

The Community Data Portal and The Earth System Grid

Don Middleton; NCAR/CISL

October 11, 2005

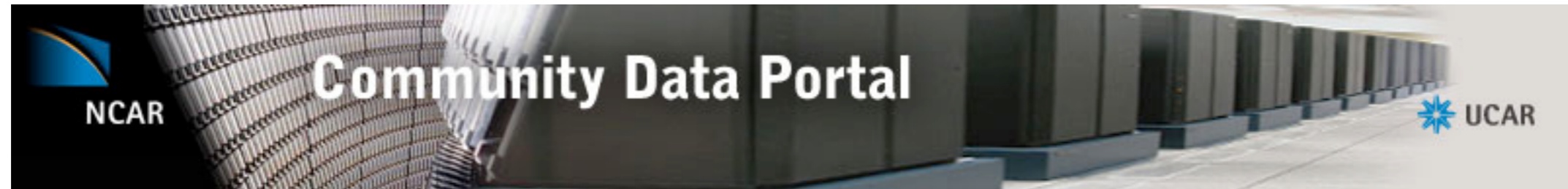
WMO ET-WISC; Geneva, Switzerland



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scd NCAR Scientific Computing Division
Supercomputing • Communications • Data





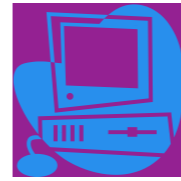
The CDP is aimed at developing sustainable, effective strategies for data management and sharing, leading to an institutional data presence on the web.

- Develop integrated, shared *cyberinfrastructure* for managing and accessing geoscientific data: systems, middleware, applications
- Collaborate with many different projects and activities, broadening beyond institution
- Engage in co-development with partners
- Avoid “reinventing the wheel”

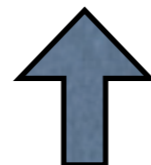
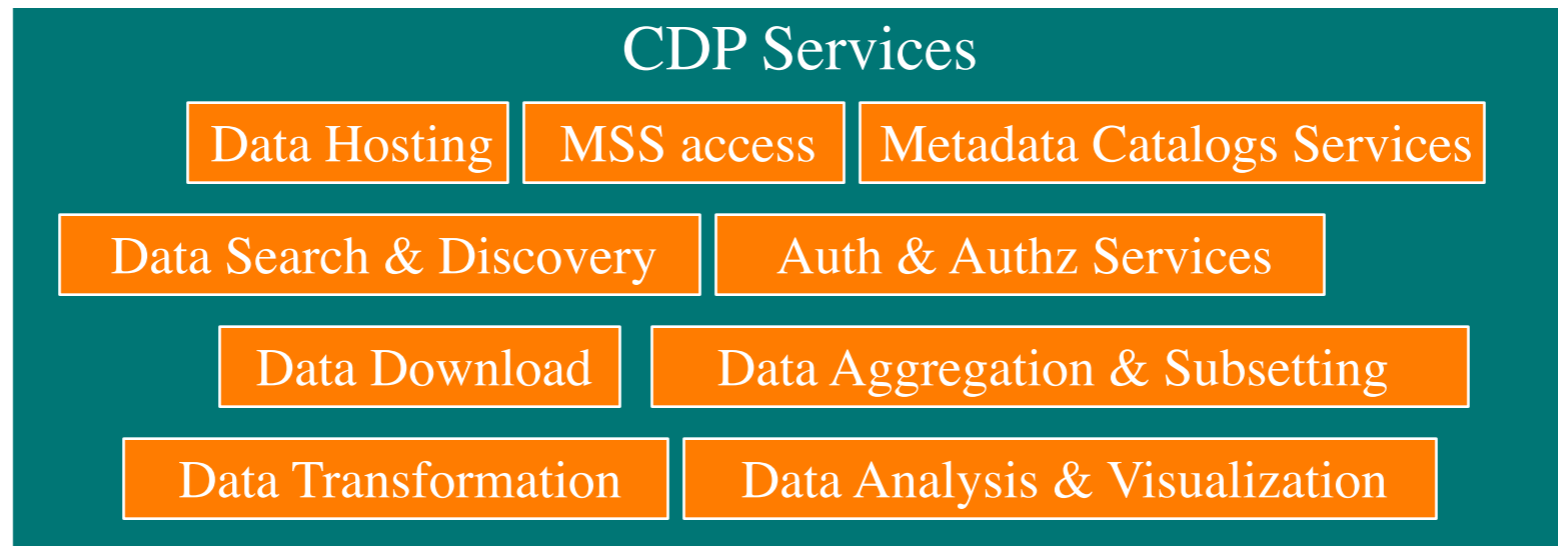




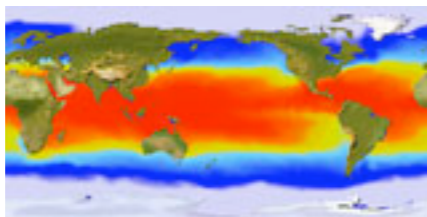
Web Browsers



Native Client



Climate Models



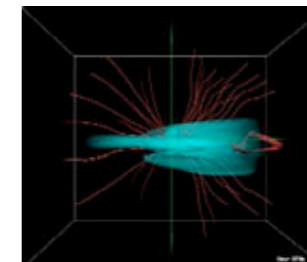
Campaigns



Remote Sensing



Space Weather



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Search for Earth Science datasets by metadata keyword:



The Community Data Portal (CDP) is a collection of earth science datasets from NCAR, UCAR, UOP, and participating organizations in the following research areas:

- oceanic
- atmospheric
- space weather
- turbulence

CDP is an NCAR Cyberinfrastructure Strategic Initiative led by the NCAR Scientific Computing Division. It is a collaboration between UCAR, NCAR, UOP, and the National Science Foundation. CDP is developed by NCAR/SCD/VETS and utilizes several software packages and standards including [LAS](#), [OPeNDAP](#), [GCMD](#), and [THREDDS](#).

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Community Data Portal 2.8

[browse](#)

- [ACD Models and Software](#) : Atmospheric Chemistry Division, NCAR
- [ATD/AIRS-II](#) : Alliance Icing Research Study - II
- [ATD/GOTEX](#) : Gulf Of Tehuantepec EXperiment
- [ATD/IHOP](#) : IHOP 2002 campaign
- [ATD/NAME](#) : North American Monsoon Experiment
- [CGD/CAS](#) : Climate Analysis Section top level catalog
- [CGD/CCSM](#) : Community Climate System Model (data served by ESG)
- [CGD/DAYMET](#) : Daily Surface Weather Data and Climatological Summaries
- [CGD/PCM](#) : Parallel Climate Model (data served by ESG)
- [CGD/CDAS](#) : Carbon Data-Model Assimilation
- [CME](#) : Carbon in the Mountains Experiment
- [COLA](#) : Center for Ocean-Land-Atmosphere studies
- [CU/CIRES/ENLIL](#) : Heliospheric Model
- [EOL](#) : Earth observing Laboratory
- [GB/NCAS/BADC](#) : British Atmospheric Data Centre, OAI Harvested Datasets



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WACCM (Whole Atmosphere Community Climate Model)

creator: [UCAR/NCAR/ACD](#) > Atmospheric Chemistry Division, National Center for Atmospheric Research, University Corporation for Atmospheric Research

creator: [UCAR/NCAR/CGD](#) > Climate and Global Dynamics Division, National Center for Atmospheric Research, University Corporation for Atmospheric Research

creator: [UCAR/NCAR/HAO](#) > High Altitude Observatory, National Center for Atmospheric Research, University Corporation for Atmospheric Research

publisher: [UCAR/NCAR/CDP](#) > Community Data Portal, National Center for Atmospheric Research, University Corporation for Atmospheric Research

project: [WACCM](#) > Whole-Atmosphere Community Climate Model

summary: The Whole-Atmosphere Community Climate Model (WACCM) is a comprehensive numerical model, spanning the range of altitude from the Earth's surface to the thermosphere. The development of WACCM is an inter-divisional collaboration that unifies certain aspects of the upper atmospheric modeling of HAO, the middle atmosphere modeling of ACD, and the tropospheric modeling of CGD, using the NCAR Community Climate System Model (CCSM) as a common numerical framework.

related link: [WACCM home page](#)

+ Metadata

Nested Datasets

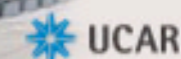
[WACCM-1b source code distribution](#)[MOZART3 chemical fields](#)[WACCM-1 standard dynamics, selected fields, 3-hourly output](#)[WACCM-1 standard dynamics, 1950-2000 variable SST, monthly-mean output](#)



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[CDP Home](#)[Applications](#)[Data Providers](#)[Support](#)[Login](#)Datasets hierarchy: [MOZART \(Model for OZone And Related chemical Tracers\)](#) >

MOZART-2 MACCM3 Standard simulation (v2.1)

creator: [UCAR/NCAR/ACD](#) > Atmospheric Chemistry Division, National Center for Atmospheric Research, University Corporation for Atmospheric Research

publisher: [UCAR/NCAR/CDP](#) > Community Data Portal, National Center for Atmospheric Research, University Corporation for Atmospheric Research

project: [MOZART-2 MACCM3](#) > Model for OZone And Related chemical Tracers

summary: MOZART-2 includes detailed NOx-CH4-NMHC chemistry for the troposphere, with stratospheric chemistry constrained to climatologies.

summary: MOZART is a global 3-D chemical transport model driven by offline meteorological fields, developed at NCAR, MPI-Meteorology, and NOAA/GFDL.

related link: [MOZART Home Page](#)

+ Metadata

Dataset-level access



[Live Access Server \(data download and vizualization\)](#)



[OpenDAP](#)

File-level access

To access files served by a HTTP, FTP or DODS server, simply click on the link. To download files from NCAR MSS, select the checkboxes and proceed to [download](#).

File-level access

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1-20 of 38 datafiles | [21-38](#)start from file #: +1 and display files per page (max:100) My Data Cart: [Add selected files to Data Cart](#) | [Empty Data Cart](#) | [Go to Data Cart](#).

File	Metadata	Format	Type	Size	Download	Related
1. h0040.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
2. h0041.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
3. h0042.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
4. h0043.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
5. h0044.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
6. h0045.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
7. h0046.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
8. h0047.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
9. h0048.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
10. h0049.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
11. h0050.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
12. h0051.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
13. h0052.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
14. h0053.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
15. h0054.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
16. h0055.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
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18. h0057.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	
19. h0058.nc	NcML	NetCDF	Grid	836582060 bytes	DISK [HTTPServer] <input type="checkbox"/> NCAR MSS	



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[browse](#)

- [ACD/BAI/MEGAN](#) : Model of Emissions of Gases and Aerosols from Nature
- [ACD/MOZART Model](#) : Model for OZone and Related chemical Tracers
- [ACD Model Evaluation Data](#) : TRACE-P, SOLVE, ACCENT, CRYSTAL-FACE, POLARIS campaigns
- [ATD](#) : IHOP 2002 campaign
- [CGD/CAS](#) : Climate Analysis Section top level catalog
- [CGD/CCSM](#) : Community Climate System Model (data served by ESG)
- [CGD/PCM](#) : Parallel Climate Model (data served by ESG)
- [CU/CIRES/ENLIL](#) : Heliospheric Model
- [JOSS/IHOP](#) : IHOP (International H2O Project) 2002 campaigns
- [SCD/DSS](#) : Data Support Section top level catalog
- [SCD/VETS](#) : Vizualization Gallery
- [Unidata](#) : Realtime data from IDD



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54 Results

1 - 10 | [next>](#)
[view long descriptions](#)

refine search

Your search was for "ncep or eta" in any field.

results browser

▼ EARTH SCIENCE	40
▶ Atmosphere	37
▶ Hydrosphere	6
▶ Land Surface	5
▶ Oceans	20
▶ Radiance Or Imagery	1
▶ Spectral	1

1. [Locally Run Workstation Eta model data](#)

Work Station ETA 4 Km resolution

2. [NCEP Eta 80km CONUS model data \(real and near time\)](#)

ETA model data is available at 12Z and 00Z, with analysis and 60 hour forecasts included in each file. Forecast variables are available at 12 hour intervals. Vertical levels include isobaric levels from 1000 mb to 100 mb in 50 mb increments. The following ETA variables can be found on the NCEP 211 Grid (Regional Lambert conformal (Continental United States) 93 x 65 grid aligned along 95 degrees W at 81.27 km resolution.

3. [ds609.2 GCIP NCEP Eta model output](#)

The operational NCEP Eta 212 grid (40km) model output is archived in this dataset. This is one of the model output archives for GCIP project. In addition to the MORDS (Model Output Reduced Data Set) and MOLTS (Model Output Location Time Series) analyses required by GCIP project, all upper air levels and their analyses, initialization, and forecasts are saved as well.

4. [ds351.1 NCEP ADP ETA Upper Air Observation Subsets, daily, October 2000 - continuing](#)

DSS presents a regional synoptic set of 6 hourly upper air reports centered over North America, operationally collected by the National Centers for Environmental Prediction (NCEP). These include radiosondes, pibals and aircraft reports from the Global Telecommunications System (GTS) and satellite data from the National Environmental Satellite, Data, and Information Service (NESDIS). The reports can include pressure, geopotential height, temperature, dewpoint depression, wind direction and speed. This data is the primary input to the Eta Data Assimilation System (EDAS), which is used to make forecasts and the Final Analyses (FNL). DS351.0 [<http://dss.ucar.edu/datasets/ds351.0/>] provides global data coverage over the same time period.

The ADPUPA data includes land and ship launched radiosondes and pibals launched at 6 hourly intervals. Data may be available at up to 20 mandatory levels from 1000mb to 1mb, plus a few significant levels. The AIRCFT data includes commercial, some military and reconnaissance reports. They are flight level reports at 6 hourly intervals. The SATWND data includes winds derived from cloud drift analysis. The AIRCAR data includes data from aircraft takeoffs and landings at 6 hourly intervals

This dataset is maintained in NCEP BUFR format, and updated monthly by DSS using weekly files prepared



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Metadata Filter

Find **datasets** whose metadata:contains **all** of the words contains the **exact phrase** contains **at least one** word **does not contain** the words is part of the **project** contains the **science keyword** contains **CF variable** is **published by** has data in the **format** has the **data type** is served by **service type** with organization listed as **creator**

Altitude Filter

Units Upper Limit Lower Limit

Time Filter

	year	month	day
<i>example</i>	2004	06	15
Start Date	<input type="text"/>	<input type="text"/>	<input type="text"/>
End Date	<input type="text"/>	<input type="text"/>	<input type="text"/>

Geographic Filter

Enter geographic coordinates manually or click the "Select Region" button to make a visual selection.

contains **at least one** word has the **data type**

does not contain the words

is part of the **project** is served by **service type**

contains the **science keyword** with organization listed as **creator**

contains **CF variable**

Altitude Filter

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End Date	<input type="text"/>	<input type="text"/>	<input type="text"/>

Geographic Filter

Enter geographic coordinates manually or click the "Select Region" button to make a visual selection.



north

west **east**

south

(requires that popups and Java are enabled)



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refine search

Your search was for "antarctic or ozone" in any field.

[Refine Search](#)

results browser

Science Keyword ▾

▼ EARTH SCIENCE	96
▶ Atmosphere	92
▶ Biosphere	8
▶ Cryosphere	6
▶ Human Dimensions	1
▶ Hydrosphere	8
▶ Land Surface	10
▶ Oceans	14
▶ Paleoclimate	1
▶ Radiance Or Imagery	1
▶ Solar Physics	1
▶ Spectral	4
▼ EARTH SCIENCE Y	1
▶ Atmosphere	1

99 Results

1 - 10 | [next>](#)[view long descriptions](#)

1. [Airborne Antarctic Ozone Experiment \(AAOE-87\)](#)

This CD-ROM contains data from the Airborne Antarctic Ozone Experiment (AAOE) which was based in Punta Arenas, Chile during August and September 1987. The data is primarily that collected onboard the NASA ER-2 and DC-8 aircraft, along with ozonesonde data collected at four Antarctic stations--Halley Bay, McMurdo, Palmer Station, and the South Pole. The experiment tested the chemical and dynamical theories of the ozone hole using the aircraft data in theoretical computer models of the chemistry and dynamics of the stratosphere. The NASA ER-2 is a high altitude research aircraft that sampled air at those altitudes where the ozone hole was at its most intense, with data gathered on the air mass within the confines of the hole itself. The ER-2 collected information on three-dimensional winds, pressure, temperature, temperature profiles +/- 1 km from flight level, chlorine monoxide, bromine monoxide, ozone, nitric oxide, reactive nitrogen, total water, nitrous oxide, whole air sampling, condensation nuclei, aerosol size distribution and composition, and cloud particle images and sizes. The DC-8 aircraft flew at the lowermost extremities of the hole and deployed a combination of remote sounding of the overlying atmosphere with some in situ sampling. Vertical distributions of ozone and aerosols above the cruising altitude of the aircraft and within the hole were mapped. The DC-8 collected ozone and aerosol profiles overhead by LIDAR; and measured ozone, bromine oxide, OClO, nitrogen dioxide, nitric acid, and hydrogen chloride. In situ methods yielded ozone, total water, and whole air sampling.

2. [Airborne Arctic Stratospheric Expedition \(AASE\)](#)

This CD-ROM contains data from the Airborne Arctic Stratospheric Expedition (AASE) which was based in Stavanger, Norway during January and February, 1989. The expedition was designed to study the production and loss mechanisms of ozone in the north polar stratospheric environment, and the effect on ozone distribution of the Arctic polar vortex and of the cold temperatures associated with the formation of Polar Stratospheric Clouds (PSC). The data consists of measurements of chemical and dynamical parameters collected onboard the NASA ER-2 and DC-8 aircraft (for example, ClO, BrO, HCl, O3, NOx, N2O, HNO3 and CH4, whole air samples and aerosol measurements). In addition, there are ozonesonde soundings from three stations (Angmagssalik and Scoresbysund, Greenland, and Lerwick, U.K.), aerosol and temperature profiles from the SAM II satellite, global grid point values of Nimbus 7 TOMS ozone, and selected radiosonde soundings from stations in the region of the experiment. The mission used similar instrumentation to that which was deployed during the Airborne Antarctic Ozone Experiment (AAOE) in 1987. Theory teams provided calculations of: potential vorticity along the ER-2 flight path; cross-sections of potential vorticity, temperature, and geopotential heights along the DC-8 flight path; cross-sections of Clx, Fx, HCl, HNO3, and NOy along the DC-8 flight path; global grid point values of temperature, geopotential heights, and horizontal winds on selected pressure surfaces; northern hemispheric grid point values of potential vorticity and pressure on selected potential temperature surfaces.

3. [ds233.0 Arctic and Antarctic Sea Ice Concentration, monthly, Walsh et al.](#)

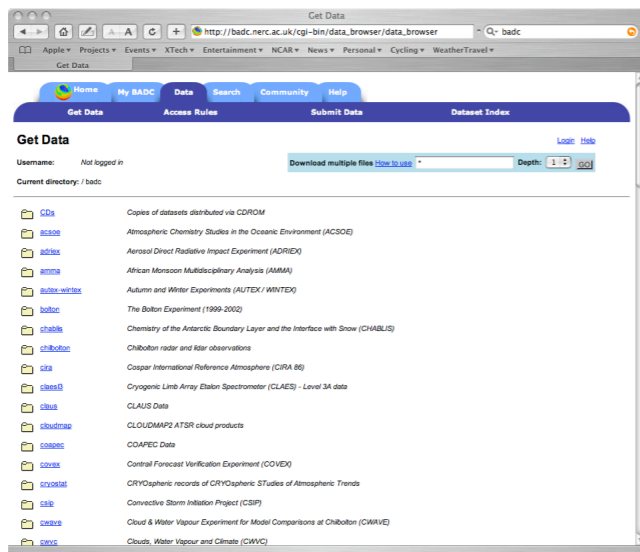
Using various sources for sea ice concentration John Walsh and Bill Chapman have derived a monthly time series of Arctic and Antarctic sea ice concentration.

4. [LSO FRAM data](#)

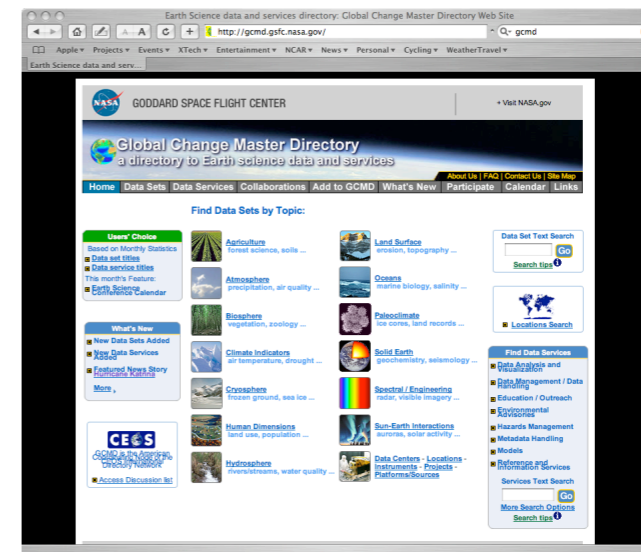
OAI Catalog Federation



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Data Integration



Carbon in the Mountains Experiment



Integrated Surface Flux Facility (ISFF)



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Unidata IDV

File Edit Displays Data Collaboration Help

2004-05-20 13:00:00Z

View Projections

Time = 2004-05-20 13:00:00Z
38 of 233

Memory: 268.71/530.91 MB (50%)

http://dataportal.u... - WebCam Display

File Edit View Help

Animation Mode: From Main Display

2004-05-20 13:00:00Z

ACME04 Research Flight - RF03

Thu May 20 13:00:00 2004

Field Selector

File Edit Displays Data Collaboration Help

Data Sources	Fields	Displays
Formulas	<ul style="list-style-type: none"> Topographic map Digital Ortho-Quad Urban Area Shaded Relief 	
.../2004.ACME.C130_N130AR.LR		
WMS data source		
WMS data source		
Background images		

Times Use Default

Add New Data Source Create Display Close



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Data Sets

- IDV
Bundle
Initialization
CDP
- Flight track
CDP/MSS
- Downlooking camera
images
CDP
- Blue Marble
Satellite Background
NASA JPL
- Chat messages
EOL/RDP
- In situ Airborne CO2
EOL/RAF
- Airborne Radiometer
CDP (future)
- Transport Model
CGD (future)

CDP access control

CDP

Works together with
IDV to control dataset
access

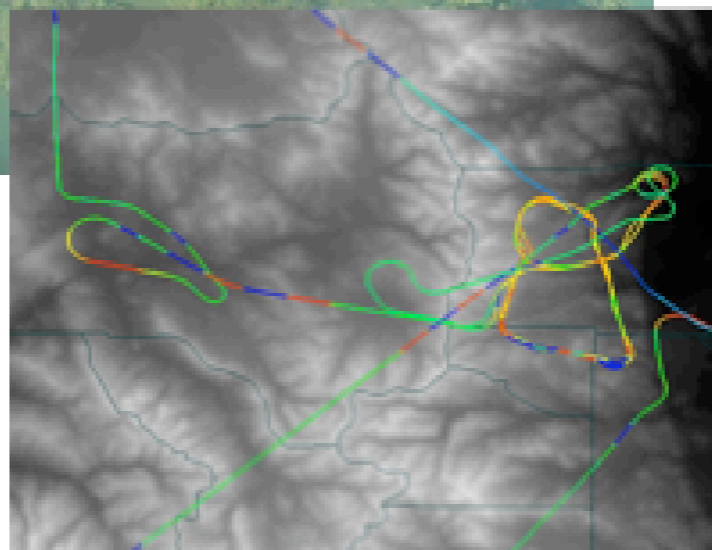
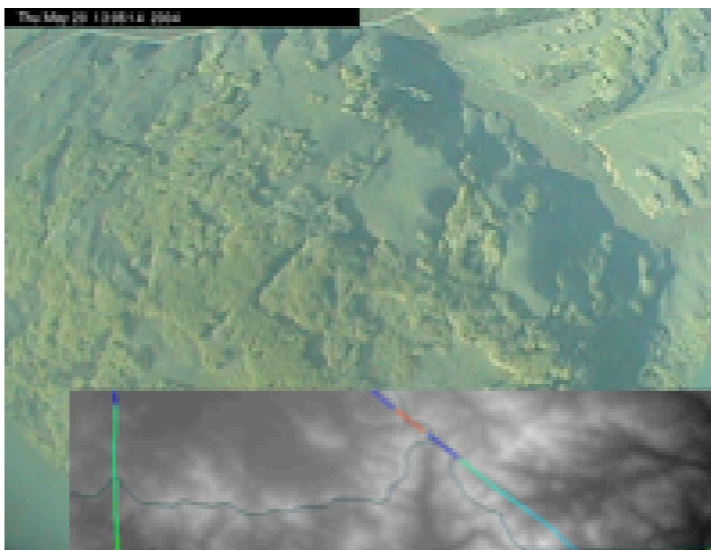
Facilitates versioning

IDV client

Time synchronization

Fusing data from
multiple remote and
local providers

Drill into time steps to
probe data and
proof data for
early stages of QA

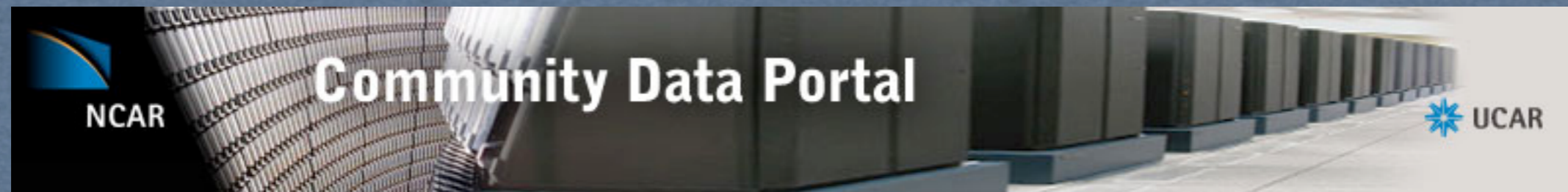


Time	Lat	Long	Altitude	Speed	Heading
2003-01-10 10:00:00	38.0000	-108.0000	10000	100	0
2003-01-10 10:00:05	38.0000	-108.0000	10000	100	0
2003-01-10 10:00:10	38.0000	-108.0000	10000	100	0
2003-01-10 10:00:15	38.0000	-108.0000	10000	100	0
2003-01-10 10:00:20	38.0000	-108.0000	10000	100	0
2003-01-10 10:00:25	38.0000	-108.0000	10000	100	0
2003-01-10 10:00:30	38.0000	-108.0000	10000	100	0
2003-01-10 10:00:35	38.0000	-108.0000	10000	100	0
2003-01-10 10:00:40	38.0000	-108.0000	10000	100	0
2003-01-10 10:00:45	38.0000	-108.0000	10000	100	0
2003-01-10 10:00:50	38.0000	-108.0000	10000	100	0
2003-01-10 10:00:55	38.0000	-108.0000	10000	100	0
2003-01-10 10:01:00	38.0000	-108.0000	10000	100	0

- Scientific
Collaborations**
- Remote
collaborative
analysis
 - Enhanced
Visualization
 - Multivariable
movies

Team members:

- Steve Aulenbach CGD
- Teresa Campos EOL/ACD
- Mike Daniels EOL
- Michael Burek SCD/VETS
- Don Murray Unidata/IDV
- Jeff McWhirter Unidata/
IDV
- Ron Ruth EOL



Building a DataGrid across BU, UAH, & NCAR



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GIS Portal

The screenshot shows a Mozilla browser window titled "GIS Climate Change Scenarios - Start - Mozilla". The address bar displays "http://www.gisclimatechange.org/startPage.do". The website header includes "Geographic Information Systems (GIS) Initiative" and "National Center for Atmospheric Research" with the NCAR logo. The main content area features a navigation menu with "Home", "More Info", "FAQ", "Contact Us", "Register", and "Logout". The main text reads "Getting Started: Welcome!" and provides information about the project, data access steps, and user instructions. A sidebar on the left lists "Data Access Steps": 1. Select run set, 2. Select date, 3. Select variable, 4. Download or view map. The footer contains "Portal Software © 2004 UCAR." and a link for "Problems or feedback regarding site? Contact Us".

GIS Climate Change Scenarios project is conducted by the [NCAR GIS Initiative](#) and intended to serve a community of GIS users interested in global climate change. This GIS data portal provides access to free global datasets of climate change scenarios that are being generated for the upcoming 4th Assessment Report of the [Intergovernmental Panel on Climate Change \(IPCC\)](#) by the [Community Climate System Model \(CCSM\)](#). The datasets can be downloaded in a common GIS format (i.e., shapefiles) and used for further visualization, analysis and mapping of global climate change. NOTE: You must [register](#) and [login](#) to access data.

Currently, this website distributes a subset of all data produced by the CCSM. In particular, on the website one can view and/or download monthly mean, 2D atmospheric variables from the CCSM climate change runs. To view or download a variable of interest, please follow the following step-by-step process:

- Select the IPCC climate change runset
- Select the time period of interest or date
- Finally select the variable of interest. NOTE: Only one variable can be downloaded or viewed at a time.

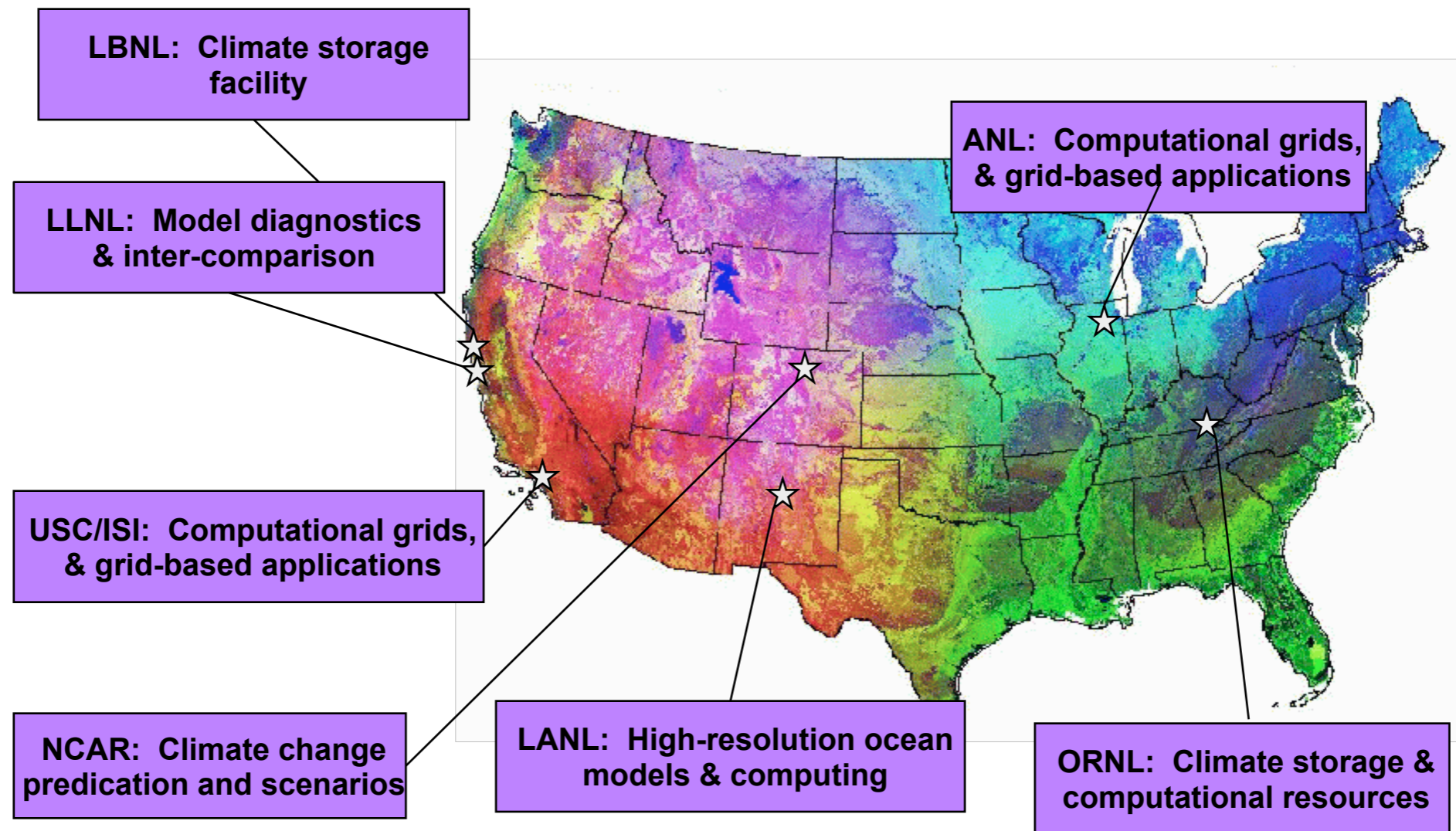
To change any of your selections, simply go back and make changes to your selections in any of the steps.

This website is intended to be complimentary to the IPCC [Data Distribution Centre \(DDC\)](#). To learn more about IPCC, NCAR, CCSM, NCAR GIS Initiative, and climate change science and policy, visit tabs and links throughout this website.

If this is your first visit to the GIS Climate Change Scenario website please [register](#).
If you are a returning user please [login](#).

Thank you for visiting our climate change GIS data portal.

The Earth System Grid (ESG)



<http://www.earthsystemgrid.org>



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ESG News

Registration is required to download some of the data, please [request](#) an account. Please [send us](#) comments or feedback.

New: [IPCC Working Group 1 data](#) available.

The [NCAR MSS](#) is scheduled for downtime each Sunday morning from 0000-0230 MST.

The [NERSC HPSS](#) is scheduled for maintenance downtime from 7-12 PST every Tuesday morning.

The [ORNL HPSS](#) is scheduled for downtime every other Wednesday morning from 8-12 EST.

ESG Current Status

Updated: Thu Sep 15 05:30:00 2005 MDT

	LANL	LBNL	NCAR	ORNL
MSS/HPSS		☹️	😎	😎
SRM		☹️	😎	😎
RLS		😎	😎	😎
OpenDAPg			😎	
GridFTP server			😎	
HTTP	☹️		☹️	




Data Search

Search Dataset metadata for:

Search

Examples: c02, B06.77

Browse Dataset Catalogs

-  [CCSM \(Community Climate System Model\)](#)
-  [PCM \(Parallel Climate Model\)](#)
-  [Scientific Data Processing and Visualization Software](#)

Shortcuts menu:

Welcome to ESG

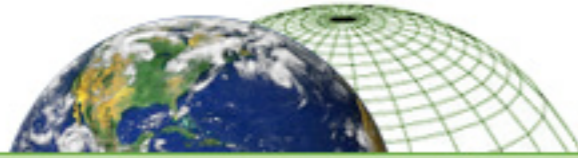
The Earth System Grid (ESG) integrates supercomputers with large-scale data and analysis servers located at numerous national labs and research centers to create a powerful environment for next generation climate research. This portal is the primary point of entry into the ESG.



ESG Collaborators

- [Argonne National Laboratory](#)
- [Lawrence Berkeley National Laboratory](#)
- [Lawrence Livermore National Laboratory](#)
- [Los Alamos National Laboratory](#)
- [National Center for Atmospheric Research](#)
- [Oak Ridge National Laboratory](#)
- [University of Southern California/Information Sciences Institute](#)

Funded by the U.S. Department of Energy



ESG: An Operational DataGrid for IPCC

IPCC Model Output

https://esg.llnl.gov:8443/index.jsp

Apple Projects Events XTech Entertainment NCAR News Personal Cycling WeatherTravel

IPCC Model Output

Home Data About ESG Login

Data Summary | Errata | Variable Names | Contact ESG

8/17/05: Volumes data16 and data17 are offline for an indefinite period. The following datasets are unavailable: 1pcto4x ocean, sresa1b atmospheric monthly, 20c3m daily, picntrl ocean (variable wo only).

This is the portal for the IPCC 4th Assessment Model Output database. Please [send us](#) comments or feedback.

Welcome
 Welcome to the IPCC 4th Assessment Climate Model data portal. If you are new to this site, please review the help pages:
[Registration](#)
[Searching](#)
[Browsing and Downloading Data](#)
[Downloading from FTP](#)

NCAR CCSM and PCM datasets are also available from the NCAR [ESG data portal](#). Separate registration is required.

GFDL CM2.0 and CM2.1 datasets and related documentation are also available from the GFDL [Data Portal](#).

Also see:
[Variable names](#)
[Data Availability Summary](#) : A graphical overview of the

Data Search
 Search Dataset metadata for:

 Examples: c02, B06.77
[Advanced Search](#)

Browse Dataset Catalogs
 [IPCC \(Intergovernmental Panel on Climate Change\)](#)

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Earth System Grid

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Community Climate System Model (CCSM)

Related Links

 [Climate Modeling metadata](#)

Referenced Catalogs

-  [CCSM 3.0 Release](#)
CCSM 3.0 source code and input data
 Freely available after login
-  [CCSM 3.0 Output Data](#)
Output data generated by CCSM 3.0 atmosphere, ocean, ice and land components.
 Freely available after login
-  [CCSM Post Processing](#)
Optional post processing code and/or files
 Freely available after login

Login Status: Not logged in.

Problem downloading data? [Read here](#)
Problem using site? [Contact ESG](#)

[Home](#)[Data](#)[About ESG](#)[Login](#)[Subset](#) | [Search](#) | [Browse](#) | [My Data Cart](#)Datasets hierarchy: [Parallel Climate Model \(PCM\)](#) > [B04.10](#) > [PCM run B04.10 data organized by time \(original model output\)](#) >

PCM run B04.10 atmosphere data

Related Links

 [Climate Modeling metadata](#)

Download Files

To download files on **DISK**, simply click on the link. To download files on remote storage (**HPSS**, **MSS**), select them and then proceed to [download](#).1-20 of 307 datafiles | [21-40](#) | [41-60](#) | [61-80](#) | [81-100](#) | [101](#) >start from file #: +1 and display files per page (max:100) My Data Cart: [Add selected files to Data Cart](#) | [Empty Data Cart](#) | [Go to Data Cart](#)

Datafile	Metadata	Format	Type	Size	Download
1. B04.10.atm.0049.nc	NcML	NetCDF	gridded	287462200	NCAR DISK <input type="checkbox"/> NCAR MSS <input type="checkbox"/> NERSC HPSS <input type="checkbox"/> ORNL HPSS
2. B04.10.atm.0050.nc	NcML	NetCDF	gridded	287462200	NCAR DISK <input type="checkbox"/> NCAR MSS <input type="checkbox"/> NERSC HPSS <input type="checkbox"/> ORNL HPSS
3. B04.10.atm.0051.nc	NcML	NetCDF	gridded	287462200	NCAR DISK <input type="checkbox"/> NCAR MSS <input type="checkbox"/> NERSC HPSS <input type="checkbox"/> ORNL HPSS
4. B04.10.atm.0052.nc	NcML	NetCDF	gridded	287462200	NCAR DISK <input type="checkbox"/> NCAR MSS <input type="checkbox"/> NERSC HPSS <input type="checkbox"/> ORNL HPSS
5. B04.10.atm.0053.nc		NetCDF	gridded	287462200	<input type="checkbox"/> NCAR MSS <input type="checkbox"/> NERSC HPSS <input type="checkbox"/> ORNL HPSS
6. B04.10.atm.0054.nc		NetCDF	gridded	287462200	<input type="checkbox"/> NCAR MSS <input type="checkbox"/> NERSC HPSS <input type="checkbox"/> ORNL HPSS
7. B04.10.atm.0055.nc		NetCDF	gridded	287462200	<input type="checkbox"/> NCAR MSS <input type="checkbox"/> NERSC HPSS <input type="checkbox"/> ORNL HPSS
8. B04.10.atm.0056.nc		NetCDF	gridded	287462200	<input type="checkbox"/> NCAR MSS <input type="checkbox"/> NERSC HPSS <input type="checkbox"/> ORNL HPSS
9. B04.10.atm.0057.nc		NetCDF	gridded	287462200	<input type="checkbox"/> NCAR MSS <input type="checkbox"/> NERSC HPSS <input type="checkbox"/> ORNL HPSS
10. B04.10.atm.0058.nc		NetCDF	gridded	287462200	<input type="checkbox"/> NCAR MSS <input type="checkbox"/> NERSC HPSS <input type="checkbox"/> ORNL HPSS

Dataset Subsetting

CCSM Run b30.004 atmospheric post-processed data, monthly averages

Variables selection

date [time] (current date (YYYYMMDD))
 datesec [time] (current seconds of current date)
 gw [lat] (gauss weights)
 hyai [ilev] (hybrid A coefficient at layer interfaces)
 hyam [lev] (hybrid A coefficient at layer midpoints)
 hybi [ilev] (hybrid B coefficient at layer interfaces)
 hybm [lev] (hybrid B coefficient at layer midpoints)
 ndcur [time] (current day (from base day))
 nlon [lat] (number of longitudes)
 nscur [time] (current seconds of current day)

Spatial coverage

lat N 87.86 [i=63]

lon W 0 [i=0]

lon E 357.19 [i=127]



lat S -87.86 [i=0]

Altitude coverage

ilev (level)

hybrid level at interfaces (1000*(A+B))
positive direction: down

min value 2.19E0 [i=0]

max value 1.00E3 [i=26]

lev (level)

hybrid level at midpoints (1000*(A+B))
positive direction: down

min value 3.54E0 [i=0]

max value 9.93E2 [i=25]

Time extent

time (days since 0001-01-01 00:00:00)

min value

0100/02/01 00:00:00 [i=0]
0108/06/01 00:00:00 [i=100]
0116/10/01 00:00:00 [i=200]
0125/02/01 00:00:00 [i=300]
0133/06/01 00:00:00 [i=400]

max value

0375/10/01 00:00:00 [i=10400]
0384/02/01 00:00:00 [i=10500]
0392/06/01 00:00:00 [i=10600]
0400/10/01 00:00:00 [i=10700]
0409/01/01 00:00:00 [i=10799]

Output format: NetCDF

ESTIMATE

SUBMIT

RESET

Login Status:

Time Remaining: 119 Minutes 31 Seconds (reload page to update)

Moving Many Files: DML

The screenshot shows the SRMFileTransfer application window. The title bar includes 'File Tools Operations Options'. The 'Target Dir' is set to '/Users/luca/junk'. The window is divided into two main panes, both titled 'CDP.xml'. The left pane contains a table with the following data:

Source Url	Target Url	Expected Size	Status
https://dataportal...	/h0040.nc	0	Active
https://dataportal...	/h0041.nc	0	Pending

Below this table is a summary section:

Total Requested	2
Total Transfer	0
Total Failed	0
Total Pending	1
Total Already Exists	0

The right pane shows a progress table:

%, FileName	Proto	Expe	Curr	Tran.
100% /h0040.nc	http...	0	989...	39.79
0%	http...	0	0	0

Below the progress table is a detailed view for the selected row:

SourceUrl :
https://dataportal.ucar.edu:6443/rpc/srm-download.do?sid=164434&fn=ucar.acd.mozart.v2.1.maccm3.h0040.nc&name=h0040.nc
TargetUrl : /h0040.nc
Expected Size (in bytes) : 0
TimeTaken (in milliseconds) :
Status :

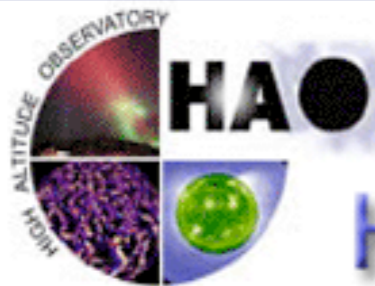
Click on desired row to see detailed information

Network speed / sec. :
■ < 0 MI ■ < 1 MI ■ < 5 MI ■ < 10 M ■ > 10 M

A Few Metrics

- **ESG CCSM/PCM Site**
 - 1269 registrations
 - 73.8TB of data available, 591 datasets and 470,000 files
 - 6.31TB downloaded in 12,755 files
- **ESG PCMDI/IPCC Site**
 - 410 registrations
 - 26.5TB of data available in 59,300 files
 - 60.11TB downloaded in 275,400 files





Exploring the Sun and its effects on the
Earth's atmosphere and physical environment...

HIGH ALTITUDE OBSERVATORY

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VSTO

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INFORMATION

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VSTO Mission Statement

VSTO provides a reliable, distributed, scalable education and research environment for searching, integrating, and analyzing observational, experimental and model databases in the fields of solar, solar-terrestrial and space

The Virtual Solar-Terrestrial Observatory (VSTO) - a collaborative project between the High Altitude Observatory and Scientific Computing Division of the National Center for Atmospheric Research and the Knowledge Systems Lab at Stanford University. VSTO is funded by a grant from the National Science Foundation, Computer and Information Science and Engineering (CISE) in the Shared Cyberinfrastructure (SCI) division.

- [Project Description](#)
- [Key Concepts](#) (Ontologies, Web Services, Data Assimilation, Interdisciplinary science)
- [Broad Design](#)
- [Project Milestones](#)
- [What's New?](#)

This month at the VSTO

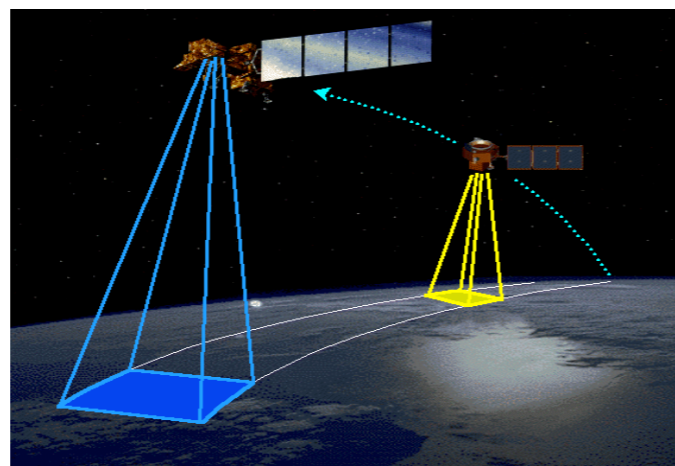
Swoogle
search and metadata for the semantic web

Portals, Applications, and Information Technology R&D



Cyberinfrastructure

Globus/Grid THREDDS OPeNDAP OAI GIS
NCL/PyNGL GDS LAS netCDF/NcML CF SRB



Models

Observation

Archives

Federation

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Mission Statement
News and Meetings
Protocols and Standards
Mailing List
Software Packages
Web Portal Projects
Contacts

[global organization for earth system science portal \(go-essp\)](#)

What is GO-ESSP ?



The Global Organization for Earth System Science Portal (GO-ESSP) is a collaboration designed to develop a new generation of software infrastructure that will provide distributed access to observed and simulated data from the climate and weather communities. GO-ESSP will achieve this goal by developing individual software components and by building a federation of frameworks that can work together using agreed-upon standards. The GO-ESSP portal frameworks will provide efficient mechanisms for data discovery, access, and analysis of the data.

GO-ESSP Partners

The distributed nature of climate and weather data requires institutions participating in GO-ESSP to work closely together -- crossing institutional, agency and international boundaries. GO-ESSP has evolved into a collaboration that involves software developers from both Europe and the United States.

The agencies and institutions supporting the GO-ESSP

- British Atmospheric Data Centre / NERC (UK)
- Central Laboratory of the Research Councils (UK)
- DOE
- NASA
- NOAA
- NSF / UCAR

GO-ESSP News and Meetings

The fourth GO-ESSP community workshop was held on June 6-8 at the British Atmospheric Data Centre, Rutherford Appleton Laboratory, Chilton, Didcot, England.

The third GO-ESSP community workshop was held on June 8-9, 2004 at the Geophysical Fluid Dynamics Laboratory, Princeton, New Jersey.

The second GO-ESSP community workshop was held on September 29-30, 2003 at the Central Laboratory of the Research Councils, Daresbury Laboratory, England.

[GO-ESSP Working Committees](#)

[Access Control](#)

[IO Subsystems](#)

[Model Metadata](#)

[OAI Harvesting](#)

[Search and Discovery](#)

[Standardization](#)

Closing Thoughts

- Excellent opportunities exist for developing and leveraging shared cyberinfrastructure.
- Our efforts to construct large-scale distributed systems are still in their infancy. Complexity is a big challenge.
- And so is SECURITY!



End