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NOAA's National Climatic Data Center

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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

NOAA's National Climatic Data Center

News Highlights

The Director's Corner

Greetings to our Data Users**:**

Improved GIS map interfaces at NCDC continue to provide quick access to US and global climate/weather data. Available data types include: monthly, daily, and hourly US/global surface data and 15 minute and hourly US precipitation data. The GIS interfaces allow users to quickly locate and select the stations of interest which directly access the data on-line. Upgrades to GIS services include: a failover hardware system, user-friendly icons and help text, and additional layers (overlay imagery, major cities, rivers, lakes, states, counties, climate regions, highways, and USDA agriculture regions). Future plans will focus on NOAA Enterprise Architecture integration, expanding federal, state, academic, and community partnerships, map services registration with national GIS clearinghouses (portals like Geospatial One-Stop), and incorporating other data and services (NOMADS, CLASS). http://cdo.ncdc.noaa.gov/CDO/mapproduct.

Dr. Thomas R. Karl

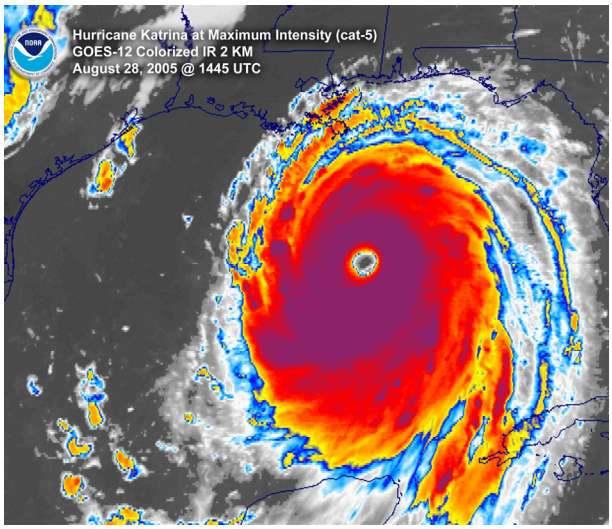
Hurricanes Katrina and Rita:

In the wake of Hurricane Katrina, NCDC's Climate Monitoring Branch (CMB), with assistance from others at NCDC, assembled a web-page summarizing the meteorology and impacts of the storm. The web-page, which had well over 40,000 hits in September, can be found at: http://www.ncdc.noaa.gov/oa/climate/research/2005/katrina.html.

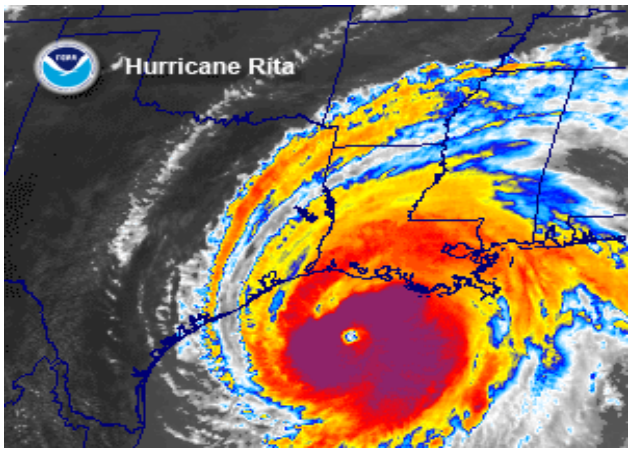
Katrina was one of the strongest storms to impact the coast of the United States during the past 100 years. At one stage a category 5 storm (on the Saffir-Simpson scale), with wind speeds of 175 mph, Katrina weakened slightly before landfall. Wind speeds were approximately 127 mph at landfall (a strong category 3 hurricane), minimum central pressure was the third lowest on record at landfall (920mb), and hurricane force winds stretched 120 miles from its center, causing widespread devastation along the central Gulf Coast states of the US. The storm made landfall at Plaquemines Parish in southeastern Louisiana on the morning of August 29, and the cities of New Orleans, LA, Mobile, AL, and Gulfport, MS, bore the brunt of Katrinas force as it moved inland.

The loss of life and property damage was worsened by breaks in the levees that separate New Orleans from surrounding lakes. At least 80% of New Orleans was under flood water on August 31, 2005, largely as a result of levee failures from Lake Pontchartrain. The combination of strong winds, heavy rainfall and storm surge led to breaks in the earthen levee after the storm passed, leaving some parts of New Orleans under 20 feet of water.

Less than one month after Katrina, Hurricane Rita developed into the second category 5 storm of the season as it tracked through the Gulf of Mexico, establishing the first recorded instance of two Gulf of Mexico storms of such strength in a single season. Strengthening from a tropical storm to a category 1 hurricane south of Florida, it brought 76 mph (66knots) sustained winds to Key West before moving westward into the Gulf



Hurricane Katrina at Maximum Intensity (cat–5): Infrared view from GOES-12



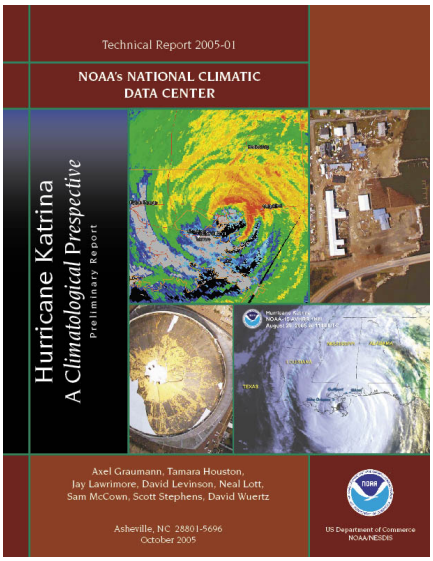
Hurricane Rita: Infrared view from GOES-12

where it rapidly intensified. Reaching category 5 status on September 21, 2005, Rita had sustained winds of around 175 mph at its center. Minimum central pressure was only 897 mb on September 22, 2005, the third lowest pressure in recorded history for an Atlantic hurricane (following Gilbert in 1988, and the Labor Day hurricane of 1935). Weakening over the next several days, Rita made landfall on the Texas/Louisiana border on September 24, 2005, as a category 3 hurricane. It caused considerable destruction, but was a substantially weaker and less destructive storm than Katrina a month earlier. CMB's web-site summarizing Hurricane Rita is at: http://www.ncdc.noaa.gov/oa/climate/research/2005/rita.html.

Product News and Updates:

New Product: Hurricane Katrina Technical Report: NCDC has finalized a 27-page technical report that provides further details on Hurricane Katrina. The Katrina tech report is now also available through the on-line store for users wishing to order a paper copy, or download at no charge. (The report has been on-line in "What's New" since October 17, 2005.) See the following link: http://ols.nndc.noaa.gov/plolstore/plsql/olstore.prodspecific?prodnum=C00612-PUB-A0001.

This report includes additional information on the storm chronology, storm surge, rainfall, and winds, as well as the factors that contributed to the strength and size of Katrina. Also included in this report are satellite and radar images of the storm, historical perspective provided by comparison with other destructive Atlantic hurricanes of the past century, and trends in tropical storm and hurricane frequency and intensity.



New Product: Hurricane Katrina Technical Report

Global Integrated Surface Hourly (ISH) Data Summaries Now On-line in Climate Data On-line (CDO) System: After an excellent joint effort with the Navy, the ISH summary system is now on-line in CDO, and through our GIS interface. Fourteen different summaries can be generated, such as ceiling-visibility, dew point statistics, temperature statistics, flying conditions (different categories), relative humidity, sky cover, sea level and station pressure, wind speed/direction, and a present weather summary. The summaries are available as "pre-generated" 5- and 10-year summaries, or as "on-the-fly" summaries for user-selected periods. The global surface database used as input has over 10,000 active stations. The URL is: http://cdo.ncdc.noaa.gov/CDO/cdo.

ISH Data Summaries now on-line in CDO System

NNDC CLIMATE DATA ONLINE

Surface Data, Hourly Global: Summaries(DS3505)

ISH Summary

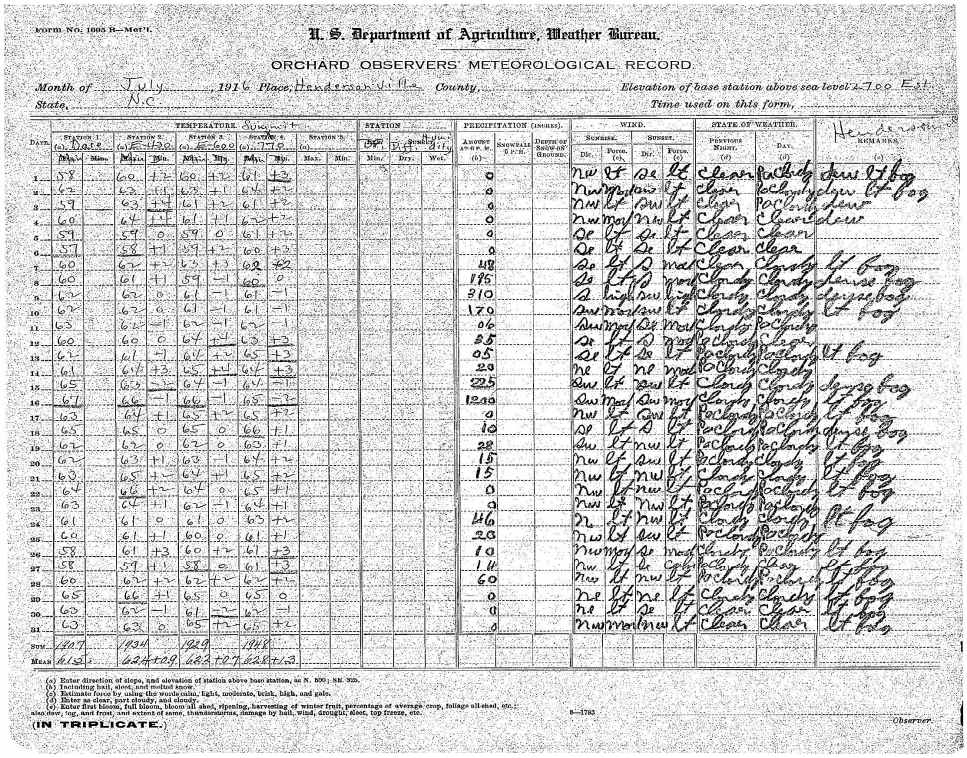
POR 01/01/1995 - 12/31/2004

Temperature Summary for 87750099999/BAHIA BLANCA AERO

1995/01/01 00:00 to 2004/12/31 23:59

HOUR (UTC)		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
0	mean	23.6	21.8	19.7	14.6	11.5	8.4	7.7	9.5	11.3	14.8	18.0	21.3	15.2
	stdv	4.0	4.3	4.2	3.6	3.7	3.8	3.9	4.1	4.0	4.2	4.4	4.8	4.1
	#obs	294.0	268.0	292.0	276.0	295.0	286.0	306.0	299.0	287.0	301.0	285.0	259.0	3448.0
1	mean	22.1	20.5	18.6	13.8	10.9	7.7	7.1	8.7	10.4	13.8	16.7	20.1	14.2
	stdv	4.0	4.2	4.1	3.7	3.8	4.0	4.0	4.1	4.1	4.2	4.1	4.5	4.1
	#obs	274.0	258.0	284.0	267.0	285.0	264.0	286.0	289.0	279.0	268.0	265.0	252.0	3271.0
2	mean	21.0	19.5	17.8	13.2	10.5	7.3	6.6	8.1	9.7	13.2	15.9	18.9	13.5
	stdv	3.8	4.1	4.1	3.8	3.9	4.1	4.1	4.3	4.1	4.3	4.1	4.3	4.1
	#obs	273.0	260.0	285.0	269.0	278.0	277.0	287.0	284.0	272.0	272.0	269.0	254.0	3280.0
3	mean	20.3	18.8	17.1	12.7	10.0	7.0	6.4	7.8	9.3	12.5	15.3	18.2	13.0
	stdv	3.8	4.0	4.2	3.9	4.0	4.3	4.2	4.4	4.2	4.1	4.2	4.4	4.1
	#obs	299.0	274.0	304.0	292.0	306.0	291.0	306.0	300.0	289.0	298.0	287.0	274.0	3520.0
4	mean	19.7	18.2	16.7	12.4	9.7	6.8	6.2	7.5	8.9	12.1	14.8	17.3	12.5
	stdv	3.8	4.1	4.3	4.0	4.2	4.3	4.5	4.5	4.3	4.0	4.2	4.3	4.2
	#obs	278.0	253.0	278.0	271.0	277.0	268.0	280.0	280.0	257.0	255.0	248.0	247.0	3192.0

Images and Publications System: A new version of the Images and Publications System (IPS) has been placed on-line which now provides access to Cooperative Climate Data Forms, in addition to NCDC's five serial publications. The Cooperative Station Forms reach back to as early as the 1800s for some locations, extending forward to 2005, with over 8,000 stations now active. These are the original (often hand-written) forms from the observers, which are scanned and provided as PDF images. The URL is: http://www7.ncdc.noaa.gov/IPS/.



FORM NO. 1003 B—Mar'11.

U. S. Department of Agriculture, Weather Bureau.

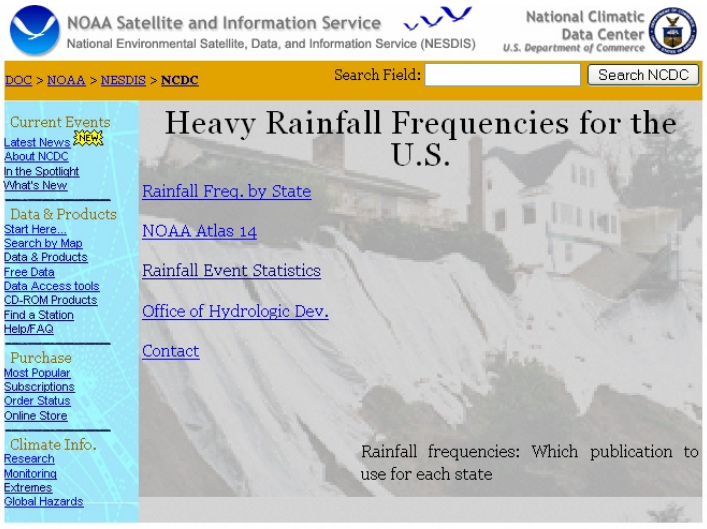
ORCHARD OBSERVERS' METEOROLOGICAL RECORD

Month of July, 1916 Place, Henderson, N. C. County, Elevation of base station above sea level 700 Ft.

State, N.C Time used on this form,

Images and Publications System now on-line provides access to Cooperative climate data forms and NCDC's five serial publications

New Heavy Rainfall Frequencies Web Page: A new "Heavy Rainfall Frequencies for the U.S." web page was placed on-line. The NWS Hydrometeorological Design Studies Center has a new web system which provides recurrence intervals for rainfall extremes ranging from 5-minute to 10-day time periods. This is for selected states and will gradually be expanded to the entire country. NCDC assisted NWS in this effort, and the new NCDC web page links to the NWS system, along with other sources of rainfall event statistics information. The URL is: http://www.ncdc.noaa.gov/oa/documentlibrary/rainfall.html.



Heavy Rainfall Frequencies Web Page

Monthly Station Climate Summaries (CLIM20) CD-ROM: The 1971-2000 Monthly Station Climate Summaries (Clim20) CD-ROM for all 50 states, Puerto Rico, Virgin Islands and Pacific Islands, is now available through NCDC's on-line store. These station summaries are of particular interest to agriculture, industry and engineering applications, and include a variety of statistics for temperature, precipitation, snow, and degree day elements for 4,453 stations. The types of statistics include means, median (precipitation and snow elements), extremes, mean number of days exceeding threshold values, and probabilities for monthly precipitation and freeze data. There is also a table for each station with heating, cooling, and growing degree days for various temperature bases. The URL for ordering is: http://ols.nndc.noaa.gov/plolstore/plsql/olstore.prodspecific?prodnum=C00643-CDR-A0001.

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

Climatography of the United States No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

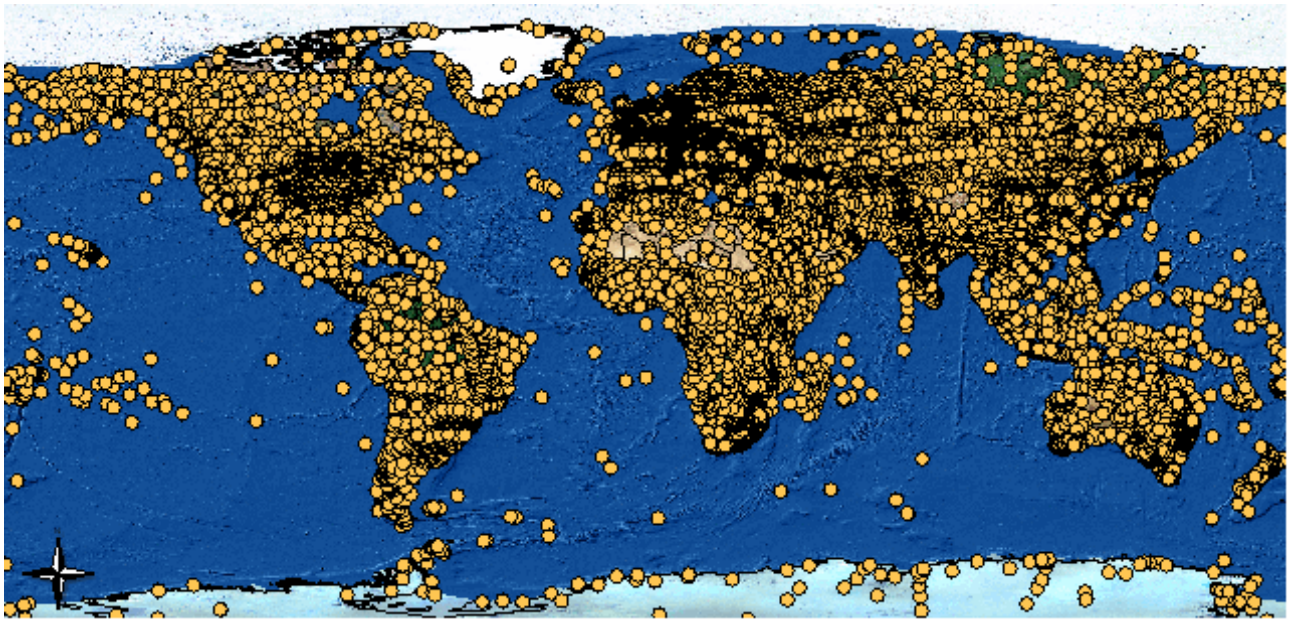
Station: ASHEVILLE RGNL AP, NC **COOP ID: 310300**

Climate Division: NC 1 **NWS Call Sign: AVL** **Elevation: 2,140 Feet** **Lat: 35°26N** **Lon: 82°32W**

Temperature (°F)															Degree Days (1) Base Temp 65		Mean Number of Days (3)					
Mean (1)				Extremes																		
Month	Daily Max	Daily Min	Mean	Highest Daily(2)	Year	Day	Highest Month(1) Mean	Year	Lowest Daily(2)	Year	Day	Lowest Month(1) Mean	Year		Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	45.9	25.8	35.8	80	1999	27	46.4	1974	-16	1985	21	22.9	1977		890	0	.0	.0	13.3	2.7	22.5	.4
Feb	50.0	28.0	39.0	78	1996	27	45.0	1990	-2	1967	25	31.4	1978		714	0	.0	.0	16.4	1.6	18.6	@
Mar	57.7	34.9	46.3	83	1985	30	51.5	1997	2	1993	15	41.3	1971		566	0	.0	.0	25.2	.3	12.0	.0
Apr	66.5	41.8	54.1	89+	1972	15	58.5	1981	22	1987	1	50.2	1983		317	6	.0	.0	28.9	.0	4.2	.0
May	73.5	50.6	62.0	93	1996	19	66.7	1991	28	1989	8	58.1	1976		122	45	.0	.1	30.9	.0	.3	.0
Jun	80.0	58.3	69.2	96	1969	28	72.8	1981	35	1966	2	65.0	1972		17	159	.0	1.5	30.0	.0	.0	.0
Jul	83.3	62.7	73.0	96+	1988	8	77.4	1993	44	1988	2	69.6	1976		7	271	.0	5.1	31.0	.0	.0	.0
Aug	81.7	61.8	71.8	100	1983	21	75.7	1983	42	1986	29	68.5	1976		2	229	@	2.5	31.0	.0	.0	.0
Sep	76.0	55.4	65.7	92+	1998	5	70.3	1998	30	1967	30	61.5	1976		63	100	.0	.4	30.0	.0	.0	.0
Oct	67.1	43.3	55.2	86+	1986	4	61.8	1984	21	1976	29	49.5	1987		296	8	.0	.0	30.7	.0	3.6	.0

Monthly Station Climate Summaries (CLIM20) CD-ROM

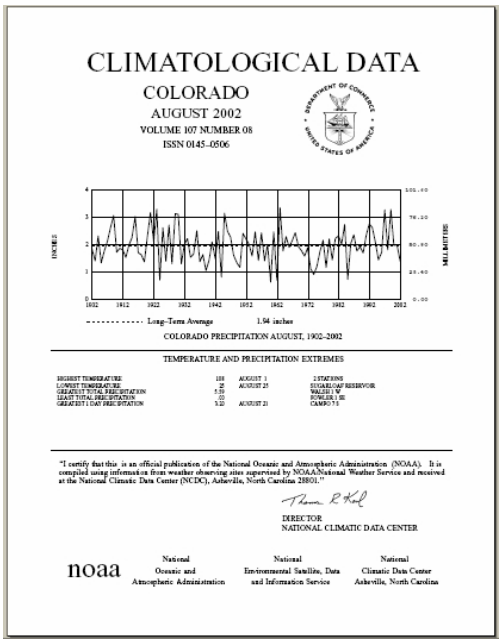
Global Surface Data DVD: A DVD with all Integrated Surface Hourly (ISH) data for 2004 is now available. The global surface observations contained on this DVD are integrated from all of the NCDC and Navy Surface Hourly Data (DS3280), NCDC Hourly Precipitation Data (DS3240), and Air Force DATSAV3 Surface Hourly Data (DS9956). Hourly and synoptic data for over 11,000 global stations are included. The URL for ordering is: http://ols.nndc.noaa.gov/plolstore/plsql/olstore.prodspecific?prodnum=C00353-CDR-S0001.



Global Surface Data DVD with all Integrated Surface Hourly (ISH) data for 2004 is now available

NCDC Serial Publications DVD: This new DVD contains NCDC's five monthly serial publications for years 2001-2004, one year per DVD. This includes Local Climatological Data, Climatological Data, Hourly Precipitation Data, Monthly Climatic Data for the World, and Storm Data. All files are in PDF format. These are the final quality controlled version of each publication conveniently stored on a single disk. The URL for ordering is: http://ols.nndc.noaa.gov/plolstore/plsql/olstore.prodspecific?prodnum=C00522-DVD-A0002.

NCDC Serial Publications DVD



CLIMATOLOGICAL DATA

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COLORADO PRECIPITATION AUGUST, 1902–2002

TEMPERATURE AND PRECIPITATION EXTREMES

DIRECTOR
NATIONAL CLIMATIC DATA CENTER

noaa

Change in On-line Policy for "Gov" Users: On September 1, NCDC implemented a new policy, making all on-line systems data free to "gov" domains. Previously, only selected "gov" users had free access. This should increase usage of NOAA data by other government agencies. All "edu", "k12", and "mil" domains also have free access to all on-line products. **Users can determine their domain (the last three letters of the host name) by going to http://www.ncdc.noaa.gov/whoami.html.**