

NOAA's National Climatic Data Center



News Highlights



Vol. 2, Is. 3 Summer 2006

Inside this Issue Table of Contents

The Director's Corner

Product News and Updates

Monthly Extremes and
Dynamic Normals

Abrupt Climate Change data
on-line

Weather Radar

Annual Reports

U.S. Daily Data CD-ROM
Product

New GIS Feature

**NOAA's National
Climatic
Data Center
Federal
Climate Complex
151 Patton Avenue
Asheville, N.C
28801**

*Protecting the Past
Revealing the Future*

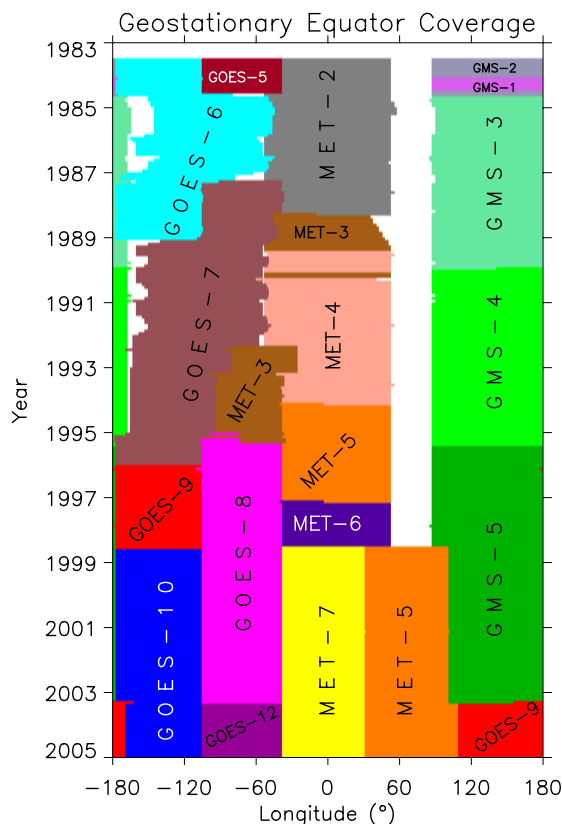
**Phone: 828-271-4800
Fax: 828-271-4876
ncdc.info@noaa.gov**

The National Climatic Data
Center's News Highlights is a
quarterly publication for NCDC
data users. Address comments or
article suggestions to:
ncdc-outreach@noaa.gov

The Director's Corner

Greetings to our Data Users:

Global cloud coverage data are important for many practical reasons: impact of clouds on global heat balance; influence on potential solar radiation for photosynthesis and/or power generation; a constant variable when determining energy demand for heating/cooling; etc. Satellites provide the most complete measure of cloud coverage, and the International Satellite Cloud Climatology Project (ISCCP) B1 data archived at NCDC are particularly valuable. The B1 data represent worldwide geostationary data archived at the Center since 1983 with images available 8 times per day. These data are at a higher resolution (10 km) than what was previously available and they cover most of the Earth. They were acquired from 20 satellites, originally in 14 formats, and with 5 different methods of Earth location (i.e., determining the location of a pixel within an image). Global ISCCP B1 Browse System (GIBBS) is an integral part of data stewardship of these data. The GIBBS website allows users to browse the ISCCP B1 data and provides access to more than 650,000 satellite images which are updated daily. This website enables B1 data quality control and assurance through user input. When users view imagery and see a problem, they can generate automatic emails to notify us of the issue. Such feedback is maintained and has already provided improvements to the data. The website also allows users to browse weather conditions worldwide for case studies and historical events. Plans are in the works to use the B1 data in the reanalysis of clouds, hurricanes and other important climate elements.



This figure portrays the spatial and temporal coverage of the 20 satellites available through GIBBS.

For additional information please visit the GIBBS homepage: <http://www.ncdc.noaa.gov/oa/rsad/gibbs/gibbs.html>.

Dr. Thomas R. Karl

Product News and Updates:

Monthly Extremes and Dynamic Normals: NCDC has two new services (free to all users) within our Climate Data On-line (CDO) system:

1) Dynamic normals – this allows users to select their desired location, time period, and parameter, and calculates the normal/average values for the period. There are 19 products (e.g., daily cooling degree days) which use the U.S. "normals" datasets as input. This contrasts with NCDC's standard normals products, which strictly used 1971-2000 as the base period. For access:

<http://cdo.ncdc.noaa.gov/> -- Select "dataset/product" under search options, then select "dynamic normals products" as the dataset, then follow instructions; or go directly to:

<http://cdo.ncdc.noaa.gov/CDO/normals>

Station: HENDERSONVILLE 1 NE State: North Carolina ID: 313976
 Latitude: 35° 20' Longitude: -82° 27' Elevation: 608.4 m
 Period of record: 1971 - 2000

Dynamic Normals Product: Monthly Mean Temperature (F)
 Product Number: 1 of 1
 Data Source: Monthly Normals Sequential

Month	Mean	Median	Max	Min	Std Dev	Skew	Kurtosis
Jan	36.0	35.9	47.6	23.9	4.915	-0.06	0.528
Feb	38.8	39.1	44.9	29.9	3.597	-0.376	-0.272
Mar	46.3	45.9	51.4	40.0	3.163	-0.161	-0.98
Apr	54.0	53.2	59.0	50.5	2.234	0.519	-0.090
May	62.8	62.8	67.3	59.0	2.528	0.15	-1.11
Jun	69.8	70.2	74.3	65.4	2.044	-0.097	0.236
Jul	74.1	74.2	77.9	69.9	1.821	-0.073	-0.234
Aug	72.4	72.2	76.7	69.0	1.865	0.298	-0.36
Sep	66.4	66.3	71.0	63.3	1.721	0.674	0.803
Oct	55.5	55.4	63.7	50.1	3.034	0.518	1.005
Nov	46.5	46.5	56.2	40.1	3.281	0.681	1.556
Dec	38.8	38.5	47.4	31.1	3.962	0.072	-0.388
Ann	55.1	54.8	77.9	23.9	13.857	0.0030	-1.588

Station: ASHEVILLE REGIONAL ARPT State: North Carolina ID: 310300
 Latitude: 35° 26' Longitude: -82° 32' Elevation: 652.3 m
 Period of record: 1964 - 2001

Dynamic Normals Product: Consecutive Days For Selected Thresholds
 Product Number: 1 of 1
 Data Source: Daily Normals Serial

Greatest Consecutive Number of Days With

Month	Temperature (F)						Precipitation (IN)								
	Max			Min											
Jan	0	0	4	19	7	0	0	3	13	31	2	8	5	3	1
Feb	0	0	3	21	3	0	0	2	10	27	1	8	6	3	2
Mar	0	0	10	22	2	0	0	4	20	13	0	11	7	3	2
Apr	0	0	16	30	0	0	0	8	30	6	0	8	5	3	2
May	0	2	31	31	0	0	0	23	31	2	0	7	4	3	2
Jun	0	6	30	30	0	0	0	30	30	0	0	12	7	3	2
Jul	0	16	31	31	0	0	3	31	31	0	0	9	6	2	2
Aug	1	9	31	31	0	0	1	31	31	0	0	14	10	4	3
Sep	0	2	30	30	0	0	1	30	30	1	0	9	5	2	2
Oct	0	0	22	31	0	0	0	14	31	5	0	6	5	3	2
Nov	0	0	9	30	1	0	0	6	25	13	0	4	4	2	2
Dec	0	0	4	24	4	0	0	4	14	21	3	6	3	2	1
Ann	1	14	31	31	1	0	3	31	31	3	14	10	4	3	

2) Monthly extremes – this also allows users to select their desired location, time period, and parameter, and provides the extreme values for the period. There are 30 products (e.g., maximum precipitation by month) which use mostly U.S. data as input. For access:

<http://cdo.ncdc.noaa.gov/> -- Select "dataset/product" under search options, then select "surface data, monthly extremes" as the dataset, then follow instructions; or go directly to:

<http://cdo.ncdc.noaa.gov/CDO/cdoextremescountryselect.cmd?exdsid=31>

Or - <http://gis.ncdc.noaa.gov> -- Our GIS services provide map-based access.

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Climatic Data Center
 Federal Building
 161 Pkwy Avenue
 Asheville, North Carolina 28801

Temperature; Extreme Minimum; By Month
 Date Range Selected: 1950 to 2005

31030113072, Asheville
 North Carolina
 Station POR for Element EMMT: 1950 to 2006
 Lat. 35°26'N, Lon. 82°32'W
 Elev. 2240 ft. above sea level

Month	Temperature (F)	Date(s)
1	17	01/21/1955
2	-5	02/05/1966
3	-4	03/03/1990
4	22	04/07/1982
5	30	05/08/1989
6	39	06/01/1986
7	46	07/18/1981, 07/11/1983
8	46	08/28/1980
9	33	09/20/1987
10	23	10/21/1982 (c), 10/27/1982
11	1	11/25/1950
12	-8	12/26/1983
All	17	See Above

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Climatic Data Center
 Federal Building
 161 Pkwy Avenue
 Asheville, North Carolina 28801

Precipitation; Most; By Month
 Date Range Selected: 1952 to 2005

31478899999, Lake Toxaway 2 Sw
 North Carolina
 Station POR for Element TPCP: 1952 to 2006
 Lat. 35°47'N, Lon. 82°50'W
 Elev. 3079 ft. above sea level

Month	Precipitation (inches)	Date(s)
1	21.86	1956
2	18.72	1966
3	21.56	1977
4	14.44	1984
5	20.09	1970
6	22.88	2005
7	23.83	2005
8	21.81	1989
9	31.46	2004
10	20.28	1970
11	20.89	1992
12	18.80	1992
All	31.46	See Above

Abrupt Climate Change data on-line: Paleoclimate records documenting abrupt changes in past climate are available at: <http://www.ncdc.noaa.gov/paleo/abrupt/index.html>. These records were derived from a variety of sources, including ice cores, ocean and lake sediments, tree rings, and cave deposits. The archive includes sites from around the globe and measurements from the last glacial period and/or our present interglacial period. The records demonstrate the potential for rapid, large-magnitude changes in variables, such as, temperature and precipitation that are unmatched in the instrumental record.

NOAA Satellites and Information
 National Environmental Satellite, Data, and Information Service
 NOAA > NESDIS > NCDC > NOAA Paleoclimatology > A Paleo Perspective Abrupt Climate Change

The Story The Data A Final Word FAQ Glossary

National Climatic Data Center

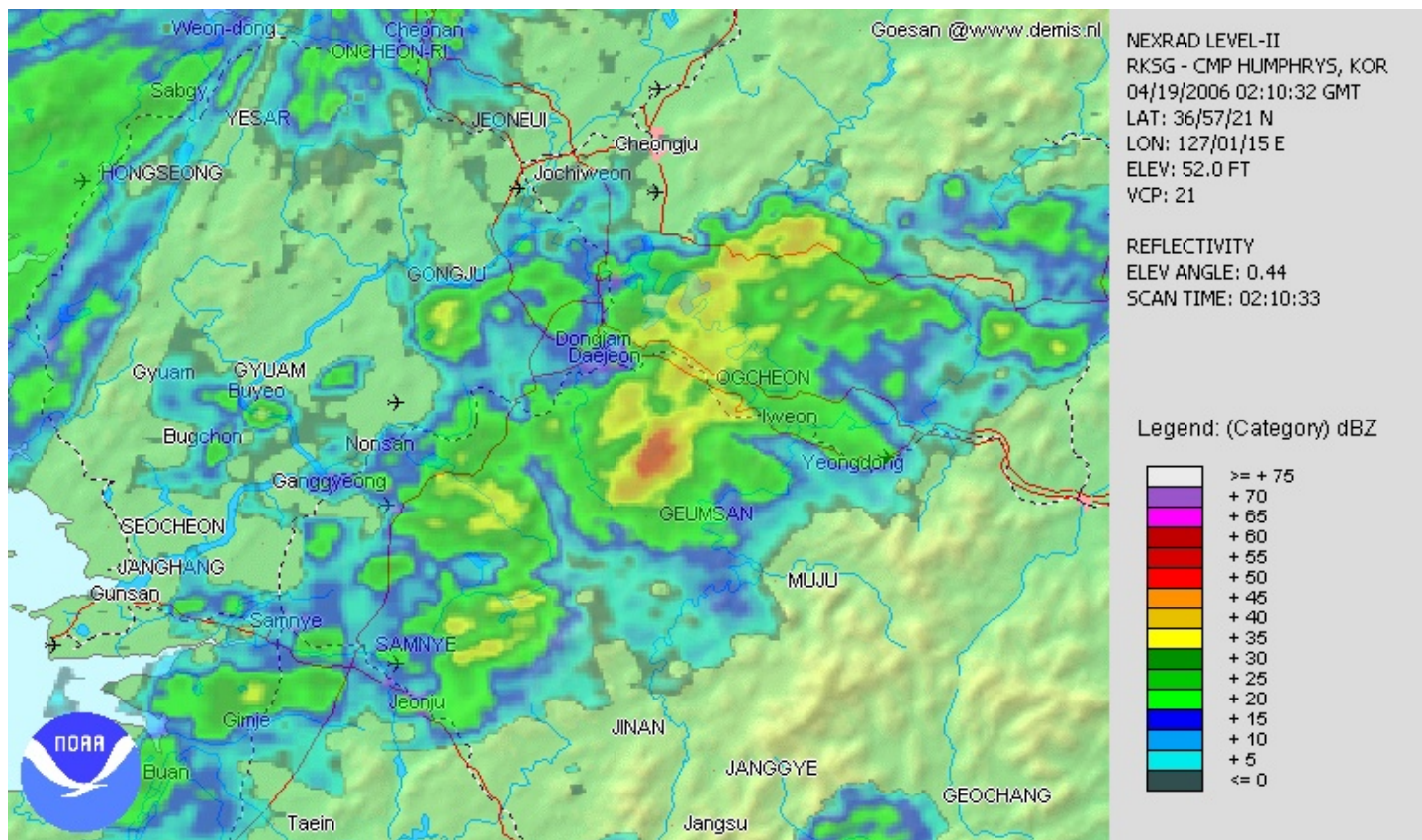
A Paleo Perspective On ABRUPT CLIMATE CHANGE

The paleoclimate record shows rapid and dramatic changes in climate have occurred in the past on global and regional scales. Here's what we know and what we don't know- about the causes and effects of these changes.

Begin

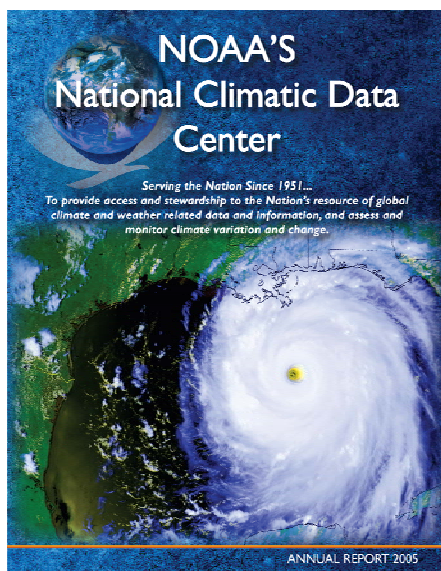
Acknowledgements References Site Map

Weather Radar: The NCDC is now archiving foreign weather radar data from Canada and Korea. The Canadian data are passed to NOAA laboratories for research, and NCDC is working on a bi-lateral agreement on a public access policy for the data. NCDC is also working with the National Severe Storms Laboratory and the University of Massachusetts' Collaborative Adaptive Sensing of the Atmosphere (CASA) group. The CASA project is installing experimental x-band radars (some on cell phone towers) in areas where weather information is needed, and NEXRAD coverage is limited. CASA does not have Geographical Information System tools developed yet and the CASA project is interested in using the NCDC NEXRAD viewer and data exporter. An overview is available at: <http://www.casa.umass.edu/overview.html>.

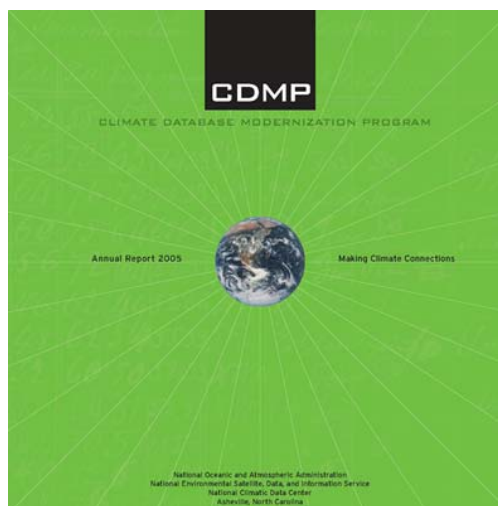


A Korean radar image

Annual Reports: NCDC and the Climate Database Modernization Program (CDMP) both issued their Annual Reports for 2005.



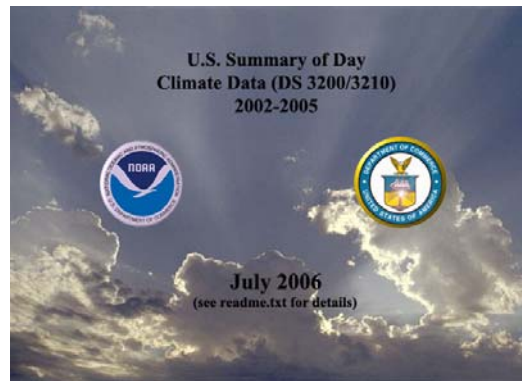
2005 NCDC Annual Report



2005 CDMP Annual Report

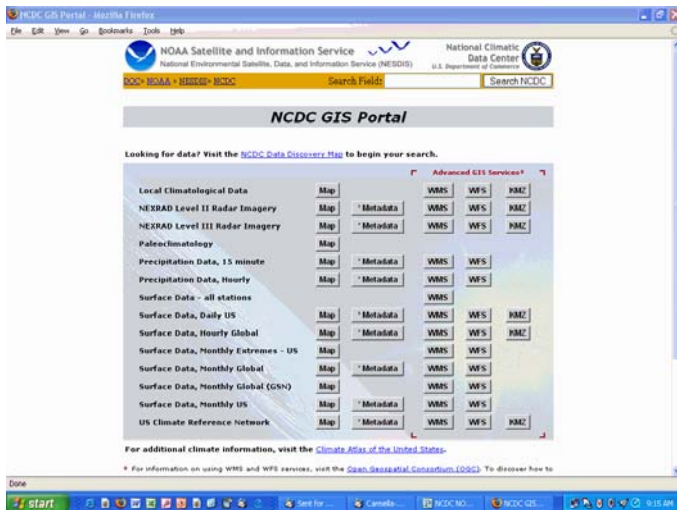
The annual reports are available on-line.

U.S. Daily Data CD-ROM Product: The 2002-2005 U.S. Daily Data CD-ROM is available through the On-line Store. This includes cooperative and first order summary of day data (DS 3200/3210), and updates the 2002-2004 version. Pre-2002 data are still available as a CD set. Also the updated On-line Store web page is available at the following URL: <http://ols.ncdc.noaa.gov/plolstore/plsql/olstore.prodspecific?prodnum=C00447-CDR-S0001>.

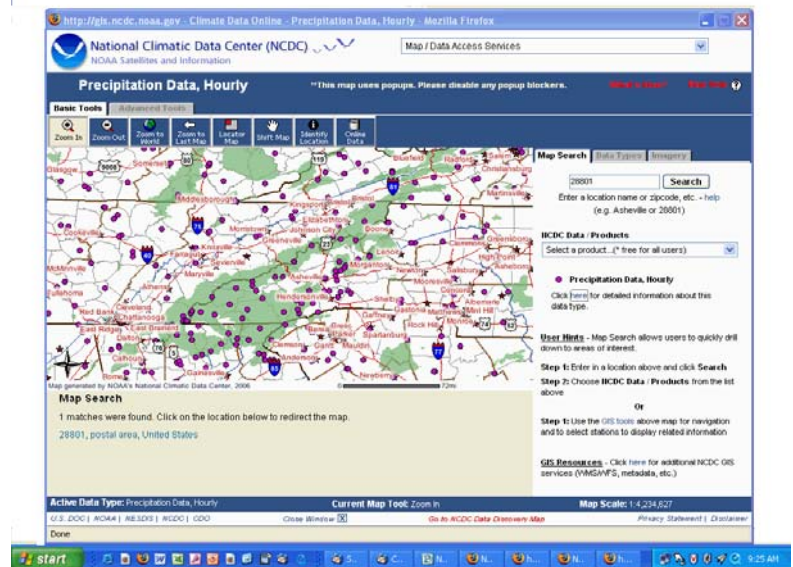


NCDC Cooperative Station Data

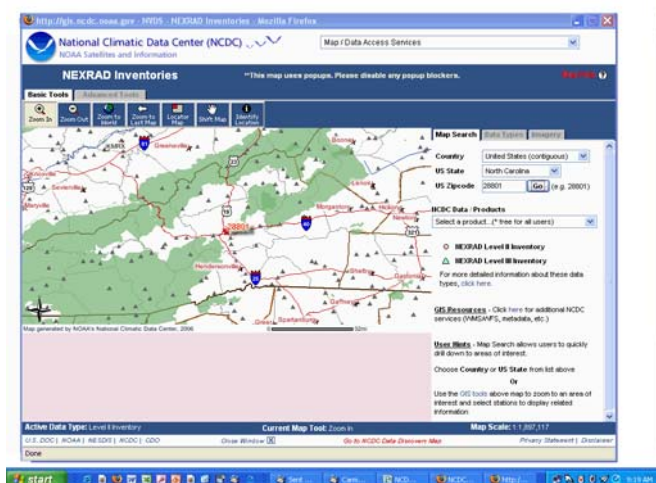
New GIS Feature: A new feature has been added to NCDC's GIS Services. The "Map Search" has been enhanced to utilize a 350,000+ location gazetteer. This allows users to search for data based on numerous geographic references, such as zip code, town, city, county, state, country, lake, etc. When a desired location is key-entered, the user receives a list of results, from which a specific location can be chosen. Any dataset or product can be selected to then display the locations on the GIS map where the data/product is available, in the vicinity of the chosen geographic reference point. Of course, zooming in or zooming out allows for control of the aerial coverage. A number of users have requested this type of query option. Our GIS services directly incorporate numerous in-situ datasets and products, along with NEXRAD radar data. The URL is: <http://gis.ncdc.noaa.gov/> - click on "data discovery map" to proceed; or simply click on "search by map" on the NCDC homepage sidebar.



NCDC GIS Portal Website



NCDC Data Discovery map Asheville NC area Precipitation Data



NCDC NEXRAD Inventories Website