Feb 02, 2015	This version incorporates 474-CCR-14-2219 which was approved by the JPSS Ground ERB on the effective date shown.	All
0200D	Jul 28, 2015	This version incorporates 474-CCR-14-2288, and 474-CCR-15-2506 which was approved by the JPSS Ground ERB on the effective date shown.	All
0200E	Apr 05, 2016	This version incorporates 474-CCR-15-2657, and 474-CCR-16-2827 which was approved by the JPSS Ground ERB on the effective date shown.	All
0200F	June 07, 2016	This version incorporates 474-CCR-16-2939 which was approved by the JPSS Ground ERB on the effective date shown.	All
0200G	Aug 03, 2017	This version incorporates 474-CCR-17-3459 which was approved by the JPSS Ground ERB on the effective date shown.	All
H	Aug 26, 2021	This version incorporates 474-CCR-21-5445 which was approved by the JPSS Ground ERB on May 07, 2021 and by the JPSS Ground Segment CCB on the effective date shown.	All
I	Mar 31, 2022	This version incorporates 474-CCR-21-5900 which was approved by the JPSS Ground ERB on March 09, 2022 and by the JPSS Ground Segment CCB on the effective date shown.	All

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1 INTRODUCTION

1.1 Scope

The Joint Polar Satellite System (JPSS) Algorithm Specification for Ancillary Data Handling, Gridding and Granulation - Volume II: Data Dictionary contains the specifications for the format of the Ancillary Data Handling, and Gridding and Granulation Intermediate Products (IPs). This specification includes the format of the Hierarchical Data Format Release 5 (HDF5) files, as well as the product definitions. These formats are available to external users of the JPSS. For an overview of the data product formats, see 474-00001-01, JPSS CDFCB-X Vol I. For an overview of the metadata formats for data products, see 474-00448-02-01, JPSS Algorithm Specification Volume II: Data Dictionary for the Common Algorithms.

1.2 Organization

Section	Contents
Section 1	Provides information regarding the scope, and organization of this document, as reference material only.
Section 2	Lists parent documents and related documents that were used as sources of information for this document or that provide additional background information to aid understanding of the interface implementations.
Section 3	Provides an overview of the HDF5 UML for the data product types
Section 4	Provides a description of the contents of each JPSS Intermediate Product associated with this algorithm grouping.
Section 5	Provides a description of the contents of each JPSS EDR associated with this algorithm grouping.
Section 6	Provides a description of the Ancillary and Auxiliary Data Inputs if applicable.
Section 7	Provides a description of relevant Look-Up Tables (LUTs) and Processing Coefficient Tables (PCTs) associated with this algorithm grouping.
Appendix A	Provides the Data Mnemonic to Interface Mapping for the data products in this volume.
Appendix B	Provides a mapping of the quality flags by sensor and product that are reportable to the associated data product quality flag Test ID used in the processing environment
Appendix C	Reference 470-00041, JPSS Program Lexicon
Attachment A	Provides the list of applicable xml files for this Data Dictionary.

2 RELATED DOCUMENTATION

The latest JPSS documents can be obtained from URL:

https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm. JPSS Project documents have a document number starting with 470, 472 or 474 indicating the governing Configuration Control Board (CCB) (Program, Flight, or Ground) that has the control authority of the document.

2.1 Parent Documents

The following reference document(s) is (are) the Parent Document(s) from which this document has been derived. Any modification to a Parent Document will be reviewed to identify the impact upon this document. In the event of a conflict between a Parent Document and the content of this document, the JPSS Program Configuration Change Board has the final authority for conflict resolution.

Document Number	Title
474-00448-01-07	JPSS Algorithm Specification Volume I: Software Requirements Specification (SRS) or the Ancillary Data Handling Gridding and Granulation

2.2 Applicable Documents

The following document(s) is (are) the Applicable Document(s) from which this document has been derived. Any modification to an Applicable Document will be reviewed to identify the impact upon this document. In the event of conflict between an Applicable Document and the content of this document, the JPSS Program Configuration Change Board has the final authority for conflict resolution.

Document Number	Title
None	

3 UML FOR HDF5 PRODUCTS

The following paragraphs describe the structure and contents of the IP and EDR granules formed by the JPSS ground processing software.

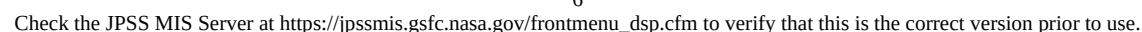
3.1 Intermediate Products and Environmental Data Records HDF5 Details - Statically Sized

Figure 3.1-1, Generalized UML Diagram for statically sized HDF5 IP/EDR Files, depicts the HDF5 IP/EDR organization as a Unified Modeling Language (UML) class diagram. Each HDF5 IP/EDR file contains an HDF5 Root Group, '/', a Data Products Group, Product Groups (Collection Short Name), an optional Geolocation Group (depending upon packaging option, see the JPSS CDFCB-X Vol. I, for a description of the geolocation packaging), and an All Data Group (dataset arrays). The Product Groups and Geolocation Group both contain datasets - an Aggregation Dataset (Collection Short Name_Agg) and Granule Datasets (Collection Short Name_Gran_n) - where n indicates the nth granule in a temporal aggregation of granules (0 .. n-1). A granule is a general term used to describe the minimum quanta of data collected per processing period, generally on the order of seconds. For the definition and organization of the metadata attributes contained in the HDF5 files, see the JPSS Algorithm Specification Volume II: Data Dictionary for the Common Algorithms - Metadata. Attributes that are specific to a particular IP/EDR are listed with the specific IP/EDR's data format definition. For the generalized formats and packaging options for the Geolocation data, see the JPSS CDFCB-X Vol. I - Overview.



3.2 Intermediate Products, Application Related Products and Environmental Data Records HDF5 Details - Dynamically Sized

Figure 3.2-1, Generalized UML Diagram for dynamically sized HDF5 IP/EDR Files, depicts the HDF5 IP/EDR organization as a Unified Modeling Language (UML) class diagram for products that contain dynamically sized fields. Dynamically sized means that a field's length will vary from granule to granule. The organization of the HDF5 file is identical to the statically sized HDF5 file with the exception of the aggregation and corresponding All_Data group. For statically sized products, the object ID stored in the aggregation array points to a Dataset_Array under the All_Data group. This Dataset_Array is a single HDF5 dataset for each field. This single HDF5 dataset contains all the data for all granules in the file for a given field. However, for dynamically sized products, the object ID stored in the aggregation array points to an HDF5 group instead. This HDF5 group contains one or more datasets - a separate dataset for each granule for a given field. The dataset is named "Dataset_Array_Gran_n".



3.3 Official Dynamic Ancillary Data HDF5 Details

The Official Dynamic Ancillary Data (ODAD) files are delivered as HDF5 files via IDPS. Externally provided ODAD files are encapsulated in HDF5 such that after extraction the original file is regenerated. The following information describes the HDF5 file's format via a Unified Modeling Language (UML) diagram. The UML diagram indicates the attributes, groups, and datasets used in the HDF5 file to describe the Ancillary Data file.

Figure 3.3-1, Generalized UML Diagram for HDF5 ODAD Files, depicts the HDF5 ODAD organization as a UML class diagram. Each HDF5 ODAD file contains an HDF5 Root Group, '/', an Ancillary Dataset, and an All Data Group (the actual data).

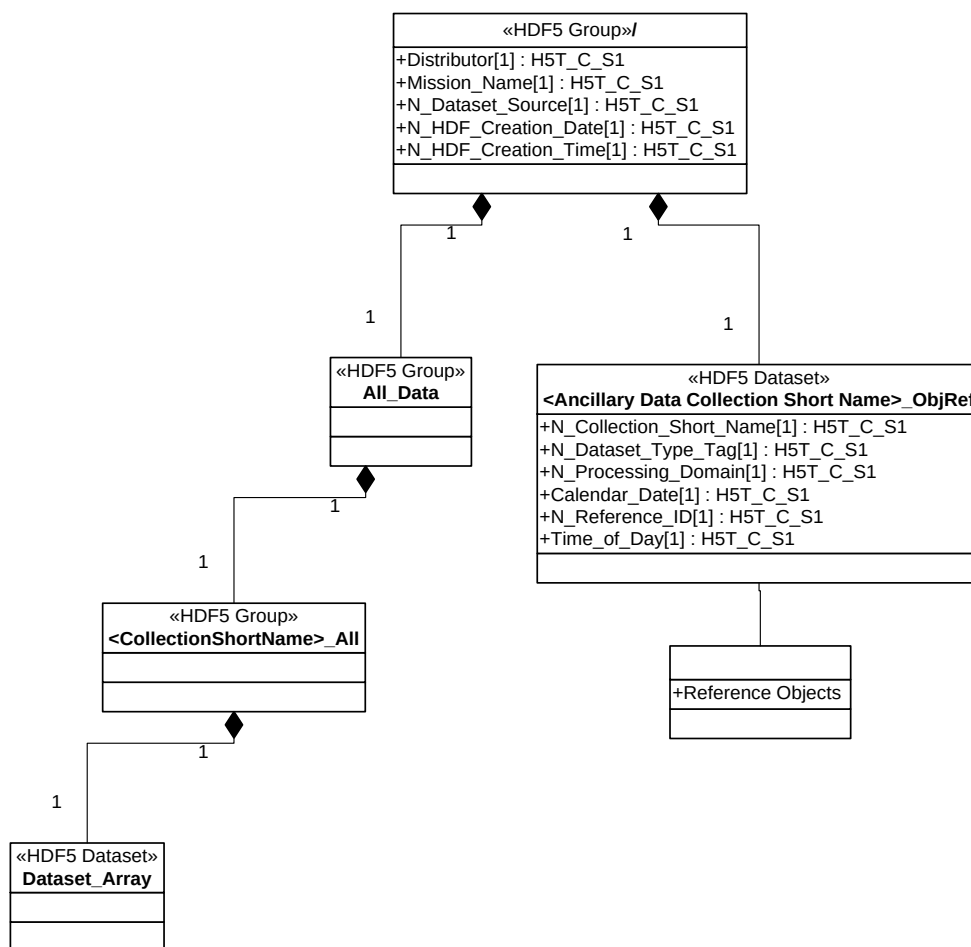


Figure: 3.3-1 Generalized UML Diagram for HDF5 ODAD Files

4 INTERMEDIATE PRODUCTS (IPS)

Not Applicable

5 ENVIRONMENTAL DATA RECORDS (EDRS)

Not Applicable

6 ANCILLARY AND AUXILIARY DATA INPUTS

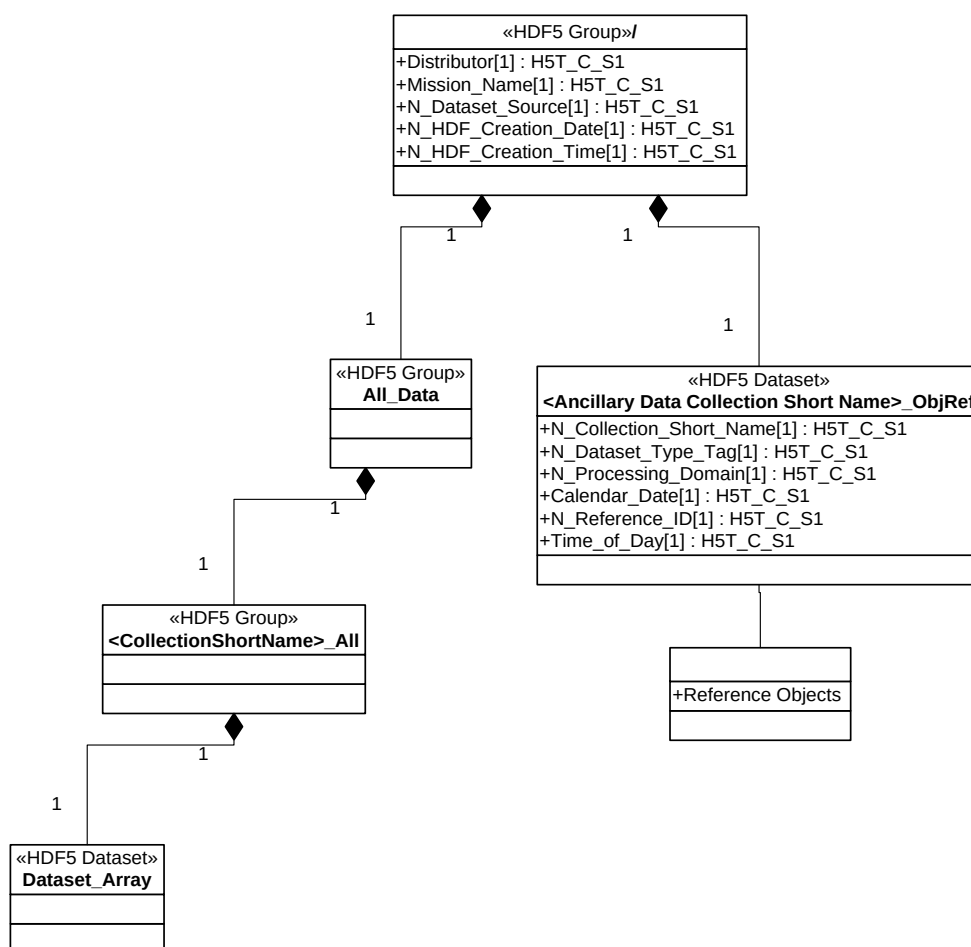
6.1 Official Ancillary Data

Official ancillary data is defined as the designated ancillary data that is used to produce the official set of JPSS data products that is delivered to the Comprehensive Large Array-data Stewardship System (CLASS). The JPSS product set created using the official ancillary data set is required to meet or exceed the performance requirements stated in the JPSS Ground System Requirements Document, Vol 2: Science Products Specification, 470-00067-02. Ancillary data is categorized as either static or dynamic.

6.1.1 Official Dynamic Ancillary Data HDF5 Files

The Official Dynamic Ancillary Data (ODAD) files are delivered as HDF5 files via IDPS. Externally provided ODAD files are encapsulated in HDF5 such that after extraction the original file is regenerated. The following information describes the HDF5 file's format via a Unified Modeling Language (UML) diagram. The UML diagram indicates the attributes, groups, and datasets used in the HDF5 file to describe the Ancillary Data file.

Figure 6.1.1-1, Generalized UML Diagram for HDF5 ODAD Files, depicts the HDF5 ODAD organization as a UML class diagram. Each HDF5 ODAD file contains an HDF5 Root Group, '/', an Ancillary Dataset, and an All Data Group (the actual data).

**Figure: 6.1.1-1 Generalized UML Diagram for HDF5 ODAD Files**

6.1.2 Official Dynamic Ancillary Data

Dynamic ancillary data is defined as data that is introduced into JPSS periodically. There is one source for ODAD:

- U.S. Naval Observatory (USNO)

6.1.2.1 Earth Orientation Finals 2000A

Data Mnemonic	AN_NP-L10330-003
Description/ Purpose	The IERS Finals 2000A data within the finals2000A.all file provides an Earth Orientation (a.k.a. Polar wander) with all EOP values since 02 January 1973 with dX & dY nutation series (with 1 year of predictions). The nutation series in dX and dY uses the International Astronomical Union (IAU) 2000A Nutation Theory. This information is used for geolocation.

	Note: Earth Orientation IERS Finals 2000A data is not a candidate for use in Substitute data processing since it is used in the SDR processing level.
File-Naming Construct	IDPS: See the File-Naming Convention for Ancillary Data Formats, JPSS CDFCB-X Vol. I, 474-00001-01, Section 3.4 for details. C3S: Files are named by provider.
File Size	~2 MiB
File Format Type	ASCII (Structure stored within HDF5 wrapper)
Production Frequency	Weekly
Data Content and Data Format	Data format/content is defined in the following files available at: http://maia.usno.navy.mil/ser7/readme.finals2000A - Content description An overview of the IERS Earth Orientation products can be found at: http://maia.usno.navy.mil/

Example A-4, External Mission Support Data Server Data List Example

Current:

```
e:\ftpoot\MSDS\ANC\ODAD:
off_USNO-PolarWander-UT1-
ANC_Ser7_USNO_000f_20030120_200301200000z_20030120000000z_ee20100101000000z_np.dat
```

6.1.2.2 Reserved

6.1.2.3 Reserved

6.1.2.4 Reserved

6.1.2.5 Reserved

6.1.2.6 Reserved

6.1.3 Official Static Ancillary Data

Static Ancillary Data is defined as ancillary data that is infrequently updated and is introduced into JPSS by a process similar to the distribution of software updates. Static ancillary data goes through a Configuration Management (CM) process prior to its installation into the system. For files unaltered by JPSS, rather than duplicating the format information here, a link is provided to the data source controlling entity. Binary format types are stored as little endian.

6.1.3.1 Reserved

6.1.3.2 Reserved

6.1.3.3 Reserved

6.1.3.4 Reserved

6.1.3.5 Reserved

6.1.3.6 Reserved

6.1.3.7 IDPS Terrain Database

Data Mnemonic	AN_NP-L10100-003
Description/ Purpose	The IDPS Terrain Database is used to efficiently store several static ancillary data types. The external sources for these data include: • Shuttle Radar Topography Mission 30 Plus (SRTM30 Plus) (Depth of ocean/Bathymetry) data from University of California, San Diego. • Terrain height from NASA SRTM30 version 2. • Ellipsoid-Geoid separation from National Imagery and Mapping Agency (NIMA) EGM96 model. The data that are stored in the Terrain Database includes: 1. Mean Sea Level (MSL) Earth Surface height based on Shuttle Radar Topography Mission 30 Plus (SRTM30 Plus) data set. 2. Maximum MSL surface height, within 28 kilometers of each point. 3. Minimum MSL height within 28 kilometers of each point. 4. Bathymetric depth based on the SRTM30 plus 5. Geopotential Height of the Earth's surface as calculated from the MSL height and latitude 6. Ellipsoid - Geoid Separation height based on the NIMA EGM96 model. 7. Initial JPSS Quarterly Surface Type provided by NGAS (Note: the QST data in this database isn't the IDPS operational source). All elevations are in meters referenced to the WGS84/EGM96 geoid as documented at http://www.NGA.mil/GandG/. Elevations can range from - 32767 to 32767. These data also contain occasional voids from a number of causes such as shadowing, phase unwrapping anomalies, or other radar-specific causes. Voids have been filled in using linear interpolation. These data are used for general geolocation computations.
File-Naming Construct	See the File-Naming Convention for the IDPS Terrain Database, JPSS CDFCB-X Vol. I, 474-00001-01, Section 3.4 for details. Version Number Field provides Provenance Version Identifier
File Size	A single tile file size is approximately 33 MB.
File Format Type	Little Endian Binary

Production Frequency	Static
Data Content and Data Format	See Table 6.1.3.7-1, IDPS Terrain Database Format, for details. Figure 6.1.3.7-1, The Northern Hemisphere Terrain Database, and Figure 6.1.3.7-2, The Southern Hemisphere Terrain Database, show the database maps and how tiles are laid on the maps. Each tile consists of 1664 rows and columns. There are 32 tiles in each row, and 32 rows of tiles. The tiles in the corners of the database are never created. So there are 48 tiles missing from each corner, but the tiles of the database are numbered as if those tiles existed. This makes the tile number easier to calculate. The grid in the upper left corner of tile 528 is exactly on the pole. This is achieved by establishing the grid with 53,249 rows and columns, instead of 53,248. The last row and column of the grid are outside all tiles and are never used anyway. Each tile is individually initialized. Points that are more than 2 kilometers outside the Equator are initialized with a flag value so that they are never used.

Table: 6.1.3.7-1 IDPS Terrain Database Format

Field Name	Length (Bytes)	Data Type	Range of Values	Units	Comments
mslhgt Array	5537792 [1664 x 1664]	short	-500 to 9400	meters	Surface height (NASA SRTM 30 v2 between 60N and 60S; USGS GTOPO30 otherwise)
maxhgt Array	5537792 [1664 x 1664]	short	-500 to 9400	meters	Maximum terrain height within radius of 28 KM MH_RADIUS kilometers
minhgt Array	5537792 [1664 x 1664]	short	-500 to 9400	meters	Minimum terrain height within radius of 28 KM MH_RADIUS kilometers
bathy Array	5537792 [1664 x 1664]	short	1 to -12000	meters	Ocean depth from SRTM30+
sfcgp	5537792 [1664 x 1664]	short	-500 to 9400	meters	Surface Geopotential Height
egSep Array	2768896 [1664x 1664]	char	-126 to 78	meters	NIMA EGM 96 Geoid Ellipsoid separation
sfcType Array	2768896 [1664x 1664]	uint8	0 to 20	unitless	Initial Quarterly Surface Type (QST) indicator Not used in operations
upIET_mslhgt	8	uint64	Varies	IET microseconds	Time SRTM30 height updated
upIET_mmhgt	8	uint64	Varies	IET microseconds	Time max/min height updated
upIET_bathy	8	uint64	Varies	IET microseconds	Time bathymetric depth of water updated
upIET_sfcgp	8	uint64	Varies	IET microseconds	Time surface geopotential height updated
upIET_egs	8	uint64	Varies	IET microseconds	Time EG separation height updated
upIET_qst	8	uint64	Varies	IET microseconds	Time QST-Land Water Mask (LWM) data updated Not used in operations
upIET_resolv	8	uint64	Varies	IET microseconds	Conflict resolution time
updated_IET	8	uint64	Varies	IET microseconds	Store time
boxfile Array	32	char	Varies	unitless	Box File Name
boxnum	4	int	11 to 1012	unitless	Box Number

Field Name	Length (Bytes)	Data Type	Range of Values	Units	Comments
boxrow	4	int	0 to 32	unitless	Database (DB) Box Row
boxcol	4	int	0 to 32	unitless	DB Box Column
ulrow_offset	4	int	Varies	unitless	DB grid row of the upper left corner
ulcol_offset	4	int	Varies	unitless	DB grid column of the upper left corner
num_nofill	4	int	0 to 1536	unitless	number of points well outside Equator never filled by data
nOrS	1	char	N or S	unitless	North/South Hemisphere
pad Array	7	char	N/A	unitless	pad

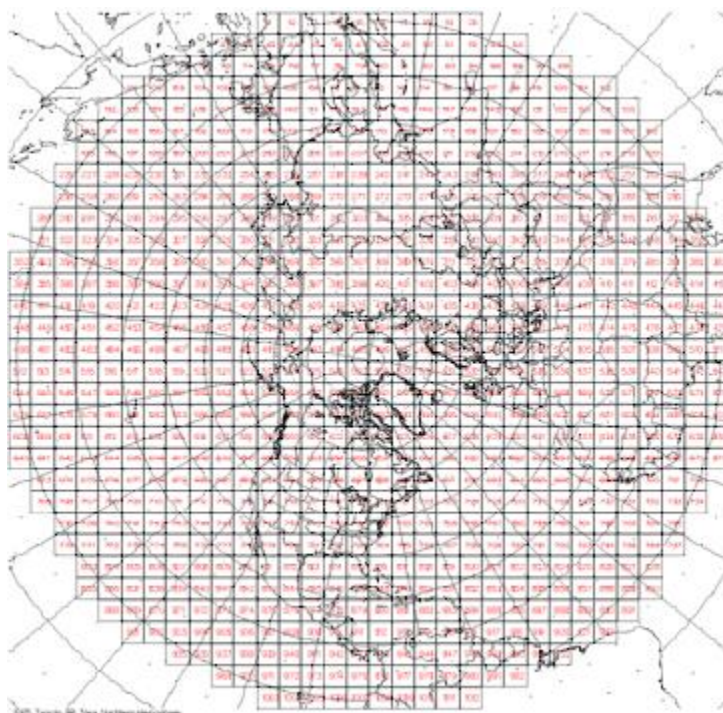


Figure: 6.1.3.7-1 The Northern Hemisphere Terrain DB

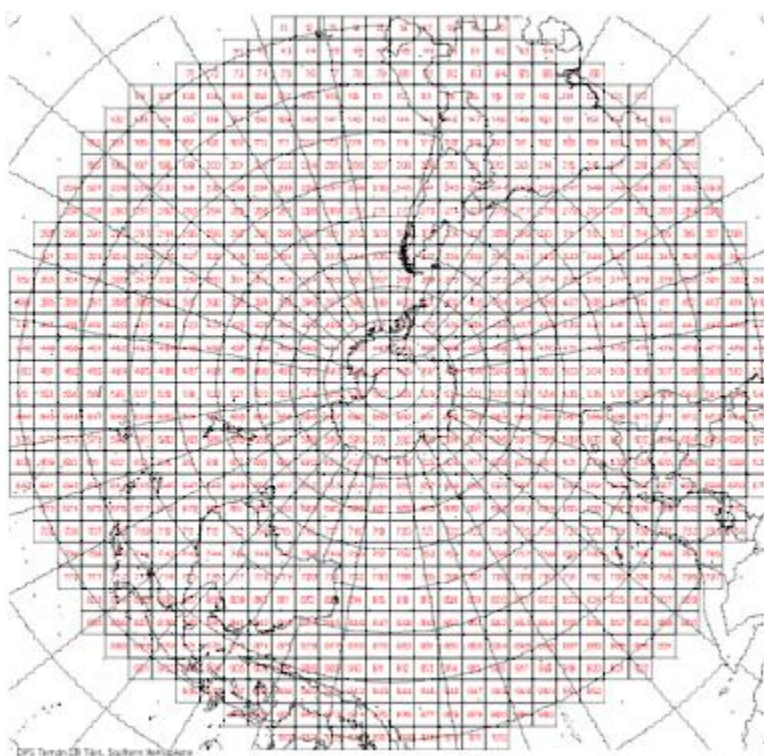


Figure: 6.1.3.7-2 The Southern Hemisphere Terrain DB

6.1.3.8 Reserved

6.1.3.9 Reserved

6.1.3.10 Reserved

6.1.3.11 Reserved

6.1.3.12 Reserved

6.1.3.13 Reserved

6.1.3.14 Reserved

6.1.3.15 Reserved

6.1.3.16 Reserved

6.1.3.17 Reserved

6.1.3.18 Reserved

6.1.3.19 Reserved

6.1.3.20 Reserved

6.1.3.21 Planetary Ephemeris

Data Mnemonic	AN_NP-L10340-001
Description/ Purpose	JPSS Internal binary format of the Planetary ephemeris (DE200) from Jet Propulsion Laboratory (JPL). Used by IDPS to determine solar and lunar vectors during JPSS Mission Data processing. This internal format has been modified slightly from the DE200 format to accommodate use within JPSS without modifying the content or general layout of the source DE200 data. The layout, content, and description of the JPL DE200 Planetary Ephemeris can be found at the following URL: http://ssd.jpl.nasa.gov/?planet_eph_export .
File-Naming Construct	See the File-Naming Convention for Ancillary Data Formats, JPSS CDFCB-X Vol. I, 474-00001-01, Section 3.4 for details. Version Number Field provides Provenance Version Identifier
File Size	3698 KiB per 50 year block. (UNXP2000.200)
File Format Type	Little Endian Binary
Production Frequency	Static

Data Content and Data Format	See Table 6.1.3.21-1, Planetary Ephemeris Format, for details.
---	--

Table: 6.1.3.21-1 Planetary Ephemeris Format

Field Name	Length (Bytes)	Data Type	Range of Values	Units	Comments
tjdStart	8	64-bit float	Varies	Julian Day	Terrestrial Dynamic Time of start of ephemeris, expressed as a Julian Day (DE200 Group 1070, 1st value of first coefficients sub-group)
tjdEnd	8	64-bit float	Varies	Julian Day	Terrestrial Dynamic Time of end of ephemeris, expressed as a Julian Day (DE200 Group 1070, 2nd value of last coefficients sub-group)
span	8	64-bit float	Varies	Days	Span of ephemeris (i.e., number of days of ephemeris data in coeffs array)
au	8	64-bit float	Constant	km	Constant: size, in kilometers, of 1 Astronomical Unit (AU) (DE200 Group 1041, 7th value--third row, 1 st number)
emrat	8	64-bit float	Constant	unitless	Constant: ratio of mass of Earth to mass of Moon (DE200 Group 1041, 8th value--third row, 2nd number)
ipt Array	156	32-bit int	Varies	unitless	Index array (13 x 3) indicating location of orbital parameters in coefficients table which correspond to each of 11 Solar System objects, plus nutation tables. Earth-Moon system is addressed through indices [2,1], [2,2], and [2,3]. The 13th item would be indices for libration tables, but DE200 does not include those, so these index slots are zeros. (DE200 Group 1050)
pad Array	4	byte	Varies	n/a	4 byte pad to adjust "coeffs" array to 8-byte longword boundary
coeffs Array	3039680	64-bit float	Varies	unitless	Data array is 460 x 826. Contains ephemeris timestamps, position and velocity tables for all 11 Solar System objects, and nutation tables. 460 DE200 data subblocks of 826 entries each. (DE200 Group 1070)

6.1.3.22 Reserved

6.1.3.23 Reserved

6.2 Auxiliary Data

Auxiliary Data is data other than that included in the sensor application packets, which is produced internally by JPSS, and is used to produce the JPSS Data Products. For a description of Auxiliary Data Files, see 474-00001-06, JPSS CDFCB-X Vol VI.

6.3 Provenance Data

Provenance files are used to capture the historical information for select Auxiliary Data and Static Ancillary files maintained by the JPSS Program. The following data format is used to describe these files.

6.3.1 Provenance Files

Data Mnemonic	NP_NU-LM1010-000
Description/ Purpose	The provenance files provide structured text information on the source and change history of specified versions of their associated Auxiliary Data or Static Ancillary Data files. A single provenance file contains the history of all versions of the referenced file. Note that not all Auxiliary Data or Static Ancillary Data files will require an associated Provenance file.
File-Naming Construct	<Collection Short Name>.prv Where <Collection Short Name> is that of the file which the Provenance File is associated with. The Collection Short Name used in the filename is based on the table - see the JPSS CDFCB-X Vol. I, 474-00001-01, for the applicable Collection Short Names.
File Size	1 KiB to 100 KiB
File Format Type	ASCII
Production Frequency	As needed
Data Content and Data Format	For details see Table 6.3.1-1, Provenance Files Data Format. An example is provided in Table 6.3.1-2, Provenance Files Data Format - ATMS-SDR-CC.prv.

Table: 6.3.1-1 Provenance Files Data Format

Field Name	Length (Bytes)	Data Type	Range of Values	Units	Comments
Short Name	Varies	string	Collection Short Name	N/A	Required. Collection Short Name of the associated file for this provenance file
Separator	18	string	"-----"	N/A	Required. Version separator
RevisionDate	Varies	date	Valid Date (YYYY-MM-DD)	N/A	Required. Date of the update associated with this Provenance Entry.
Source	Varies	Complex Type	Contains information about the source of the data associated with this Provenance Entry. Subfields: EcrNumber SourceVersion TechMemo SourceFiles	N/A	Required. == Source Type ==
EcrNumber	Varies	string	Free Text	N/A	Required. Provides the ECR number associated with the update. May be "None".
SourceVersion	Varies	string	Free Text	N/A	Required. Identifies the SCM VOB identifier containing the science drop source data. May be "N/A".
TechMemo	Varies	string	Free Text	N/A	Required, Identifies the technical memo by Identifier. May be "None".
SourceFiles	Varies	Complex Type	Contains a list of source files used to generate the data associated with this Provenance Entry. Subfields: FileName	N/A	Required. == Source Files Type ==
FileName	Varies	string	File Name	N/A	Optional, repeating.

Field Name	Length (Bytes)	Data Type	Range of Values	Units	Comments
					Name of the source file translated to create the LUT. May be "N/A" if no translation or name change was required.
ProvenanceVersionID	Varies	string	See the Version ID Description of the File-Naming Convention for Auxiliary or Ancillary Data Formats, JPSS CDFCB-X Vol. I, 474-00001-01, Section 3.4 or 3.5.	N/A	Required. Version ID for this Provenance Entry.
BuildIdentifier	Varies	string	Free Text	N/A	Required. Configuration Management Build Identifier of initial version release.
Spacecraft	Varies		Free Text	N/A	Required, repeating. Configuration Management Build Identifier of initial version release.
Md5sum	Varies	string	Free Text	N/A	Required. MD5SUM of deployed file for the version defined in this section. May be "N/A"
Notes	Varies	string	Free Text	N/A	Required. Description of the source changes and applicability of the version defined in this section.
Separator	18	string	"-----"	N/A	Required. Version separator
Repeat above sections starting with Revision Date					Each Provenance version will have a completely repeated section from Revision Date to Notes.

Table: 6.3.1-2 Provenance Files Data Format - ATMS-SDR-CC.prv

ATMS-SDR-CC

Revision Date: 05/15/2007

Source:

ECR: None

Source Version: ISTN_ATMS_NPP_PROXY_DATA_NGST_002

Tech Memo: None

Source File(s)

Constants_set1.dat

Provenance Version ID: 1-D-NPP-4

Build Identifier: 1.5.0.X1

MD5SUM: N/A

Notes: Chain Testing Table

Revision Date: 04/11/2007

Source:

ECR: A116

Source Version: ISTN_ATMS_NGST_3.1

Tech Memo: TM2007.510.0044 - Diagnostic mode processing

Source File(s):

Constants_set1.dat

Provenance Version ID: 1-D-NPP-1

Build Identifier: 1.5.0.X1

MD5SUM: 576A3B76335

Notes: Data used for Standalone IPAC testing, last digit of Version ID corresponds to Data Set Used

Revision Date: 04/11/2007

Source:

ECR: A116

Source Version: ISTN_ATMS_NGST_3.1

Tech Memo: TM2007.510.0044 - Diagnostic mode processing

Source File(s)

Constants_set2.dat

Provenance Version ID: 1-D-NPP-2

Build Identifier: 1.5.0.X1

MD5SUM: N/A

Notes: Data used for Standalone IPAC testing, last digit of Version ID corresponds to Data Set Used

Revision Date: 04/11/2007

Source:

ECR: A116

Source Version: ISTN_ATMS_NGST_3.1

Tech Memo: TM2007.510.0044 - Diagnostic mode processing

Source File(s)

Constanst_set3.dat

Provenance Version Number: 1-D-NPP-3

Build Identifier: 1.5.0.X1

MD5SUM: N/A

Notes: Data used for Standalone IPAC testing, last digit of Version ID corresponds to Data Set Used

7 LOOK-UP TABLES AND PROCESSING COEFFICIENT TABLES

The template used for these formats in this document is described below.

Data Mnemonic: This is a unique identifier. JPSS CDFCB-X Vol. I, 474-00001-01 describes the data mnemonic definition methodology.

Description/Purpose: A brief description of the data format and its purpose.

Instrument: Identification of the Instrument associated with the table.

File-Naming Construct: A description of the file-naming constructs for those data units that apply. JPSS CDFCB-X Vol. I, 474-00001-01 defines file-naming conventions.

File Size: The size of the data file.

File Format Type: The format type of the data file.

Production Frequency: Production frequency is the interval of time for data generation. A production frequency equal to dynamic implies that it is only as requested or as needed.

Data Format/Structure: This defines the actual data format. The definitions provide information for every data element in the data unit.

The following rules apply to all tables:

1. All field names mandatory, unless specified otherwise.
2. Fill data is specified, where applicable.
3. Strings are left-aligned and integers are right-aligned, unless specified otherwise.
4. For information regarding Coordinated Universal Time (UTC) and IDPS Epoch Time (IET) conventions, see the JPSS CDFCB-X Vol. I, 474-00001-01.
5. For all references of the ASCII Standard, the corresponding International Standards Organization (ISO) standard is ISO/IEC 10646. The specific Unicode is UTF8, unless stated otherwise.
6. The fields are presented in order (either top - down or most significant first), unless stated otherwise.

7.1 Reserved

7.2 Processing Coefficient Tables (PCTs)

PCTs are files containing parameters used in the creation of S-NPP/JPSS Data Products by ground processing.

7.2.1 Automated PCs

Not Applicable

7.2.2 Manual Processing Coefficients

Manual PCTs are files that contain PC parameters used in the creation of S-NPP/JPSS Data Products. All of these files require human review prior to their insertion into the operational processing environment.

Initialization PCTs are files containing the initial sets of PC parameters used to create S-NPP/JPSS Data Products and are not updated frequently.

Appendix A. Data Mnemonic to Interface Mapping

For a complete list of Data Mnemonic to Interface Mapping, see 474-00001-01, JPSS CDFCB-X Vol I. The CDFCB contains Data Mnemonics, Identifiers, Collection Short Names, Interface Documents, and Collection Long Names for each JPSS Data Product and Geolocation data.

Appendix B. DQTT Quality Flag Mapping

Not Applicable

Appendix C. Abbreviations and Acronyms

See 470-00041 JPSS Program Lexicon for abbreviations and acronyms.

Attachment A. XML Formats for Related Products

Table: ATT-1 XML Formats for Related Products

File Number	XML Filename