



**Discover Earth Science Data and Services Through  
NASA's Global Change Master Directory (GCMD)  
Using the DIF/SERF**

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# I. Introduction to the Global Change Master Directory (GCMD)

- Holds over 19,000 metadata records (representing over 20 petabytes of data) describing Earth science and environmental data sets and services relevant to global change research.
- Enables users to search and refine by “controlled” keywords, full-text, ancillary keywords, spatial coverage, and temporal coverage.
- Complies with FGDC and ISO metadata standards.
- Offers an intuitive online authoring tool for creating metadata.

# What's New

The screenshot shows the NASA Global Change Master Directory website. The header includes the NASA logo, 'GODDARD SPACE FLIGHT CENTER', and a link to 'Visit NASA.gov'. The main banner features the title 'Global Change Master Directory' and the tagline 'Discover Earth science data and services'. A navigation bar contains links for Home, Data Sets, Data Services, Collaborations, Add to GCMD, What's New, Participate, Conferences, and Links.

The main content area is divided into two primary sections: 'Find Data' and 'Find Data Services'. The 'Find Data' section lists various scientific topics with icons and brief descriptions, such as Agriculture, Atmosphere, Biosphere, Biological Classification, Climate Indicators, Cryosphere, Human Dimensions, Land Surface, Oceans, Paleoclimate, Solid Earth, Spectral / Engineering, Sun-Earth Interactions, and Terrestrial Hydrosphere. A 'Data Centers' section lists Instruments, Projects, Platforms, and Sources. A 'Map / Data Search or Location Name Search' icon is also present.

The 'Find Data Services' section lists various services including Data Analysis and Visualization, Data Management / Data Handling, Education / Outreach, Environmental Advisories, Hazards Management, Metadata Handling, Models, and Reference and Information Services. A 'Data Services Text Search' box is located below this list.

At the bottom of the page, there is a 'Data Set Text Search' box with a 'Search Now' button. The footer includes the USA.gov logo, a Privacy Policy link, and contact information for the webmaster, editor, and responsible NASA official, along with the last update date of May 2007.

Callout boxes highlight the following features:

- New graphical title and color scheme:** Points to the main banner area.
- New area for latest GCMD features:** Points to a 'NEW Release Announcement' link.
- New Topic Keyword:** Points to the 'Biological Classification' topic.
- Full Text search within Find Data box:** Points to the 'Data Set Text Search' box.
- Services Search box:** Points to the 'Data Services Text Search' box.
- Topic Keyword Name updated:** Points to the 'Find NASA Data' button.
- Geographic related search grouped using map icon:** Points to the 'Map / Data Search or Location Name Search' icon.
- Two main focus areas "FindData" and "Find Services":** Points to the main content area.

# Map/Date Search

*Combines Spatial, Temporal & Full-Text Search*

The screenshot shows the NASA Goddard Space Flight Center website. At the top, there is a navigation bar with links: Home, Data Sets, Data Services, Collaborations, Add to GCMD, What's New, Participate, Calendar, and Links. Below this is a search interface with three main sections: Spatial Search, Keyword Search, and Temporal Search.

**Spatial Search:** Features a world map with a grid. The text "Pan / zoom to your area of interest." is displayed above the map. To the right of the map is a "Google Maps" logo and a coordinate input form with fields for North (N: 90), West (W: -180), East (E: 180), and South (S: -90). Below the map is a "POWERED BY Google" logo and a "Terms of Use" link.

**Keyword Search:** Contains two search input fields. Each field is followed by the text "in" and a dropdown menu set to "Full Text". Between the two fields are radio buttons for "and" and "or".

**Temporal Search:** Includes the text "This field is optional." and "Include?" with radio buttons for "YES" and "NO". Below this is a "Search" button and a dropdown menu set to "between dates". The date range is specified as "Jan. 1 1950" through "Feb. 27 2007".

On the left side of the interface, there is a vertical list of categories with checkboxes: Agriculture, Atmosphere, Biological Classification, Biosphere, Climate Indicators, Cryosphere, Human Dimensions, Hydrosphere, Land Surface, Oceans, Paleoclimate, Solid Earth, Spectral/Engineering, Sun-Earth Interactions, Geospatial One Stop Projects, Free text Search, and Portal Collaborations.

# Query Refinement Example

1. Query by Science Keyword:
  - **Atmosphere > Air Quality > Carbon Monoxide**

Parameters > ATMOSPHERE

Refine by Category: Please select a field

Refine by Full text:

Show All Titles for ATMOSPHERE (5426)

<a href="#">AEROSOLS (451)</a> ⓘ aerosol extinction, aerosol optical depth/thickness, aerosol backscatter, aerosol particle properties, aerosol radiance...	<a href="#">ATMOSPHERIC ELECTRICITY (102)</a> ⓘ lightning, electric field, atmospheric conductivity, total electron content...
<b><a href="#">AIR QUALITY (630)</a> ⓘ</b> visibility, tropospheric ozone, emissions, nitrogen oxides, carbon monoxide...	<a href="#">ATMOSPHERIC PHENOMENA (604)</a> ⓘ storms, hurricanes, lightning, drought, fog...
<a href="#">ALTITUDE (669)</a> ⓘ geopotential height, station height, tropopause, barometric altitude, planetary boundary layer height...	<a href="#">ATMOSPHERIC PRESSURE (1636)</a> ⓘ atmospheric pressure measurements, surface pressure, sea level pressure, anticyclones/cyclones, pressure tendency...
<a href="#">ATMOSPHERIC CHEMISTRY/CARBON AND HYDROCARBON COMPOUNDS (520)</a> ⓘ carbon dioxide, methane, carbon monoxide, volatile organic compounds, non-methane hydrocarbons...	<a href="#">ATMOSPHERIC RADIATION (1502)</a> ⓘ solar radiation, heat flux, longwave radiation, net radiation, shortwave radiation...
<a href="#">ATMOSPHERIC CHEMISTRY HALONS AND HALOGENS (133)</a> ⓘ chlorofluorocarbons, halocarbons, hydrochlorofluorocarbons, hydrofluorocarbons, chlorine monoxide...	<a href="#">ATMOSPHERIC TEMPERATURE (2624)</a> ⓘ air temperature, surface air temperature, maximum/minimum temperature, temperature anomalies, dew point temperature...

Parameters > ATMOSPHERE > AIR QUALITY

Refine by Category: Please select a field

Refine by Full text:

Show All Titles for AIR QUALITY (630)

<b><a href="#">CARBON MONOXIDE (88)</a> ⓘ</b>	<a href="#">SULFUR OXIDES (41)</a> ⓘ
<a href="#">EMISSIONS (133)</a> ⓘ	<a href="#">TROPOSPHERIC OZONE (145)</a> ⓘ
<a href="#">LEAD (18)</a> ⓘ	<a href="#">TURBIDITY (30)</a> ⓘ
<a href="#">NITROGEN OXIDES (91)</a> ⓘ	<a href="#">VISIBILITY (249)</a> ⓘ
<a href="#">PARTICULATES (68)</a> ⓘ	<a href="#">VOLATILE ORGANIC COMPOUNDS (48)</a> ⓘ
<a href="#">SMOG (21)</a> ⓘ	

# Query Refinement Example

## 2. Refine by Project [ESIP] :

Parameters > ATMOSPHERE > AIR QUALITY > CARBON MONOXIDE > Refine By Projects > D - F



Refine by Category: Please select a field [Go]

Refine by Full text: [Go]

Show All Titles for D - F (39)

[EOSDIS \(22\)](#) [FIRE \(1\)](#) [ESIP \(39\)](#)

## 3. Results

Parameters > ATMOSPHERE > AIR QUALITY > CARBON MONOXIDE > Refine By Projects > D - F > ESIP

Refine by Category: Please select a field [Go]

Refine by Full text: [Go]

39 Titles Match Your Query

Showing 1 through 39 of 39

- [MOPITT CO gridded daily averages \(MOP03\) \[MOP033\]](#)  
The MOPITT L3 files contain daily and monthly mean gridded versions of the daily L2 CO profile and total column retrievals. The averaging kernels associated with each retrieval ...
- [MOPITT CO gridded monthly means \[MOP03M3\]](#)  
The MOPITT L3 files contain daily and monthly mean gridded versions of the daily L2 CO profile and total column retrievals. The averaging kernels associated with each retrieval ...
- [Environmental Information Summaries \[C00166\]](#)  
ABSTRACT: Environmental Information Summaries is a series of publications available from the National Climatic Data Center (NCDC). Over the years, the National Climatic Data Center ...

Record Search Query: [Project>D - F>ESIP](#)

## MOPITT CO gridded monthly means

Entry ID: MOP03M3

[ [View Brief Record](#) ] [ [Get Data](#) ] [ [Update this Record](#) ]

### Summary

The MOPITT L3 files contain daily and monthly mean gridded versions of the daily L2 CO profile and total column retrievals. The averaging kernels associated with each retrieval are also gridded and included in the L3 files. For a description of the file contents, refer to the File Spec Document. Please see the MOPITT L2 Data Quality Statement for additional information about the quality and the limitations of the retrievals.

[From the MOPITT V3 Level 3 Data Quality Summary]

### Geographic Coverage



### Spatial coordinates

N: 90.0 S: -90.0 E: 180.0 W: -180.0

### Data Set Citation

Dataset Creator: NASA Atmospheric Science Data Center (ASDC)

Dataset Title: MOPITT CO gridded monthly means

Version: V003

Issue Identification: MOP03M

Online Resource: [http://eosweb.larc.nasa.gov/PRODOCS/mopitt/Quality\\_Summaries/mopitt...](http://eosweb.larc.nasa.gov/PRODOCS/mopitt/Quality_Summaries/mopitt...)

### Temporal Coverage

Start Date: 2000-03-03

### Location Keywords

[GEOGRAPHIC REGION > GLOBAL](#)

### Data Resolution

Temporal Resolution: Monthly

Temporal Resolution Range: Monthly - < Annual

### Science Keywords

[ATMOSPHERE >AIR QUALITY >CARBON MONOXIDE](#)

[ATMOSPHERE >ATMOSPHERIC CHEMISTRY/CARBON AND HYDROCARBON COMPOUNDS](#)

[>CARBON MONOXIDE](#)

### ISO Topic Category

[CLIMATOLOGY/METEOROLOGY/ATMOSPHERE](#)

[ENVIRONMENT](#)

### Platform

[TERRA >Earth Observing System, TERRA \(AM-1\)](#)

### Instrument

[MOPITT >Measurements Of Pollution In The Troposphere](#)

### Project

[EOSDIS >Earth Observing System Data Information System](#)

[ESIP >Earth Science Information Partners Program](#)

[MOPITT >Measurements Of Pollution In The Troposphere](#)

### Quality

See the MOPITT V3 Level 3 Data Quality Summary.

### Use Constraints

Please cite the dataset creator if you use this data.

# DIF Display

## Get Data

### Related URL: Get Data

Subtype: EDG

Link: <http://delenn.gsfc.nasa.gov/ims-bin/pub/nph-ims.cgi?mode=SRCHPASS&m...>


Description: Order dataset MOP03 from the EOS Data Gateway (EDG).

Subtype: EOSDIS DATA POOL

Link: <ftp://f0dps01u.ecs.nasa.gov/MOPITT/MOP03M.003>

Description: Access dataset MOP03 from the data pool.

## Direct Access To EDG and EOSDIS Data Pool



### EOS Data Gateway Login Page

[Have a question, a problem, or a comment?\\*](#) | [Help for this page](#)

The following search will automatically be loaded into the EOS Gateway Primary Search page when you click on one of the buttons below. On the primary search page you can use the search as is or refine its constraints. Scroll to the bottom of the primary search page to start the search.

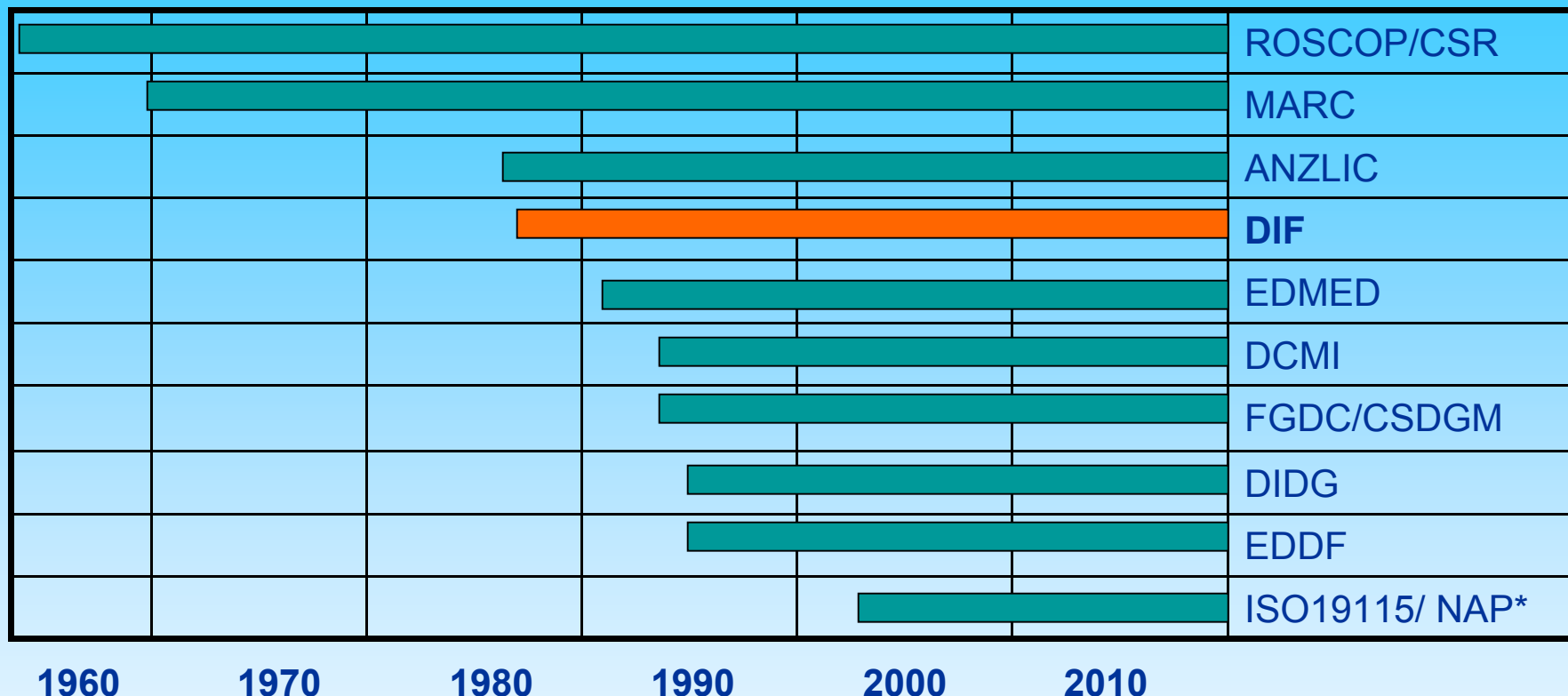
- Data Set: MOPITT GRIDDED MONTHLY CO RETRIEVALS V003

- Load the search into a guest session. Guest sessions are temporary and are deleted after a few hours of inactivity

- Load the search into your previously established registered user account.

Up to higher level directory		
<a href="#">2000.03.03</a>	10/4/2005	12:00:00 AM
<a href="#">2000.04.01</a>	10/4/2005	12:00:00 AM
<a href="#">2000.05.01</a>	10/4/2005	12:00:00 AM
<a href="#">2000.06.01</a>	10/4/2005	12:00:00 AM
<a href="#">2000.07.01</a>	10/4/2005	12:00:00 AM
<a href="#">2000.08.01</a>	10/4/2005	12:00:00 AM
<a href="#">2000.09.01</a>	10/4/2005	12:00:00 AM
<a href="#">2000.10.01</a>	10/4/2005	12:00:00 AM
<a href="#">2000.11.01</a>	10/4/2005	12:00:00 AM
<a href="#">2000.12.01</a>	10/4/2005	12:00:00 AM
<a href="#">2001.01.01</a>	10/4/2005	12:00:00 AM
<a href="#">2001.02.01</a>	10/4/2005	12:00:00 AM
<a href="#">2001.03.01</a>	10/4/2005	12:00:00 AM
<a href="#">2001.04.01</a>	10/4/2005	12:00:00 AM

## II. Metadata Standards



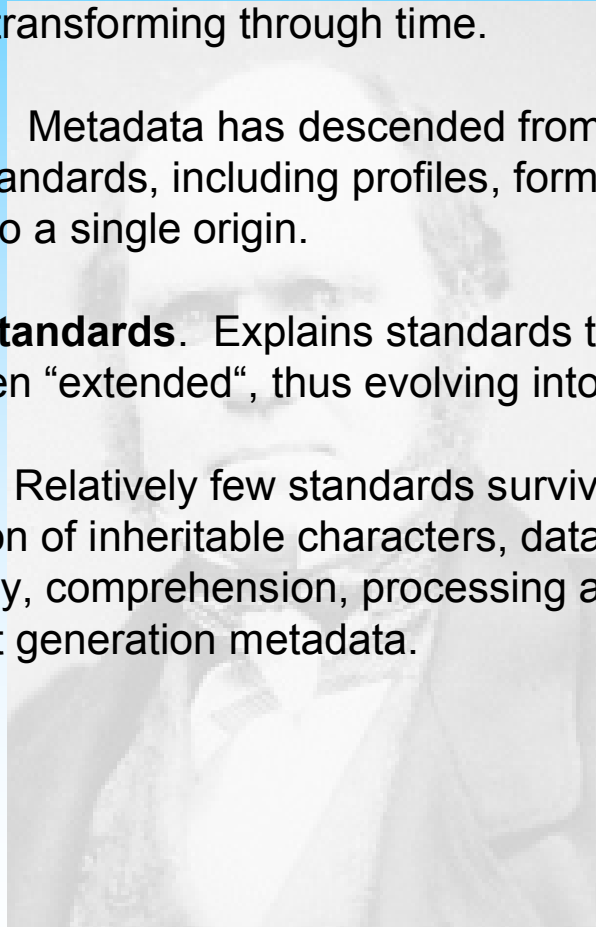
- 1960: ROSCOP/CSR (Report of Observations/Samples collected by Oceanographic Programmes Cruise Summary Report)
- 1970: MARC (Machine-Readable Cataloging)
- 1986: Australia New Zealand Land Information Council (ANZLIC)
- 1988: *Directory Interchange Format (DIF)*
- 1991: European Directory of Marine Environmental Datasets (EDMED)
- 1994: Dublin Core Metadata Initiative (DCMI)
- 1994: US Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM)
- 1995: Directory Information Describing Geo-referenced Datasets (DIDG)
- 2001: NOAA/NODC Electronic Data Description Format (EDDF)
- 2003: ISO-19115 Geographic Information Metadata International Standard > ISO North American Profile (NAP)





# Metadata Standards As “Darwinism”

- **Evolution.** Metadata is not constant, but rather is steadily changing, with standards that are transforming through time.
- **Common descent.** Metadata has descended from a common ancestor, and all groups of standards, including profiles, formats, and extensions, ultimately go back to a single origin.
- **Multiplication of standards.** Explains standards that have split into profiles or have been “extended”, thus evolving into new standards.
- **Natural selection.** Relatively few standards survive, owing to a well-adapted combination of inheritable characters, data discovery software, ingestion technology, comprehension, processing and analysis, which will give rise to the next generation metadata.



# What is a DIF?

<input checked="" type="checkbox"/> Entry ID ⓘ	<input type="checkbox"/> Platform ⓘ	<input type="checkbox"/> Ancillary Keyword ⓘ
<input type="checkbox"/> Entry Title ⓘ	<input type="checkbox"/> Temporal Coverage ⓘ	<input type="checkbox"/> Originating Center ⓘ
<input type="checkbox"/> Science Keywords ⓘ	<input type="checkbox"/> Paleo-Temporal Coverage ⓘ	<input type="checkbox"/> Distribution Information ⓘ
<input type="checkbox"/> ISO Topic Category ⓘ	<input type="checkbox"/> Spatial Coverage ⓘ	<input type="checkbox"/> Multimedia Sample ⓘ
<input type="checkbox"/> Data Center ⓘ	<input type="checkbox"/> Location ⓘ	<input type="checkbox"/> Reference ⓘ
<input type="checkbox"/> Summary ⓘ	<input type="checkbox"/> Data Resolution ⓘ	<input type="checkbox"/> Parent DIF ⓘ
<input checked="" type="checkbox"/> Metadata Name ⓘ	<input type="checkbox"/> Project ⓘ	<input type="checkbox"/> IDN Node ⓘ
<input checked="" type="checkbox"/> Metadata Version ⓘ	<input type="checkbox"/> Quality ⓘ	<input checked="" type="checkbox"/> DIF Creation Date ⓘ
<input type="checkbox"/> Data Set Citation ⓘ	<input type="checkbox"/> Access Constraints ⓘ	<input checked="" type="checkbox"/> Last DIF Revision Date ⓘ
<input type="checkbox"/> Personnel ⓘ	<input type="checkbox"/> Use Constraints ⓘ	<input type="checkbox"/> DIF Revision History ⓘ
<input type="checkbox"/> Related URL ⓘ	<input type="checkbox"/> Data Set Progress ⓘ	<input type="checkbox"/> Future DIF Review Date ⓘ
<input type="checkbox"/> Instrument ⓘ	<input type="checkbox"/> Data Set Language ⓘ	

## DIF (Directory Interchange Format)

- Describes Earth Science Related Data Sets (8 required, 15 recommended, and 12 optional fields).
- Contains metadata stored as XML in Oracle database.
- Provides direct links to data and ancillary information (project, related description or tools for analyzing the data).
- Evolves over time with field additions recommended by the user community.

# DIF History

- 1987** → Over 100 DIF entries were available in the prototype NMD database.
- 1988** → After several demonstrations, workshops, and feedback from the scientific community, the Directory Interchange Format (DIF) was formally approved and adopted by a CI science advisory group at a CI workshop in 1988.
- 1989** → The Committee on Earth Observation Satellites (CEOS) Data Working Group (DWG) began attending the CI Workshop meetings and provided valuable feedback on the DIF structure.
- 1990** → The Interagency Working Group on Data Management for Global Change (IWGDMGC) adopted the directory as a prototype to facilitate global change research - in response to the challenge by the Earth System Science Committee (ESSC).
- 1990** → The NMD was renamed the Global Change Master Directory (GCMD) for its Earth sciences applications.
- 1991** → The first release of the IDN was named the Prototype International Directory (PID) in 1990. [Actual DIF exchange procedures were agreed on by February 1991.
- 1994** → The GCMD was selected to serve as NASA's FGDC Clearinghouse node for geospatial metadata. Elements of the Content Standard for Digital Geospatial Metadata (CSDGM) were incorporated in the DIF in 1994.
- 2004** → The ISO 19115/TC211 geospatial metadata standard was adopted in GCMD.
- 2007+** → Planning guidelines to include Biological Data Profile (taxonomic trees and geo-referencing) within GCMD . The GCMD is involving through input from the user community.

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87

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90

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94



# DIF History

The ISO  
19115/TC211  
geospatial metadata  
standard was adopted  
in GCMD.

04  
|

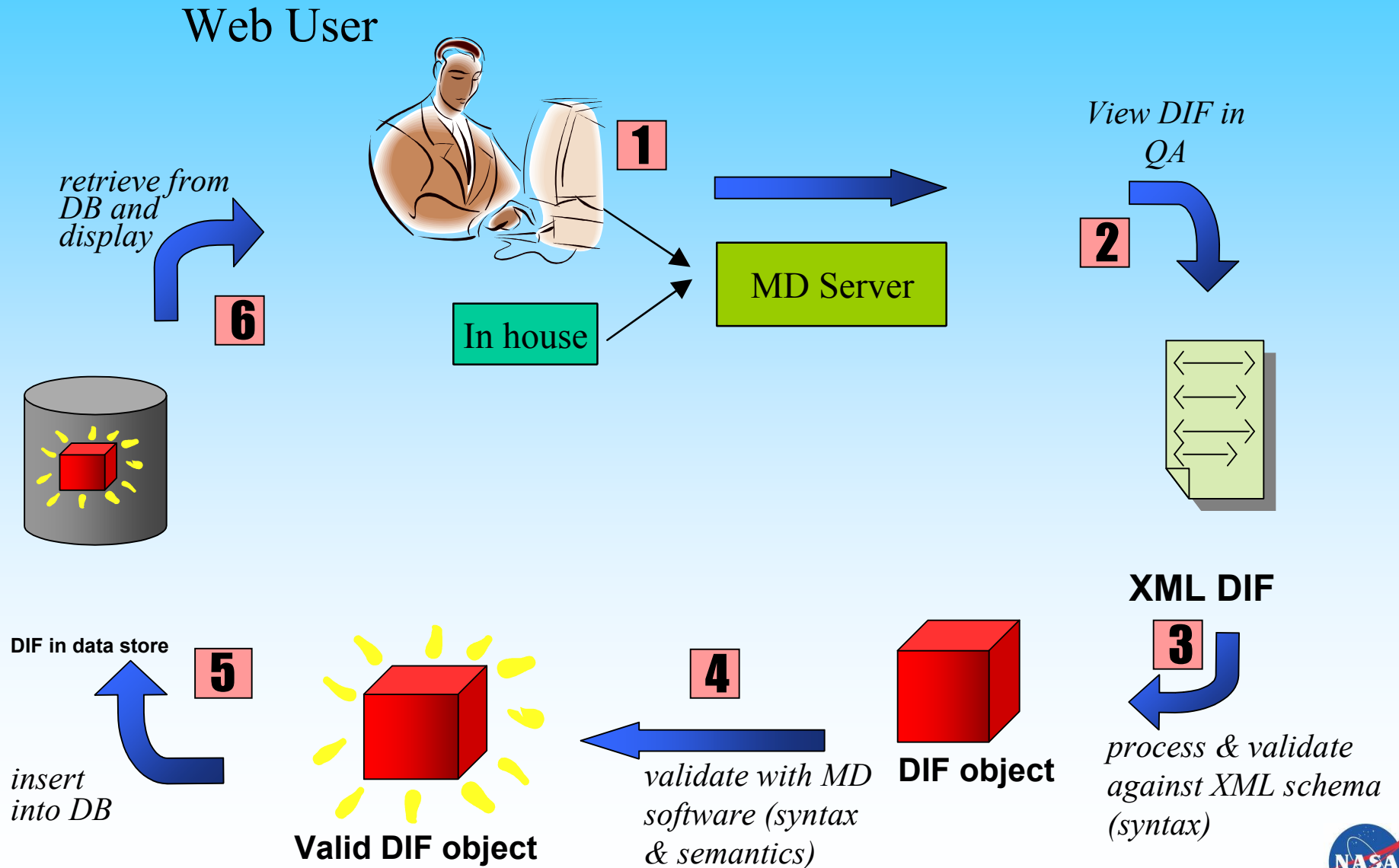
MD9.7

07  
|

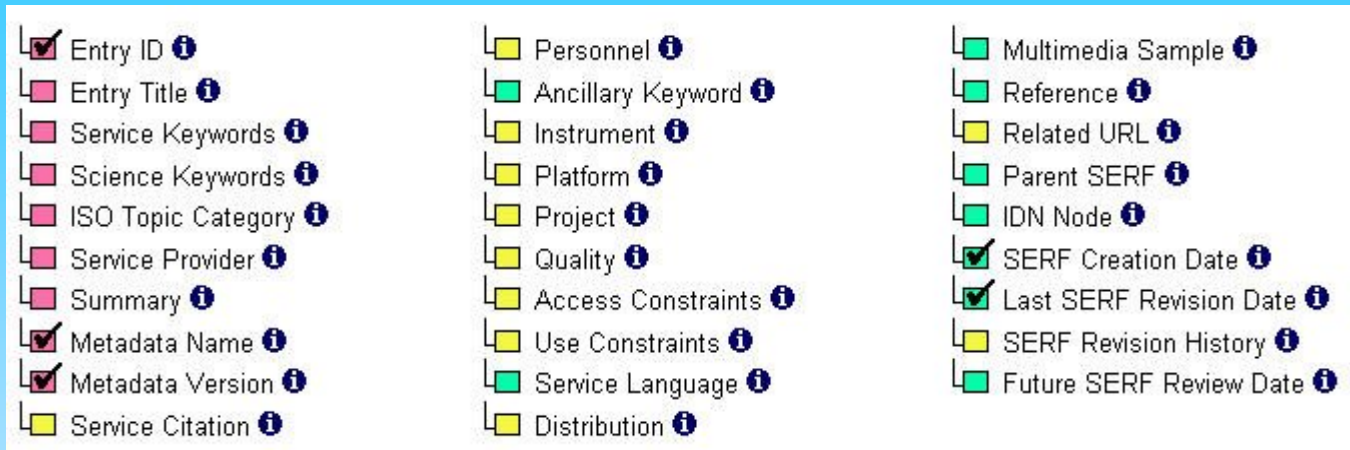
The DIF is evolving through input  
from the user community.



# Life Cycle of the DIF



# What is a SERF?



## SERF (Service Entry Resource Format)

- Describes Earth science related tools, software, and services.
- Provides direct links to analysis, visualization, and processing software; online programs; and geospatial web services.
- Links between services and associated data set descriptions.





# III. Why Use the Standard?

## 1. For Enhanced Data Discovery

- Controlled Science Keywords, Ancillary Keywords  
(Data Centers, Instruments, Projects, Platforms, Locations)
- Keyword Refinements

## 2. For Access to Data

- Related URL > Get Data

## 3. For Metadata Interoperability/Exchange

- FGDC, ISO
- Harvesting

## 4. For Contributions of Content and Wide Usage

## 5. For Metadata Management/Metadata Authoring (docBuilder)

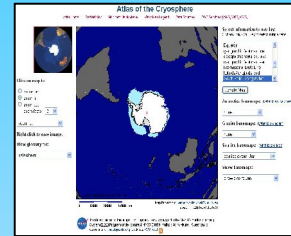
# 1. Data Discovery Through GCMD's Controlled Keyword Sets

- Science Keywords
- Services Keywords
- Locations
- Instruments \*
- Platforms \*
- Spatial/Temporal Data Resolution Range
- URL\_Content Type
- Chronostratigraphic Units
- ISO Topic Category
- Data Set Language
- Data Centers \*
- Personnel \*
- Projects \*
- *\*Authors may create new entries, but software checks for uniqueness & consistency.*
- *Unique Entry\_IDs are also assured.*
- **Required**

## 2. Direct Access to Geospatial Data Through Related URL in Metadata

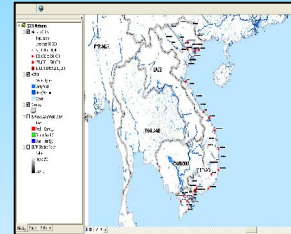
### GET SERVICE > ACCESS MAP VIEWER

Provides access to geo-referenced geospatial data in a web interface.



### GET SERVICE > GET MAP SERVICE

Provides access to maps of geo-referenced geospatial data through a web service. These are non Open Geospatial Consortium (OGC) map services.



### GET SERVICE > GET WEB COVERAGE SERVICE (WCS)

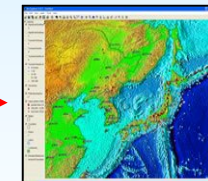
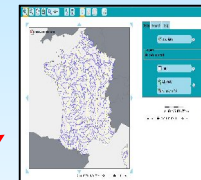
### GET SERVICE > GET WEB FEATURE SERVICE (WFS)

### GET SERVICE > GET WEB MAP SERVICE (WMS)

Refers to Open Geospatial Consortium (OGC) services that provide access to geospatial coverages, features, and spatially referenced information.



XMLWeb Service



Multitudes of OGC Services



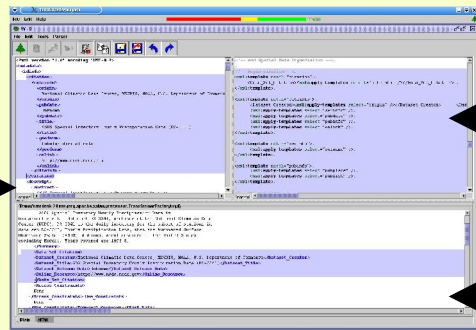
created using  
BCL easyPDF  
Printer Driver

[Click here to purchase a license to remove this image](#)

# 3. Exchange of Metadata using XSLT (eXtensible Stylesheet Language Transformation): FGDC → DIF

## 1. Develop an XSLT Stylesheet based on mapping

Sample FGDC XML document



Edit XSLT Stylesheet

DIF XML

XSLT Editor

## 2. Translate and Format Document

FGDC XML

```
<?xml version="1.0" encoding="UTF-8"?>
<dataset id="CANADA/GOV" dif:entryId="Canada_GoMODP_SVDBS" acronym="SVDBS"
  descriptiveName="NOAA's National Marine Fisheries Service (NMFS) Northeast Fisheries Science Center Bottom Trawl Survey Data, Northwest Atlantic"
  ISO_19115_lang="eng" ISO_19115_charset="" />
<diff>
  <citation>
    <origin>
      <origin>NOAA's National Marine Fisheries Service (NMFS) Northeast Fisheries Science Center</origin>
      <pubdate>20050430</pubdate>
      <publang? />
      <title>Northeast Fisheries Science Center Bottom Trawl Survey Data</title>
      <edition? />
      <copyright? />
    </citation>
    <geoform? />
    <seriesinfo? />
    <contact? />
    <person? />
    <pubinfo?
      <pubplace>Woods Hole, Massachusetts, United States of America</pubplace>
      <publib>NOAA's National Marine Fisheries Service (NMFS) Northeast Fisheries Science Center</publib>
    </pubinfo?>
    <diff:entry? />
    <onlinelink? />
    <onlinelink? />
    <onlinelink? />
    <onlinelink? />
    <onlinelink? />
    </diff:entry?>
  </diff>
  <abstract>This is the Northeast Fisheries Science Center Bottom Trawl Survey data response. The surveys are designed to provide information on the abundance, size and species composition of bottom trawl surveys begun in 1963 and are currently conducted three t
```



Translate using Xalan



Format using HTML Tidy

Formatted DIF XML

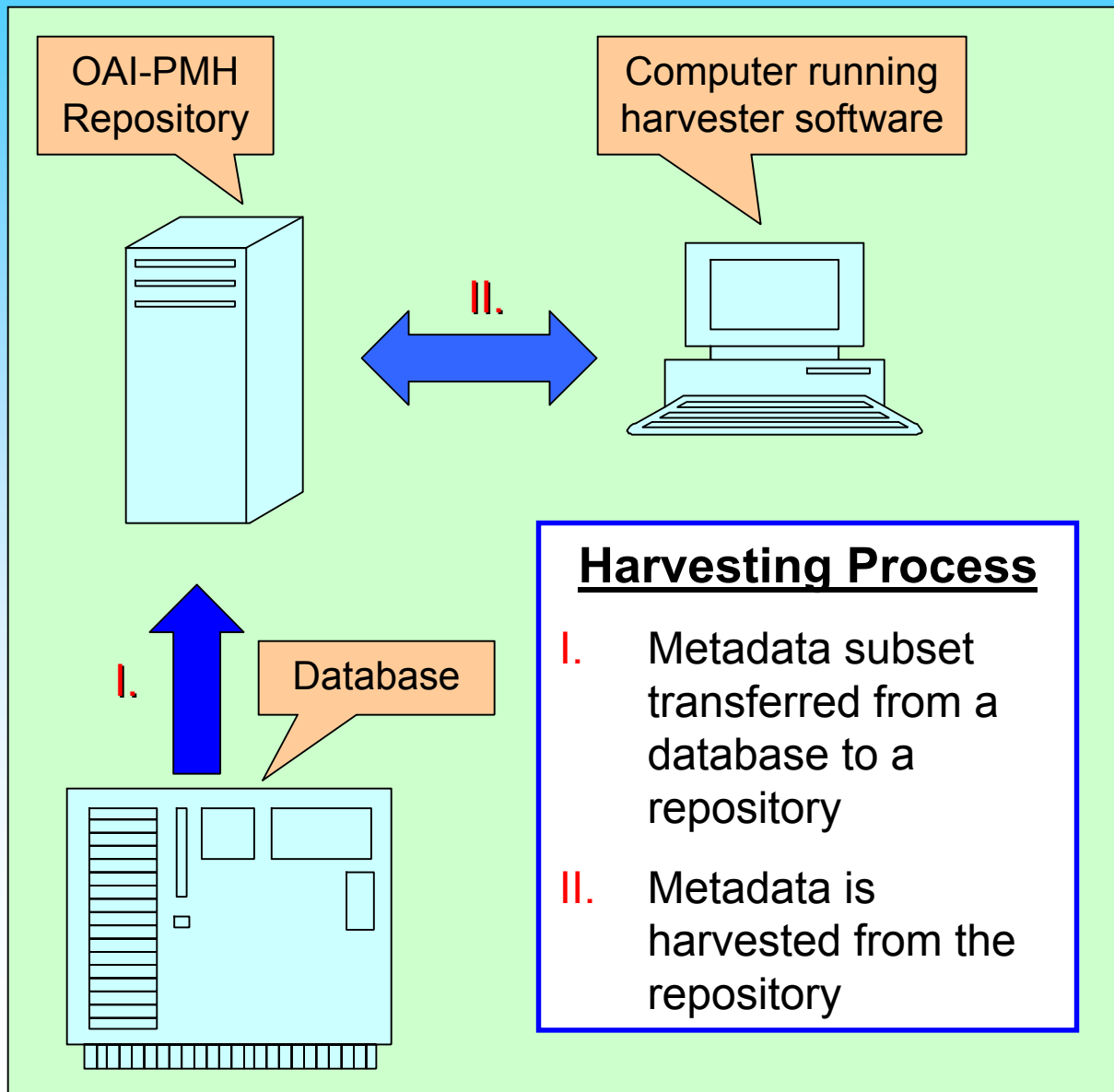
```
<?xml version="1.0" encoding="utf-8"?>
<DIF>
  <Entry_ID>Canada GoMODP_SVDBS</Entry_ID>
  <Entry_Title>Northeast Fisheries Science Center Bottom Trawl Survey Data</Entry_Title>
  <Personnel>
    <Role>DIF Author</Role>
    <First_Name />
    <Last_Name>Patti Jones</Last_Name>
    <First_Name />
    <Last_Name />
    <Email>Patti.Jones@noaa.gov</Email>
    <Phone>+01-508-495-2209</Phone>
    <Fax>+01-508-495-2258</Fax>
    <Contact_Address>
      <Address>166 Water Street</Address>
      <City>Woods Hole</City>
      <Province_or_State>Massachusetts</Province_or_State>
      <Postal_Code>02543</Postal_Code>
      <Country>United States of America</Country>
    </Contact_Address>
  </Personnel>
  <DIF_Creation_Date>20050323</DIF_Creation_Date>
  <Last_DIF_Revision_Date>20050705</Last_DIF_Revision_Date>
```

## 3. Submit to the GCMD

DIF HTML



# OAI-PMH Architecture



## Why OAI-PMH?

- OAI Server independent of main database
- Administrator controls metadata availability
- Queries standardized
- Software is open source
- Metadata Compatibility
  - Dublin Core, FGDC, DIF, ISO-19115
  - XSLT or XML Schema

# Harvest THREDDS Metadata using OAI/PMH

## DLESE OAI/PMH Harvester

## 2. Monitor Harvest Status

OAI harvester administration - Mozilla Firefox

Configure regularly occurring harvests

The following repositories are configured for regular harvesting:

[View the history/status of all regularly occurring harvests](#)

Records from regularly occurring harvests will be saved in directories by baseURL, set and format inside the following directory: /home/sritz/oai\_archive [ [Edit](#) ]

Repository Name	Base URL	Metadata format	Set	Auto harvest Interval	Auto harvest status	Manually harvest...	Edit settings
Burek UCAR Climate Data Portal	<a href="http://oai.cdp.ucar.edu/provider">http://oai.cdp.ucar.edu/provider</a> <a href="#">View harvest history/status</a>	dif		1 day	disabled	<a href="#">NEW</a>   <a href="#">ALL</a>   <a href="#">EDIT</a>   <a href="#">DELETE</a>	
GCMD	<a href="http://gcmd.gsfc.nasa.gov/OAI/PMH/oai.do">http://gcmd.gsfc.nasa.gov/OAI/PMH/oai.do</a> <a href="#">View harvest history/status</a>	dif	NCAR	1 day	disabled	<a href="#">NEW</a>   <a href="#">ALL</a>   <a href="#">EDIT</a>   <a href="#">DELETE</a>	
THREDDS	<a href="http://motherlode.ucar.edu:9080/oai/provider">http://motherlode.ucar.edu:9080/oai/provider</a> <a href="#">View harvest history/status</a>	dif		1 day	disabled	<a href="#">NEW</a>   <a href="#">ALL</a>   <a href="#">EDIT</a>   <a href="#">DELETE</a>	

1. Automatic/Manual Harvest

Perform a one-time harvest

Records from this harvest will be saved in directories by baseURL, set and format inside the following directory: /home/sritz/oai\_archive [ [Edit](#) ]

Click to [view the history/status of all one-time harvests](#)

Data provider base URL:

Metadata format:

Set (optional):

From date (optional):

Until date (optional):

History and status of harvests for http://motherlode.ucar.edu:9080/oai/provider - Mozilla Firefox

History and status of harvests for http://motherlode.ucar.edu:9080/oai/provider

Showing log entries 1 - 3 out of 3

Most recent harvest shown first. New harvests may take a few seconds to appear - [refresh this page to check for changes](#).

THREDDS  
Base URL: http://motherlode.ucar.edu:9080/oai/provider  
This harvest produced zero results. The data provider returned the following OAI code: OAI error noRecordsMatch.  
Message: There are no matching records for request: from 2008-04-12T16:42:43Z, format dif.  
Time harvest began: 5:08:10 PM EDT, Mon Apr 24, 2008  
Time harvest ended: 5:08:16 PM EDT, Mon Apr 24, 2008  
Total number of records harvested: 0  
Resumption tokens issued: 0

THREDDS  
Base URL: http://motherlode.ucar.edu:9080/oai/provider  
This harvest produced zero results. The data provider returned the following OAI code: OAI error noRecordsMatch.  
Message: There are no matching records for request: from 2008-04-12T16:42:43Z, format dif.  
Time harvest began: 12:19:57 PM EDT, Fri Apr 14, 2008  
Time harvest ended: 12:14:04 PM EDT, Fri Apr 14, 2008  
Total number of records harvested: 0  
Resumption tokens issued: 0

THREDDS  
Base URL: http://motherlode.ucar.edu:9080/oai/provider  
This harvest completed successfully.  
Time harvest began: 12:42:49 PM EDT, Wed Apr 12, 2008  
Time harvest ended: 12:42:48 PM EDT, Wed Apr 12, 2008  
Total number of records harvested: 28  
Resumption tokens issued: 0  
Records were saved to: /home/sritz/oai\_archive/motherlode.ucar.edu:9080/oai/provider

Results: 1 - 3 out of 3

## 3. Upload XML to the GCMD

Linux Console - Konsole <2>

```
oai%3Athredds.unidata.ucar.edu%3ANCEP-GFS-Global_onedeg.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-GFS-Hawaii_160km.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-GFS-N_Hemisphere_381km.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-GFS-Puerto_Rico_191km.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-Alaska_11km.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-Alaska_22km.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-Alaska_45km-conduit.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-Alaska_45km-noairport.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-Alaska_95km.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-CONUS_12km.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-CONUS_20km-noairport.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-CONUS_20km-selectsurface.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-CONUS_20km-surface.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-CONUS_40km-conduit.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-CONUS_40km-noairport.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-CONUS_80km.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NAM-Polar_90km.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-NDFD-CONUS_5km.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-RUC-CONUS_40km.dif.xml
oai%3Athredds.unidata.ucar.edu%3ANCEP-RUC-CONUS_80km.dif.xml
bash-3.00$
```

# Harvest THREDDS Metadata using OAI/PMH

## 4. View harvested metadata in the GCMD

### Titles Display

The screenshot shows the GCMD website interface. The search results list includes:

- 1. [NCEP-NAM-CONUS\\_40km-rosaoparl](#) [edu.ucar.unidata.fmc.NCEP-NAM-CONUS\_40km-rosaoparl]  
Model runs made at 12Z and 00Z have analysis and forecasts every 3 hours out to 80 hours; runs at 06Z and 18Z, every 3 hours out to 48 hours.
- 2. [NCEP-DGEX-CONUS\\_12km](#) [edu.ucar.unidata.fmc.NCEP-DGEX-CONUS\_12km]  
NCEP Model output Grid 185 (C) horizontal = 491 by 303 points, resolution 12 km, LambertConformal projection. Model runs are made at 6 and 18Z, with forecasts starting at 94 hours, ...
- 3. [NCEP-GFS-Alaska\\_191km](#) [edu.ucar.unidata.fmc.NCEP-GFS-Alaska\_191km]  
NCEP GFS Model : AWIPS 303 (J) Grid, National - Alaska (polar stereographic). Model runs are made at 0, 6, 12, and 18Z, with analysis and forecasts every 6 hours out 5-days. Horizontal...
- 4. [NCEP-GFS-CONUS\\_191km](#) [edu.ucar.unidata.fmc.NCEP-GFS-CONUS\_191km]  
NCEP GFS Model : AWIPS 302 (I) Grid, National - CONUS (polar stereographic). Model runs are made at 0, 6, 12, and 18Z, with analysis and forecasts every 6 hours out 5-days. Horizontal...
- 5. [NCEP-GFS-CONUS\\_80km](#) [edu.ucar.unidata.fmc.NCEP-GFS-CONUS\_80km]  
NCEP GFS Model : AWIPS 211 (C) Grid, Regional - CONUS (Lambert Conformal). Model runs are made at 0, 6, 12, and 18Z, with analysis and forecasts every 6 hours out 15-hours. Horizontal...

### DIF Display

The screenshot shows the detailed metadata page for 'NCEP-DGEX-CONUS\_12km'. The entry ID is 'edu.ucar.unidata.fmc.NCEP-DGEX-CONUS\_12km'. The subtype is 'THREDDS CATALOG'. The link is 'http://motherlode.ucar.edu:8080/threddscatalog/fmc/NCEP/DGEX/CONU...'. The subtype is 'THREDDS DIRECTORY'. The link is 'http://motherlode.ucar.edu:8080/threddscatalog/fmc/NCEP/DGEX/CONU...'. There are links for 'View Brief Record', 'View Full Record', and 'Update this Record'. There are also links for 'View PDDC Format' and 'View Text Only Format'.

## 5. Access data through THREDDS

The screenshot shows the THREDDS Data Server interface. The catalog lists datasets with columns for 'Dataset', 'Size', and 'Last Modified'. The datasets listed are:

- NCEP-DGEX-CONUS\_12km
- Forecast Model Run Collection (3D time coordinates)
- Best Time Series
- Forecast Model Run/
- Constant Forecast Offset/
- Constant Forecast Date/
- File\_Access/

At the bottom, it says 'THREDDS Data Server Version 3.16.02 Build Date = 2007-05-21 23:19:10 Documentation'.



# DIF and ISO 19115 Core Metadata

## Required Fields:

**Entry ID**

**Entry Title**

Science Keywords

**\*ISO Topic Category**

**Data Center**

**Summary**

**\*Metadata Name**

**\*Metadata Version**

*\*Fields added for  
ISO19115 compliance*

*\*Mandatory ISO fields*

*\*Mandatory under  
certain conditions or  
optional ISO fields*

## Recommended Fields:

### **Data Set Citation**

**-Dataset Title**

**-Dataset Release Date**

### **Personnel (DIF Author)**

Instrument

Platform

### **Temporal Coverage**

### **Spatial Coverage**

Location

### **Data Resolution**

Project

### **Quality**

Access Constraints

Use Constraints

### **Distribution**

Related URL

DIF Revision History

## Optional Fields:

Keyword

Paleo-Temporal Coverage

Data Set Progress

### **Data Set Language**

Originating Center

Multimedia Sample

Reference

Parent DIF

IDN Node

### **DIF Creation Date**

Last DIF Revision Date

Future DIF Review Date



# DIF and FGDC CSDGM Metadata

## Required Fields:

Entry ID

**Entry Title**

**Science Keywords**

ISO Topic Category

**Data Center**

**Summary**

**Metadata Name**

**Metadata Version**

*\*Mandatory FGDC fields*

*\*Mandatory under  
certain conditions or  
optional FGDC fields*

## Recommended Fields:

**Data Set Citation**

**Personnel (DIF Author)**

Instrument

Platform

**Temporal Coverage**

**Spatial Coverage**

**Location**

**Data Resolution**

Project

**Quality**

**Access Constraints**

**Use Constraints**

**Distribution**

**Related URL**

DIF Revision History

## Optional Fields:

**Keyword**

Paleo-Temporal Coverage

**Data Set Progress**

Data Set Language

**Originating Center**

**Multimedia Sample**

**Reference**

Parent DIF

IDN Node

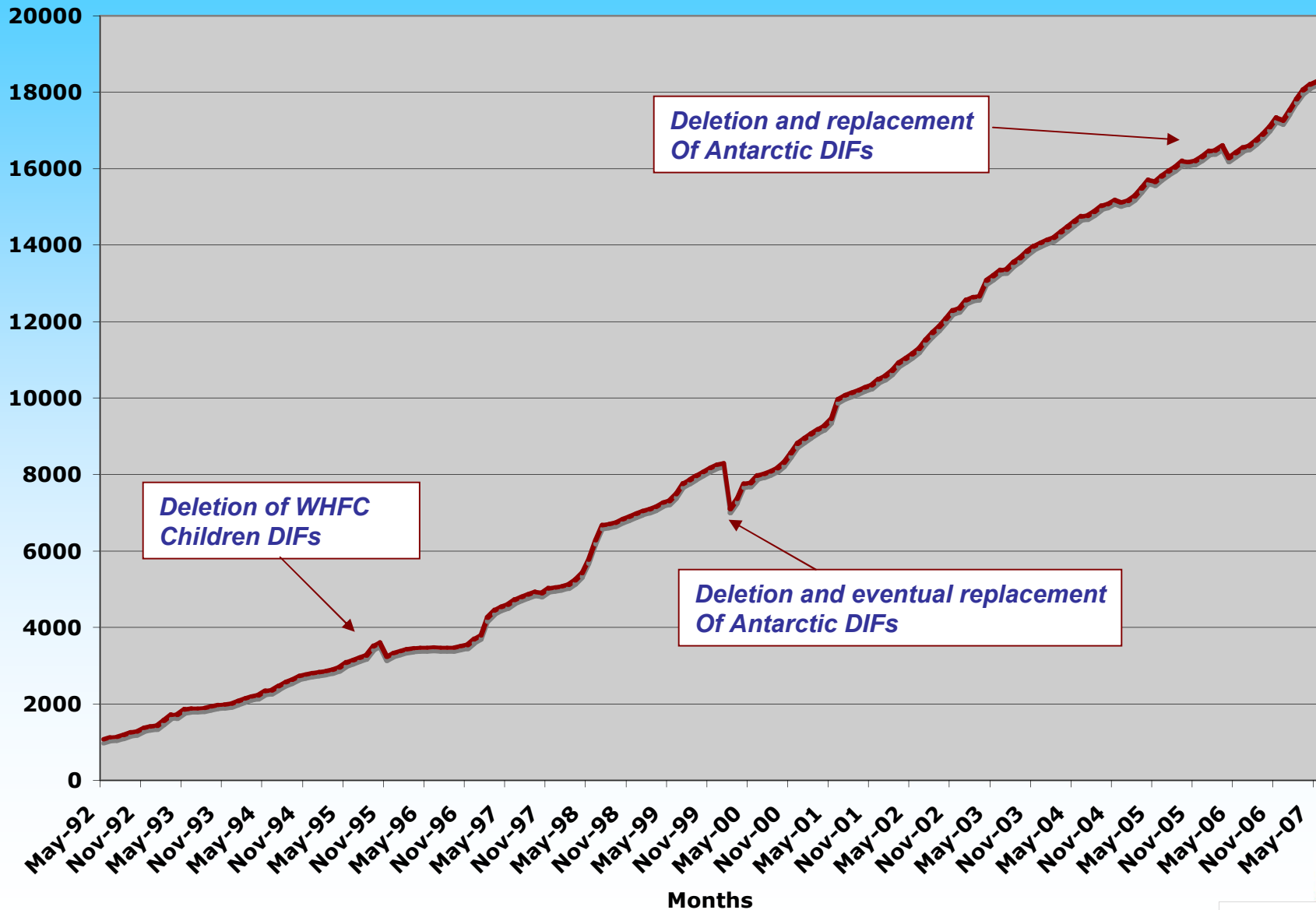
**DIF Creation Date**

**Last DIF Revision Date**

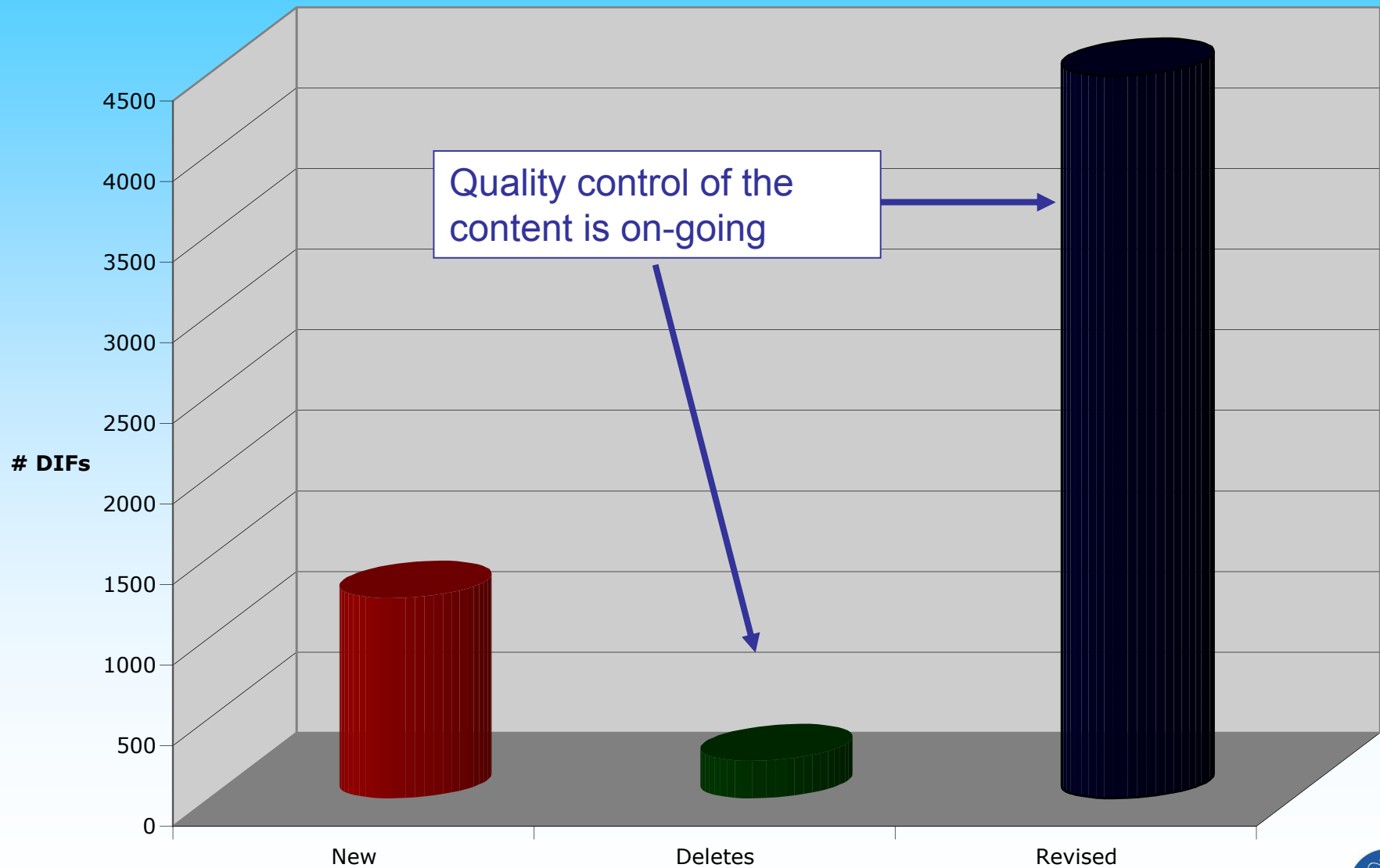
**Future DIF Review Date**



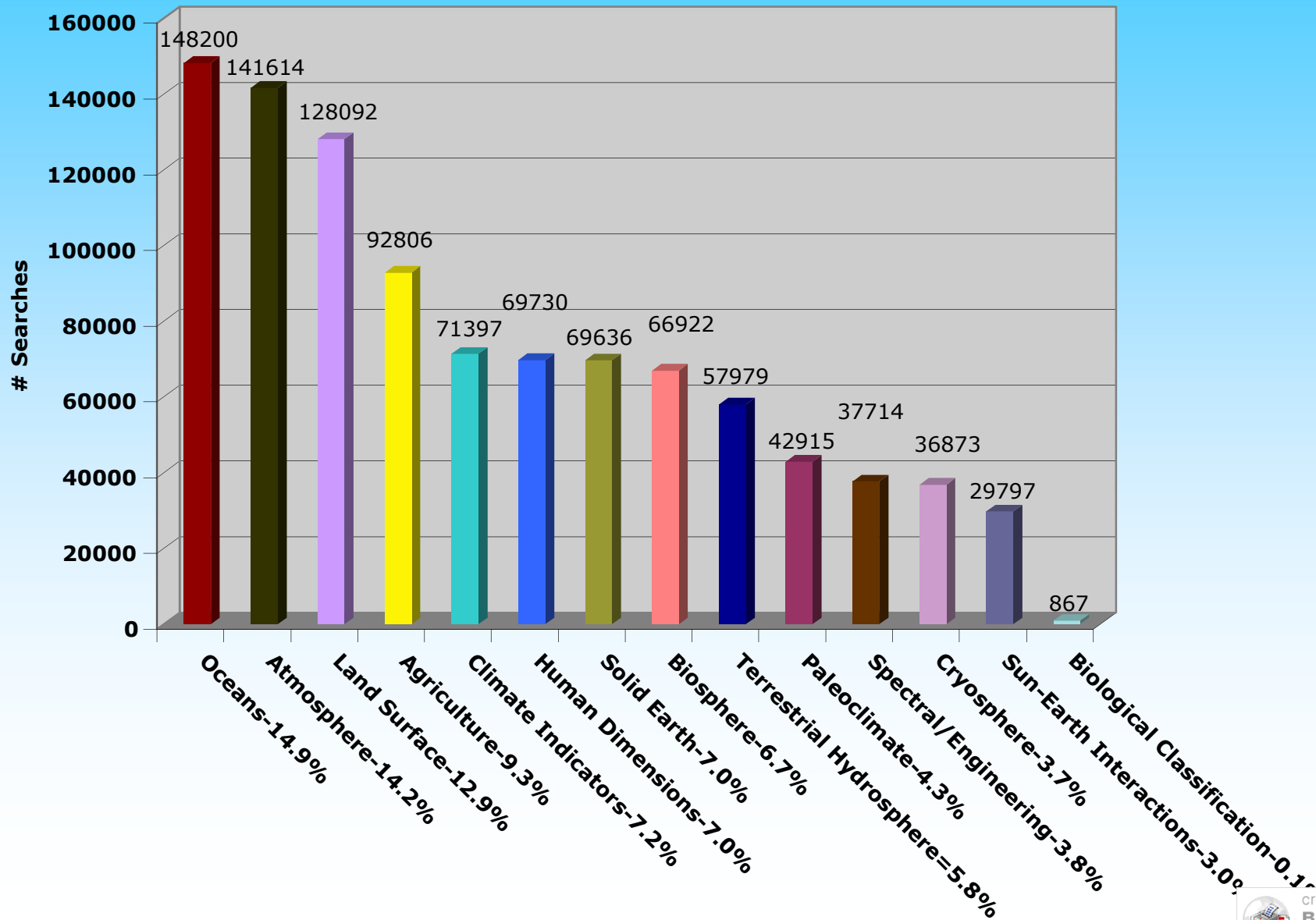
# 4. DIF Population Growth



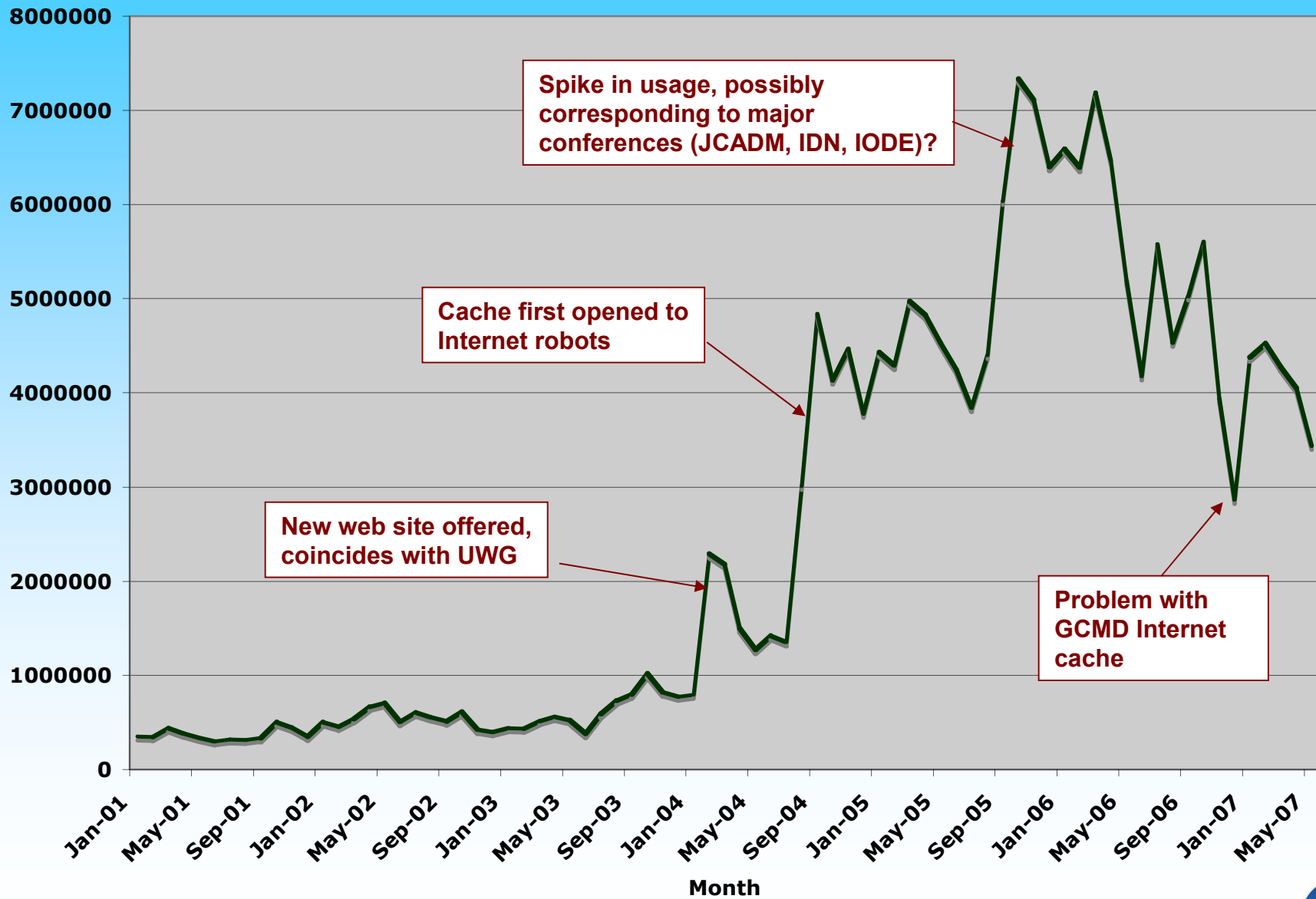
# New, Deleted, and Revised DIF's



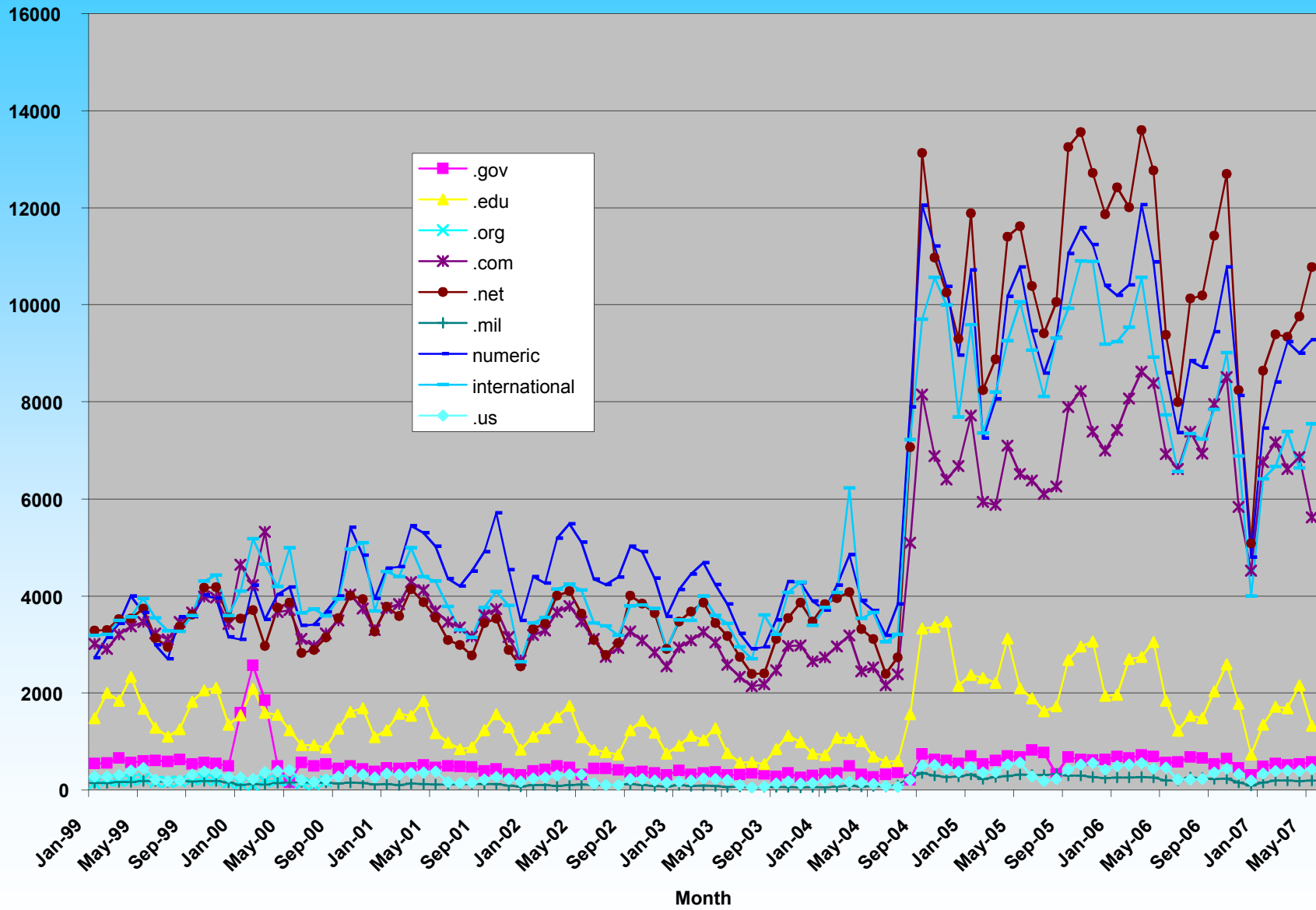
# Searches by Controlled Keyword



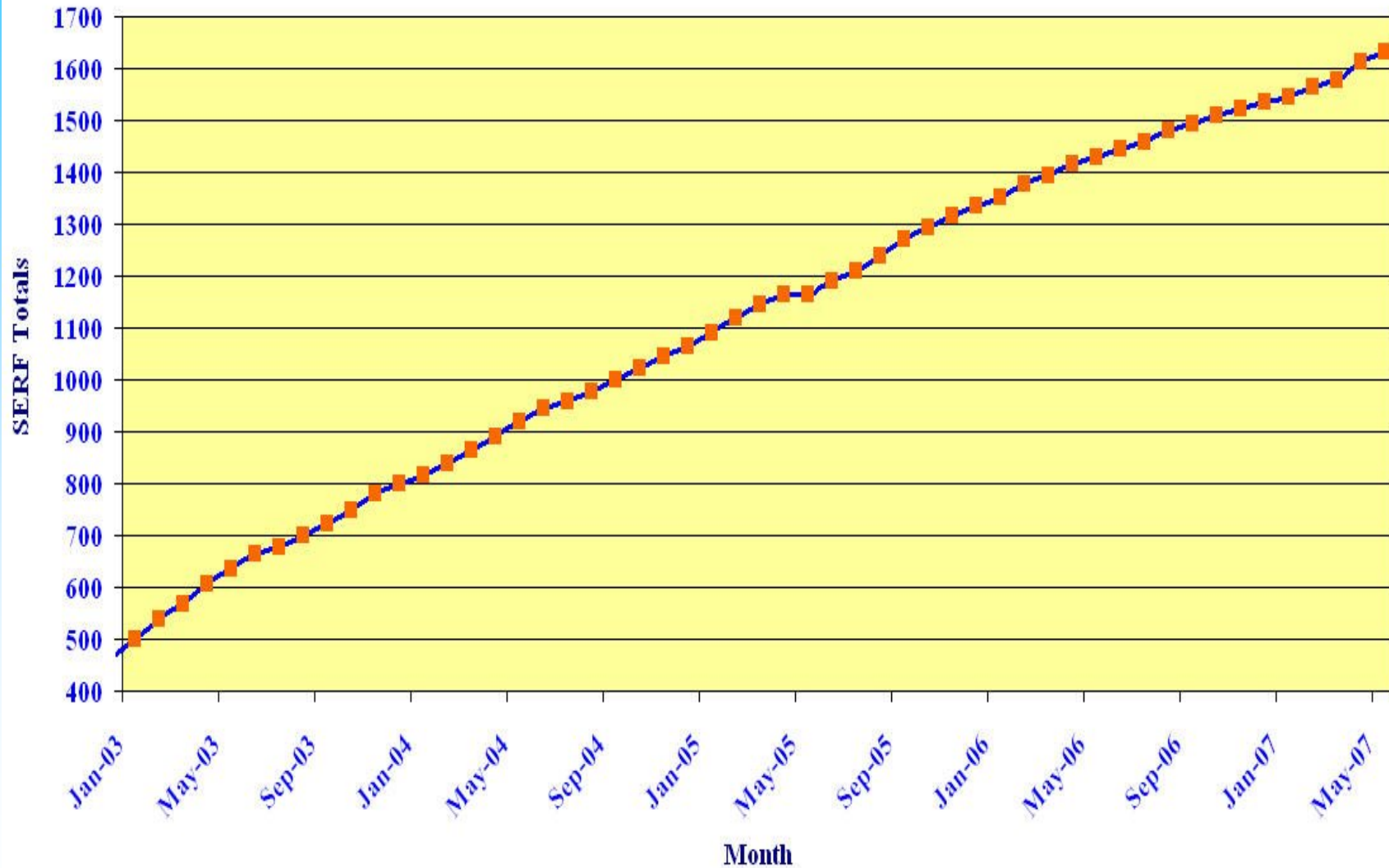
# Web Page Hits



# Total Unique Users

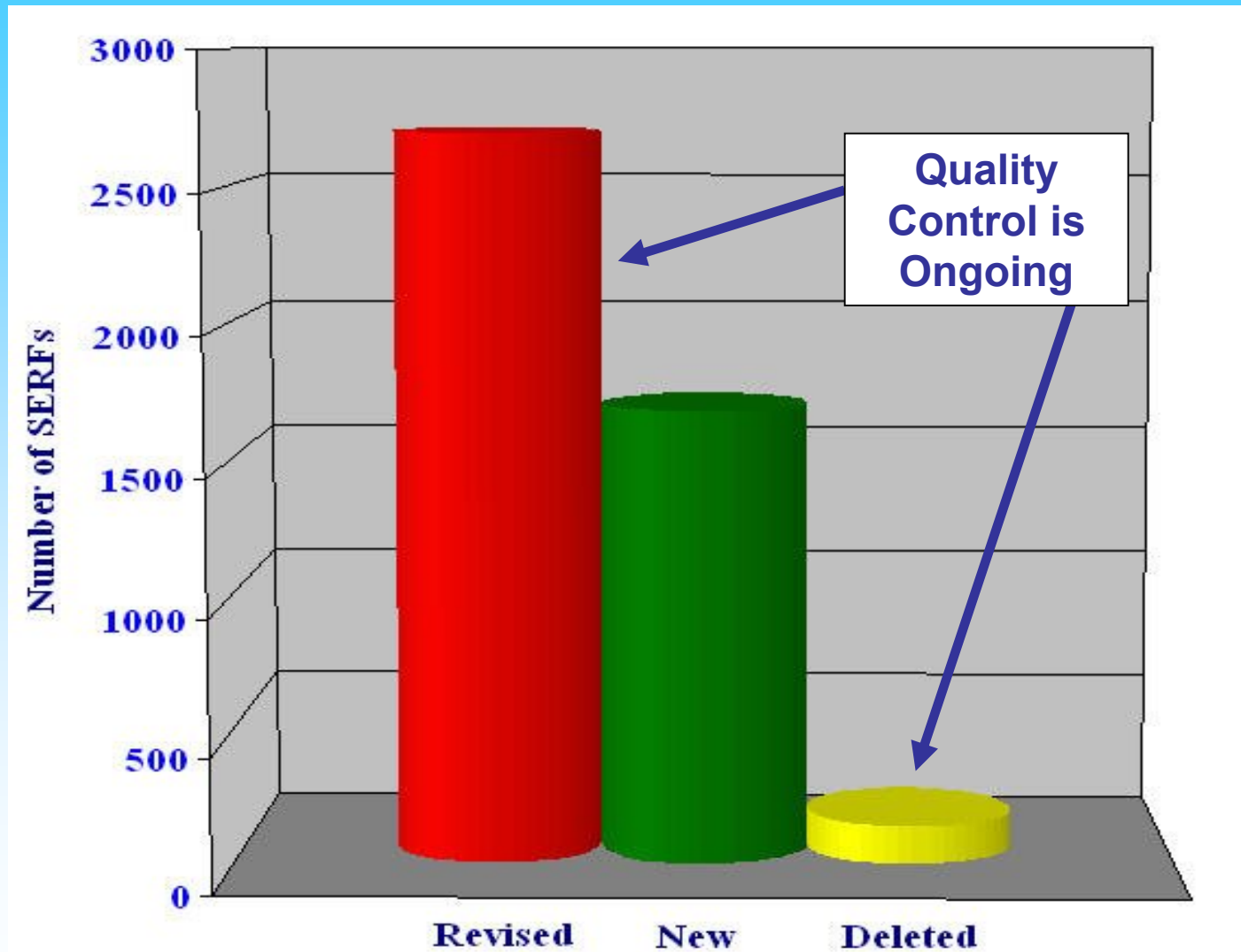


# SERF Population Growth

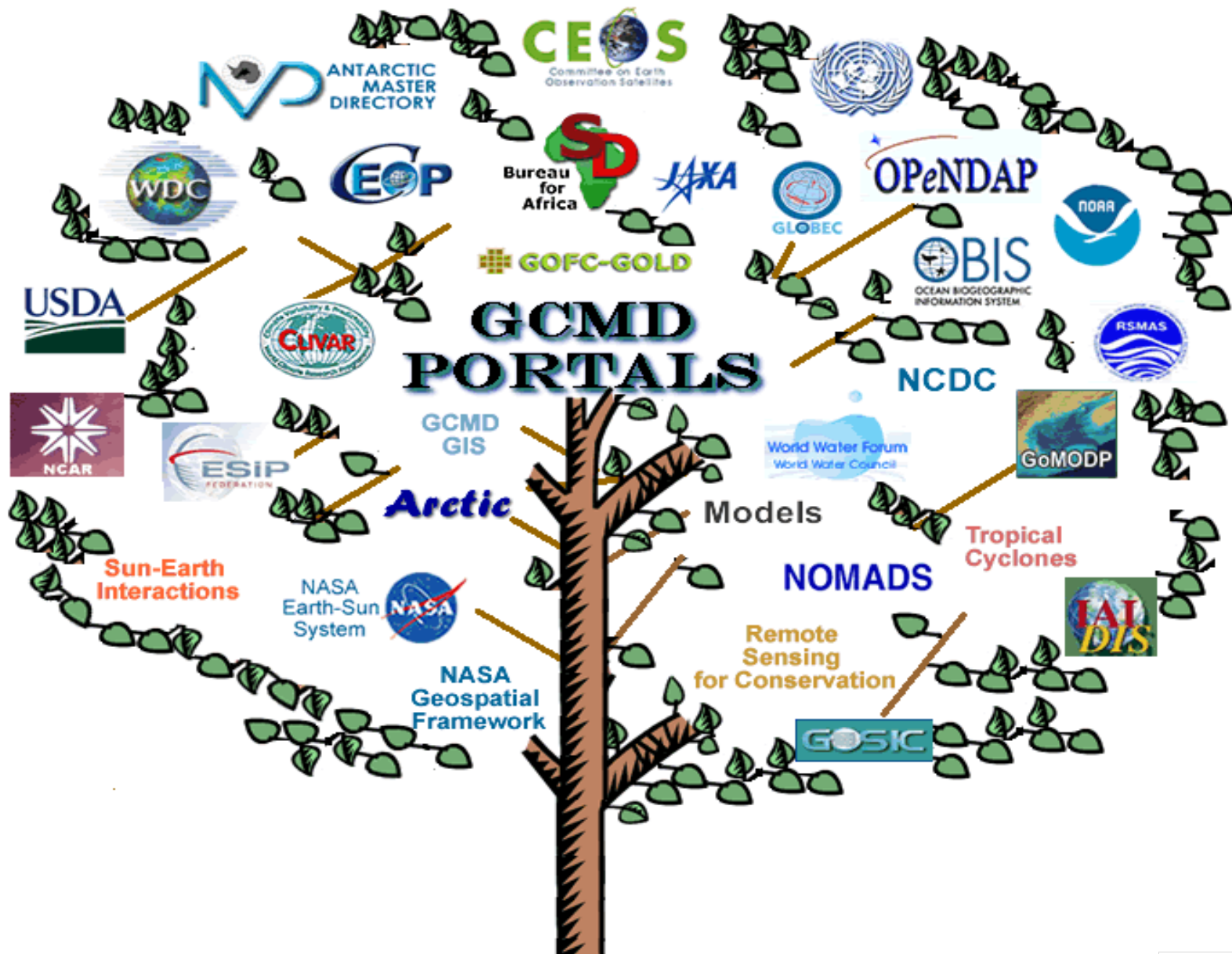




# Revised, New and Deleted SERF's



# User Community/Collaborations



# NASA User Community



Refine by Category:

Refine by Full text:

59 Titles Match Your Query

Showing 1 through 50 of 59 ▶

1. [NASA/GSFC Climate and Radiation Branch GOES-8 and GOES-10, and Ozone Data \[NASA\\_GSFC\\_CRB\]](#)  
a false-color RGB composite out of the 3 channels during **hurricane** Hugo, to indicate cloud heights
2. [Convection And Moisture Experiment 3 \(CAMEX-3\) GOES-8 Products \[cmx3g8\]](#)  
of **hurricane** structure, dynamics, and motion. These data, when analyzed within the context... insight to **hurricane** modelers and forecasters who continually strive to improve **hurricane**
3. [Lidar Atmospheric Sensing Experiment \(LASE\) \[LASE\\_VALIDATION\]](#)  
measurements of **Hurricane** Luis, a coastal sea breeze development, a strong cold front, an upper
4. [Precision Elevation Surveys of U.S. Coasts and Beaches Using NASA's Airborne Topographic Mapper \(ATM\) \[NASA\\_WFF\\_OSB\\_ATM\\_BEACH\]](#)  
shoreline made following the passage of **Hurricane** Bonnie in August 1998 is being compared
5. [Natural Disaster Reference Database \(NDRD\) at NASA Goddard Space Flight Center \[NDRD\\_NASA\]](#)  
The objective of the Natural Disaster Reference Database (NDRD) is to assemble and make available a bibliographic database on research, programs, and results which relate to the ...
6. [Lidar Atmospheric Sensing Experiment\(LASE\) Data Obtained During the Convection And Moisture Experiment \(CAMEX-3\) \[LASE\\_CAMEX3\]](#)  
1998. CAMEX-3 successfully studied **Hurricanes** Bonnie, Danielle, Earl and Georges. CAMEX-3... The CAMEX-3 study yields high spatial and temporal information of **hurricane** structure,
7. [CAMEX-3 AMPR Brightness Temperature \(TB\) \[amprtbx3\]](#)  
September 1999. The CAMEX-3 mission was to study **hurricanes** over land and ocean
8. [NASA Visualization of Remote Sensing Data Catalog \[GSFC\\_RSD\\_HURRIC\\_IMAGES\]](#)  
visualizations of major **Hurricanes** and Storms around the world on-line. Several of these images... the cover of National Geographic Magazine featured a **Hurricane** Linda image

A Global Change Master Directory Portal: **NASA Data Sets**

Find Data Sets by Topic:

- Agriculture**  
soils, agricultural plant science...
- Atmosphere**  
atmospheric temperature, atmospheric winds...
- Biological Classification**  
animals/invertebrates, plants...
- Biosphere**  
ecological dynamics, aquatic ecosystems...
- Climate Indicators**  
teleconnections, drought/precipitation indices...
- Cryosphere**  
snow/ice, sea ice...
- Human Dimensions**  
environmental impacts, boundaries...
- Land Surface**  
soils, topography...
- Oceans**  
ocean temperature, ocean chemistry ...
- Paleoclimate**  
ocean/lake records, land records ...
- Solid Earth**  
rocks/minerals, geodetics/gravity ...
- Spectral/Engineering**  
visible wavelengths, infrared wavelengths ...
- Sun-Earth Interactions**  
solar activity, ionosphere/magnetosphere dynamics ...
- Terrestrial Hydrosphere**  
surface water, snow/ice ...

Data Set Text Search:    
[Map/Date Search](#)  
[Search tips](#)

**GCMD** [Search the entire GCMD database](#)  
Clicking the link above will transfer you out of the portal you are viewing.

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Responsible NASA Official: Lola Olsen · Editor: Gene Major  
Webmaster: Monica Holland · Contact GCMD User Support for assistance

3118 DIFs

# ESIP User Community

## Portals Provide Customized Interface and docBUILDER Tools

**Find Data Sets by Topic:**

- Agriculture**: soils, agricultural plant science...
- Oceans**: ocean temperature, ocean chemistry...
- Atmosphere**: atmospheric temperature, atmospheric winds...
- Paleoclimate**: ocean lake records, land records...
- Biological Classification**: animals vertebrates, animals invertebrates...
- Solid Earth**: rocks minerals, geologies gravity...
- Biosphere**: ecological dynamics, aquatic ecosystems...
- Spectral Engineering**: visible wavelengths, infrared wavelengths...
- Climate Indicators**: teleconnections, drought precipitation indices...
- Sun-Earth Interactions**: solar activity, ionosphere magnetosphere dynamics...
- Cryosphere**: snowice, sea ice...
- Terrestrial Hydrosphere**: surface water, water quality water chemistry...
- Human Dimensions**: environmental impacts, boundaries...
- Data Centers - Locations - Instruments - Platforms/Sources - Projects**
- Land Surface**: soils, topography...

GCMD Search the entire GCMD database  
Clicking the link above will transfer you out of the portal you are viewing.

4935 DIF's

**Find Data Services by Topic:**

- Data Analysis And Visualization**: visualization image processing, geographic information systems...
- Metadata Handling**: data discovery, authoring tools...
- Data Management Data Handling**: data search and retrieval, data delivery...
- Models**: component process models, atmospheric chemistry models...
- Education Outreach**: curriculum support, interactive programs...
- Reference And Information Services**: knowledge decision systems, identification classification systems...
- Environmental Advisories**: weather climate advisories, hydrological advisories...
- Service Providers - Science Parameters - Instruments - Platforms/Sources - Projects**
- Hazards Management**: hazards planning, hazards mitigation...

409 SERF's

**docBUILDER**

Add (or modify) descriptions of data sets, data services and more.  
Please provide the following information:

Document Type:

Use a Template?:

Document Status:

Document Identifier:

# IPY User Community

Find IPY  
DIFs in



**INTERNATIONAL 2007-2008 POLAR YEAR**  
A Global Change Master Directory Portal for the International Polar Year (IPY)

HOME MAP/DATE SEARCH DATA SERVICES AUTHORIZING TOOLS IPY PROJECTS LINKS

**Find Data Sets by Topic:**

 <a href="#">Agriculture</a> soils, forest science ...	 <a href="#">Oceans</a> ocean temperature, ocean chemistry ...
 <a href="#">Atmosphere</a> atmospheric temperature, atmospheric winds ...	 <a href="#">Paleoclimate</a> ocean/lake records, land records ...
 <a href="#">Biological Classification</a> animals/vertebrates, animals/invertebrates ...	 <a href="#">Solid Earth</a> rocks/minerals, geodetics/gravity ...
 <a href="#">Biosphere</a> ecological dynamics, aquatic ecosystems ...	 <a href="#">Spectral/Engineering</a> visible wavelengths, infrared wavelengths ...
 <a href="#">Climate Indicators</a> teleconnections, drought/precipitation indices ...	 <a href="#">Sun-Earth Interactions</a> solar activity, ionosphere/magnetosphere dynamics ...

Data Set Text Search  
   
[Map/Date Search](#)  
[Search tips](#)

- About Portals
- GCMD Portal Listings
- IPY Data Services Portal
- Add to IPY Data Portal
- View Writer's Guide
- IPY Data Sets
- International Polar Year Website
- Questions?

**INTERNATIONAL 2007-2008 POLAR YEAR**  
A Global Change Master Directory Portal for the International Polar Year (IPY)

HOME MAP/DATE SEARCH DATA SERVICES AUTHORIZING TOOLS IPY PROJECTS LINKS

[International Polar Year \(IPY\) 2007-2008](#)  
[IPY in Google Earth](#)  
[IPY Data and Information Service \(IPYDIS\)](#)

**IPY 2007-2008 Links for Participating Countries**



- [Australia IPY 2007-2008](#)
- [Belgium IPY 2007-2008](#)
- [Canada IPY 2007-2008](#)
- [Denmark IPY 2007-2008](#)
- [Eurasian Arctic Sub-office \(EASO\) IPY 2007-2008](#)
- [European Portal for IPY 2007-2008](#)
- [Finland IPY 2007-2008](#)
- [France IPY 2007-2008](#)
- [Germany IPY 2007-2008](#)
- [Greenland IPY 2007-2008](#)
- [Netherlands IPY 2007-2008](#)
- [Norway IPY 2007-2008](#)
- [Sweden IPY 2007-2008](#)
- [U.S. IPY 2007-2008 \(National Science Foundation\)](#)
- [U.S. IPY 2007-2008 \(National Academy of Sciences\)](#)
- [U.S. NASA and the International Polar Year](#)
- [U.S. NOAA and the International Polar Year](#)
- [U.S. National Snow and Ice Data Center and IPY](#)
- [U.S. USGS and the International Polar Year](#)
- [U.S. Smithsonian at the Poles](#)
- [U.S. International Polar Year Alaska](#)
- [U.S. National Science Foundation \(NSF\)](#)

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**INTERNATIONAL 2007-2008 POLAR YEAR**  
A Global Change Master Directory Data Services Portal for the International Polar Year (IPY)

HOME MAP/DATE SEARCH DATA SERVICES AUTHORIZING TOOLS IPY PROJECTS LINKS

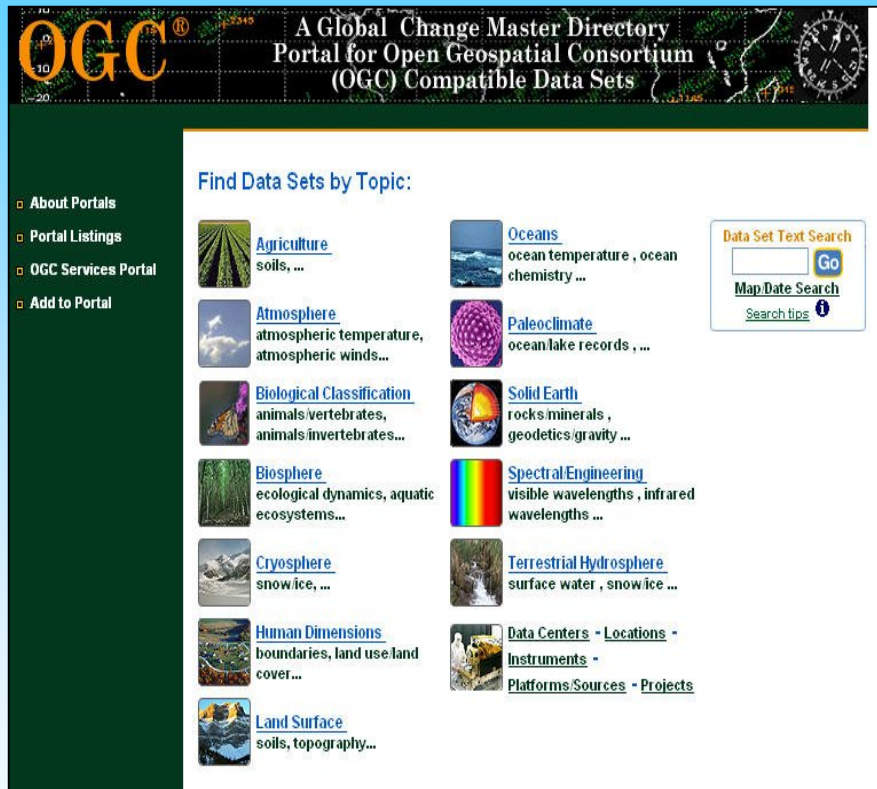
**Find Data Services by Topic:**

 <a href="#">Data Analysis And Visualization</a> geographic information systems, ...	 <a href="#">Education/Outreach</a> interactive programs, ...
 <a href="#">Data Management/Data Handling</a> data search and retrieval, data delivery ...	 <a href="#">Service Providers - Scientific Parameters - Instrument Platforms/Sources - Products</a>

- About Portals
- GCMD Portal Listings
- IPY Data Portal
- Add to IPY Data Services Portal
- View Writer's Guide
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- Questions?

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Webmaster: Monica Holland · Contact GCMD User Support for assistance













# Geospatial User Community



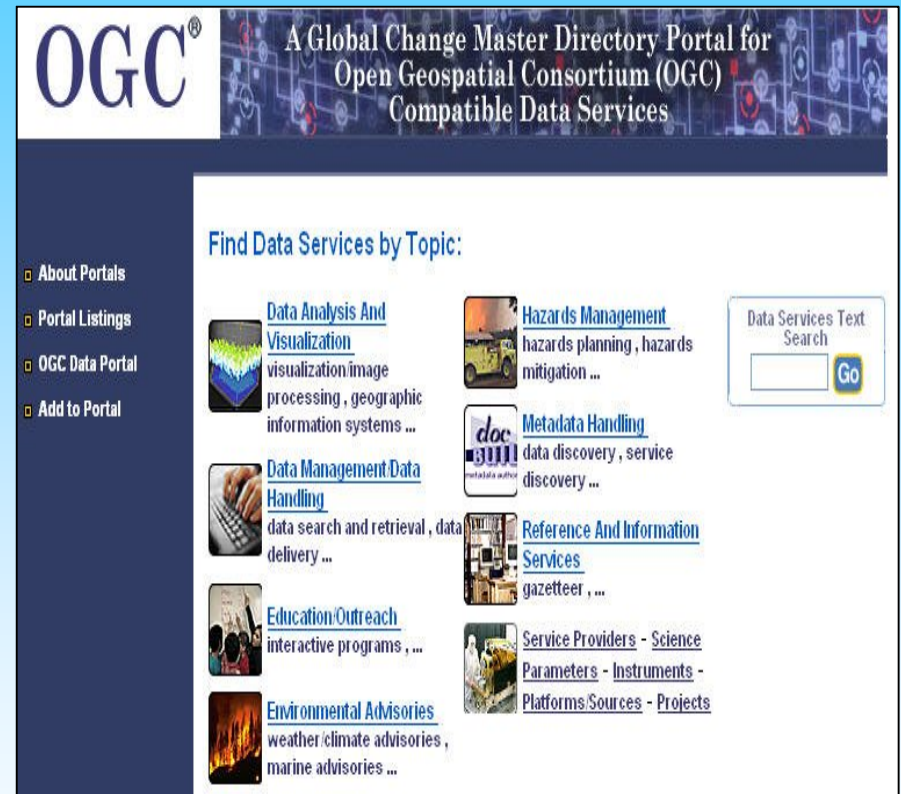
**OGC®** A Global Change Master Directory Portal for Open Geospatial Consortium (OGC) Compatible Data Sets

- About Portals
- Portal Listings
- OGC Services Portal
- Add to Portal

**Find Data Sets by Topic:**

 <a href="#">Agriculture</a> soils, ...	 <a href="#">Oceans</a> ocean temperature, ocean chemistry ...	<p>Data Set Text Search</p> <input type="text"/> <input type="button" value="Go"/> <p>Map/Date Search</p> <p><a href="#">Search tips</a> </p>
 <a href="#">Atmosphere</a> atmospheric temperature, atmospheric winds...	 <a href="#">Paleoclimate</a> ocean/lake records, ...	
 <a href="#">Biological Classification</a> animals/vertebrates, animals/invertebrates...	 <a href="#">Solid Earth</a> rocks/minerals, geodetics/gravity ...	
 <a href="#">Biosphere</a> ecological dynamics, aquatic ecosystems...	 <a href="#">Spectral Engineering</a> visible wavelengths, infrared wavelengths ...	
 <a href="#">Cryosphere</a> snow/ice, ...	 <a href="#">Terrestrial Hydrosphere</a> surface water, snow/ice ...	
 <a href="#">Human Dimensions</a> boundaries, land use/land cover...	 <a href="#">Data Centers - Locations - Instruments - Platforms/Sources - Projects</a>	









[Land Surface](#)  
soils, topography...



**OGC®** A Global Change Master Directory Portal for Open Geospatial Consortium (OGC) Compatible Data Services

- About Portals
- Portal Listings
- OGC Data Portal
- Add to Portal

**Find Data Services by Topic:**

 <a href="#">Data Analysis And Visualization</a> visualization/image processing, geographic information systems ...	 <a href="#">Hazards Management</a> hazards planning, hazards mitigation ...	<p>Data Services Text Search</p> <input type="text"/> <input type="button" value="Go"/>
 <a href="#">Data Management/Data Handling</a> data search and retrieval, data delivery ...	 <a href="#">Metadata Handling</a> data discovery, service discovery ...	
 <a href="#">Education/Outreach</a> interactive programs, ...	 <a href="#">Reference And Information Services</a> gazetteer, ...	
 <a href="#">Environmental Advisories</a> weather/climate advisories, marine advisories ...	 <a href="#">Service Providers - Science Parameters - Instruments - Platforms/Sources - Projects</a>	

# 5. Metadata Management Tools

Master Directory OPS Interface (connected to gcmd4.gsfc.nasa.gov)

File Function Preferences Help

Loader

Document Type: SERF

XML Load File: /H:/OPS/OPS/logs/G3--ParmWtAvg.xml

Need to convert file to XML?

Skip previously loaded documents

force personnel  force valids

Status Message

Document passed.

Incoming Queue

Select from the 11872 items below Filter by: DIF All

OID	Sender	Node	Type	Identifier	Operation	Coord	Time In	Time Committed	QA Status	Item Stat...
75634	ritz@gcm...	GCMD	DIF	PSC_ERIE...	Insert	SR	2007-07-06:09...	2007-07-06:10...	Accepted	Committ...
75635	ritz@gcm...	GCMD	DIF	PSC_REGO...	Insert	SR	2007-07-06:09...	2007-07-06:10...	Accepted	Committ...
75636	ritz@gcm...	GCMD	DIF	PSC_REGO...	Insert	SR	2007-07-06:10...	2007-07-06:10...	Accepted	Committ...
75637	ritz@gcm...	GCMD	DIF	PSC_REGO...	Insert	SR	2007-07-06:10...	2007-07-06:10...	Accepted	Committ...
75638	ritz@gcm...	GCMD	DIF	PSC_REGO...	Insert	SR	2007-07-06:10...	2007-07-06:10...	Accepted	Committ...
75640	ritz@gcm...	GCMD	DIF	PSC_REGO...	Insert	SR	2007-07-06:10...	2007-07-06:10...	Rejected	Validated
75641	ritz@gcm...	GCMD	DIF	PSC_REGO...	Insert	SR	2007-07-06:10...	2007-07-06:10...	Accepted	Committ...
75644	major@gc...	GCMD	DIF	NOAA_NCD...	Insert	GM	2007-07-06:15...	2007-07-06:16...	Accepted	Committ...
75647	major@gc...	GCMD	DIF	NOAA_NCD...	Insert	GM	2007-07-06:16...	2007-07-06:16...	Accepted	Committ...
75658	major@gc...	GCMD	DIF	NOAA_NCD...	Insert	GM	2007-07-06:16...	2007-07-06:16...	Accepted	Committ...
75659	bob.brant...	GCMD	DIF	OBIS_DFOg...	Insert		2007-07-08:20...		Unrevie...	Prevalid...
75660	bob.brant...	GCMD	DIF	OBIS_DFOg...	Insert		2007-07-08:20...		Unrevie...	Prevalid...
75665	ritz@gcm...	GCMD	DIF	GES_DISC...	Insert	SR	2007-07-09:12...	2007-07-09:13...	Accepted	Committ...
75668	bauerr@n...	GCMD	DIF	jacobs_023...	Insert		2007-07-09:13...		Unrevie...	Validated
75669	mmeaux...	GCMD	DIF	NOAA_NCD...	Insert	MM	2007-07-09:14...	2007-07-09:14...	Accepted	Committ...
75670	mmeaux...	GCMD	DIF	NOAA_NCD...	Insert	MM	2007-07-09:14...	2007-07-09:14...	Accepted	Committ...
75671	mmeaux...	GCMD	DIF	NOAA_NCD...	Insert	MM	2007-07-09:14...	2007-07-09:14...	Accepted	Committ...

Status Message: None

Incoming Item:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<!DOCTYPE DIF SYSTEM "http://gcmd4.gsfc.nasa.gov/Aboutus/xml/diff/dif_v9.6.dtd">
<DIF>
  <Entry_ID>GGD306</Entry_ID>
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    <Middle_Name>A.</Middle_Name>
    <Last_Name>MAROV</Last_Name>
    <Email>fund@fundamnt.ru</Email>
    <Phone>7-095?158 0832</Phone>
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Validate and Load  
Metadata Documents  
Into Database



# docBUILDER Version 9.7




- Supports new Instrument and Platform ancillary descriptions
- Supports expanded keyword taxonomies.
- Support XML namespaces (comply with OAI).
- Offers new Data Center and Personnel lookup interfaces.
- Eases process of adding detailed science keywords and detailed locations.
- Improved user interface – layout, fonts, etc.




# docBUILDER Authoring Tool

## Ready to Write?




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 Submit to GCMD

<input checked="" type="checkbox"/> Entry ID ⓘ	<input type="checkbox"/> Personnel ⓘ	<input type="checkbox"/> Multimedia Sample ⓘ
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Note: This document is automatically saved and can be retrieved any time in the future using the Entry ID (Document Identifier).

Legend:  = Required     = Recommended (if applicable)     = Optional

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# Plans To Work With the Standards Process Group

- Participate in Meeting/Telecons
- Evaluate benefits of submitting an RFC on the DIF Standard.
- Listen to feedback from this session to plan further.

# Thank You

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