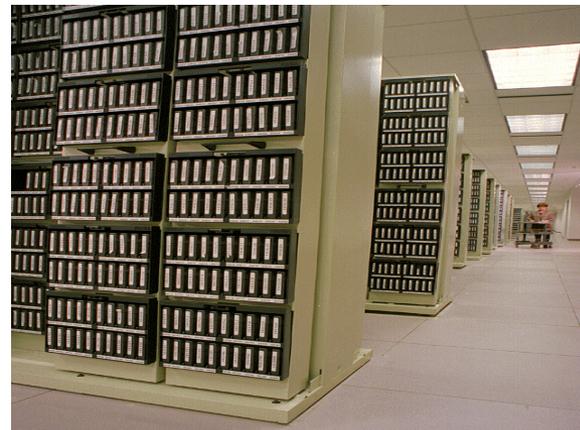




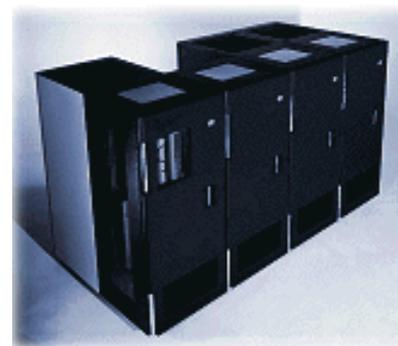
NOAA's National Climatic Data Center, Data Sources And Access

- **DATA HOLDINGS**
- **TRANSITION TO E-COMMERCE / E-GOVERNMENT**
- **ONLINE DATA AND INFORMATION ACCESS**

- **Original manuscripts**
- **Diskettes**
- **35mm microfilm**
- **16mm microfilm**
- **Publications**
- **Autographic charts & rolls**



- **Magnetic tape**
8mm, 3480, 3590E & LTO
- **Optical disks**
- **Paper copies**
- **Mass Store Robotics System**



In-situ Data

• Monthly means/extremes of temp. & total precip – U.S.	1831-current	5GB
• Daily max/min, mean temperatures, total precipitation – U.S.	1881-current	20GB
• Hourly data – U.S.	1936-current	45GB
• Hourly & 3/6 hourly surface synoptic – Global	1900-current	500GB
• Upper air synoptic - U.S.	1912-current	40GB
• Upper air synoptic – Global (CARDS)	1948-current	50GB
• Marine surface observations (ships/buoys) – Global	1800s-current	14GB
• Hourly Precipitation Data – U.S.	1948-current	2GB
• 15 Minute Precipitation Data – U.S.	1970-current	2GB
• International Experiments (U.S. sponsorship or involvement)		
• Aircraft observations	1973-current	18GB

Satellite Data

- | | | |
|---|--------------|-----------|
| • Polar Orbiting Environmental Satellites (POES) | 1978-current | 45,000GB |
| • Geostationary Operational Environmental Satellites (GOES) | 1978-current | 300,000GB |

Radar Data

- | | | |
|-------------------------|--------------|-----------|
| • Radar (NEXRAD) – U.S. | 1991-current | 360,000GB |
|-------------------------|--------------|-----------|

Profiler

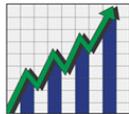
- | | | |
|-----------------|--------------|------|
| • Wind Profiler | 1991-current | 54GB |
|-----------------|--------------|------|

**CONSULTING METEOROLOGIST**

Provide expert testimony in court

**LEGAL**

Certified evidence in court cases

**INSURANCE INDUSTRY**

Rate determination & claims settlement

**INDIVIDUAL**

Recreation, retirement, entertainment, vacations

**ENGINEERING**

Provide guidance in the design and construction of facilities / infrastructure

**BUSINESS**

Sales impact, site relocation, environmental impacts

**NOAA / GOVERNMENT**

Research, investigations, legal claims, risk management, policy guidance / support

**RESEARCH**

Environmental issues, science studies, weather, prediction

NCDC CDROM Products

- Arctic and Antarctic Sea Ice Data, Version 1.0
- CLIVUE
- Climate Atlas of the United States
- Coastal-Marine Automated Network Station and Buoy Reports & Summaries
- Engineering Weather Data
- Global Climate Normals 1961 - 1990
- Global Daily Climatology Network
- Global Daily Summary
- Global Historical Fields
- Global Tropical and Extratropical Cyclone Climatic Atlas 2.0
- Global Upper Air Climatic Atlas
- Gulf of Mexico Hydrographic Data (CD-ROM)
- Hourly Modeled Sounding Data - 12 Volume Set
- Hourly United States Weather Observations 1990 - 1995
- Integrated Surface Hourly Observations

NCDC CDROM's Continued

- International Ocean Atlas Vol. 3: Hydrochemical Atlas of the Sea of Okhotsk 2001
- International Station Meteorological Climate Summary Vers 4.0
- LATEX-A: Louisiana-Texas Shelf Physical Oceanography Program 1992-1994 data
- Local Climatological Data Annual Summaries
- Long-Term Data Sets About Freezing Rain and Ice Storms in the United States
- NCDC Cooperative Station Data
- NOAA Environmental Buoy Data - Web Discs 1998
- National Climate Information Disc - Vol. 1
- National Climatic Data Center Periodical Publications
- Probabilities of Temperature Extremes in the USA, Vers 1.0
- Products and Services Guide
- Radiosonde Data of North America
- Solar and Meteorological Surface Observational Network

NCDC CDROM's Continued

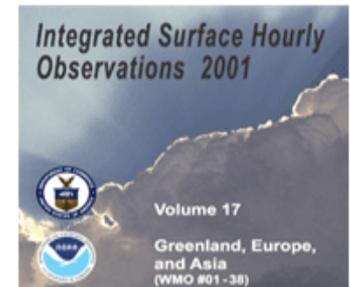
- The Maury Collection, Global Ship Observations 1792 - 1910
- U.S. Daily Climate Normals
- U.S. Divisional and Station Climatic Data and Normals Vol. 1.0
- U.S. Hourly Precipitation Data
- U.S. Monthly Climate Normals
- U.S. Navy Geosat Wind/Wave Data
- U.S. Navy Marine Climatic Atlas of the World - Ver. 1.1
- United States Snow Climatology
- WOCE (World Ocean Circulation Experiment) Global Data, Version 2, July 2000
- World Ocean Database 1998, Version 2.0
- World Ocean Database 2001

Integrated Surface Hourly (ISH) Database

Global Database of Hourly and Synoptic Data

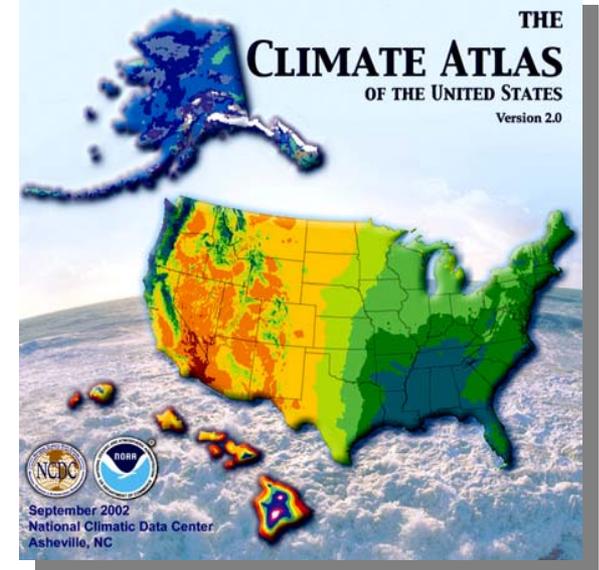
Federal Climate Complex effort (NCDC, USAF, US Navy)

- ✓ **New CDROM product released—global data for 2002**
- ✓ **-- Complements already released CD's for 1995-2001**
- ✓ **Over 20,000 stations in the historical archive, 1900-2002**
- ✓ **Recently completed additional QC and released ISH Version 2.1**
- ✓ **Recent portion of database is now online, full archive available off-line**
- ✓ **URL for CDROMs: <http://ols.nndc.noaa.gov/ish.html>**
- ✓ **URL for online access: <http://cdo.ncdc.noaa.gov>**
- ✓ **URL for technical report:
<http://www1.ncdc.noaa.gov/pub/data/techrpts/tr200101/tr2001-01.pdf>**



U.S. Climate Atlas (1961-1990)

- **Version 2.0 of U.S. Climate Atlas CD-ROM contains all 50 states (2023 maps) – released Dec. 2002**
- **Atlas includes maps of temperature, precipitation, snowfall, heating/cooling degree days, etc.**
- **CD uses ESRI's ArcExplorer as map viewer**
- **All Atlas maps available online in PDF and ESRI shape file formats**



<http://www.ncdc.noaa.gov/oa/about/cdrom/climatls1/info/atlasad.html>

1971-2000 U.S. Climate Normals

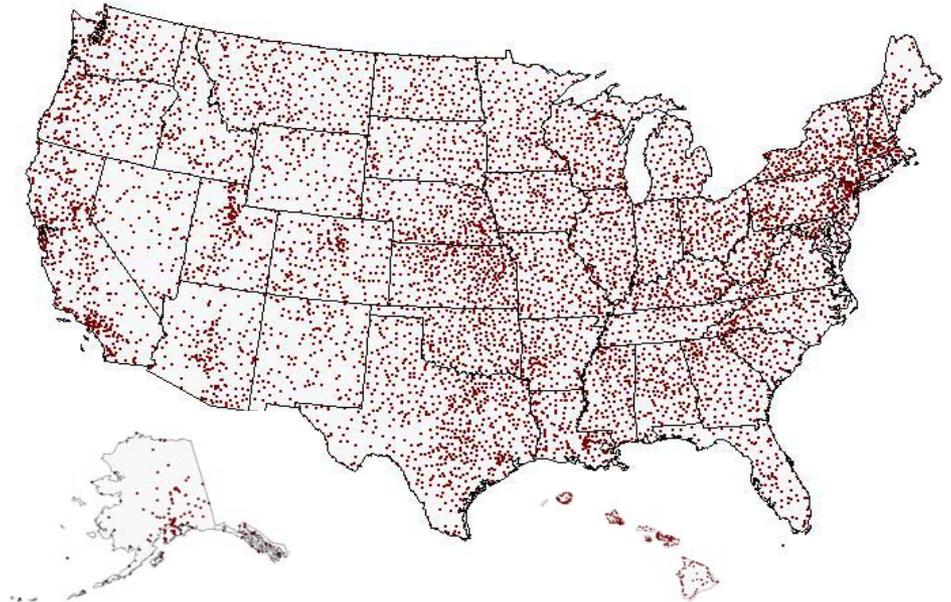
Description

- **Official** Decadal Product
- Nearly **8,000 Stations** in the U.S., Puerto Rico, Virgin Is., & Pacific Is.

▪ Data

- Maximum Temperature
- Minimum Temperature
- Mean Temperature
- Precipitation
- Heating Degree Days
- Cooling Degree Days

<http://www5.ncdc.noaa.gov/cgi-bin/climatenormals/climatenormals.pl>



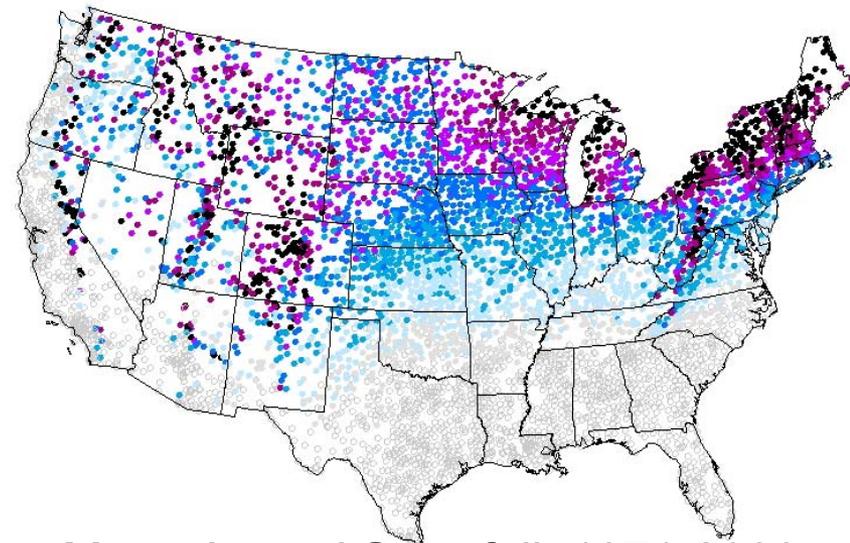
*1971-2000 Normals Station Locations
in the United States*

1971 - 2000 Snow Normals

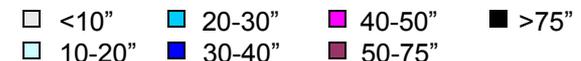


- Snow Normals computed for ~ 5500 stations
- The snow normals include four elements:
 - mean snowfall
 - mean snow depth
 - number of days with snowfall ≥ 0.1 "
 - number of days with snowfall ≥ 1.0 ".
- Daily spline fit values for snowfall and snow depth were also computed.

<http://www5.ncdc.noaa.gov/cgi-bin/climatenormals/climatenormals.pl>



Mean Annual Snowfall, 1971-2000



NCDC New Homepage

<http://www.ncdc.noaa.gov>

[DOC](#) > [NOAA](#) > [NESDIS](#) > [NCDC](#) [Quick Links](#)

NCDC Links

[In the Spotlight](#)

[Data and Products](#)

- [Search](#)
- [List](#)
- [Access tools](#)
- [Help](#)

[Quick Links](#)

- [Most Popular](#)
- [Subscriptions](#)
- [Order Status](#)
- [Online Store](#)

[About](#)

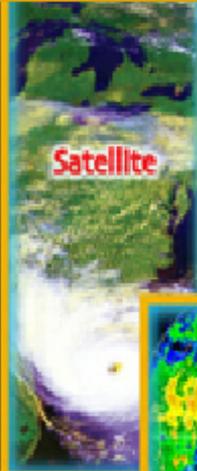
- [Research](#)
- [Monitoring](#)

World's Largest Archive of Climate Data
National Climatic Data Center
Protecting the Past, Revealing the Future

[About NCDC](#)

[Data & Products](#)

[Highlighted Items](#)



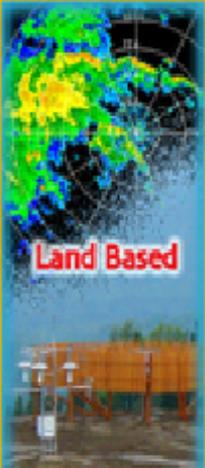
Satellite



Other Weather Events/Information



Marine

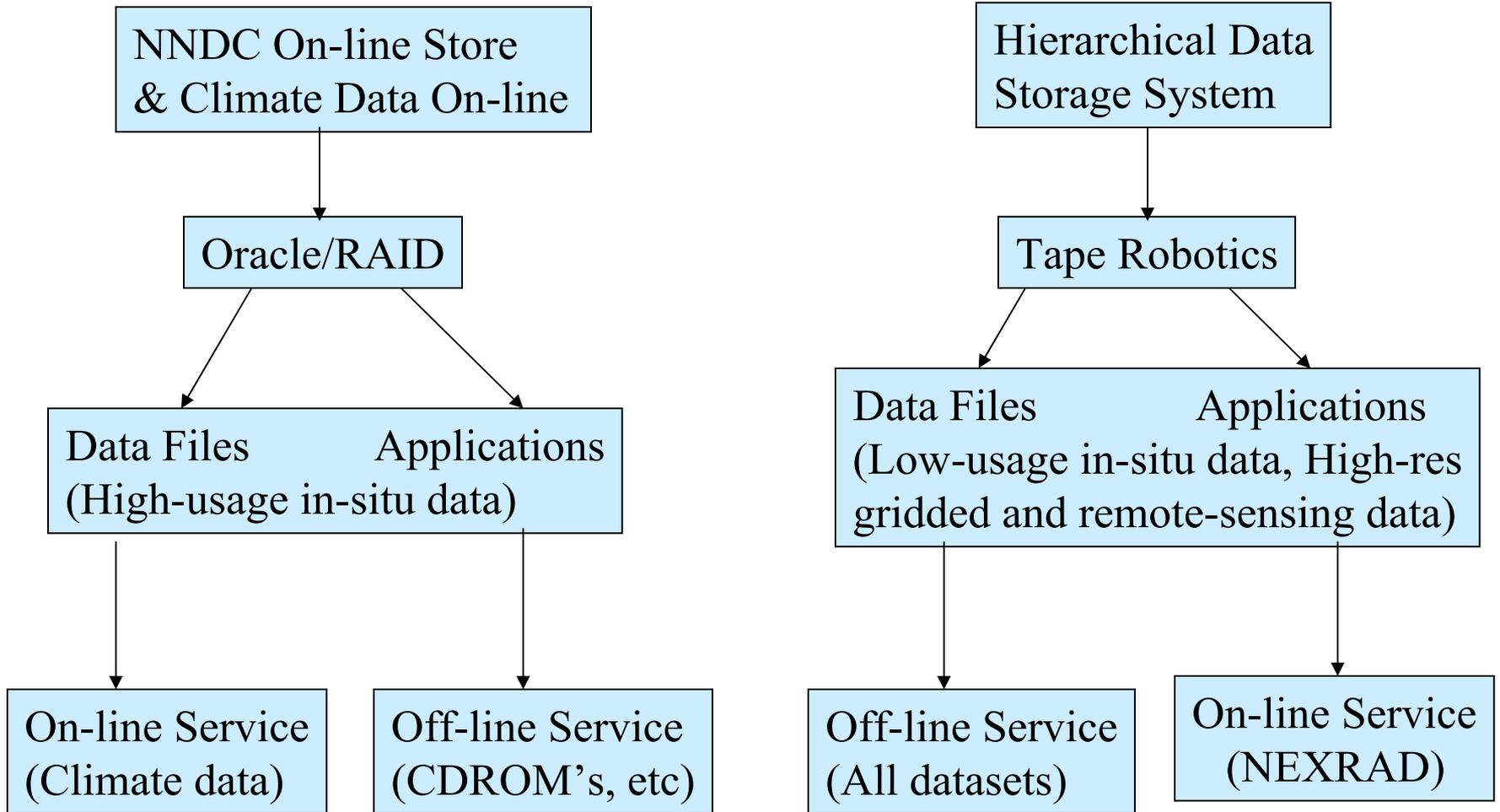


Land Based



Upper Air

NCDC Data Access

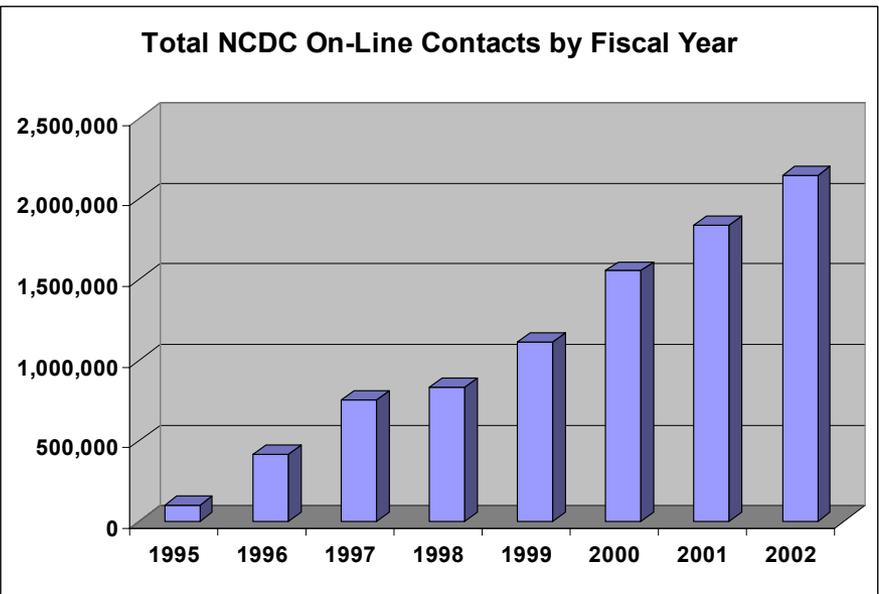
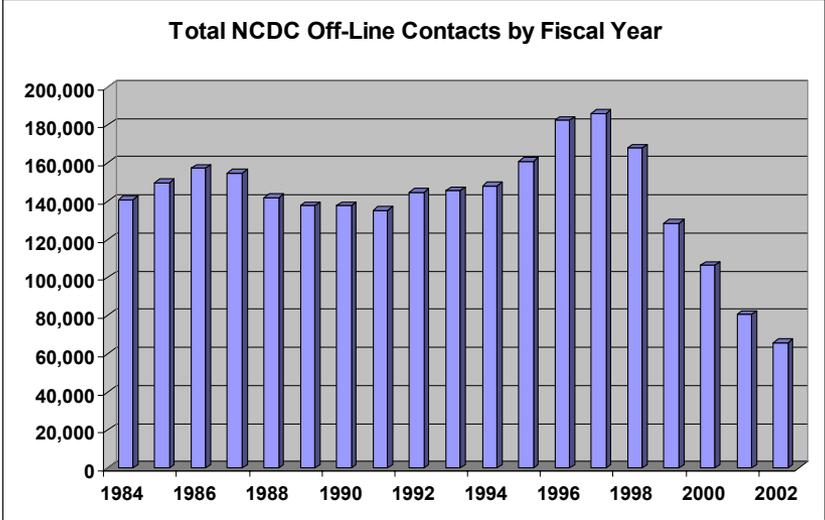


NCDC: On the Forefront of E-Government

Offline access



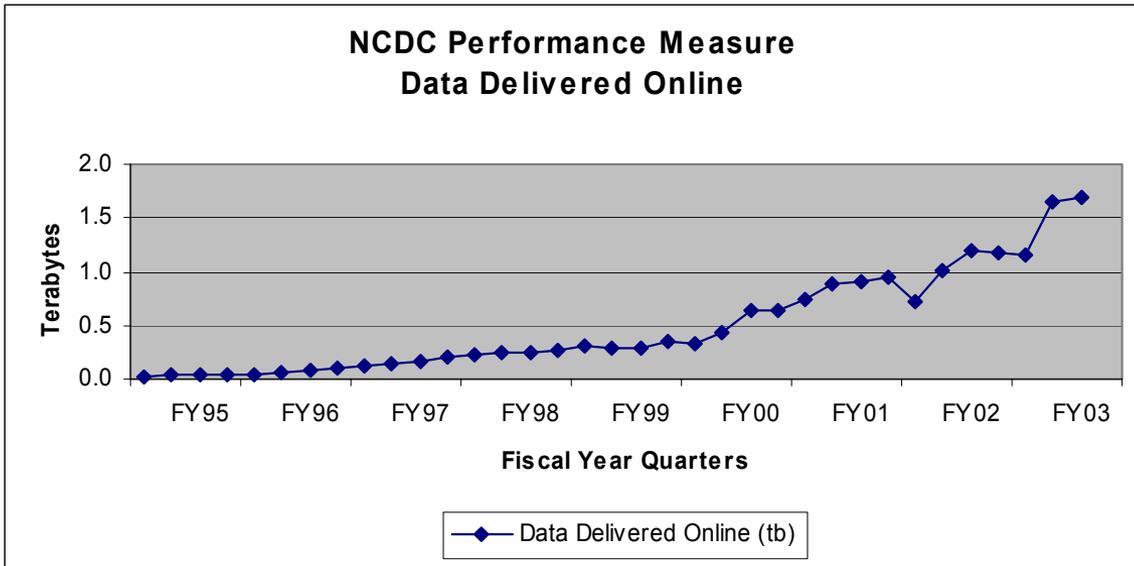
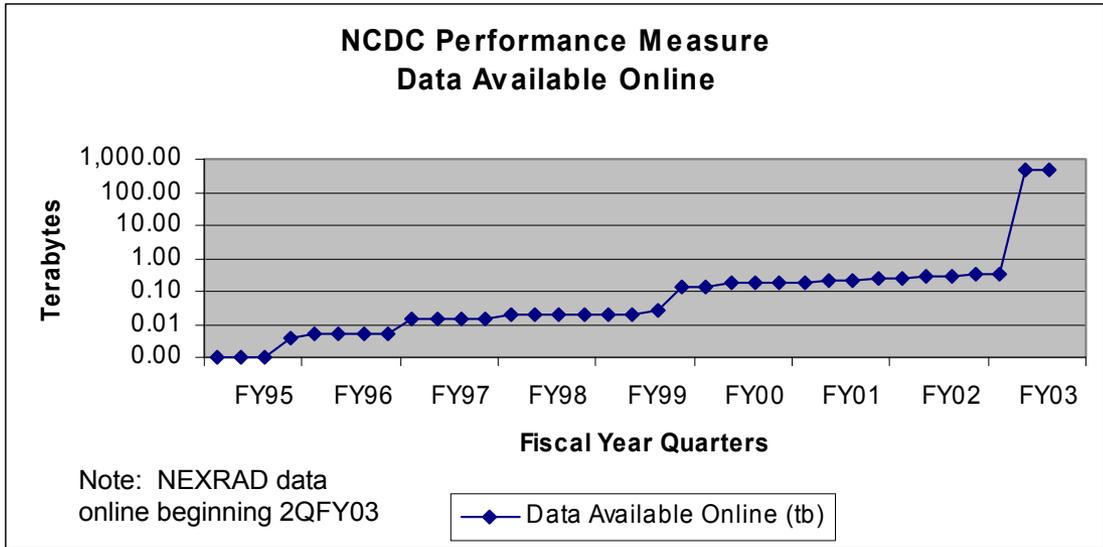
Continues to exhibit a sharp decline



Online web access

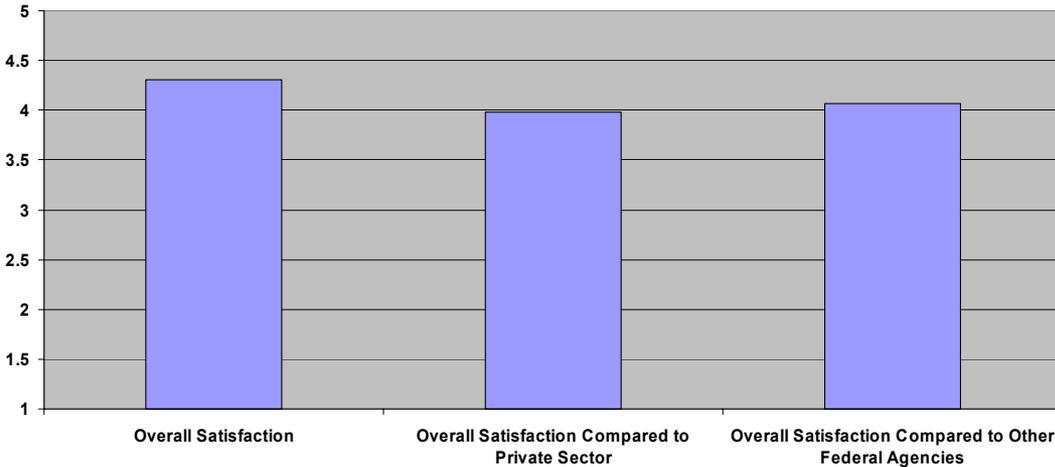


Continues to exhibit a rapid increase



NESDIS Customer Satisfaction Survey

Overall Service Satisfaction Levels



•**Survey Response Period:** Open from Feb - Apr, 2003

•**NESDIS Offices:** NCDC, NODC, NGDC, OSDPD (SAA users)

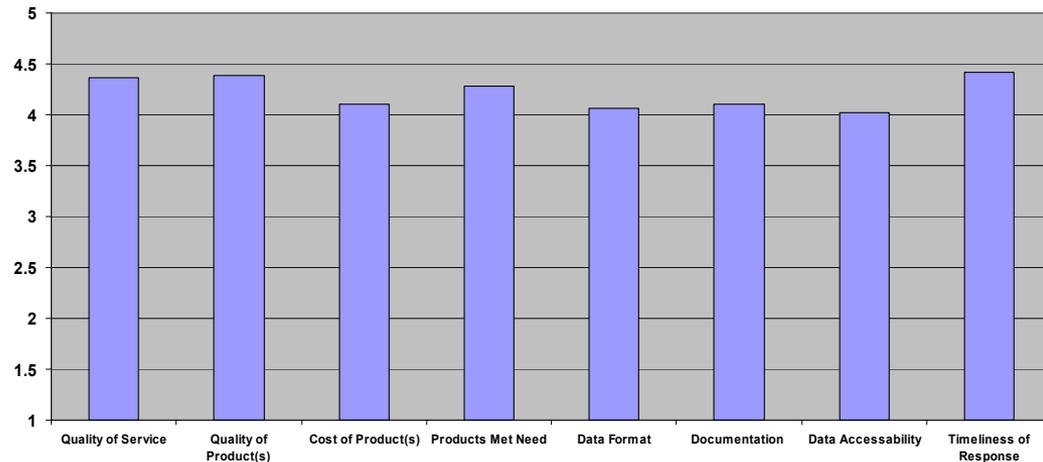
•**Results were presented at NESDIS User Workshop in June**

•**Population Size:** ~25K customers who placed orders 1/1/02-12/31/02

•**Response Rate**
• 6300 (> 25%)

•**Scale:** 1-5 (5 = extremely satisfied)

Satisfaction Levels by Service Type



Data Currently Online

- **In-situ:**

- → Surface monthly data, US and global, full period of record
- → Surface daily data, partial period of record global, full period of record US
- → Surface hourly data, US and global, recent data

- **Satellite:**

- → POES satellite data
- → GOES browse images

- **Radar:**

- → NEXRAD level II and III data, & browse images

- **Information and Monitoring:**

- → Weather extremes and climate events, data and information
- → Climate monitoring, data and information

Future Plans for Online Data

- → **Surface hourly data, global, full period of record**
- → **Pre-1948 historical hourly, daily, and monthly US data, keyed from paper forms**
- → **Upper air data, global, full period of record**
- → **Marine data, global, full period of record**
- → **GOES satellite data**
- → **Data Visualization – graphs, maps, etc**
- → **Data Summarization – frequency distributions, etc**

**NCDC SELECTED WEB PAGES
AND ONLINE DATA ACCESS
SYSTEMS.....**

Extreme Weather & Climate Events Web System

Description

- One of NCDC's most popular systems
- More than 1 million accesses per month
- Central NOAA web page for information/links on hurricanes, tornadoes, storm events, drought, extreme temperatures, heavy precipitation, etc.
- Climate Monitoring
- Weather disasters

Applications

- Natural hazards mitigation
- Insurance claims
- Agriculture
- Many others

[NCDC / Climate Resources / Get/View Data / Extremes / Search / Help](#)

U.S. Hurricanes	Heavy Precipitation	Temperature Extremes & Drought	U.S. Tornadoes
Billion \$\$ Weather Disasters		Worldwide Weather and Climate Events	Historical Global Extremes
Global Climate Change		Satellite Images	
El Nino/ La Nina		U.S. Local Storm Reports	Climatic Data
Climate Monitoring			

[NCDC / Climate Resources / Get/View Data / Extremes / Search / Help](#)

<http://www.ncdc.noaa.gov/extremes.html>

Climate Data Online

- Access for U.S. and global digital data
- Surface hourly, daily, monthly, with others planned

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

[NCDC / Climate / Get/View / NNDC CDO / Search / Help](#)

Climate Data Online

Sample Output:
[ASCII Space Delimited](#)
[Printable Web Form](#)

[Info / Help](#)

Search Options:
[Country](#)
[Geographic Region](#)
[Data Set/Product](#)
[Station Name](#)
[Map Services](#)

[NCDC / Climate / Get/View / NNDC CDO / Search / Help](#)

Climate Data Online

Sample Output:
[ASCII Space Delimited](#)
[Printable Web Form](#)

Info / Help:

Precipitation Data, 15 minute go

DataSet/Product Options

Precipitation Data, 15 minute (Over 3,400 U.S., some non-U.S. sites)	▲
Precipitation Data, Hourly (Over 6,100 U.S., some non-US sites)	▬
Surface Data, Annual Summary (Over 18,000 U.S., some non-U.S. sites)	▬
Surface Data, Daily (Over 19,000 U.S., some non-US sites)	▬
Surface Data, Hourly Global (Over 10,000 worldwide sites)	▬
Surface Data, Monthly (Over 18,000 U.S., some non-US sites)	▼

Access Data/Products

Unedited Local Climatological Data

- Hourly, daily data for >1000 US cities

- One-day lag time

<http://ols.ncdc.noaa.gov/cgi-bin/nndc/buyOL-002.cgi>

HOURLY OBSERVATIONS TABLE - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: <http://ols.ncdc.noaa.gov/cgi-bin/nndc/buyOL-002.cgi> What's Related

HOURLY OBSERVATIONS TABLE

MONTH: 03/2003

OGEER, SC (GSP) WBAH Number:03870

Date Time	Station Type	Maintenance Indicator	Sky Conditions	Visibility	Weather Type	Dry Bulb Temp (F)	Dew Point Temp (F)	Wet Bulb Temp (F)	% Relative Humidity	Wind Speed (KT)	Wind Dir	Wind Char	Wind Char	Val. #	Station Pressure	Pressure Tendency	Sea Level Pressure	Report Type	Precip Total
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
01 0016 A02			FEW005 OVC011	7SM	ER					7	100	0						SP	
01 0035 A02			5SM		ER					6	120	0						SP	
01 0035 A02			2 1/2SM		ER	43	42	43	97	5	100	0			29.15	3	216	AA	
01 0153 A02			OVC003	1 1/2SM	ER	42	42	42	100	3	080	0			29.13		208	AA	
01 0211 A02			OVC001	1 1/4SM	ER					3	080	0						SP	
01 0253 A02			OVC001	1SM	ER	42	42	42	100	3	080	0			29.13		206	AA	
01 0329 A02			OVC001	3/4SM	ER					4	100	0						SP	
01 0353 A02			OVC001	1SM	ER	42	42	42	100	5	080	0			29.11	5	201	AA	
01 0453 A02			OVC001	3/4SM	ER	42	42	42	100	3	100	0			29.13		206	AA	
01 0501 A02			OVC001	1SM	ER					3	130	0						SP	
01 0510 A02			OVC001	3/4SM	ER					3	120	0						SP	
01 0533 A02			Y001	1/2SM	FG	42	42	42	100	5	120	0			29.14		209	AA	
01 0643 A02			OVC001	1SM	ER					4	050	0						SP	
01 0653 A02			OVC001	3/4SM	ER	42	42	42	100	3	070	0			29.14	0	209	AA	
01 0750 A02			OVC003	3/4SM	ER					3	030	0						SP	
01 0753 A02			OVC003	3/4SM	ER	42	42	42	100	6	050	0			29.14		211	AA	
01 0801 A02			OVC001	1SM	ER					6	040	0						SP	
01 0836 A02			OVC003	1SM	ER					6	060	0						SP	
01 0835 A02			OVC003	1 1/2SM	ER	43	43	43	100	5	070	0			29.15		214	AA	
01 0953 A02			OVC003	2SM	ER	44	43	44	96	6	040	0			29.15	0	212	AA	
01 1022 A02			OVC005	7SM						8	050	0						SP	
01 1035 A02			OVC005	8SM		45	43	44	93	7	060	0			29.12		205	AA	
01 1153 A02			OVC009	10SM		46	43	45	89	9	060	0			29.10		197	AA	
01 1246 A02			OVC011	9SM						8	040	0						SP	
01 1253 A02			OVC011	10SM		47	44	46	90	7	040	0			29.07	8	188	AA	
01 1335 A02			OVC011	8SM	-RA ER	46	44	45	93	7	060	0			29.04		177	AA	T
01 1359 A02			ERGN11 OVC020	1 3/4SM	-RA ER					8	060	0						SP	
01 1409 A02			ERGN11 OVC018	2SM	ER					8	020	0						SP	
01 1421 A02			ERGN15 OVC020	1 3/4SM	-RA ER					8	040	0						SP	
01 1427 A02			FEW005 OVC015	1 1/4SM	-RA ER					9	020	0						SP	
01 1439 A02			SC0005 OVC015	1 3/4SM	-RA ER					7	030	0						SP	
01 1441 A02			ERGN05 OVC015	2SM	-RA ER					8	020	0						SP	
01 1453 A02			ERGN05 OVC015	2SM	-RA ER	46	45	46	96	6	010	0			29.02		170	AA	03
01 1507 A02			ERGN05 OVC015	1 3/4SM	-RA ER					9	020	0						SP	
01 1533 A02			OVC005	1SM	-RA ER	46	46	46	100	7	030	0			28.99	5	159	AA	01
01 1630 A02			OVC005	1SM	ER					8	050	0						SP	
01 1636 A02			OVC005	1 1/2SM	ER					7	050	0						SP	
01 1653 A02			OVC005	1 1/4SM	ER	46	46	46	100	8	040	0			28.98		155	AA	01
01 1745 A02			OVC005	1SM	-RA ER					8	040	0						SP	
01 1753 A02			ERGN03 OVC016	1SM	-RA ER	46	46	46	100	7	040	0			28.97		150	AA	02
01 1833 A02			OVC003	1SM	ER	46	46	46	100	7	040	0			28.97	5	148	AA	T
01 1953 A02			OVC003	1SM	ER	46	46	46	100	7	040	0			28.95		143	AA	01
01 2003 A02			ERGN03 OVC015	1SM	ER	46	46	46	100	8	050	0			28.95		143	AA	
01 2153 A02			OVC003	1SM	ER	46	46	46	100	6	030	0			28.95	5	142	AA	02
01 2253 A02			OVC003	1SM	ER	46	46	46	100	7	040	0			28.95		133	AA	
01 2353 A02			OVC003	1SM	ER	46	46	46	100	6	030	0			28.90		125	AA	
02 0033 A02			OVC003	1SM	ER	45	45	45	100	4	040	0			28.89	5	117	AA	
02 0133 A02			OVC003	1SM	ER	45	45	45	100	5	030	0			28.85		108	AA	
02 0233 A02			OVC003	1SM	ER	46	45	46	96	4	060	0			28.82		096	AA	
02 0353 A02			OVC003	1SM	ER	46	45	46	96	0	000	0			28.81	5	093	AA	
02 0416 A02			OVC001	1SM	ER					3	030	0						SP	
02 0453 A02			SC0001 SC0008 OVC025	1SM	ER	46	45	46	96	0	000	0			28.78		082	AA	
02 0518 A02			ERGN06 OVC023	1SM	ER					0	000	0						SP	
02 0540 A02			OVC004	1/2SM	FG					0	000	0						SP	
02 0553 A02			OVC004	1SM	ER	45	45	45	100	3	330	0			28.78		083	AA	
02 0653 A02			OVC002	1SM	ER	45	45	45	100	4	330	0			28.77	5	079	AA	
02 0714 A02			OVC002	1 1/4SM	WTS					4	330	0						SP	

Document: Done

start | Inboxes - Nets... | HOURLY OBS... | WordPerfect 1... | Microsoft Pow... | 12:27 PM

Cooperative Summary of Day Data

- Daily data for >8000 US cities & towns
- One-month lag time

<http://www.ncdc.noaa.gov/servlets/DLY>

Record of Climatological Observations - Netscape

Station: ASHEVILLE State: NC County: BUNCOMBE Standard Time: EASTERN

Observation Time Temperature: 2400 Precipitation: 2400

** These data are quality controlled and may not be identical to the original observations **

P r e l i m i n a r y	M o n e t h	D a y	Temperature (°F)		Precipitation (see **)			Evaporation 24 Hour Wind Movement (miles)	Soil Temperature (°F)						
			24 hrs. ending at observation time		24 Hour Amounts ending at observation time		At Observation Time		4 inch depth		8 inch depth				
			Max.	Min.	Rain, melted snow, etc. (Inches & hundredths)	Snow, ice pellets (Inches & tenths)	Snow, ice pellets, hail, ice on ground (Inches)		Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.	
* 2002 12 1	35	21	24	0	0	0									
* 2002 12 2	49	19	44	T	T	0									
* 2002 12 3	52	30	30	0	0	0									
* 2002 12 4	38	28	33	0.77	4.5	3									
* 2002 12 5	40	32	32	0.60	0	T									
* 2002 12 6	35	22	22	T	0	T									
* 2002 12 7	48	16	26	0	0	0									
* 2002 12 8	44	22	35	0	0	0									
* 2002 12 9	42	29	32	0	0	0									
* 2002 12 10	48	31	42	0.60	0	0									
* 2002 12 11	48	39	41	0.22	0	0									
* 2002 12 12	46	37	42	0	0	0									
* 2002 12 13	44	38	38	0.54	0	0									
* 2002 12 14	38	31	31	T	0	0									
* 2002 12 15	49	30	34	0	0	0									
* 2002 12 16	58	34	38	0	0	0									
* 2002 12 17	51	35	38	0	0	0									
* 2002 12 18	44	36	40	0	0	0									
* 2002 12 19	52	38	52	0.55	0	0									
* 2002 12 20	52	34	34	0.15	0	0									
* 2002 12 21	51	31	31	0	0	0									
* 2002 12 22	60	30	41	0	0	0									
* 2002 12 23	49	35	39	0	0	0									
* 2002 12 24	40	33	37	1.41	T	0									
* 2002 12 25	38	24	24	0.06	T	0									
* 2002 12 26	33	23	23	0	0	0									
* 2002 12 27	44	18	20	0	0	0									
* 2002 12 28	49	26	44	0	0	0									
* 2002 12 29	62	39	39	0	0	0									
* 2002 12 30	61	28	47	0	0	0									
* 2002 12 31	58	43	53	0.13	0	0									
Summary	47.0	30.4		5.03	4.5										

The ** flags in Preliminary indicate the data have not completed processing and quality control and may not be identical to the original observation.
 All 9's (e.g. 999999, 99999.9, etc.) in the data column indicate that the value was not received or is missing.
 * Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Broome grass; 5=Seal; 6=Strawmuck; 7=Grass muck; 8=Bare muck; 9=Unknown.
 ** The values T in the Precipitation category above indicate a TRACE value was recorded for these amounts.

Annual Climatological Summary

- Monthly data for >8000 US cities & towns

- Three-month lag time

<http://www.ncdc.noaa.gov/servlets/ACS>

Annual Climatological Summary: 314788/99999, LAKE TOXAWAY 2 SW, North Carolina - Netscape

U.S. Department of Commerce
National Oceanic & Atmospheric Administration

**ANNUAL
CLIMATOLOGICAL SUMMARY
(2002)**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801

Station: 314788/99999, LAKE TOXAWAY 2 SW, North Carolina Elev. 3079 ft. above sea level Lat. 35°07'N, Lon. 82°58'W

Date	Temperature (° F)										Precipitation (inches)														
	MMXT	MMNT	MNTM	DPNT	HTDD	CLDD	EMXT	EMNP	DT90	DX32	DT32	DT00	TPCP	DPNP	EMXP	TSNW	MXSD	DP01	DP05	DP10					
Elem->	Mean	Mean	Mean	Depart.	Heating	Cooling	High	Low	Max	Max	Min	Min	Total	Depart.	Greatest	Total	Max	Max	Max						
2002	Max.	Min.	Mean	from	Degree	Degree	Date	Date	>=90*	<=32*	<=32*	<=0*		from	Observed	Fall	Depth	Date	>=10	>=50	>=1.0				
Month				Normal	Days	Days								Normal	Day	Date									
1	50.4	25.2	37.8		896	0	73	30	12	5	0	1	24	0	6.95X	1.50	20	4.3	3	4	10	7	2		
2	52.0	24.9	38.5		740	0	69	1	7	28	0	1	26	0	2.46	-4.70	1.42	7	0.0T	0T	5	4	2	1	
3	59.2	33.7	46.5		568	0	79	26	9	1	0	1	14	0	10.77	1.50	2.25	3	0.0	0		15	7	3	
4	75.7	45.6	60.7		178	52	92	21	25	7	4	0	4	0	5.53	-1.46	1.42	10	0.0	0		11	4	1	
5	76.0	47.7	61.9		142	48	89	3	32	19	0	0	1	0	5.89	-2.65	1.70	4	0.0	0		9	4	2	
6	82.8	58.8	70.8		3	183	92	3	48	16	2	0	0	0	4.81	-1.92	1.24	26	0.0	0		5	4	2	
7	83.4	62.3	72.9		7	254	94	31	57	13	4	0	0	0	4.38	-3.45	1.10	12	0.0	0		6	4	1	
8	81.5	59.9	70.7		0	183	90	7	50	8	2	0	0	0	6.55	-1.19	2.47	27	0.0	0		9	5	2	
9	72.7	58.0	65.4		27	41	86	5	51	10	0	0	0	0	22.09	15.07	5.55	27	0.0	0		12	9	7	
10	64.2	49.4	56.8		266	7	78	4	32	19	0	0	2	0	6.68	0.39	2.88	16	0.0	0		11	4	1	
11	M	M	M		M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
12	M	M	M		M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Annual	M	M	M		M	M	M	Jul	M	Feb	M	M	M	M	M	M	M	Sep	M	M	Jan	M	M	M	M

Notes

(blank) Not reported.
 + Occurred on one or more previous dates during the month. The date in the Date field is the last day of occurrence. Used through December 1963 only.
 A Accumulated amount. This value is a total that may include data from a previous month or months or year (for annual value).
 B Adjusted Total. Monthly value totals based on proportional available data across the entire month.
 E An estimated monthly or annual total.

X Monthly means or totals based on incomplete time series. 1 to 9 days are missing. Annual means or totals include one or more months which had 1 to 9 days that were missing.
 M Used to indicate data element missing.
 T Trace of precipitation, snowfall, or snowdepth. The precipitation data value will = zero.
 Elem-> Element Types are included to provide cross-reference for users of the NCDC CDO System.
 Station Station is identified by: CoopID/NWAB, Station Name, State.

S Precipitation amount is continuing to be accumulated. Total will be included in a subsequent monthly or yearly value. Example: Days 1-20 had 1.26 inches of precipitation, then a period of accumulation began. The element TPCP would then be 001355 and the total accumulated amount value appears in a subsequent monthly value. If TPCP = "M" there was no precipitation measured during the month. Flag is set to "S" and the total accumulated amount appears in a subsequent monthly value.

*Dynamically generated Thu Mar 13 13:36:18 EST 2003 via <http://www.ncdc.noaa.gov/servlets/ACS>
 Data provided from the NCDC CDO System
 Additional documentation can be found at <http://www5.ncdc.noaa.gov/cdo/322Doc.txt>
 Local Users Only: [View Oracle Records](#)*

Document: Done
 Size: 22,012 bytes
 Design: Design

start | 3 Netscape ... | WordPerfect 1... | Microsoft Pow... | 1:36 PM

U.S. Climate Normals

- 30-year monthly & daily normals, ~8000 locations
- Temp, precip, heating/cooling degree days

<http://www5.ncdc.noaa.gov/cgi-bin/climatenormals/climatenormals.pl>

United States Climate Normals 1971-2000

CLIMATOGRAPHY OF THE UNITED STATES NO. 81
Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days
1971-2000

ALABAMA Page 5

STATION INVENTORY										
No.	COOP ID	WBAN ID	Elements	Station Name	Call	Latitude	Longitude	Elev	Flag 1	Flag 2
1	010008		P	ABBEVILLE 1 NNW		31 35 N	85 15 W	456		+
2	010063		P	ADDISON		34 12 N	87 09 W	789		
3	010140		P	ALBERTA		32 14 N	87 26 W	175		+
4	010160		XNP	ALEXANDER CITY		32 57 N	85 57 W	640		+
5	010178		XNP	ALICEVILLE		33 08 N	88 08 W	240		
6	010184		P	ALICEVILLE LOCK & DAM		33 13 N	88 17 W	165		
7	010252		XNP	ANDALUSIA 3 W		31 18 N	86 31 W	250		+
8	010272	13871	XNP	ANNISTON METRO AP	ANB	33 35 N	85 51 W	594		+
9	010369		XNP	ASHLAND 3 SE		33 14 N	85 49 W	1010		+
10	010395		XNP	ATHENS 2		34 48 N	86 59 W	720		
11	010402		XNP	ATMORE STATE NURSERY		31 10 N	87 26 W	300		
12	010430		XNP	AUBURN AGRONOMY FARM		32 36 N	85 30 W	652		
13	010440		P	AUTAUGAVILLE 3 N		32 28 N	86 41 W	200		+
14	010505		XNP	BANKHEAD LOCK AND DAM		33 27 N	87 21 W	280		+
15	010583		XNP	BAY MINETTE		30 53 N	87 47 W	271		+
16	010616		XNP	BEATRICE		31 43 N	87 13 W	178		
17	010655		XNP	BELLE MINA 2 N		34 41 N	86 53 W	600		+
18	010764		XNP	BESSEMER 3 WSW		33 24 N	87 00 W	445		
19	010823		P	BILLINGSLEY 3 NE		32 40 N	86 40 W	445		
20	010831	13876	XNP	BIRMINGHAM INTL AP	BHM	33 34 N	86 45 W	615	*	+
21	010957		P	BOAZ		34 12 N	86 10 W	1070		
22	011069		P	BRANTLEY		31 35 N	86 16 W	269		
23	011080		XNP	BREWTON 3 ENE		31 08 N	87 03 W	160		
24	011084		XNP	BREWTON 3 SSE		31 03 N	87 03 W	85		+
25	011099		XNP	BRIDGEPORT 5 NW		34 59 N	85 48 W	670		
26	011143		P	BROOKWOOD		33 15 N	87 18 W	515		+

U.S. Climate at a Glance

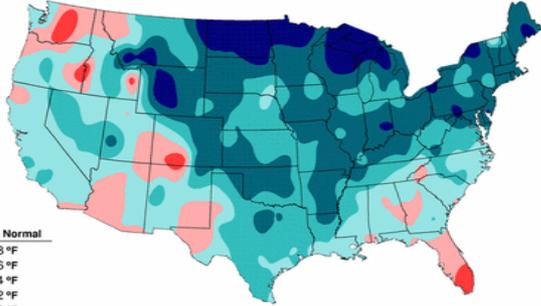
- National maps of temperature and precipitation
- 1900 to present

<http://www.ncdc.noaa.gov/oa/climate/research/cag3/cag3.html>

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 **U.S. Climate at a Glance** 
*National Climatic Data Center
Asheville, North Carolina*

**February 2003 Temperature
Departure from Normal**
(Departure from the 1971 - 2000 Normal)



Departure from Normal

8°F
6°F
4°F
2°F
0°F
-2°F
-4°F
-6°F
-8°F

[National](#)
[Regional](#)
[Statewide](#)
[Cities](#)

Links to current and historical temperature and precipitation data

Select from these options and then click "submit" to view U.S. temperature and precipitation maps for any past month and year. (Please wait 20 - 30 seconds.)

Mean Temperature January

[Submit](#)

AOL users and others experiencing problems receiving requested output, click [here](#).

U.S. Snow Monitoring

- Detailed snowfall and snow depth data
- Monthly and season to date

<http://www.ncdc.noaa.gov/oa/climate/research/snow/snow.html>

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U.S. Snow Monitoring

(Data made available primarily through the Cooperative Observer Network)



National Climatic Data Center
Asheville, North Carolina



We are currently experiencing data ingest problems and apologize for any inconvenience this may cause.

- [Recent Snowfall & Snowdepth](#)
- [Month & Season-to-Date Snowfall](#)
- [Maximum Daily Snow](#)
- [Number of Days with Snow](#)
- [View Data Files](#) (for past 7 days)
- [View Image Files](#) (for past 7 days)



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National Climate Impact Indicators

- Residential energy demand
- Crop moisture stress

<http://www.ncdc.noaa.gov/oa/climate/research/cie/cie.html>

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National Climate Impact Indicators

*National Climatic Data Center
Asheville, North Carolina*



- [Overview](#)
- [Summary of Most Recent Period](#)
- [Crop Moisture Stress Index](#)
- [Residential Energy Demand
Temperature Index](#)
- [Other Related Indices](#)



NEXRAD Level II and III Data

<http://has.ncdc.noaa.gov>



HDSS Access System



NEXRAD Level II

Station(s):	Start Date: (YYYY/MM/DD)
CWKR (08/14/2003 - 11/09/2003)	1991 / 01 / 01
KABQ (10/16/2003 - 10/23/2003)	- To -
KABR (06/16/1995 - 10/13/2003)	End Date: (YYYY/MM/DD)
KABX (05/18/1995 - 11/09/2003)	2003 / 01 / 01
KAKQ (07/13/1995 - 11/09/2003)	
KAMA (03/17/1994 - 11/09/2003)	
KAMX (09/27/1993 - 11/09/2003)	
KAPX (06/28/1996 - 10/16/2003)	
KARX (07/08/1996 - 10/28/2003)	
KATX (04/26/1995 - 11/09/2003)	

Output: FTP

Priority: Normal

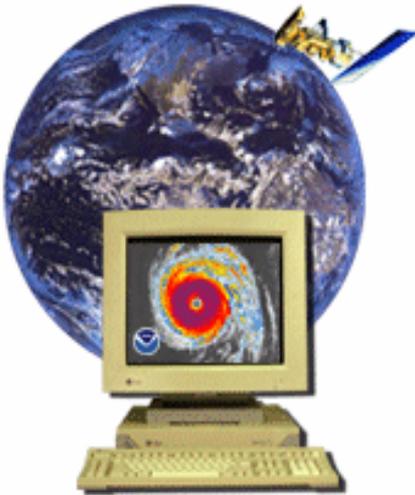
Email Address:

Continue With Selections Reset Form

Satellite Data

<http://www.ncdc.noaa.gov/oa/satellite/satellitedata.html>

Get/View Online Satellite Data



- [Historical GOES Browse Server](#)
 - [Satellite Active Archive \(Lev 1b POES/DMSP DATA\)](#)
 - [Images/Movies of Hurricanes and Special Events](#)
 - [SSM/I Global Gridded Files from FTP server](#)
 - [SSM/I Monthly Image Products](#)
 - [Satellite's Eye Art Galleries \(discussions and images\)](#)
-