

NASA's Global Change Master Directory (GCMD)

# Ancillary Description Writer's Guide

This guide was written by the Global Change Master Directory staff to assist with the creation of Ancillary descriptions. Any material in this pdf document may be superseded by online published content [<http://gcmd.nasa.gov/User/suppguide/>]. If you have any questions please contact GCMD ([gcmduso@gcmd.nasa.gov](mailto:gcmduso@gcmd.nasa.gov))

This document should be cited as:

*Ancillary Description Writer's Guide, 2008.*

*Global Change Master Directory. National Aeronautics and Space Administration.*

# Ancillary Description Writer's Guide

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## What is an Ancillary Description

Ancillary Descriptions (AD) in the GCMD consists of brief descriptions of:

Data Centers (AD-Dc) (Example: National Snow and Ice Data Center).

Projects or Campaigns (AD-Pj) (Example: the Tropical Ocean Global Atmosphere project, TOGA).

Platforms (AD-Pl) (formerly called Sources; example: the spacecraft description for the Terra satellite).

Instruments (AD-I) (formerly called Sensors; example: the remote sensing instrument, AVHRR).

Ancillary Descriptions provide related background information but do not directly describe the data sets. However, they are usually linked to data sets. For assistance in writing ancillary information, you may visit the [Ancillary Description Writer's Guide](#) and use the tools to create or modify a description.

## Data Center Entry Identifier

### Definition

Unique identifier of the Data Center Supplemental.

### Syntax

DEntry\_ID:

### Specifications

- Required field.
- May be used only once.
- 1 to 160 alphanumeric characters from the printable UTF-8 character set, except ">"
- Should be written in all capital letters.
- Must be selected from the Data Center valids (see Keywords) if updating the document.

### Recommendations

- The data center identifiers (short names) are semicontrolled; i.e. new data center identifiers may only be added if the data center does not already appear in the Data Center Valids List.
- The identifier is usually a mnemonic or abbreviated version of the long name. When submitting a new identifier, always check the Data Center Valids List to ensure mutual exclusivity among data center short names. No two data centers may have the same short name.
- Data centers which are part of a larger organization may have a compound short name made up of the organization short name and the data center short name; for example: INPE/DAE/FISAT. This is helpful for users conducting broad searches because the users may query on the substring INPE and receive all Data Center Supplementals from INPE, regardless of division.

### Example

DEntry\_ID: NOAA/NESDIS/NCDC

## Data Center Long Name

### Definition

The full name of the Data Center.

### Syntax

Center\_Long:

### Specifications

- ▣ This field is recommended.
- ▣ Long name: 1 to 240 characters from the printable UTF-8 character set, except ">"

### Recommendations

- ▣ Should be the full name for which the DEntry\_ID is based.

### Example

Center\_Long: National Climatic Data Center, NOAA

## Data Center URL

### Definition

The full name of the Data Center.

### Syntax

Data\_Center\_URL:

### Specifications

- This is recommended field that must offer a single URL associated with the data center. Multiple Data Center URLs are not permitted.
- The URL may contain 1 to 160 characters of the printable UTF-8 character set.

### Recommendations

- The Internet Uniform Resource Locator(s) (URL) for the data center should be listed if available. This field may be used only once within the data center group. The URLs will be hypertext linked. The URLs may include gopher, ftp and telnet as well as WWW servers.

### Example

Data\_Center\_URL: <http://daac.gsfc.nasa.gov>

Data\_Center\_URL: <ftp://podaac.jpl.nasa.gov>

Data\_Center\_URL: <telnet://ncar.ucar.edu>

Data\_Center\_URL: <gopher://www.ciesin.org>

## Data Center Text

### Definition

A brief description of the data center, including the types of data offered.

### Syntax

Group: Data\_Center\_Text

End\_Group

### Specifications

- Required field.
- May be used only once.
- Multiple lines of text are allowed, each line containing a maximum of 80 characters. Characters may be selected from the printable UTF-8 character set.

### Recommendations

Should include background information on the data center as well as they types of data/services offered.

The total length could consist of approximately 30 lines.

Single space with blank lines separating paragraphs

Standard elements of style only

Capitalization should follow standard constructs. For readability, do not use all capital letters or all lower case letters, but use the appropriate case where applicable.

No right justification

Acronyms should be expanded to provide understanding.

May contain tabular information

Hyperlinked URLs may be imbedded in the text by surrounding them in single or double quotes:

"<http://www.ngdc.noaa.gov>"



## Example

Group: Data\_Center\_Text

The Global Geophysical Fluids Center (GGFC) and the associated eight Special Bureaus (SB) have the responsibility of supporting, facilitating, and providing services to the worldwide research community, in areas related to the variations in Earth rotation, gravity field and geocenter that are caused by mass transport in the global geophysical fluids. Mass transports in the geophysical fluids will cause the following geodynamic effects on a broad time scale:

(1) variations in the solid Earth's rotation (in length-of-day/universal time and polar motion/nutation) via the conservation of angular momentum and effected by torques at the fluid-solid Earth interfaces; (2) changes in the gravity field according to Newton's gravitational law; (3) motion in the center of mass of the solid Earth relative to that of the whole Earth ("geocenter") via the conservation of linear momentum; and (4) mass loading effects normally manifested in surface deformations and movements.

Website: "<http://bowie.gsfc.nasa.gov/ggfc/>"

End\_Group

## IDN Node

### Definition

This field is used to identify the node of the Committee on Earth Observation Satellites (CEOS) International Directory Network (IDN) that submitted the ancillary description and has responsibility for updating the description.

### Syntax

```
<IDN_Node><Short_Name>IDN Node Keyword</Short_Name></IDN_Node>
```

### Specifications

- This field is recommended.
- This field may be repeated.
- Only valid CEOS IDN node acronyms may be used; see Appendix A .

### Recommendations

Should be the full name for which the DEntry\_ID is based.

### Example

IDN\_Node: Japan/NASDA

IDN\_Node: Germany/DLR

## Revision Date

### Definition

The date the ancillary description document was last revised.

### Syntax

Revision\_Date: [yyyy-mm-dd]

### Specifications

- ▣ This field is recommended.
- ▣ May be used only once.
- ▣ Years should be four-digits.
- ▣ Month and day of month should be two digits, with leading zeroes if necessary.
- ▣ Year, month and day must be entered in the form: **yyyy-mm-dd**

### Example

Revision\_Date: 1998-05-10

## Instrument\_Identification

### Definition

The **<Instrument\_Identification>** fields provide for the specification of keywords that are representative of the instrument being described. These keywords are important for the search and retrieval of information from the GCMD. The field, **<Instrument\_Identification>**, consists of a 4-level hierarchical classification of instrument keywords. In addition, the field includes the short name and long name of the instrument.

- **<Instrument\_Category>** is the top level classification of instruments, holding the following options:
  - Earth Remote Sensing Instruments
  - In Situ/Laboratory instruments
  - Solar/Space Instruments
- **<Instrument\_Class>** is the second level classification under **<Instrument\_Category>**. There are several controlled **<Instrument\_Class>** keywords for each **<Instrument\_Category>**.
- **<Instrument\_Type>** is the third level classification under **<Instrument\_Category>** **<Instrument\_Class>**. There are several controlled **<Instrument\_Type>** keywords for each **<Instrument\_Class>**.
- **<Instrument\_Subtype>** is the fourth level classification under **<Instrument\_Category>** **Instrument\_Class** > **<Instrument\_Type>**. There are several controlled **<Instrument\_Subtype>** keywords for each **<Instrument\_Type>**.
- **<Short\_Name>** is the abbreviated name of the instrument used to acquire the data. The **<Short\_Name>** keyword must be selected from the set of defined instrument keywords. See [http://gcmd.nasa.gov/User/difguide/sensor\\_name.html](http://gcmd.nasa.gov/User/difguide/sensor_name.html) for more details on the instrument **<Short\_Name>**. For example, **<Short\_Name>ASTER</Short\_Name>**
- **<Long\_Name>** is the full name of the instrument used to acquire the data. See [http://gcmd.nasa.gov/User/difguide/sensor\\_name.html](http://gcmd.nasa.gov/User/difguide/sensor_name.html) for more details on the instrument **<Long\_Name>**. For example, **<Long\_Name>Advanced Spaceborne Thermal Emission and Reflection Radiometer</Long\_Name>**

## Syntax

```
<Instrument_Identification>  
<Instrument_Category>Instrument Category Keyword</Instrument_Category>  
<Instrument_Class><Instrument Class Keyword/</Instrument_Class>  
<Instrument_Type>Instrument Type Keyword</Instrument_Type>  
<Instrument_Subtype>Instrument Subtype Keyword</Instrument_Subtype>  
<Short_Name>Short Name Keyword</Short_Name>  
<Long_Name>Long Name Keyword</Long_Name>  
</Instrument_Identification>
```

- With the exception of the **<Short\_Name>**, **<Instrument\_Identification>** fields may contain 1 to 160 characters. Characters include the entire printable UTF-8 character set.
- The **<Short\_Name>** contains 1-31 characters. Characters include the entire printable UTF-8 character set. See:  
[http://gcmd.nasa.gov/User/difguide/sensor\\_name.html](http://gcmd.nasa.gov/User/difguide/sensor_name.html).

## Usage

The **<Instrument\_Identification>** field is required and may not be repeated. The following fields within **<Instrument\_Identification>** are required and may not be repeated:

```
<Instrument_Category>  
<Instrument_Class>  
<Short_Name>
```

The following fields within **<Instrument\_Identification>** are optional and may not be repeated:

```
<Instrument_Type>  
<Instrument_Subtype>  
<Long_Name>
```

**<Instrument\_Identification>** keywords must be selected from the set of defined keywords.

## Example

```
<Instrument_Identification>  
<Instrument_Category>Earth Remote Sensing Instruments</Instrument_Category>  
<Instrument_Class>Passive Remote Sensing</Instrument_Class>
```

<Instrument\_Type>Spectrometers/Radiometers</Instrument\_Type>  
<Instrument\_Subtype>Imaging Spectrometers/Radiometers</Instrument\_Subtype>  
<Short\_Name>ASTER</Short\_Name>  
<Long\_Name>Advanced Spaceborne Thermal Emission and Reflection  
Radiometer</Long\_Name>  
</Instrument\_Identification>

## Instrument\_Identification

### Definition

The **<Instrument\_Identification>** fields provide for the specification of keywords that are representative of the instrument being described. These keywords are important for the search and retrieval of information from the GCMD. The field, **<Instrument\_Identification>**, consists of a 4-level hierarchical classification of instrument keywords. In addition, the field includes the short name and long name of the instrument.

- **<Instrument\_Category>** is the top level classification of instruments, holding the following options:
  - Earth Remote Sensing Instruments
  - In Situ/Laboratory instruments
  - Solar/Space Instruments
- **<Instrument\_Class>** is the second level classification under **<Instrument\_Category>**. There are several controlled **<Instrument\_Class>** keywords for each **<Instrument\_Category>**.
- **<Instrument\_Type>** is the third level classification under **<Instrument\_Category>** **<Instrument\_Class>**. There are several controlled **<Instrument\_Type>** keywords for each **<Instrument\_Class>**.
- **<Instrument\_Subtype>** is the fourth level classification under **<Instrument\_Category>** **Instrument\_Class >** **<Instrument\_Type>**. There are several controlled **<Instrument\_Subtype>** keywords for each **<Instrument\_Type>**.
- **<Short\_Name>** is the abbreviated name of the instrument used to acquire the data. The **<Short\_Name>** keyword must be selected from the set of defined instrument keywords. See [http://gcmd.nasa.gov/User/difguide/sensor\\_name.html](http://gcmd.nasa.gov/User/difguide/sensor_name.html) for more details on the instrument **<Short\_Name>**. For example, **<Short\_Name>ASTER</Short\_Name>**
- **<Long\_Name>** is the full name of the instrument used to acquire the data. See [http://gcmd.nasa.gov/User/difguide/sensor\\_name.html](http://gcmd.nasa.gov/User/difguide/sensor_name.html) for more details on the instrument **<Long\_Name>**. For example, **<Long\_Name>Advanced Spaceborne Thermal Emission and Reflection Radiometer</Long\_Name>**

## Syntax

```
<Instrument_Identification>  
<Instrument_Category>Instrument Category Keyword</Instrument_Category>  
<Instrument_Class><Instrument Class Keyword/<Instrument_Class>  
<Instrument_Type>Instrument Type Keyword</Instrument_Type>  
<Instrument_Subtype>Instrument Subtype Keyword</Instrument_Subtype>  
<Short_Name>Short Name Keyword</Short_Name>  
<Long_Name>Long Name Keyword</Long_Name>  
</Instrument_Identification>
```

- With the exception of the **<Short\_Name>**, **<Instrument\_Identification>** fields may contain 1 to 160 characters. Characters include the entire printable ASCII character set.
- The **<Short\_Name>** contains 1-31 characters. Characters include the entire printable UTF-8 character set. See:  
[http://gcmd.nasa.gov/User/difguide/sensor\\_name.html](http://gcmd.nasa.gov/User/difguide/sensor_name.html).

## Usage

The **<Instrument\_Identification>** field is required and may not be repeated.

The following fields within **<Instrument\_Identification>** are required and may not be repeated:

```
    <Instrument_Category>  
    <Instrument_Class>  
    <Short_Name>
```

The following fields within **<Instrument\_Identification>** are optional and may not be repeated:

```
    <Instrument_Type>  
    <Instrument_Subtype>  
    <Long_Name>
```

**<Instrument\_Identification>** keywords must be selected from the set of defined keywords.



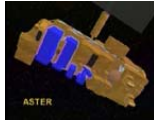
## Example

```
<Instrument_Identification>  
<Instrument_Category>Earth Remote Sensing  
Instruments</Instrument_Category>  
<Instrument_Class>Passive Remote Sensing</Instrument_Class>  
<Instrument_Type>Spectrometers/Radiometers</Instrument_Type>  
<Instrument_Subtype>Imaging  
Spectrometers/Radiometers</Instrument_Subtype>  
<Short_Name>ASTER</Short_Name>  
<Long_Name>Advanced Spaceborne Thermal Emission and Reflection  
Radiometer</Long_Name>  
</Instrument_Identification>
```

## Integrated\_Sensors

### Definition

Sensors associated with the primary instrument. This field consists of only the short name(s) of the sensor(s) as defined in the GCMD database.



This image demonstrates the ASTER instrument, which holds the VNIR, SWIR, and TIR sensors.

### Syntax

```
<Instrument-Associated_Sensors>  
<Short_Name>sensor short name keyword</Short_Name>  
</Instrument-Associated_Sensors >
```

\* **Short\_Name: 1 to 31 characters from the printable UTF-8 character set.**

### Usage

Highly recommended.

<Short\_Name> may be repeated.

<Short\_Name> must be selected from the list of sensor keywords.

If the <Instrument-Associated\_Sensors> field is to be populated, a short name must be provided and must be selected either from the controlled keyword list of sensor names or added by the author. See

[http://gcmd.nasa.gov/User/difguide/sensor\\_name.html](http://gcmd.nasa.gov/User/difguide/sensor_name.html) for rules and specifications for the <Short\_Name>.

### Example

[An example of sensors associated with the ASTER instrument.]

```
< Instrument-Associated_Sensors >  
<Short_Name>VNIR</Short_Name>  
<Short_Name>SWIR</Short_Name>  
<Short_Name>TIR</Short_Name>  
</ Instrument-Associated_Sensors >
```

## Associated\_Platforms

### Definition

Specific platform (source) names associated with the instrument being described. This field may prove useful to associate instruments with the satellite/aircraft platform (source) on which these instruments/sensors are deployed.

### Syntax

```
<Associated_Platforms>  
<Short_Name>platform short name keyword</Short_Name>  
</Associated_Platforms>
```

\* **<Short\_Name>**: 1 to 31 characters from the printable UTF-8 character set.

### Usage

Highly recommended.

**<Short\_Name>** may be repeated.

**<Short\_Name>** must be selected from the list of platform (source) keywords.

See [http://gcmd.nasa.gov/User/difguide/source\\_name.html](http://gcmd.nasa.gov/User/difguide/source_name.html) for rules and specifications for the **<Short\_Name>**.

### Example

[If the instrument being described is MODIS, which flies on both Aqua and Terra, the two “associated” platforms would be described as indicated here.]

```
<Associated_Platforms>  
<Short_Name>Aqua</Short_Name>  
<Short_Name>Terra</Short_Name>  
</Associated_Platforms>
```

## Spectral/Frequency\_Domain

### Definition

These fields contain information about the spectral or frequency characteristics of the instrument, if applicable.

- **<Wavelength\_Keyword>** is a designated keyword describing a spectral or frequency range in which the instrument operates. For example, `<Wavelength_Keyword>Microwave</Wavelength_Keyword>`
  - Radio
  - Microwave
  - Infrared
  - Near Infrared
  - Visible
  - Ultraviolet
  - X-Ray
  - Gamma Ray
- **<Number\_Channels>** is the number of spectral channels or frequencies in which the instrument operates at the wavelength specified by the **<Wavelength\_Keyword>**. The instrument can contain any number of channels or frequencies. For example, `<Number_Channels>20</Number_Channels>`
- **<Spectral/Frequency\_Coverage/Range>** is the spectral coverage or frequency range of the instrument for a particular wavelength as specified by the **<Wavelength\_Keyword>**.
  - For optical and infrared instruments, the range is usually expressed in micro or nano-meters. For example, `<Spectral/Frequency_Coverage/Range>0.3 1.1um</Spectral/Frequency_Coverage/Range>`.
  - For microwave or radar instruments, it is usually expressed in MHz or GHz. For example, `<Spectral/Frequency_Coverage/Range>10.8-89 GHz</Spectral/Frequency_Coverage/Range>`.
- **<Spectral/Frequency\_Resolution>** represents the capability of an instrument to resolve signals in the electromagnetic (EM) spectrum. It is usually the smallest difference in wavelength or frequency that can be distinguished by the instrument. For example, `<Spectral/Frequency_Resolution>50 nm`

</Spectral/Frequency\_Resolution

## Syntax

```
<Spectral/Frequency_Information>  
<Wavelength_Keyword>wavelength keyword</ Wavelength_Keyword>  
<Number_Channels>integer number or text</ Number_Channels>  
<Spectral/Frequency_Coverage/Range>real number or text  
</Spectral/Frequency_Coverage/Range>  
<Spectral/Frequency_Resolution>real number or text </Spectral/Frequency_Resolution>  
</Spectral/Frequency_Information>
```

**\* The subfields <Number\_Channels>, <Spectral/Frequency\_Coverage/Range>, and <Spectral/Frequency\_Resolution> may contain 1 to 80 characters. Characters include the entire printable UTF-8 character set.**

## Usage

This field is optional and may be repeated per <Wavelength\_Keyword>.

The following <Spectral/Frequency\_Information> fields are optional and may not be repeated:

```
<Wavelength_Keyword>  
<Number_Channels>  
<Spectral/Frequency_Coverage/Range>  
<Spectral/Frequency_Resolution>
```

The <Wavelength\_Keyword> must be selected from the <Wavelength\_Keyword> keywords. See Appendix A.

Please specify units with <Spectral/Frequency\_Coverage/Range> and <Spectral/Frequency\_Resolution>. Some examples: Å(Angstroms), µm (use Greek symbol here (micrometers), nm (nanometers), M (MHz), G (GHz).

## Example

[Example taken from Ozone Measuring Instrument (OMI). There are 2 UV and 1 VIS channel on OMI.]

```
<Spectral/Frequency_Information>  
<Wavelength_Keyword>Ultraviolet</Wavelength_Keyword>  
<Number_Channels>2</Number_Channels>  
<Spectral/Frequency_Coverage/Range>270-380  
nm</Spectral/Frequency_Coverage/Range>
```

<Spectral/Frequency\_Resolution>0.63-0.42 nm</ Spectral/Frequency\_Resolution>  
</Spectral/Frequency\_Information>  
<Spectral/Frequency\_Information>  
<Wavelength\_Keyword>Visible</Wavelength\_Keyword>  
<Number\_Channels>1</Number\_Channels>  
<Spectral/Frequency\_Coverage/Range>350-500  
nm</Spectral/Frequency\_Coverage/Range>  
<Spectral/Frequency\_Resolution>0.63-0.42 nm</ Spectral/Frequency\_Resolution>  
</Spectral/Frequency\_Information>

## Instrument Description

### Definition

General information about the instrument from which the data were collected.

### Syntax

<Description>text</Description>

***\* Multiple lines of text are permitted, each line containing a maximum of 4000 characters. Characters may be selected from the printable UTF-8 character set.***

### Usage

The <**Description**> field is required and may not be repeated.

Includes background information on the instrument.

Must provide reference to the source of the description if it was abstracted from an existing document.

Text should be single spaced with blank lines separating paragraphs.

For readability, use the appropriate upper/lower case where applicable.

Acronyms should be expanded to provide understanding.

### Example

<Description>

MODIS is a multi-disciplinary, keystone instrument on Aqua and Terra, providing a wide array of multispectral, daily observations of land, ocean, and atmosphere features at spatial resolutions between 250 m and 1000 m. Approximately 40 data products are produced from the MODIS data. Data are distributed not only through the EOS Data and Information Service (EOSDIS) Distributed Active Archive Centers (DAACs) at Goddard Space Flight Center, the EROS Data Center in Sioux Falls, South Dakota, and the National Snow and Ice Data Center (NSIDC) in Boulder, Colorado, but also via over 100 Direct Broadcast (DB) stations distributed worldwide.

Instrument\_Facts:

Launches: December 18, 1999 on Terra; May 4, 2002 on Aqua

Heritage: AVHRR, HIRS, Landsat TM, and Nimbus-7 CZCS

Instrument Type: Medium-resolution, multi-spectral, cross-track scanning radiometer; daylight reflection and day/night emission spectral imaging

Channels: 36 spectral bands

Spectral Range: 20 bands with 0.4-3.0  $\mu\text{m}$ ; 16 bands within 3-14.5  $\mu\text{m}$   
Swath Width: 2,300 km at  $110^\circ$  ( $\pm 55^\circ$ )  
Coverage: Global coverage every 1 to 2 days  
Spatial Resolution: 250 m, 500m, 1 km  
Dimensions: 1.04 m x 1.18 m x 1.63 m  
Mass: 229 kg  
Thermal Control: Passive radiators  
Thermal Operating Range:  $268 \pm 5$  K  
Power: 162.5 W (average), 225 W (peak)  
Duty Cycle: 1005  
Data Rate: 6.2 Mbps (average), 10.5 Mbps (daytime), 3.2 Mbps (nighttime)  
Instrument Nadir IFOV: 250 m (2 bands), 500 m (5 bands), 1,000 m (29 bands)  
Polarization Sensitivity: 2 % from 0.43  $\mu\text{m}$  to 2.2  $\mu\text{m}$  and  $\pm 45^\circ$  scan  
Signal-to-Noise Ratios: From 500 to 1100 for 1-km ocean color bands at  $70^\circ$  solar zenith angle  
NE t: Typically  $< 0.05$  K at 300 K  
Absolute Irradiance Accuracy: 5 % for wavelengths  $< 3$   $\mu\text{m}$  and 1 % for wavelengths  $> 3$   $\mu\text{m}$   
Direct Broadcast: Yes  
Prime Contractor: Raytheon Santa Barbara Remote Sensing  
Responsible Center: NASA Goddard Space Flight Center  
[Source: Earth Science Reference Handbook: A Guide to NASA's Earth Science Program and Earth Observing Satellite Missions. Revised May 2006.]  
</Description>



## Creation\_Date

### Definition

The date the instrument metadata information was created.

### Syntax

```
<Creation_Date>yyyy-mm-dd</Creation_Date>
```

***\* Year, month and day must follow the International Standard ISO 8601 in the form: yyyy-mm-dd.***

### Usage

This field is recommended and may not be repeated.

### Example

```
<Creation_Date>1996-10-16</Creation_Date>
```

## Revision\_Date

### Definition

The date the instrument metadata information was revised.

### Syntax

`<Revision_Date>yyyy-mm-dd</Revision_Date>`

***\* Year, month and day must follow the International Standard ISO 8601 in the form: yyyy-mm-dd.***

### Usage

This field is recommended and may be repeated.

### Example

`<Revision_Date:>2006-11-01</Revision_Date>`

## Online\_Resource

### Definition

The Online\_Resource field specifies the URL of an online resource containing information about the instrument.

### Syntax

<Online\_Resource>URL</Online\_Resource>

***\* The URL may contain up to 600 characters of the printable\ ASCII character set.***

### Usage

This field is optional and may be repeated.

### Example

<Online\_Resource>http://modis.gsfc.nasa.gov/</Online\_Resource>

<Online\_Resource>http://www.roc.noaa.gov/</Online\_Resource>

## Sample\_Image

### Definition

The <Sample Image> field consists of a URL referencing an image of the instrument for display with the metadata information.

### Syntax

```
<Sample_Image>URL</Sample_Image>
```

### Usage

The **<Sample\_Image>** field is recommended and may not be repeated.

The URL refers to an image and may have one of the following extensions: .gif, .jpeg, .png, or .tiff.

### Example

```
<Sample_Image>  
http://gcmd.nasa.gov/Images/Data/project_onestop/trmm.gif  
</Sample_Image>
```

## IDN\_Node

### Definition

The Internal Directory Name (IDN) field is used internally to identify association, responsibility and/or ownership of the ancillary description information. Formerly, this field was used exclusively for identifying the Committee on Earth Observation Satellites (CEOS) International Directory Network (IDN) node assigned to the instrument metadata record. However, the use of this field has been extended to include other associations that may be used in the creation of GCMD/IDN portals or subsets of the GCMD content. This field is usually not displayed to the user, but can be populated through a pull-down menu list in the docBUILDER tools.

### Syntax

```
<IDN_Node><Short_Name>IDN Node Keyword</Short_Name></IDN_Node>
```

### Usage

The **<IDN\_Node>** is recommended and may not be repeated.

Only **<IDN\_Node>** keywords may be used.

### Example

```
<IDN_Node><Short_Name>USA/NASA</Short_Name></IDN_Node>  
<IDN_Node><Short_Name>G3OS/GCOS</Short_Name></IDN_Node>  
<IDN_Node><Short_Name>OBIS</Short_Name></IDN_Node>
```

## Instrument\_Logistics

### Definition

The Instrument\_Logistics field contains information about the starting date of the instrument operation, owner(s) of the instrument, and data rate.

- **<Data\_Rate>**The amount of digital data that is moved from one place to another in a given time; usually in a second's time, through a communications line or channel. For example, **<Data\_Rate>450 kbps</Data\_Rate>**. (Adapted from: Sippl/Kidd; Searchvoip)
- **<Instrument\_Start\_Date>**The date that an instrument became operational.
- **<Instrument\_Stop\_Date>**The date that an instrument ceased operation.
- **<Instrument\_Owner>**The organization(s) responsible for the development and operation of the instrument.

### Syntax

```
<Instrument_Logistics>  
<Data_Rate>real number or text</Data_Rate>  
<Instrument_Start_Date>yyyy-mm-dd</Instrument_Start_Date>  
<Instrument_Stop_Date>yyyy-mm-dd</Instrument_Stop_Date>  
<Instrument_Owner>text</Instrument_Owner>  
</Instrument_Logistics>
```

- **<Data\_Rate>** and **<Instrument\_Owner>** are free text fields and may contain 1 to 80 characters of the printable UTF-8 character set.
- The **<Instrument\_Start\_Date>** and **<Instrument\_Stop\_Date>** fields contains year, month, and day and must follow the International Standard ISO 8601 in the form: yyyy-mm-dd

### Usage

The **<Instrument\_Logistics>** field is highly recommended and repeatable.

The **<Data\_Rate>** field within **<Instrument\_Logistics>** are recommended and not repeatable.

The **<Instrument\_Start\_Date>** and **<Instrument\_Stop\_Date>** are recommended and not repeatable.

Please specify units with **<Data\_Rate>**. Some example units are: T-(Tera), G-(Giga), M- (mega) bps (bytes per second). For example, **<Data\_Rate>500 Mbps</Data\_Rate>**.

The **<Instrument\_Owner>** is recommended and repeatable.

### Example

[Example taken from MODIS.]

```
<Instrument_Logistics>  
  <Data_Rate>6.2 Mbps (average), 10.5 Mbps (daytime), 3.2 Mbps (nighttime).  
</Data_Rate>  
  <Instrument_Start_Date>2002-06-25</ Instrument_Start_Date>  
  <Instrument_Owner>NASA</ Instrument_Owner>  
</Instrument_Logistics>
```

[Example taken from the NASA Scatterometer (NSCAT).]

```
<Instrument_Logistics>  
  <Instrument_Start_Date>1996-08-16</ Instrument_Start_Date>  
  <Instrument_Stop_Date>1997-06-30</ Instrument_Stop_Date>  
  <Instrument_Owner>NASA</ Instrument_Owner>  
</Instrument_Logistics>
```

## Platform ID

### Definition

Unique identifier of the Platform Ancillary Description.

### Syntax

SEntry\_ID:

### Specifications

- Required field.
- May be used only once.
- 1 to 31 alphanumeric characters from the printable UTF-8 character set, except ">"
- Should be written in all capital letters.
- Must be selected from the Platform valids (see Appendix A) if updating the document.

### Recommendations

- The platform identifiers (short names) are semicontrolled; i.e. new platform identifiers may only be added if the platform does not already appear in the Platform Valids List.
- The identifier is usually a mnemonic or abbreviated version of the long name. When submitting a new identifier, always check the Platform Valids List to ensure mutual exclusivity among platform short names. No two platforms may have the same short name.

### Example

SEntry\_ID: EO-1



## Platform\_Identification

### Definition

The **<Platform\_Identification>** fields allow for the specification of keywords that are representative of the platform or source information. These keywords are important for the search and discovery of supplemental information in the GCMD. The field, **<Platform\_Identification>**, consists of a 2-level hierarchical classification of platform (source) keywords. In addition, the field includes the short name and long name of the platform (source).

- **<Platform\_Category>** is the top level classification of platforms offering:
  - Aircraft
  - Balloons/Rockets
  - Earth Observation Satellites
  - In Situ land-based Platforms
  - In Situ Ocean-based Platforms
  - Interplanetary Spacecraft
  - Maps/Charts/Photographs
  - Models
  - Navigation Platforms
  - Solar/Space Observation Satellites
  - Space Stations/Manned Spacecraft
- **<Platform\_Series/Entity>** is the second level classification under **<Platform\_Category>**. There are several controlled **<Platform\_Series/Entity>** keywords for each **<Platform\_Category>**. These keywords usually (but not always) refer to a series of Earth or space observing satellites such as Landsat.
- **<Short\_Name>** is the abbreviated name of the platform (source) used to acquire the data. The **<Short\_Name>** keyword must be selected from the set of defined platform (source) keywords. See [http://gcmd.nasa.gov/User/difguide/source\\_name.html](http://gcmd.nasa.gov/User/difguide/source_name.html) for more details on the platform Short\_Name. For example, **<Short\_Name>ICESAT</Short\_Name>**
- **<Long\_Name>** is the full name of the platform (source) used to acquire the data. See [http://gcmd.nasa.gov/User/difguide/source\\_name.html](http://gcmd.nasa.gov/User/difguide/source_name.html) for more details on the platform **<Long\_Name>**. For example, **<Long\_Name>Ice, Cloud and Elevation SATellite</Long\_Name>**

## Syntax

```
<Platform_Identification>  
<Platform_Category>Platform Category Keyword</Platform_Category>  
<Platform_Series/Entity>Platform_Series/Entity Keyword</Platform_Series/Entity>  
<Short_Name> Short Name Keyword </Short_Name>  
< Long_Name> Long Name Keyword < /Long_Name>  
</Platform_Identification>
```

- With the exception of the **<Short\_Name>**, **<Platform\_Identification>** fields may contain 1 to 160 characters. Characters include the entire printable UTF-8 character set.
- The **<Short\_Name>** contains 1-31 characters. Characters include the entire printable UTF-8 character set. See:  
[http://gcmd.nasa.gov/User/difguide/sensor\\_name.html](http://gcmd.nasa.gov/User/difguide/sensor_name.html).

## Usage

The **<Platform\_Identification>** field is required and may not be repeated. The following fields within **<Platform\_Identification>** are required and may not be repeated:

```
<Platform_Category>  
<Short_Name>
```

The following fields within **<Platform\_Identification>** are optional and may not be repeated:

```
<Platform_Series/Entity>  
<Long_Name>
```

**<Platform\_Category>** and **<Platform\_Series/Entity>** must be selected from the set of defined keywords.

## Example

[Example taken from Landsat 7]

```
<Platform_Identification>  
<Platform_Category>Earth Observation Satellites</Platform_Category>  
<Platform_Series/Entity>Landsat</Platform_Series/Entity>  
<Short_Name>LANDSAT 7 </Short_Name>  
</Platform_Identification>
```

[Example taken from IceSAT.]

<Platform\_Identification>

<Platform\_Category>Earth Observation Satellites</Platform\_Category>

<Platform\_Series/Entity>Earth Observing System</Platform\_Series/Entity>

<Short\_Name>IceSAT</Short\_Name>

<Long\_Name>Ice, Cloud and Elevation SATellite</Long\_Name>

</Platform\_Identification>

## Synonymous\_Platform\_Names

### Definition

Synonymous names that may be used to identify a platform (source). Often a platform, especially space-based platforms, may have synonymous names or identifiers by which these platforms are known, such as Committee on Space Research (COSPAR) international identification numbers or the US Strategic Command (USSTRATCOM) catalog identifiers. The **<Synonymous\_Platform\_Names>** field consists of a short name or identifier.

### Syntax

```
<Synonymous_Platform_Names>  
<Short_Name>platform short name</Short_Name>  
</Synonymous_Platform_Names>
```

**\*<Short\_Name>: 1 to 31 characters from the printable UTF-8 character set.**

### Usage

Recommended.

**<Short\_Name>** may be repeated.

If the **<Synonymous\_Platform\_Names>** field is to be populated, a short name must be provided.

### Example

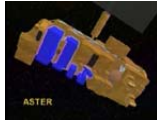
[Synonymous names for the platform Aqua].

```
<Synonymous_Platform_Names>  
<Short_Name>EOS PM-1</Short_Name>  
<Short_Name>2002-022A</Short_Name>  
<Short_Name>27424</Short_Name>  
</Synonymous_Platform_Names>
```

## Platform-based\_Instruments

### Definition

Instruments associated with the platform. This field consists of only the short name(s) of those instruments as defined in the GCMD database.



This image demonstrates the ASTER instrument, which holds the VNIR, SWIR, and TIR sensors.

### Syntax

```
<Platform-Associated_Instruments>  
<Short_Name>instrument short name keyword</Short_Name>  
</Platform-Associated_Instruments>
```

**\*<Short\_Name>: 1 to 31 characters from the printable UTF-8 character set.**

### Usage

Highly recommended.

<Short\_Name> may be repeated.

<Short\_Name> must be selected from the list of instrument keywords.

See [http://gcmd.nasa.gov/User/difguide/sensor\\_name.html](http://gcmd.nasa.gov/User/difguide/sensor_name.html) for rules and specifications for the <Short\_Name>.

### Example

[An example of instruments associated with the Aqua spacecraft.]

```
<Platform-Associated_Instruments>  
<Short_Name>MODIS</Short_Name>  
<Short_Name>CERES</Short_Name>  
<Short_Name>AIRS</Short_Name>  
<Short_Name>AMSR-E</Short_Name>  
<Short_Name>AMSU-A</Short_Name>  
<Short_Name>HSB</Short_Name>  
</Platform-Associated_Instruments>
```

## Orbit

### Definition

The path of an object that is moving around a second object or point under the influence of gravity. This field provides information about orbital parameters of a platform from which the data were taken. It

- **<Orbit\_Altitude>**: altitude of platform above the Earth's surface.
- **<Orbit\_Inclination>**: angular distance of the orbital plane from the plane of the planet's equator, stated in degrees. [Angle between orbit and equator].
- **<Equator\_Crossing>**: time at which the platform crosses the equator.
- **<Period>**: time it takes a platform to make one full orbit.
- **<Repeat\_Cycle>**: time that the satellite passes vertically over the same location.
- **<Perigee>**: point in the orbit where an Earth satellite is closest to the Earth. Opposite of apogee.
- **<Apogee>**: point in the orbit where an Earth satellite is farthest from the Earth. Opposite of perigee.
- **<Orbit\_Type>**: Orbital types may include Low Earth Orbit (LEO), Medium Earth Orbit (MEO), Geosynchronous Orbit (GEO), or Highly Elliptical Orbit (HEO).  
With the information requested previously related to altitude, inclination, etc., one has more information than one can deduce from any one of several classification schemes. The most useful addition might be to allow the user to immediately gain information on areas of observation and overpass times. Therefore, indicating a choice within the following categories might prove to be immediately helpful to the data user:

- **LEO: Low Earth Orbits**

*Definition: Platforms that orbit between 80 km and 2000 km.*

Choices include:

- **LEO > Low Earth Orbit > Inclined Non-Polar**
- **LEO > Low Earth Orbit > Polar Sun-Synchronous**
- **LEO > Low Earth Orbit > Polar Non-Sun-Synchronous**

■ **LEO > Inclined Non-Polar**

Definition: A LEO orbit that has an inclination of less than 70 degrees.  
Platforms in “Inclined Non-Polar” orbits are not sun-synchronous.

Examples:

**LEO > Inclined Non-Polar > International Space Station (360 km)**  
[inclination 51.6 deg]

**LEO > Inclined Non-Polar > Space Shuttle (300-400 km)** [inclination usually about 57 deg]

**LEO > Inclined Non-Polar > TOPEX/PoSEIDON** [inclination 66.5 deg]

**LEO > Inclined Non-Polar > TRMM** [inclination 35 deg]

**LEO > Inclined Non-Polar > UARS** [inclination 57 deg]

■ **LEO > Polar Sun-Synchronous**

Definition: Platform (satellite) that passes all latitudes at the same local solar time each day [through a combination of proper altitude and inclination].  
Orbits lie within 20 degrees of a 90 degree inclination from the equator. To maintain this synchronicity, the orbital plane must rotate about 1 degree per day.

Examples:

**LEO > Polar Sun-Synchronous > Nimbus-7** [the first sun synchronous, 99.15 deg inclination]

**LEO > Polar Sun-Synchronous > Aqua** [98.2 deg inclination]

**LEO > Polar Sun-Synchronous > Terra** [98.2 deg inclination]

**LEO > Polar Sun-Synchronous > Aura** [98.2 deg inclination]

**LEO > Polar Sun-Synchronous > Meteor-3M** [1000 km orbit; 100 deg inclination]

**LEO > Polar Sun-Synchronous > CALIPSO** (98.2 deg inclination)

■ **LEO > Polar Non-Sun-Synchronous**

Definition: Platform (satellite) maintains a polar orbit that does not synchronize latitude passes with solar time.

Examples:

**LEO > Polar Non-Sun-Synchronous > Meteor2** [altitude: 850-950 km; inclination 81-82 deg]

**LEO > Polar Non-Sun-Synchronous > CHAMP** [inclination: 87.4 deg]

**LEO > Polar Non-Sun-Synchronous > ICESat** [inclination: 94 deg]

**LEO > Polar Non-Sun-Synchronous > GRACE** [inclination: 89 deg]

■ **MEO > Medium Earth Orbit** [aka Intermediate Circular Orbits]

*Definition: Platform orbits lie between 2000 km to 35,786 km, but most commonly at 20,200 km or 20,650, with an orbital period of 12 hours). Note that the Van Allen Belts of high energy protons lie within the MEO orbital range ands.*

Choices include:

- **MEO > Semi-Synchronous > Navigation**
- **MEO > Semi-Synchronous > Communications**
- **MEO > Semi-Synchronous > Geodetic/Space Environment**

■ **MEO > Semi-Synchronous > Navigation**

Definition:

Satellites in Medium Earth Orbits (MEO) that perform navigation processes, using techniques to establish position and velocity of an object (or platform).

Examples:

**MEO > Semi-Synchronous > Navigation > NAVSTAR** (NAVigation System using Timing And Ranging)

**MEO > Semi-Synchronous > Navigation > GLONASS** (GLObal NAVigation Satellite System)

■ **MEO > Semi-Synchronous > Communications**

Definition:

Satellites that are used for telecommunications such as telephony, television, mobile communications, amateur and commercial radio, and



broadband internet.

Example:

- **MEO > Semi-Synchronous > Geodetic/Space Environment**

Definition: These are MEO platforms that perform geodetic observations (for example, LAGEOS) or space physics observations (for example, FAST). They are neither Navigation nor Communications satellites.

Examples:

**MEO > Semi-Synchronous > Geodetic/Space Environment > LAGEOS**

**MEO > Semi-Synchronous > Geodetic/Space Environment > FAST**

**MEO > Semi-Synchronous > Geodetic/Space Environment > Explorer-31**

- **GEO: Geosynchronous Orbits (aka Clarke Orbit)s**

*Definition: Platform orbits with a revolution of exactly one day at an altitude of 35,786 km. Any orbit, which has a period equal to the Earth's rotational period. The orbit's eccentricity and inclination may not necessarily be zero. When the orbit is circular and the rotational period has zero inclination, the platform is considered to also be "geostationary".*

- **GEO > Geosynchronous > Geostationary**

Definition:

A geosynchronous satellite with a circular orbit, which has a period equal to the Earth's rotational period, with zero inclination.

Choices include:

- **GEO > Geosynchronous > Geostationary**
- **GEO > Geosynchronous > Non-Geostationary**

Examples:

**GEO > Geosynchronous > Geostationary (GEO) > GOES**

**GEO > Geosynchronous > Geostationary (GEO) > Syncom 3**

**GEO > Geosynchronous > Geostationary (GEO) >**

## **Meteosat**

**GEO > Geosynchronous > Geostationary (GEO) > GMS**

**GEO > Geosynchronous > Geostationary (GEO) > INSAT**

### ■ **GEO > Geosynchronous > Non-geostationary**

Definition: A geosynchronous orbit that is not stationary.

Geosynchronous orbits that are not geostationary do not have a fixed position relative to the Earth. All geostationary orbits must be geosynchronous, but not all geosynchronous orbits are geostationary.

Example:

GEO > Geosynchronous > Non-geostationary > Syncom 2

### ■ **HEO: High Earth Orbits/Highly Elliptical Orbits**

*Definition: A High Earth Orbit is any orbit above geosynchronous (above 35,786 km). A Highly Elliptical Orbit is an orbit of low perigee (about 1000 km) and a high apogee over 35,786 km). These orbits have an inclination between 50 and 70 degrees. Highly elliptical orbits are mainly perturbed by the Earth's oblateness and by gravitational attraction of the Sun and Moon. HEOs are popular orbits for Earth magnetospheric measurements and astronomical observatories.*

Choices include:

- **HEO > Highly Elliptical Orbit**
- **HEO > Highly Elliptical Orbit > Molniya**
- **HEO > Highly Elliptical Orbit > Tundra**

Examples:

**HEO > Highly Elliptical Orbit > Cluster II** [Perigee:17,200km  
Apogee: 120,500 km, Period=620 m]

**HEO > Highly Elliptical Orbit > Orbiting Geophysical  
Observatory 1 (OGO)**

[Perigee: 281 km Apogee: 149,385 km, Period=3839 m]

**HEO > Highly Elliptical Orbit > Advanced Composition**

**Explorer (ACE)** [Perigee: 179 km Apogee: 1,256,758 km, Period=1398 h]

**HEO > Highly Elliptical Orbit > IMP-8** [Perigee: 22.11RE Apogee: 45.26RE, Period=11.99 d]]

**HEO > Highly Elliptical Orbit > Molniya >** [Perigee: 495 km Apogee 39.587 km]

**HEO > Highly Elliptical Orbit > Tundra** (inclination 33.4 degrees; orbital period about 12 hours

■ **LPO: Lagrangian Point Orbits**

*Definition: A location in space around a rotating two-body system (such as the Earth-Moon or Earth-Sun) where the pulls of the gravitating bodies combine to form a point at which a third body of negligible mass would be stationary relative to the two bodies. Lagrangian points are named after the Italian-born French mathematician and astronomer Joseph Louis de Lagrange who first showed their existence There are five Lagrangian points in all, three of which are unstable because the slightest disturbance to any object located at one of them causes the object to drift away permanently. Until recently, this meant that the unstable Lagrangian points seemed to have no practical application for spaceflight. Now, however, they are known to have immense significance and have become the basis for chaotic control. In addition, growing numbers of spacecraft are being placed in halo orbits around the L1 and L2 points; station-keeping, in the form of regular thruster firings, are needed to maintain these orbits. (Source: The Encyclopedia of Astrobiology, Astronomy and Spaceflight: <http://www.daviddarling.info/encyclopedia/L/Lagpoint.html>*

Choices include:

- LPO > L1 > Lissajous Orbit > Halo Orbit
- LPO > L1 > Lissajous Orbit > Lyapunov Orbit
- LPO > L2

Examples:

**LPO > L1 > Lissajous Orbit > Halo Orbit > SOHO**

**LPO > L1 > Lissajous Orbit > Halo Orbit > ACE**

## Syntax

<Orbit>  
<Orbit\_Altitude>real number or text expressed in km</ Orbit\_Altitude>  
<Orbit\_Inclination>real number or text expressed in degrees (°)  
</Orbit\_Inclination>  
<Equator\_Crossing> real number or text expressed as a usually a local time in hh:mm format followed by “am” or “pm”.</Equator\_Crossing>  
<Period> real number or text expressed in minutes</Period>  
<Repeat\_Cycle> real number or text expressed in days and/or revolutions  
</Repeat\_Cycle>  
<Perigee> real number or text expressed in km</Perigee>  
<Apogee> real number or text expressed in km </Apogee>  
<Orbit\_Type>type of orbit keyword </Orbit\_Type>  
</Orbit>

***\* All fields may contain 1 to 80 characters of the printable UTF-8 character set.***

## Usage

- Field is highly recommended and may be used only once.
- None of the fields within **<Orbit>** may be repeated.
- Units should be provided as specified in the Syntax.
- <Orbit\_Type> can be selected from the list of controlled orbit type keywords.

## Example

```
<Orbit>
<Orbit_Altitude>705 km</Orbit_Altitude>
<Orbit_Inclination>98.2°</Orbit_Inclination>
<Equator_Crossing>1:30 pm (south to north) and 1:30 am (north to south) </Equator_Crossing>
<Period> 98.8 minutes</Period>
<Repeat_Cycle>16 days (233 revolutions)</Repeat_Cycle>
<Perigee>673 km (Periapsis)</Perigee>
<Apogee>686 km (Apoapsis)</Apogee>
<Orbit_Type>LEO > Polar Sun-Synchronous</Orbit_Type>
</Orbit>
```

## Platform Description

### Definition

Information about the platform from which the data were taken.

### Syntax

<Description>text</Description>

***\* Multiple lines of text are permitted, each line containing a maximum of 4000 characters. Characters may be selected from the printable UTF-8 character set.***

### Usage

The <**Description**> field is required and may not be repeated.

Includes background information on the platform.

Must provide reference to the source of the description if it was abstracted from an existing document.

Text should be single spaced with blank lines separating paragraphs.

For readability, use the appropriate upper/lower case where applicable.

Acronyms should be expanded to provide understanding.

### Example

<Description>

NASA's commitment to studying the Earth as a global system continues with the Aqua spacecraft (originally called EOS PM-1). Aqua carries six state-of-the-art instruments to observe the Earth's oceans, atmosphere, land, ice and snow covers, and vegetation, providing high measurement accuracy, spatial detail, and temporal frequency. This comprehensive approach to data collection enables scientists to study the interactions among the four spheres of the Earth system--the oceans, land, atmosphere, and biosphere.

Aqua, Latin for "water," is named for the large amount of information that the Aqua spacecraft will collect about the Earth's water cycle. In particular, the Aqua data will include information on water vapor and clouds in the atmosphere, precipitation from the atmosphere, soil wetness on the land, glacial ice on the land, sea ice in the oceans, snow cover on both land and sea ice, and surface waters throughout the world's oceans, bays, and lakes. Such information will help scientists improve the quantification of the global water cycle and examine such issues as whether or not the cycling of water might

be accelerating.

Instruments:

MODIS: Moderate Resolution Imaging Spectroradiometer  
AMSR-E: Advanced Microwave Scanning Radiometer-EOS  
AMSU-A: Advanced Microwave Sounding Unit-A  
CERES: Cloud's and the Earth's Radiant Energy System  
AIRS: Atmospheric Infrared Sounder  
HSB: Humidity Sounder for Brazil

Platform\_Facts:

Joint mission with Brazil and Japan

Orbit:

Type: Near polar, sun-synchronous

Altitude: 705 km

Equatorial Crossings: 1:30 p.m. (south to north) and 1:30 a.m. (north to south)

Inclination: 98.2°

Period: 98.8 minutes

Repeat Cycle: 16 days (233 revolutions)

Dimensions: 2.7 m x 2.5 m x 6.5 m stowed; 4.8 m x 16.7 m x 8.0 m deployed

Mass: 2,934 kg (1,750 kg spacecraft, 1,082 kg instruments, 102 kg propellants)

Power: 4,600 W silicon cell array and NiH2 battery

Design Life: 6 years

Average Data Rate: 89 Gbytes/day

Data Storage: 136-Gbit solid state recorder (SSR) for storage of up to two orbits of data

Data Relay Methods: Direct downlink from the SSR to polar ground stations; direct broadcast

Data Links: X-band

Telemetry: S-band

[Source: Earth Science Reference Handbook: A Guide to NASA's Earth Science Program and Earth Observing Satellite Missions. Revised May 2006.]

</Description>

## Creation\_Date

### Definition

The date the platform metadata information was created.

### Syntax

```
<Creation_Date>yyyy-mm-dd</Creation_Date>
```

***\* Year, month and day must follow the International Standard ISO 8601 in the form: yyyy-mm-dd.***

### Usage

This field is recommended and may not be repeated.

### Example

```
<Creation_Date>1996-10-16</Creation_Date>
```

## Revision\_Date

### Definition

The date the platform (source) metadata information was revised.

### Syntax

`<Revision_Date>yyyy-mm-dd</Revision_Date>`

***\* Year, month and day must follow the International Standard ISO 8601 in the form: yyyy-mm-dd.***

### Usage

This field is recommended and may be repeated.

### Example

`<Revision_Date:>2006-11-01</Revision_Date>`



## Online\_Resource

### Definition

The Online\_Resource field specifies the URL of an online resource containing information about the platform (source).

### Syntax

<Online\_Resource>URL</Online\_Resource>

**\* The URL may contain up to 600 characters of the printable UTF-8 character set.**

### Usage

This field is highly recommended and may be repeated.

### Example

<Online\_Resource>http://modis.gsfc.nasa.gov/</Online\_Resource>

<Online\_Resource>http://www.roc.noaa.gov/</Online\_Resource>

## Sample\_Image

### Definition

A URL referencing an image of the platform for display with the metadata information.

### Syntax

```
<Sample_Image>URL</Sample_Image>
```

### Usage

The **<Sample\_Image>** field is recommended and may not be repeated.

The URL refers to an image and may have one of the following extensions: .gif, .jpeg, .png, or .tiff.

### Example

```
<Sample_Image>  
http://gcmd.nasa.gov/Images/Data/project_onestop/trmm.gif  
</Sample_Image>
```

## IDN\_Node

### Definition

The Internal Directory Name (IDN) field is used internally to identify association, responsibility and/or ownership of the ancillary description information. Formerly, this field was used exclusively for identifying the Committee on Earth Observation Satellites (CEOS) International Directory Network (IDN) node assigned to the instrument metadata record. However, the use of this field has been extended to include other associations that may be used in the creation of GCMD/IDN portals or subsets of the GCMD content. This field is usually not displayed to the user, but can be populated through a pull-down menu list in the docBUILDER tools.

### Syntax

```
<IDN_Node><Short_Name>IDN Node Keyword</Short_Name></IDN_Node>
```

### Usage

The **<IDN\_Node>** is recommended and may not be repeated.

Only **<IDN\_Node>** keywords may be used.

### Example

```
<IDN_Node><Short_Name>USA/NASA</Short_Name></IDN_Node>  
<IDN_Node><Short_Name>G3OS/GCOS</Short_Name></IDN_Node>  
<IDN_Node><Short_Name>OBIS</Short_Name></IDN_Node>
```

## Platform\_Logistics

### Definition

<Platform\_Logistics> contains information on the launch date, location, and sponsor(s) of the platform operation.

- **<Launch\_Date>**: The date of launch of the platform.
- **<Launch\_Site>**: The installation from which the platform was launched. For example, **<Launch\_Site>**Vandenberg Air Force Base, California**</Launch\_Site>**. The **<Launch\_Site>** can be selected from the list of launch site keywords.
- **<Design\_Life>**: The period of time during which the platform is expected by its designers to work within specified parameters; i.e., the “life expectancy” of the platform.
- **<Primary\_Sponsor>**: The organization responsible for the operation of the platform.

### Syntax

```
<Platform_Logistics>  
<Launch_Date>yyyy-mm-dd</Launch_Date>  
<Launch_Site>the name of the installation from which the platform was launched (e.g.,  
facility, county); select from the set of keywords. </Launch_Site>  
<Design_Life>design life expectancy in days, months, or years; include  
units.</Design_Life>  
<Primary_Sponsor>organization(s) supporting the platform</Primary_Sponsor>  
</Platform_Logistics>
```

- **<Design\_Life>** and **<Primary\_Sponsor>** are free text fields and may contain 1 to 80 characters of the printable UTF-8 character set.
- **<Launch\_Site>** can be selected from the set of controlled launch site keywords.
- The **<Launch\_Date>** field contains year, month and day and must follow the International Standard ISO 8601 in the form : yyyy-mm-dd.

### Usage

The **<Platform\_Logistics>** field is highly recommended and not repeatable.

These fields within **<Platform\_Logistics>** are optional and not repeatable:

**<Launch\_Date>**

**<Launch\_Site>**

**<Design\_Life>**

The **<Primary Sponsor>** field within **<Platform\_Logistics>** is optional and repeatable.

### Example

[Example taken from AQUA.]

**<Platform\_Logistics>**

**<Launch\_Date>**2002-05-04**</Launch\_Date>**

**<Launch\_Site>**Vandenberg Air Force Base, California**</Launch\_Site>**

**<Design\_Life>**6 years**</Design\_Life>**

**<Primary\_Sponsor>**NASA**</Primary\_Sponsor>**

**<Primary\_Sponsor>**Japan Aerospace Exploration Agency (JAXA) **</Primary\_Sponsor**

**<Primary\_Sponsor>**Brazilian Institute for Space Research (INPE) **</Primary\_Sponsor**

**</Platform\_Logistics>**

## Project Entry Identifier

### Definition

Unique identifier of the Project Supplemental.

### Syntax

PEntry\_ID:

### Specifications

- ▣ Required field.
- ▣ May be used only once.
- ▣ 1 to 31 alphanumeric characters from the printable UTF-8 character set, except ">"
- ▣ Should be written in all capital letters.
- ▣ Must be selected from the Project valids (see Keywords) if updating the document.

### Recommendations

- ▣ The project identifiers (short names) are semicontrolled; i.e. new project identifiers may only be added if the project does not already appear in the Project Valids List.
- ▣ The identifier is usually a mnemonic or abbreviated version of the long name. When submitting a new identifier, always check the Project Valids List to ensure mutual exclusivity among project short names. No two projects may have the same short name.

### Example

PEntry\_ID: NASA/ESIP

## Project Long

### Definition

The full name of the Project.

### Syntax

Project\_Long:

### Specifications

- This field is recommended.
- Long name: 1 to 80 characters from the printable UTF-8 character set, except ">"

### Recommendations

Should be the full name for which the PEntry\_ID is based.

### Example

Project\_Long: NASA Earth Science Information Partners Program

## Project Text

### Definition

A brief description of the project, including the types of data studied.

### Syntax

Group: Project\_Text

End\_Group

### Specifications

- ▣ Required field.
- ▣ May be used only once.
- ▣ Multiple lines of text are allowed, each line containing a maximum of 80 characters. Characters may be selected from the printable UTF-8 character set.

### Recommendations

Should include background information on the project as well as any other relevant information.

The total length could consist of approximately 30 lines.

Single space with blank lines separating paragraphs

Standard elements of style only

Capitalization should follow standard constructs. For readability, do not use all capital letters or all lower case letters, but use the appropriate case where applicable.

No right justification

Acronyms should be expanded to provide understanding.

Hyperlinked URLs may be imbedded in the text by surrounding them in single or double quotes:

"[http://dss.ucar.edu/pub/toga\\_coare/](http://dss.ucar.edu/pub/toga_coare/)"



## Example

Group: Project\_Text

The Tropical Ocean Global Atmosphere Coupled Ocean Atmosphere Response Experiment (TOGA COARE) was a large international field experiment conducted in 1992-1993 as an addendum to the TOGA Implementation Plan to study the atmospheric and oceanic processes over the region of the western Pacific known as the "warm pool". This is the region of warm ocean and atmospheric clouds and precipitation that is linked to the El Nino climate variation.

TOGA COARE data are located at NOAA/National Climatic Data Center (NCDC) and elsewhere. For a complete list of TOGA COARE data sets and data centers see:

"<http://lwf.ncdc.noaa.gov/oa/coare/>"

A deep archive of the TOGA COARE data is located at the National Center for Atmospheric Research (NCAR) in Boulder, CO:

"[http://dss.ucar.edu/pub/toga\\_coare/](http://dss.ucar.edu/pub/toga_coare/)"

End\_Group

## IDN Node

### Definition

This field is used to identify the node of the Committee on Earth Observation Satellites (CEOS) International Directory Network (IDN) that submitted the Supplemental and has responsibility for the ancillary description record for updating purposes.

### Syntax

<IDN\_Node><Short\_Name>IDN Node Keyword</Short\_Name></IDN\_Node>

### Specifications

- This field is recommended.
- This field may be repeated.
- Only valid CEOS IDN node acronyms may be used; see Appendix A .

### Recommendations

Should be the full name for which the DEntry\_ID is based.

### Example

IDN\_Node: Japan/NASDA

IDN\_Node: Germany/DLR

## Revision Date

### Definition

The date the document was last revised.

### Syntax

Revision\_Date: [yyyy-mm-dd]

### Specifications

- ▣ This field is recommended.
- ▣ May be used only once.
- ▣ Years should be four-digits.
- ▣ Month and day of month should be two digits, with leading zeroes if necessary.
- ▣ Year, month and day must be entered in the form: **yyyy-mm-dd**

### Example

Revision\_Date: 1998-05-10