NOAA Environmental Services Data Directory

Quick Reference Guide

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Introduction

The NOAA Environmental Services Data Directory uses the Global Change Master Directory software and Directory Interchange Format (DIF) to document descriptions of data sets available within NOAA. All data set descriptions in the NOAA Directory are supplied to the Global Change Master Directory. This network is composed of various directory systems that use the Directory Interchange Format (DIF) for the exchange of global change data descriptions between the systems. Once you have connected to one of the Directory systems, a series of menus and prompts will lead you to perform the desired search of the database. On-line help is available for most steps. However, by knowing a little bit about the format of the DIF, one can perform searches more easily.

The directory software was designed to allow users to easily search for datasets that meet their particular needs. Datasets are stored in the DIF, which is a format that was designed to describe datasets from a wide variety of sciences.Within the DIF, there are fields which are derived from predefined tables. These fields are the "discipline," "subdiscipline," "parameter group," "parameter," and "location." To use one of these fields as a search parameter, you must look up the field in a list of valid entries. The other fields in the DIF are not generally constrained. For further information on the DIF see the "Directory Interchange Format Manual."

The most common searches involve the first two menu selections--"DATA SET information search" and "DATA SYSTEM/ARCHIVE descriptions." The first selection steps you through searches of available datasets. The second allows you to search for information about various Data Centers. Certain Data Centers and datasets will give you the option to directly connect with the computer system where datasets reside. This option is called the "link" command. For example, the European Node allows you to automatically link with the SPOT/IMAGE system in Toulouse, France. Links may be added or deleted over time, so it is best to check for available links regularly.

Access to the various Master Directories is easiest if your system is connected to the Internet. The addresses and user names required to access the different Directory systems are given in the tables following the examples.

The following examples step you through some searches and linking (or connecting) to other systems. Following the examples, some reference information is given to help you form your own queries. For more detailed information on the DIF, refer to the "Directory Interchange Format Manual" available from NASA's National Space Science Data Center (NSSDC) by calling Angelia Bland at (301)513-1687.

Example of a Typical Data Set Search

The following is an example of a search through the NOAA Environmental Services Data Directory for data on water vapor in North America from 1950 to the present. Although this particular search was run on the directory at NOAA, the search method is identical on all of the systems using the Master Directory software.

Connect to the NOAA directory using one of the methods listed in the appendix. Type in the username "NOAADIR" to enter the NOAA directory. Follow the instructions on the screen until you read the MAIN_MENU screen shown below.

```
MAIN_MENU              NOAA Environmental Services Data Directory      Page 1 of 1


     The NESDD is an information resource for identification, location, and
               overview descriptions of Earth Science Data Sets.


                    1.  DATA SET information search.

      Supplementary Information available on:

                    2.  DATA SYSTEM/ARCHIVE descriptions.

                    3.  CAMPAIGN/PROJECT descriptions.

                    4.  SOURCE (Spacecraft, Platform, ...) descriptions.

                    5.  SENSOR (Instrument) descriptions.


Help,Refresh,Comments,Quit
ENTER OPTION # or COMMAND > 1
```

Note that various parts of the screen are reserved for information about the screen, menu or available commands. The top line gives you the screen/menu name and the page number. The bottom line gives you the commands available at this step in the directory. Instructions can be found on the screen and on-line help is usually available at any point.

Type a "1" to select the "DATA SET information search." The SEARCH_SEL (search selection) menu will appear.

```
SEARCH_SEL              Data Set Search Key Selection          Page 1 of 1

    Enter one or more search key numbers from the list below (ex: 2,4,5).

                          1. DISCIPLINE
                          2. PARAMETER
                          3. LOCATION
                          4. TIME COVERAGE
                          5. GEOGRAPHIC COVERAGE (lat,lon)
                          6. SOURCE NAME (Spacecraft, Platform, ...)
                          7. SENSOR NAME (instrument)
                          8. CAMPAIGN/PROJECT
                          9. INVESTIGATOR
                         10. DATA CENTER
                         11. OTHER KEYWORD

 The option below searches all keyword classes for arbitrary words or phrases.
DO NOT combine with above options. WARNING your word choice may not match ours.

                         12. MULTIPLE KEYWORD SEARCH

Help,Exit,Refresh,Comments,Quit_Dir
ENTER SEARCH KEY #s or COMMAND >2,3,4
```

Type in "2,3,4"; "2" to search on parameter, "3" to search on location, and "4" to select the date range for the data. The criteria you select are used to create the DS_QUERY form as follows:

```
DS_QUERY                Data Set Search Criteria Screen          Page 1 of 1

Field Commands: <CR> Next Field, ? Valids List, " "<CR> Clear, "." Command Mode.

 (1)  Parameter Group                          [                              ]
 (2)  Parameter                                [                              ]
 (3)  Location Keyword                         [                              ]

 (4)  Include GLOBAL Earth datasets (Y/N)?  [N]

 TIME COVERAGE (yyyy-mm-dd)
 (5)  Start Date                               [1700-01-01                    ]
 (6)  Stop Date                                [1993-01-25                    ]









Help,Exit,Refresh,SEARCH,Next,Prev,Main,Comments,"."(Edit),Quit
ENTER FIELD # OR COMMAND >
```

Fill in the fields with the desired entries. Valid entries for "Parameter Group", "Parameter", and "Location Keyword" can be found by typing a "?" in each field or by referring to the tables included with this document.

```
DS_QUERY                  Data Set Search Criteria Screen        Page 1 of 1
--
Field Commands: <CR> Next Field, ? Valids List, " "<CR> Clear, "." Command Mode.

 (1)  Parameter Group                          [                              ]
 (2)  Parameter                                [water vapor                   ]
 (3)  Location Keyword                         [north america                 ]

 (4)  Include GLOBAL Earth datasets (Y/N)?     [Y]

 TIME COVERAGE (yyyy-mm-dd)
 (5)  Start Date                               [1950-01-01                    ]
 (6)  Stop Date                                [1993-01-25                    ]




Help,Exit,Refresh,SEARCH,Next,Prev,Main,Comments,"."(Edit),Quit
ENTER FIELD # OR COMMAND >s
```

Since the tables of valid entries show that the parameter "water vapor" belongs to two parameter groups ("Atmospheric Composition" and "Hydrologic Parameters") we will leave the parameter group blank, so that data sets from both of these groups will be retrieved. Type "water vapor" in the parameter field and "north america" in the location field. To include data collected world-wide, type "Y" in answer to question 4. Fill in the start date field with "1950-01-01" and press return for the stop date field. The stop date field defaults to today's date (which was "1993-01-25" when this example was run). After filling out all the fields, type "s" at the command prompt to start the search.

```
QUERY_RESULT                    Titles Menu                    Page 1 of 3
                        19 directory entries selected

   1. SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
      Atmosphere, Rain Rate and Wind Speed (Level 2)

   2. SEASAT SMMR Sea Surface Temperature, Wind Speed, Water Vapor, Atmospheric
      Liquid Water and Rain Rate (Level 2.5)

   3. Atmospheric Data from the NOAA Series Satellites - TOVS Sounding Product

   4. SEASAT Scanning Multichannel Microwave Radiometer (SMMR) Geophysical Data
      Record - Geophysical Files and Sensor Files

   5. SEASAT Scanning Multichannel Microwave Radiometer (SMMR) Geophysical Data
      RecordGeophysical File

   6. Surface Marine Observations


Help,Exit,Refresh,Next,Prev,Page #,Output,SearchSel,Main,Comments,Quit
ENTER SELECTION # or COMMAND >
```

The QUERY_RESULT menu will appear, displaying a list of all the titles found for the data sets that met the input criteria. In this case, there were 19 data sets found. Only the first page of the results is shown below. To view all the titles, press the <enter> or <return> key at the COMMAND prompt.

```
QUERY_RESULT                    Titles Menu                    Page 1 of 3
                        19 directory entries selected


  1. SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
     Atmosphere, Rain Rate and Wind Speed (Level 2)

  2. SEASAT SMMR Sea Surface Temperature, Wind Speed, Water Vapor, Atmospheric
     Liquid Water and Rain Rate (Level 2.5)

  3. Atmospheric Data from the NOAA Series Satellites - TOVS Sounding Product

  4. SEASAT Scanning Multichannel Microwave Radiometer (SMMR) Geophysical Data
     Record - Geophysical Files and Sensor Files

  5. SEASAT Scanning Multichannel Microwave Radiometer (SMMR) Geophysical Data
     RecordGeophysical File

  6. Surface Marine Observations


Help,Exit,Refresh,Next,Prev,Page #,Output,SearchSel,Main,Comments,Quit
ENTER SELECTION # or COMMAND >1
```

To view the data set description, type in the title number that interests you. In this case, we have selected title 1.

The output is divided into six sections. The first is the BRIEF screen which contains the summary for the data set. As you can see at the top of the screen, this is page 1 of 2 pages.

```
BRIEF+                          SECTION 1 of 6                 Page 1 of 2
SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
Atmosphere, Rain Rate and Wind Speed (Level 2)

      SEASAT was launched on June 28, 1978, carrying a five sensor payload,
and operated successfully until a power failure brought transmission to a stop
on October 10, 1978.  Its height and inclination were 791 km and 108.0 deg.,
respectively.
      The Scanning Multichannel Microwave Radiometer (SMMR)
is a passive microwave radiometer measuring dual polarized microwave radiation
from the earth's surface and atmosphere in 5 frequencies; 6.63, 10.69, 18.0,
21.0 and 37.0 GHz.  SMMR swath width is 600 km.
        The parameters derived from SMMR brightness temperatures
are sea surface temperature, rain rate, wind speed at the ocean's surface,
integrated column density of water vapor and liquid water in the atmosphere.
Global coverage was achieved within the orbital extremes: +77/-72 deg. latitude
from July 7 - August 17, 1978 with a ground track equatorial spacing of 165 km.
From August 18 - October 10, 1978 (the date that SEASAT terminally mal-
functioned) the ground track equatorial spacing was 900 km.  From July 7 to
August 26, 1978, the ground track was repeated every 17 days.  From August 27

Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
RETURN TO CONTINUE or COMMAND >
```

To see page 2, press the enter key.

```
BRIEF                              SECTION 1 of 6                    Page 2 of 2
SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
Atmosphere, Rain Rate and Wind Speed (Level 2)

to October 10, 1978, the ground track repeated once every 3 days.  The measure-
ment temporal resolution is 10/second.
       This data set contains LEVEL 2.0 geophysical parameters corrected for
environm'ental effects.  The parameters are sea surface temperature, wind speed,
atmospheric liquid water content, water vapor, rain rate and environmental
corrections.  These data are stored on magnetic tape available from the NODS
Inventory, part of the NODS catalog system.
Related Data Sets: SEASAT SMMR (Levels 1, 1.5 and 2.5)
                           Altimeter (levels 1, 1.5, 2 and 2.5),
                           SASS(levels 1, 1.5, 2 and 2.5) and
                           SAR(levels 1 and 1.5)
Data Set Status:       Complete
                  Level 2.0 data is available on tape through the NODS inventory
system for the entire 96 day SEASAT mission, with the exception of some data
outages (see, SEASAT Special Issue I, page 3182).


Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
Return for ATTRIBUTES display or Command>
```

For some data sets, the command "LINK" will appear in the list of available commands shown at the bottom of the screen). Whenever the "LINK" command appears, you can type "LINK" and be automatically connected with the system at the Data Center where the data set resides. The system that you connect to may have a different user interface. An example using the "LINK" command is given later in this manual.

Press the <enter> or <return> key to display the next section. The second section is the ATTRIBUTES screen which contains descriptive keyword information about the data set.

```
ATTRIBUTES+                        SECTION 2 of 6                    Page 1 of 4
SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
Atmosphere, Rain Rate and Wind Speed (Level 2)

Entry_ID: SSGDRSMG (MD Identifier: 230)

Temporal Coverage:
     From: 1978-07-07                  TO: 1978-10-10

Geographic Coverage:
     Southwest Extent: 72S,180W    Northeast Extent:  71N,180E

Source:
     SEASAT

Sensor:
     SMMR>Scanning Multifrequency Microwave Radiometer

Storage Media:
     381 magnetic tapes 1600 bpi

Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
RETURN TO CONTINUE or COMMAND >
```

Press <enter> or <return> to view the next page.

```
ATTRIBUTES                          SECTION 2 of 6                    Page 2 of 4
SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
Atmosphere, Rain Rate and Wind Speed (Level 2)


Campaign/Project:
     CGC>Climate and Global Change Program

Discipline, Subdiscipline:
     EARTH SCIENCE                        > OCEAN
        Physical Oceanography


Location Keyword:
     GLOBAL

Parameter Group, Parameter:
     ATMOSPHERIC COMPOSITION              > WATER VAPOR
        Atmospheric  Liquid Water


Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
RETURN TO CONTINUE or COMMAND >
```

Press <enter> or <return> to view the next page.

```
ATTRIBUTES                          SECTION 2 of 6                    Page 3 of 4
SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
Atmosphere, Rain Rate and Wind Speed (Level 2)

     ATMOSPHERIC DYNAMICS                 > PRECIPITATION
        Rain Rate

     ATMOSPHERIC DYNAMICS                 > WINDS
        Wind Speed

     OCEAN DYNAMICS                       > TEMPERATURE
        Sea Surface Temperature

     OCEAN DYNAMICS                       > WINDS
        Wind Speed


General Keywords:
     AIR-SEA INTERACTION
     ATMOSPHERIC LIQUID WATER

Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
RETURN TO CONTINUE or COMMAND >
```

Press <enter> or <return> to view the next page.

```
ATTRIBUTES                          SECTION 2 of 6                    Page 4 of 4
SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
Atmosphere, Rain Rate and Wind Speed (Level 2)

      PHYSICAL OCEANOGRAPHY
      RAIN
      SEA SURFACE TEMPERATURE
      WATER VAPOR
      WIND SPEED

Science Review Date: 1988-09-15

Revision Date: 1988-09-15




Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
Return for DATACENTER display or Command>
```

Press <enter> or <return> to view the next section. Section three (DATACENTER) contains information about the Data Center, including the address and a person or office to contact for more information.

```
DATACENTER+                         SECTION 3 of 6                    Page 1 of 1
SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
Atmosphere, Rain Rate and Wind Speed (Level 2)

Archive:
   NOAA/NESDIS/NCDC/SDSD>Satellite Data Services Division

   Contact: NOAA/NESDIS/NCDC/SDSD,
            Room 100
            Princeton Executive Square
            Washington, DC 20233
            USA

            Electronic Mail: TELENET> [AHORVITZ/NESDIS] TELEMAIL

            Phone: 301-763-8400




Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
Return for PERSONNEL display or Command>
```

Press <enter> or <return> to view the next section. Section 4 is the PERSONNEL information. This section contains names and addresses of the author of the data set description, and if available, the scientific investigators, and technical contacts.

```
PERSONNEL+                          SECTION 4 of 6                  Page 1 of 3
SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
Atmosphere, Rain Rate and Wind Speed (Level 2)

Investigator: LIU, TIM
              Ms 300-323
              Jet Propulsion Laboratory
              4800 Oak Grove Drive
              Pasadena, CA 91109
              USA

              Electronic Mail: SPAN> STANS::WTL

Tech Contact: HILLAND, JEFF
              MS 300-319
              Jet Propulsion Laboratory
              4800 Oak Grove Drive
              Pasadena, CA 91109
              USA


Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
RETURN TO CONTINUE or COMMAND >
```

Press <enter> or <return> to view the next page.

```
PERSONNEL                           SECTION 4 of 6                  Page 2 of 3
SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
Atmosphere, Rain Rate and Wind Speed (Level 2)

              Electronic Mail: SPAN> STANS::JEH
                               TELEMAIL> [JHILLAND/NASA]NASAMAIL

              Phone: 818-354-4787

Entry Author: SMITH, ELIZABETH A.
              MS 300-323
              Jet Propulsion Laboratory
              4800 Oak Grove Drive
              Pasadena, CA 91109
              USA

              Electronic Mail: NSI/DECnet> STANS::EAS
                               NSN> EAS@STANS.JPL.NASA.GOV
                               TELEMAIL> NODS.JPL/OMNET


Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
RETURN TO CONTINUE or COMMAND >
```

Press <enter> or <return> to view the next page.

```
PERSONNEL                          SECTION 4 of 6                    Page 3 of 3
SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
Atmosphere, Rain Rate and Wind Speed (Level 2)

               Phone: (818) 354-6980


Information in this entry provided by NODS









Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
Return for REFERENCE display or Command>
```

Press <enter> or <return> to view the next section. Section 5 contains any references that are considered important. The format is the same used in the Journal of Geophysical Research (JGR).

```
REFERENCE+                         SECTION 5 of 6                    Page 1 of 1
SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
Atmosphere, Rain Rate and Wind Speed (Level 2)

     Kirwan, A.D., T.J.Ahrens, and G.H.Born, eds., 'SEASAT Special Issue II:
     Scientific Results', JGR, 88(c3), February, 1983.

     Weissman, D.E., ed., 'Special Issue on the SEASAT-1 Sensors' IEEE J.
     Oceanic Engineering, OE-5(2), April 1980.

     Wind, B.B. and G.H. Born, SEASAT Geophysical Data Record (GDR) User's
     Handbook: Scanning Multichannel Microwave Radiometer (SMMR).
     NASA < Cal. Inst. of Tech., Jet Propulsion Laboratory, Pasadena, CA,
     [JPL-622-205-A], [JPL-D-110], August 1982, 87 pages.









Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
Return for SUP_MENU display or Command>
```

Press <enter> or <return> to view the next section. The last display is section 6 called SUP_MENU for supplementary information. If there is descriptive information about the data center, campaign/project, sensors, and/or sources, it will be listed in this section. To view a description you simply type the line number. The descriptions in this section are the same as those accessed by options 2 through 5 in the MAIN_MENU.

```
SUP_MENU                          SECTION 6 of 6                    Page 1 of 1
SEASAT SMMR Sea Surface Temperature, Water Vapor, Liquid Water in the
Atmosphere, Rain Rate and Wind Speed (Level 2)

   1. Source: SEASAT









Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
ENTER OPTION # or COMMAND > 1
```

Type "1" at the COMMAND prompt to view the supplementary information on SEASAT.

```
SOURCE_DISP                  Source Information Display          Page 1 of 6
                                    SEASAT-SEASAT


     SEASAT was the first satellite devoted entirely to sensing
the ocean.  It is what is generally know as a 'proof-of-concept
mission,' one whose major objective is to assess the merit of a
new concept - in this case, microwave sensing of the ocean.
SEASAT-1 was launched on 6/6/78 and began collecting data almost
immediately.  Unfortunately, the main power supply on the
satellite failed on October 10, 1978 (after about 100 days of
operation) and no further data was collected.  All of the sensors
operated within specifications during the 100 days except for the
visible and infrared radiometer.

     Originally, there was to be a SEASAT-B (or 2) to follow the
first SEASAT.  It was decided, however, to drop SEASAT-B in favor
of the planned NOSS (National Oceanic Satellite System).  That,
too, was subsequently abandoned.

Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit
COMMAND >
```

Only the first page is shown here, but you can press the <return> or <enter> key to scroll though all the pages if you wish.

You have now seen all of the sections regarding the data set that was selected. One of the options available to you now is to use the "Display" command which allows you to select options from various menus and screens. Press the <enter> or <return> key to access the DS_MENU (display menu).

```
DS_MENU                Available Display Options and Menus      Page 1 of 1


                 1. Main Menu (MAIN_MENU)
                 2. Search Field Selection Menu (SEARCH_SEL)
                 3. Query Criteria Form (FORM)

                       DATA SET INFORMATION DISPLAY SCREENS

                 4. Titles Selection Menu (QUERY_RESULT)
                 5. Brief Summary Display (BRIEF)
                 6. Data Set Attributes Display (ATTRIBUTES)
                 7. Data Center Contact and ID Display (DATACENTER)
                 8. Personnel Information Display (PERSONNEL)
                 9. Bibliographic Reference Display (REFERENCE)
                10. Supplementary Information Menu (SUP_MENU)



Help,Exit,Refresh,Comments,Quit
ENTER OPTION # or COMMAND >1
```

The "DATA SET INFORMATION DISPLAY SCREENS" (options 4 through 10) allow you to redisplay the list of titles retrieved during the last search, or to redisplay the various sections for the last data set that you viewed.

Option 3 displays the DS_QUERY screen so that you can change the parameters in the search FORM you have already created.

Option 2 takes you back to the SEARCH_SEL (search selection) menu allowing you to create a new DS_QUERY FORM.

Option 1 takes you back to the MAIN_MENU. We will select this option now and show you an example of using the LINK command by searching for a data center.

Example Using the "Link" Command

The MAIN_MENU screen is shown below.

```
MAIN_MENU              NOAA Environmental Services Data Directory    Page 1 of 1


    The NESDD is an information resource for identification, location, and
              overview descriptions of Earth Science Data Sets.


                    1.  DATA SET information search.

     Supplementary Information available on:

                    2.  DATA SYSTEM/ARCHIVE descriptions.

                    3.  CAMPAIGN/PROJECT descriptions.

                    4.  SOURCE (Spacecraft, Platform, ...) descriptions.

                    5.  SENSOR (Instrument) descriptions.


Help,Refresh,Comments,Quit
ENTER OPTION # or COMMAND >2
```

Select option 2 "DATA SYSTEM/ARCHIVE descriptions." The DC_QUERY menu appears.

```
DC_QUERY               Data Center Search Criteria Screen        Page 1 of 1
--
Field Commands: <CR> Next Field, ? Valids List, " "<CR> Clear, "." Command Mode.


    Please be aware that the directory contains information on data sets
     from data centers in addition to those described in this section.


 (1)  Discipline                    [                                   ]

 Data System / Archive
 (2)  Short Name (Acronym)          [                                   ]




Help,Exit,Refresh,SEARCH,Main,Comments,"."(Edit),Quit
ENTER FIELD # OR COMMAND >
```

To see a list of all the Data Systems, leave the Discipline field blank and put a "?" in file 2 "Short Name (Acronym)." The VALIDS list appears. In this example, we will select the European Space Agency Directory (ESAPID) by typing "1" after the command prompt.

NOTE: A list of some of the data centers which allow you to link to their systems is included in the table of Internet addresses later in this document.

```
VALIDS                          Valid Value Selection          Page 1 of 1


  1. ESAPID>European Space Agency Directory (IDN Node)
  2. GCMD>GLobal Change Master Directory
  3. HYDROSENSCNTR>National Operational Hydrologic Remote Sensing Center
  4. NASDADIR>National Space Development Agency Directory of Japan (IDN Node)
  5. NCAAS>NOAA Coastwatch Archive and Access System
  6. NEDRES>National Environmental Data Referral Service (NEDRES)
  7. NOAA/NESDIS>National Environmental Satellite, Data and Information Service
  8. NOAA/NESDIS/NCDC>National Climatic Data Center (NCDC)
  9. NOAA/NESDIS/NGDC>National Geophysical Data Center (NGDC)
 10. NOAA/NESDIS/NODC>National Oceanographic Data Center (NODC)
 11. NOAA/NMFS>National Marine Fisheries Service
 12. NOAA/NOS>National Ocean Service
 13. NOAA/NWS>NATIONAL WEATHER SERVICE
 14. NOAA/OAR>Office of Oceanic and Atmospheric Research
 15. NOAADIR>NOAA Environmental Services Data Directory
 16. OCEANPRODCNTR>NOAA Ocean Products Center

Help,Exit,Refresh,Next,Prev,Page
ENTER OPTION # or COMMAND > 1
```

The word "ESAPID" is automatically placed in field 2.

```
DC_QUERY          DataCenter Search Criteria Screen          Page 1 of 1
--
Field-Commands: <CR> Next_Field, ? Valids List, " "<CR> Clear, "." Command Mode.

     Please be aware that the directory contains information on data sets
      from data centers in addition to those described in this section.


  (1)  Discipline                  [                                    ]

  Data System / Archive
  (2)  Short Name (Acronym)        [esapid                              ]




Help,Exit,Refresh,SEARCH,Main,Comments,"."(Edit),Quit
ENTER FIELD # OR COMMAND >s
```

Type "s" at the COMMAND prompt to start the search.

The DC_DISPLAY screen displays the description of the Data Center. There are four pages of data in this example. Usually, you should read all the pages to find out how the system works. In this case, we will just go ahead and type the "LINK" command.

```
DC_DISPLAY              Data Center Information Display        Page 1 of 4
                European Space Agency Directory (IDN Node)-ESAPID


 Description:

 IDN Directories are on-line computer guides to space and environmental data
 held by government agencies and universities throughout the world.

 The ESAPID is the International Directory Network (IDN) Coordinating Node
 located at the European Space Agency in Frascati, Italy.  The IDN is sponsored
 by the Committee on Earth Observation Satellites, and has three Coordinating
 Nodes, the Global Change Master Directory at the Goddard Space Flight Center in
 the USA, the NASDA Directory in Japan, and the ESAPID Directory in Italy.  It
 serves two major purposes:

 1. It provides government agencies with a common system for documenting data
 held in these agency offices.
 2. It provides the general research and scientific community with a way to

 Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit,LINK
 COMMAND > link
```

You are now connected to the European Space Agency directory. This directory uses the same software as the NOAA directory. From this system you can link to the SPOT IMAGE system (DALI) and perform a search of their satellite imagery. An example of a simple search session on DALI is given later in this document.

Once you have logged out of the foreign system, you will be returned to the DC_DISPLAY screen.

```
DC_DISPLAY              Data Center Information Display        Page 1 of 4
                European Space Agency Directory (IDN Node)-ESAPID


 Description:

 IDN Directories are on-line computer guides to space and environmental data
 held by government agencies and universities throughout the world.

 The ESAPID is the International Directory Network (IDN) Coordinating
 Node
 located at the European Space Agency in Frascati, Italy.  The IDN is sponsored
 by the Committee on Earth Observation Satellites, and has three Coordinating
 Nodes, the Global Change Master Directory at the Goddard Space Flight Center in
 the USA, the NASDA Directory in Japan, and the ESAPID Directory in Italy.  It
 serves two major purposes:

 1. It provides government agencies with a common system for documenting data
 held in these agency offices.
 2. It provides the general research and scientific community with a way to

 Help,Exit,Refresh,Next,Prev,Page #,Output,Display,Comments,Quit,LINK
 COMMAND >quit
```

Select any of the available commands that you wish. We are done with the two examples and will type "quit" to exit the NOAA directory. You will have to type "quit" again. Finally, you will be asked if you wish to leave comments. All comments, questions and/or corrections are welcome and appreciated.

Example of a Simple Search Session on the DALI/SPOT-IMAGE System

The following example takes you through a very simple search sequence. If you plan on using the DALI system, you need to get a copy of the user manual, as it is a complex system with many options available.

You may access the DALI system through the European Space Agency Directory (ESAPID). The fastest way to link to DALI is to choose option 2 "DATA SYSTEM/ARCHIVE descriptions" from the MAIN_MENU of the ESAPID.

Fill in the field labelled "(2) Short Name (acronym)" with the word "DALI". Type "s" at the command prompt to search for the description of DALI.

After the search is completed, the command "LINK" will appear on the bottom line of your screen. Type in "link" at the command prompt.

You will be automatically connected to DALI. Use the following account information to log into the system:

account: **QLEMASTER**
passwd: **MASTER**

At the command prompt ">", type

con cat .

to connect to the catalog. Make sure you type the space and period "." at the end of the command.

You can now perform searches of the database. A simple example of a search is given below. For other information, refer to the "Type 3 Consultation Station User's Manual" for SPOT IMAGE. To perform the example search, type:

SE GEO KJ 066/316 CRI DA FR 1991/07/01 TI 10:18 TO 1991/07/01 TI 10:19 .

Again, you must put a period "." at the end of the search command.

The above command is an example from the SPOT IMAGE Manual and means "SElect GEOgraphic KJ k/j CRIteria FRom YYYY/MM/DD TIme HH:MM TO YYYY/MM/DD TIme HH:MM."

There are many other ways to search the database that are outlined in the manual. The search results will be displayed on the screen. The user manual explains the various output parameters.

Exit from the DALI system by typing:

DIS .

which is short for DISconnect. You will be returned to the Data Center description screen in the ESAPID Master Directory.

Connecting to the NOAA Environmental Services Data Directory

You can access the directory via EITHER:

A. Internet:
   1. type "**telnet esdim1.nodc.noaa.gov**" OR "**telnet 140.90.235.168**"
   2. at the "Login:" prompt, type "**noaadir**"

B. By phone:
   1. use the settings: full duplex, 8 bits, no parity, one stop bit, 300 to 9600 baud (preferred terminal type is vt100)
   2. dial (202) 606-4666, (202) 606-5082 or (202) 606-5085
   3. at "Xyplex>" prompt, type "**c esdim1**" (press <break> key several times if "Xyplex>" prompt does not appear)
   4. at "Login:" prompt, type "**noaadir**"
   5. at the end of your session, press the <break> key
   6. at "Xyplex>" prompt, type "**dis**"
   6. hang up your phone

List of Internet Addresses for Various Directories

INTERNATIONAL DIRECTORY NETWORK

COORDINATING NODES:

1. American Coordinating Node -- Global Change Master Directory (NASA GCMD)

   telnet nssdca.gsfca.nasa.gov OR
   telnet 128.183.36.23

   Username: nssdc (To use the usual Master Directory interface)

   Username: dir_demo (To use the demonstration copy of the new Master Directory)

   From GCMD links (connections) are available to other systems including:

ADC	Astronomical Data Catalog
ALI	University of Alaska Fairbanks/Geodata Center
AMPTE	Ampte CCE Investigator Info Account
ARIN	NASA/RECON ARIN Database System
BATSE	GRO/BATSE Solar Database
BBSO	Big Bear Solar Observatory
BRUNET	BRUNET Request Catalog
CCRS	Canadian Centre for Remote Sensing
DALI	DALI SPOT IMAGE
DEWATS1	DE WATS Catalog File
EICS	Energetic Ion Composition Spectrometer File
EINSTEIN	SAO Einstein Data Center
ENVIRONET	Space Environment Information Service
EPOCAT	Earthnet Catalog
EROS	EROS Data Center
ESIS	European Space Information System
ESO-INFO	ESO Space Telescope Information Service
ESO/ST-ECF STARCAT	ESO/ST-ECF STARCAT System
EUMETSAT	EUMETSAT
EXOSAT	EXOSAT at ESTEC
EXOSATGSFC	EXOSAT at GSFC
GISS	Goddard Institute for Space Studies
GLIS	Global Land Information System
GOLDIS	Geophysics On-Line Data & Info System
GPLDS	Goddard Pilot Land Data System
GRONEWS	Gamma Ray Observertory Science Support Center

IRIS	Incorporated Research Institutions for Seismology
IUE	International Ultraviolet Explorer
JAPAN	World Data Center - C2, Kyoto, Japan
LANG	LANGMUIR Probe Catalog
LPI	Lunar Planetary Institute
MEES	MEES Solar Observatory, Univ. Hawaii
MULTIWAVELINK	Multiwavelink Database
NACS	Neutral Atmosphere Composition Spectrometer File
NCDC	National Climate Data Center (NCDC)
NCDS	NASA Climate Data System
NDADS	NASA Distributed Archive Data System
NED	NASA/IPAC Extragalactic Database
NOAO	National Solar Observatories
NSEL	NOAA Space Environment Laboratory
NSSDCREQ	Request data and/or information from NSSDC
OCEANIC	Ocean Network Information Center
OMNIFILE	OMNI Tape File
PDS	Planetary Data System
PDS_ATMOS	Planetary Data System Atmospheres Node
PDS_GEO	Earth and Remote Sensing Lab
PDS_PPI	PDS Planetary Plasma Interactions
PLDSAMES	Pilot Land Data System at AMES
PLDSJPL	Pilot Land Data System at JPL
PNRA	Programma Nazionale Ricerche Antartide
QUEST	ESA/Information Retrieval Service
RGO	RGO La Palma Archive System
SAI	Auroral Imaging File
SDCS	SAR Data Catalog System
SERDIN	SERDIN
SIMBAD	ESO/ST-ECF STARCAT SYSTEM
SINFONIA	SINFONIA
SMMDAC	SMM Data Analysis Center
SSEOP	Flight Science Support Office Photographic Datacenter
STEIS	Space Telescope Electronic Info Service
STORM	STORM System
SWRI	Southwest Research Institute
SWRIDE	Southwest Research Institute-Dynamic Explorer
TOMS	Total Ozone Mapping Spectrometer Data
UARS	Upper Atmosphere Research Satellite (UARS) at CDHF
URI	Inventory Facility at University of Rhode Island
UTD	University of Texas, Dallas
VEFI	Vector Electric Field Instrument Catalog
VLA	VLA Information System

2. Asian Coordinating Node -- NASDA (Japanese Space Agency)

telnet 133.56.72.1

Username: nasdadir

The Japanese Directory includes a Bulletin Board service and an inventory system (SINFONIA) on satellite data. Links are available to nearly all of the systems listed above for the American Coordinating Node.

3. European Coordinating Node -- ESAPID (European Space Agency in Frascati, Italy)

telnet 192.106.252.160

username: esapid

From ESAPID links (connections) are available to other systems including:

BBSO	Big Bear Solar Observatory
BRUNET	BRUNET
CCRS	Canada Centre for Remote Sensing
DALI	CNES-SPOT IMAGE Catalogue
ESA EARTH IMAGES	ESA Earthnet online catalogue (formally LEDA)
ESA EPO	European Space Agency Earthnet Programme Office
ESA-IRS	European Space Agency Information Retrieval Service
ESIS	European Space Information System
EUMETSAT	European Meteorological Satellite Organisation
GLIS	Global Land Information System
GOLDIS	Geophysics ON-Line Data and Information System
IUE FACILITIES	International Ultraviolet Explorer
NCDS	NASA Climate Data System
NOAA-SEL	NOAA Space Environment Laboratory
NODS	NASA Ocean Data System
NSSDC	National Space Science Data Center
OCEANIC	Ocean Network Information Center
PDS	Planetary Data System
PNRA	Italian Program for Antarctic Researches South-Pole Directory
SERDIN	Space Environment Realtime Data Intercommunication Network
UARS	Upper Atmosphere Research Satellite
URI AVHRR ARCHIVE	University of Rhode Island AVHRR Archive

COOPERATING NODES:

1. GCNet (Canada Centre for Remote Sensing)

   telnet gcnet.ccrs.emr.ca OR
   telnet 132.156.47.218

   username: gcnet

   This system has a directory service (Master Directory), and Image Inventory of SPOT 1&2, MOS 1&1B and LANDSAT 1-5 images, and a bulletin board about remote sensing activities in Canada. Both French and English interfaces are available.

2. NOAADIR (NOAA Master Directory)

   telnet nodc.nodc.noaa.gov OR
   telnet 140.90.235.10

   username: noaadir

   From NOAADIR links (connections) are available to other sytems including:

ESAPID	European Space Agency Master Directory
GCMD	Global Change Master Directory (NASA)
NASDADIR	Japanese Space Agency Master Directory
NGDC	National Geophsyical Data Center
STORM	National Climate Data Center (NCDC)

OTHER SYSTEMS WITH GLOBAL CHANGE DATA:

1. Consortium for International Earth Science Information Network (CIESIN) -- Green Pages

   telnet sirius.poly.edu OR
   telnet 128.238.32.62

   Login: gp
   (no password)

   There is an X Windows interface available for this system.

2. GLIS (United States Geological Survey (USGS) Global Land Information System)

telnet glis.cr.usgs.gov OR
telnet 152.61.192.54

Username: glis

In November, a new PC based image browse program should be available. In January, an image browse program should be available for UNIX workstations.

3. KuDA (Kuwait Data Archives at the National Center for Atmospheric Research)

telnet 128.117.84.65

user_id: kuda
password: science

There is an X Windows interface available for this system.

4. NOAA National Climate Data Center (NOAA/NESDIS/NCDC)

telnet hurricane.ncdc.noaa.gov OR
telnet 192.67.134.72

Login: storm
Password: research

There is an X Windows interface available for this system.

5. WAIS - Wide Area Information Servers

telnet quake.think.com OR
telnet 192.31.181.1

userid: wais

By following the instructions on the screen, the user should be able to search for data from the Global Change Master Directory (GCMD), the NOAA Environmental Services Data Directory (NESDD) and the National Environmental Data Referral System (NEDRES).

Summary of Commands and Menus/Screens Used in the Master Directory

GENERAL INFORMATION

Usually, the menu name is displayed in the upper left hand corner. The page number is displayed in the upper right hand corner. Commands used within the fields are listed on the second line. Directory commands are listed at the bottom of each screen.

The main menu (MAIN_MENU) is separated into two general search categories. The first option allows you to search for datasets of interest. The other options provide supplementary information on Data Centers, projects, sensors and sources. Not all of the Data Centers, projects, sensors or sources referenced in the data set descriptions are included in the supplementary information.

SUMMARY OF COMMANDS

"."(Edit)	By typing a period ("."), you may edit your search requirements
Comments	Leave comments for the Directory staff
Display	Go to the DS_MENU
Exit	Go to the previous screen
Help	On-line help -- you must "exit" help to get back to the menus
LINK	Connect to another computer system
Main	Go to the MAIN_MENU
Next	Go to the next page of help text
Output	Set your printer to capture information displayed on your screen. The information is displayed in an easy to read format.
Page #	Go to the specified (#) page of the section of the search result (see the list of sections under DS_MENU)
Prev	Go to the previous page of section
Refresh	Redraw the screen
Search	Search the database using the specified fields
SearchSel	Go to the SEARCH_SEL menu
Quit	Exit the Master Directory (logout)

DESCRIPTION OF IMPORTANT SCREENS/MENUS

ATTRIBUTES	Screen displaying various attributes of the dataset (dates, sensors, parameters, etc)
BRIEF	Screen displaying the summary of the dataset description
DATACENTER	Screen displaying information/address of the Data Center where the dataset resides
DS_MENU	Menu allowing you to choose between various other screens/menus
DS_QUERY FORM	The query form as per your last search
MAIN_MENU	First menu in the Directory
PERSONNEL	Screen displaying information/address of the author, technical contact, etc.
QUERY_RESULT	The list of titles resulting from the search
REFERENCE	Screen displaying bibliographic information associated with the dataset
SEARCH_SEL	Field selection menu for dataset searches
SUP_MENU	Where available, allows you to access general information regarding the Data Center, sensors and/or sources by selecting the line number of interest.

DESCRIPTION OF SEARCH RESULTS

The description of each dataset is divided up into six sections described above:

1. BRIEF
2. ATTRIBUTES
3. DATACENTER
4. PERSONNEL
5. REFERENCE
6. SUP_MENU

DESCRIPTION OF THE DS_MENU OPTIONS

The DS_MENU display menu allows you to select from the available menus:

1. MAIN_MENU
2. SEARCH_SEL
3. FORM

or to display the results of your last dataset search:

4. QUERY_RESULT
5. BRIEF
6. ATTRIBUTES
7. DATACENTER
8. PERSONNEL
9. REFERENCE
10. SUP_MENU

DESCRIPTION OF THE SEARCH_SEL MENU

The SEARCH_SEL menu allows you make a FORM containing those fields you wish to search on. You may later edit this FORM or create a new one. Once a field has been selected, you may type a "?" in the field to see a list of available entries. NOTE: the source and sensor fields have some added intelligence built in. Entries in these fields are often "aliased" to other names for the instrument, satellite, etc. For example, to look for data from the GOES 1 satellite, you can input "GOES1" as the source. The search will return all the sources that are aliased to GOES1. In this case, it will include "GOES 1" and "GOES-1".

1. DISCIPLINE	must come from a table of valid entries
2. PARAMETER	must come from a table of valid entries
3. LOCATION	must come from a table of valid entries
4. TIME COVERAGE	any date from 1 A.D. to present
5. GEOGRAPHIC COVERAGE	latitude and longitude of interest
6. SOURCE NAME	platform where sensor is located (satellite, observatory, etc.)
7. SENSOR NAME	name of instrument
8. CAMPAIGN/PROJECT	name of project data was gathered under
9. INVESTIGATOR	last name of the investigator
10. DATA CENTER	Data Center acronym
11. MULTIPLE KEYWORD SEARCH	miscellaneous keywords, where available

Table of Valid Entries for "discipline"

Discipline	Subdiscipline	Third Level
Astronomy	Cosmic Ray Astronomy	
	Gamma Ray Astronomy	
	Infrared Astronomy	
	Microwave Astronomy	
	Radio Astronomy	
	Ultraviolet Astronomy	
	Visible Astronomy	
	X-Ray Astronomy	
Earth Science	Atmosphere	
	Interior and Crust	
	Land	
	Ocean	
Life Sciences	Anatomy	Cytology
		Embryology
		Histology
		Neuroanatomy
	Biochemistry	Histocytochemistry
		Immunochemistry
		Neurochemistry
	Biology	Botany
		Developmental
		Ecology
		Genetics
		Immunology
		Marine
		Microbiology
		Molecular
		Neurobiology
		Parasitology
		Radiobiology
		Zoology
	Biophysics	Biomechanics
		Bionics
		Electrophysiology

(Life Sciences)	Chemistry	Agricultural
		Analytical
		Biochemistry
		Clinical
		Inorganic
		Organic
		Pharmaceutical
		Physical
	Medical Science	Adolescent Medicine
		Allergy
		Anesthesiology
		Behavioral Medicine
		Chronic Diseases
		Clinical Medicine
		Communicable Diseases
		Community Medicine
		Dermatology
		Emergency Medicine
		Epidemiology
		Forensic Medicine
		Gerontology
		Gynecology
		Immunology
		Internal Medicine
		Medical Genetics
		Neurology
		Nuclear Medicine
		Nursing
		Nutrition
		Obstetrics
		Oncology
		Ophthalmology
		Optometry
		Orthopedics
		Orthoptics
		Osteopathic Medicine
		Otolaryngology
		Pathology
		Pediatrics
		Pharmacology
		Pharmacy
		Physical Medicine
		Podiatry
		Psychiatry

(Life Sciences)	(Medical Science)	Psychology
		Radiology
		Serology
		Social Medicine
		Toxicology
		Urology
		Venereology
		Veterinary Medicine
	Neuroscience	Neuroanatomy
		Neurobiology
		Neurochemistry
		Neuroendocrinology
		Neuropharmacology
		Psychophysiology
	Physiology	Electrophysiology
		Endocrinology
		Neurophysiology
		Psychophysiology
	Psychology	Adolescent Psychology
		Behavioral
		Child
		Clinical
		Comparative
		Educational
		Ethnopsychology
		Experimental
		Industrial
		Medical
		Social
	Public Health	Biostatistics
		Chronic Disease
		Communicable Disease
		Demography
		Environmental Health
		Epidemiology
		Health Behavior
		Health Education
		Health Management and Policy
		Health Services Administration
		International Health
		Nutrition
		Occupational Health
		Population Dynamics

Microgravity

Planetary Science	Atmospheres Fields and Particles Geosciences Small Bodies Rings
Solar Physics	Gamma-Ray Observations Infrared Observations Microwave Observations Radio Observations Ultraviolet Observations Visible Observations X-Ray Observations
Space Physics	Interplanetary Studies Ionospheric Science Magnetospheric Science

Table of Valid Entries for "location"
Sorted by "discipline"

ASTRONOMY

Clusters of Galaxies
Extended Objects (Astronomy)
Galaxies
Interstellar Medium
Local Group of Galaxies
Milky Way Galaxy
Novae
Quasars
Radio Sources
Star Clusters
Stars
Supernova Remnants
Supernovae

EARTH SCIENCE

Africa
Antarctica
Arctic Ocean
Asia
Atlantic Ocean
Australia
Boundary Layer
Core
Crust
Equatorial
Europe
Global
Indian Ocean
Ionosphere
Mantle
Mediterranean Sea
Mesosphere
Mid-Latitude
North America
Pacific Ocean
Polar
Sea Floor
Sea Surface
South America
Southern Ocean
Stratosphere
Troposphere

PLANETARY SCIENCE

Asteroids
Comets
Jupiter
Mars
Mercury
Meteoroids
Moon (Earth)
Moons (other)
Neptune
Pluto
Rings (planetary)
Saturn
Uranus
Venus

SOLAR PHYSICS

Chromosphere
Corona
Photosphere
Solar Interior
Transition Region

SPACE PHYSICS

High Latitude Magnetosphere
Inner Magnetosphere
Interplanetary (deep space)
Interplanetary (near Earth)
Ionosphere
Magnetosphere (other)
Magnetotail

Table of Valid Entries for "location"
Sorted Alphabetically

Africa
Antarctica
Arctic Ocean
Asia
Asteroids
Atlantic Ocean
Australia
Boundary Layer
Chromosphere
Clusters of Galaxies
Comets
Core
Corona
Crust
Equatorial
Europe
Extended Objects (Astronomy)
Galaxies
Global
High Latitude Magnetosphere
Indian Ocean
Inner Magnetosphere
Interplanetary (deep space)
Interplanetary (near Earth)
Interstellar Medium
Ionosphere
Jupiter
Local Group of Galaxies
Magnetosphere (other)
Magnetotail
Mantle
Mars
Mediterranean Sea
Mercury
Mesosphere
Meteoroids
Mid-Latitude
Milky Way Galaxy
Moon (Earth)
Moons (other)
Neptune
North America
Novae
Pacific Ocean
Photosphere
Pluto
Polar
Quasars
Radio Sources
Rings (planetary)
Saturn
Sea Floor
Sea Surface
Solar Interior
South America
Southern Ocean
Star Clusters
Stars
Stratosphere
Supernova Remnants
Supernovae
Transition Region
Troposphere
Uranus
Venus

Table of Valid Entries for "parameter group" and "parameter" Sorted by "parameter group"

Anatomical Parameters

Body Regions
Cardiovascular System
Cells
Digestive System
Embryonic Structures
Endocrine System
Fluids and Secretions
Hemic and Immune Systems
Musculoskeletal System
Nervous System
Reproductive System
Respiratory System
Sense Organs
Stomatognathic System
Tissue types
Urogenital System

Astronomical Parameters

Abundances
Bibliography
Binaries
Colors
Cross Identifications
Ephemerides
Imagery
Magnetic Fields
Magnitudes
Masses
Models
Morphology
Object Counts
Occultations
Oscillations
Parallaxes
Photometry
Polarization
Positions
Proper Motions
Radial Velocities
Reddening
Redshifts
Rotational Velocities
Space Velocities
Spectra
Spectrophotometry
Variability

Atmospheric Composition

Aerosols
Air Quality
Ash
Carbon Dioxide
Chlorofluorocarbons
Clouds
Contaminants
Humidity
Methane
Nitric Acid
Nitrogen
Nitrogen Dioxide
Oxygen
Ozone
Trace Elements
Trace Gases
Tracers
Water Vapor

Atmospheric Dynamics

Altitude
Atmospheric Temperature
Cloud Types
Evaporation
Evapotranspiration
Geopotential Height
Heat Flux
Humidity
Paleoclimate Indices
Precipitation
Pressure
Solar Radiation
Storms
Visibility
Winds

Biological Entities

Birds
Domesticated Animals
Domesticated Plants
Endangered Species
Land Wildlife
Microorganisms
Minor Species
Ocean Vegetation
Ocean Wildlife
Surface Vegetation

Biotechnology

Cells
Cell Cultures
Crystal Growth
Proteins
Separations

Charged Particles

Alpha Particles
Composition
Density
Differential Flux
Distribution Functions
Electron Flux
Energetic Particles
Heavy Ions
Proton Flux
Speed
Temperature

Diseases

Addiction
Bacterial
Cardiovascular
Chronic
Communicable
Dermatologic
Digestive System
Endocrine
Eye
Fungal
Immunologic
Infection
Injury
Musculoskeletal
Neonatal
Neoplasms
Nervous System
Nutritional and Metabolic
Occupational
Ophthalmic
Otorhinolaryngologic
Parasitic
Poisoning
Pregnancy Complications
Respiratory
Skin
Stomatognathic
Urologic
Virus

Earth Radiative Processes

Albedo
Brightness Temperature
Heat Flux
Irradiance
Radiance
Solar Activity
Temperature
Thermal Inertia

Geodynamic Features

Earthquakes
Erosion
Geodesy
Geothermal
Gravity Fields
Magnetic Fields
Polar Motion
Seismic
Structures
Tectonophysics
Terrain Elevation
Volcanoes

Geography and Land Cover

Albedo
Cultural Features
Elevation
Fires
Glaciers
Ice
Lakes
Landforms
Rivers
Snow
Soils
Surface Vegetation
Surface Water
Topographic Data
Wetlands

Geological Parameters

Age Determinations
Coal
Economic Minerals
Geochemical Analysis
Igneous and Metamorphic Rocks
Lithology
Mineralogy and Crystallography
Paleontology
Petroleum
Petrology
Sedimentary Rocks
Soils
Stratigraphy

Health Care

Clinical Care
Community Care
Institutional Care

Hydrologic Parameters

Contamination
Deposition
Erosion
Evaporation
Glaciers
Ground Water
Infiltration
Oxygen Demand
Precipitation
Rivers
Runoff
Sedimentation
Solids
Surface Water
Temperature
Turbidity
Water Vapor
Wetlands

Magnetic and Electric Fields

Activity Indices
Electric Fields (DC)
Electric Wave Spectra (AC)
Magnetic Fields (DC)
Magnetic Wave Spectra (AC)

Material Science

Containerless Processing
Crystal Growth
Electronic and Photonic Materials
Glasses and Ceramics
Metals and Alloys
Solidification
Thermophysical Properties

Neutral Particles

Composition
Density
Distribution Functions
Flux
Speed
Temperature

Ocean Composition

Alkalinity
Aquatic Plants
Biomass
Carbon Dioxide
Chemical Tracers
Chlorophyll
Conductivity
Dissolved Solids
Light Transmission
Major Elements
Minor Species
Nitrate
Nitric Acid
Nitrite
Nitrogen
Nitrogen Dioxide
Nutrients
Ocean Wildlife
Organic Matter
Oxygen
pH
Phosphates
Phytoplankton
Pigment Concentration
Pollutants
Salinity
Sea Ice
Sediments
Silicate
Suspended Solids
Trace Elements
Upwelling
Zooplankton

Ocean Dynamics

Bathymetry
Brightness Temperature
Currents
Evaporation
Geopotential Height
Heat Flux
Pressure
Primary Production
Sea Ice
Sea Level
Sea Surface Height
Sedimentation
Swell
Temperature
Tides
Turbidity
Upwelling
Waves
Winds

Physiological Parameters

Adaptation
Aging
Body Constitution
Body Temperature
Cell Count
Cell Physiology
Chronobiology
Circulatory Physiology
Digestive Physiology
Electrophysiology
Eye Physiology
Growth and Development
Hematology
Homeostasis
Musculoskeletal Physiology
Neural Physiology
Oral Physiology
Reproduction Physiology
Respiratory Physiology
Skin Physiology
Urogenital Physiology

Public Health

Accidents
Behavior
Disease Outbreaks
Drug Contamination
Environmental Health
Epidemics
Epidemiologic Measurements
Food Poisoning
Nutrition

Radiance and Imagery

Gamma Ray
Infrared
Microwave
Radio Wave
Ultraviolet
Visible
X-Ray

Solar Properties

Active Regions
Coronal Holes
Coronal Properties
Events
Filaments
Flares
Imagery
Oscillations
Prominences
Sunspots
Synoptic Maps
Velocity Fields

Vital Statistics

Demography
Morbidity
Mortality

Table of Valid Entries for "parameter group" and "parameter" Sorted by "parameter"

PARAMETER	PARAMETER GROUP
Abundances	Astronomical Parameters
Accidents	Public Health
Active Regions	Solar Properties
Activity Indices	Magnetic and Electric Fields
Adaptation	Physiological Parameters
Addiction	Diseases
Aerosols	Atmospheric Composition
Age Determinations	Geological Parameters
Aging	Physiological Parameters
Air Quality	Atmospheric Composition
Albedo	Earth Radiative Processes
Albedo	Geography and Land Cover
Alkalinity	Ocean Composition
Alpha Particles	Charged Particles
Altitude	Atmospheric Dynamics
Aquatic Plants	Ocean Composition
Ash	Atmospheric Composition
Atmospheric Temperature	Atmospheric Dynamics
Bacterial	Diseases
Bathymetry	Ocean Dynamics
Behavior	Public Health
Bibliography	Astronomical Parameters
Binaries	Astronomical Parameters
Biomass	Ocean Composition
Birds	Biological Entities
Body Constitution	Physiological Parameters
Body Regions	Anatomical Parameters

Body Temperature	Physiological Parameters
Brightness Temperature	Earth Radiative Processes
Brightness Temperature	Ocean Dynamics
Carbon Dioxide	Atmospheric Composition
Carbon Dioxide	Ocean Composition
Cardiovascular	Diseases
Cardiovascular System	Anatomical Parameters
Cell Count	Physiological Parameters
Cell Cultures	Biotechnology
Cell Physiology	Physiological Parameters
Cells	Anatomical Parameters
Cells	Biotechnology
Chemical Tracers	Ocean Composition
Chlorofluorocarbons	Atmospheric Composition
Chlorophyll	Ocean Composition
Chronic	Diseases
Chronobiology	Physiological Parameters
Circulatory Physiology	Physiological Parameters
Clinical Care	Health Care
Cloud Types	Atmospheric Dynamics
Clouds	Atmospheric Composition
Coal	Geological Parameters
Colors	Astronomical Parameters
Communicable	Diseases
Community Care	Health Care
Composition	Charged Particles
Composition	Neutral Particles
Conductivity	Ocean Composition
Containerless Processing	Material Science
Contaminants	Atmospheric Composition

Contamination	Hydrologic Parameters
Coronal Holes	Solar Properties
Coronal Properties	Solar Properties
Cross Identifications	Astronomical Parameters
Crystal Growth	Biotechnology
Crystal Growth	Material Science
Cultural Features	Geography and Land Cover
Currents	Ocean Dynamics
Demography	Vital Statistics
Density	Charged Particles
Density	Neutral Particles
Deposition	Hydrologic Parameters
Dermatologic	Diseases
Differential Flux	Charged Particles
Digestive Physiology	Physiological Parameters
Digestive System	Anatomical Parameters
Digestive System	Diseases
Disease Outbreaks	Public Health
Dissolved Solids	Ocean Composition
Distribution Functions	Charged Particles
Distribution Functions	Neutral Particles
Domesticated Animals	Biological Entities
Domesticated Plants	Biological Entities
Drug Contamination	Public Health
Earthquakes	Geodynamic Features
Economic Minerals	Geological Parameters
Electric Fields (DC)	Magnetic and Electric Fields
Electric Wave Spectra (AC)	Magnetic and Electric Fields
Electron Flux	Charged Particles
Electronic and Photonic Materials	Material Science

Electrophysiology	Physiological Parameters
Elevation	Geography and Land Cover
Embryonic Structures	Anatomical Parameters
Endangered Species	Biological Entities
Endocrine	Diseases
Endocrine System	Anatomical Parameters
Energetic Particles	Charged Particles
Environmental Health	Public Health
Ephemerides	Astronomical Parameters
Epidemics	Public Health
Epidemiologic Measurements	Public Health
Erosion	Geodynamic Features
Erosion	Hydrologic Parameters
Evaporation	Atmospheric Dynamics
Evaporation	Hydrologic Parameters
Evaporation	Ocean Dynamics
Evapotranspiration	Atmospheric Dynamics
Events	Solar Properties
Eye	Diseases
Eye Physiology	Physiological Parameters
Filaments	Solar Properties
Fires	Geography and Land Cover
Flares	Solar Properties
Fluids and Secretions	Anatomical Parameters
Flux	Neutral Particles
Food Poisoning	Public Health
Fungal	Diseases
Gamma Ray	Radiance and Imagery
Geochemical Analysis	Geological Parameters
Geodesy	Geodynamic Features

Geopotential Height	Atmospheric Dynamics
Geopotential Height	Ocean Dynamics
Geothermal	Geodynamic Features
Glaciers	Geography and Land Cover
Glaciers	Hydrologic Parameters
Glasses and Ceramics	Material Science
Gravity Fields	Geodynamic Features
Ground Water	Hydrologic Parameters
Growth and Development	Physiological Parameters
Heat Flux	Atmospheric Dynamics
Heat Flux	Earth Radiative Processes
Heat Flux	Ocean Dynamics
Heavy Ions	Charged Particles
Hematology	Physiological Parameters
Hemic and Immune Systems	Anatomical Parameters
Homeostasis	Physiological Parameters
Humidity	Atmospheric Composition
Humidity	Atmospheric Dynamics
Ice	Geography and Land Cover
Igneous and Metamorphic Rocks	Geological Parameters
Imagery	Astronomical Parameters
Imagery	Solar Properties
Immunologic	Diseases
Infection	Diseases
Infiltration	Hydrologic Parameters
Infrared	Radiance and Imagery
Injury	Diseases
Institutional Care	Health Care
Irradiance	Earth Radiative Processes
Lakes	Geography and Land Cover

Land Wildlife	Biological Entities
Landforms	Geography and Land Cover
Light Transmission	Ocean Composition
Lithology	Geological Parameters
Magnetic Fields	Astronomical Parameters
Magnetic Fields	Geodynamic Features
Magnetic Fields (DC)	Magnetic and Electric Fields
Magnetic Wave Spectra (AC)	Magnetic and Electric Fields
Magnitudes	Astronomical Parameters
Major Elements	Ocean Composition
Masses	Astronomical Parameters
Metals and Alloys	Material Science
Methane	Atmospheric Composition
Microorganisms	Biological Entities
Microwave	Radiance and Imagery
Mineralogy and Crystallography	Geological Parameters
Minor Species	Biological Entities
Minor Species	Ocean Composition
Models	Astronomical Parameters
Morbidity	Vital Statistics
Morphology	Astronomical Parameters
Mortality	Vital Statistics
Musculoskeletal	Diseases
Musculoskeletal Physiology	Physiological Parameters
Musculoskeletal System	Anatomical Parameters
Neonatal	Diseases
Neoplasms	Diseases
Nervous System	Anatomical Parameters
Nervous System	Diseases
Neural Physiology	Physiological Parameters

Nitrate	Ocean Composition
Nitric Acid	Atmospheric Composition
Nitric Acid	Ocean Composition
Nitrite	Ocean Composition
Nitrogen	Atmospheric Composition
Nitrogen	Ocean Composition
Nitrogen Dioxide	Atmospheric Composition
Nitrogen Dioxide	Ocean Composition
Nutrients	Ocean Composition
Nutrition	Public Health
Nutritional and Metabolic	Diseases
Object Counts	Astronomical Parameters
Occultations	Astronomical Parameters
Occupational	Diseases
Ocean Vegetation	Biological Entities
Ocean Wildlife	Biological Entities
Ocean Wildlife	Ocean Composition
Ophthalmic	Diseases
Oral Physiology	Physiological Parameters
Organic Matter	Ocean Composition
Oscillations	Astronomical Parameters
Oscillations	Solar Properties
Otorhinolaryngologic	Diseases
Oxygen	Atmospheric Composition
Oxygen	Ocean Composition
Oxygen Demand	Hydrologic Parameters
Ozone	Atmospheric Composition
Paleoclimate Indices	Atmospheric Dynamics
Paleontology	Geological Parameters
Parallaxes	Astronomical Parameters

Parasitic	Diseases
Petroleum	Geological Parameters
Petrology	Geological Parameters
pH	Ocean Composition
Phosphates	Ocean Composition
Photometry	Astronomical Parameters
Phytoplankton	Ocean Composition
Pigment Concentration	Ocean Composition
Poisoning	Diseases
Polar Motion	Geodynamic Features
Polarization	Astronomical Parameters
Pollutants	Ocean Composition
Positions	Astronomical Parameters
Precipitation	Atmospheric Dynamics
Precipitation	Hydrologic Parameters
Pregnancy Complications	Diseases
Pressure	Atmospheric Dynamics
Pressure	Ocean Dynamics
Primary Production	Ocean Dynamics
Prominences	Solar Properties
Proper Motions	Astronomical Parameters
Proteins	Biotechnology
Proton Flux	Charged Particles
Radial Velocities	Astronomical Parameters
Radiance	Earth Radiative Processes
Radio Wave	Radiance and Imagery
Reddening	Astronomical Parameters
Redshifts	Astronomical Parameters
Reproduction Physiology	Physiological Parameters
Reproductive System	Anatomical Parameters

Respiratory	Diseases
Respiratory Physiology	Physiological Parameters
Respiratory System	Anatomical Parameters
Rivers	Geography and Land Cover
Rivers	Hydrologic Parameters
Rotational Velocities	Astronomical Parameters
Runoff	Hydrologic Parameters
Salinity	Ocean Composition
Sea Ice	Ocean Composition
Sea Ice	Ocean Dynamics
Sea Level	Ocean Dynamics
Sea Surface Height	Ocean Dynamics
Sedimentary Rocks	Geological Parameters
Sedimentation	Hydrologic Parameters
Sedimentation	Ocean Dynamics
Sediments	Ocean Composition
Seismic	Geodynamic Features
Sense Organs	Anatomical Parameters
Separations	Biotechnology
Silicate	Ocean Composition
Skin	Diseases
Skin Physiology	Physiological Parameters
Snow	Geography and Land Cover
Soils	Geography and Land Cover
Soils	Geological Parameters
Solar Activity	Earth Radiative Processes
Solar Radiation	Atmospheric Dynamics
Solidification	Material Science
Solids	Hydrologic Parameters
Space Velocities	Astronomical Parameters

Spectra	Astronomical Parameters
Spectrophotometry	Astronomical Parameters
Speed	Charged Particles
Speed	Neutral Particles
Stomatognathic System	Anatomical Parameters
Stomatognathic	Diseases
Storms	Atmospheric Dynamics
Stratigraphy	Geological Parameters
Structures	Geodynamic Features
Sunspots	Solar Properties
Surface Vegetation	Biological Entities
Surface Vegetation	Geography and Land Cover
Surface Water	Geography and Land Cover
Surface Water	Hydrologic Parameters
Suspended Solids	Ocean Composition
Swell	Ocean Dynamics
Synoptic Maps	Solar Properties
Tectonophysics	Geodynamic Features
Temperature	Charged Particles
Temperature	Earth Radiative Processes
Temperature	Hydrologic Parameters
Temperature	Neutral Particles
Temperature	Ocean Dynamics
Terrain Elevation	Geodynamic Features
Thermal Inertia	Earth Radiative Processes
Thermophysical Properties	Material Science
Tides	Ocean Dynamics
Tissue Types	Anatomical Parameters
Topographic Data	Geography and Land Cover
Trace Elements	Atmospheric Composition

Trace Elements	Ocean Composition
Trace Gases	Atmospheric Composition
Tracers	Atmospheric Composition
Turbidity	Hydrologic Parameters
Turbidity	Ocean Dynamics
Ultraviolet	Radiance and Imagery
Upwelling	Ocean Composition
Upwelling	Ocean Dynamics
Urogenital Physiology	Physiological Parameters
Urogenital System	Anatomical Parameters
Urologic	Diseases
Variability	Astronomical Parameters
Velocity Fields	Solar Properties
Virus	Diseases
Visibility	Atmospheric Dynamics
Visible	Radiance and Imagery
Volcanoes	Geodynamic Features
Water Vapor	Atmospheric Composition
Water Vapor	Hydrologic Parameters
Waves	Ocean Dynamics
Wetlands	Geography and Land Cover
Wetlands	Hydrologic Parameters
Winds	Atmospheric Dynamics
Winds	Ocean Dynamics
X-Ray	Radiance and Imagery
Zooplankton	Ocean Composition