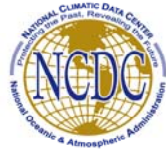


NOAA's National Climatic Data Center



News Highlights



Vol. 1, Is. 2 Winter 2005

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Global Surface Data DVD

NOAA's National
Climatic
Data Center
Federal
Climate Complex
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28801

*Protecting the Past
Revealing the Future*

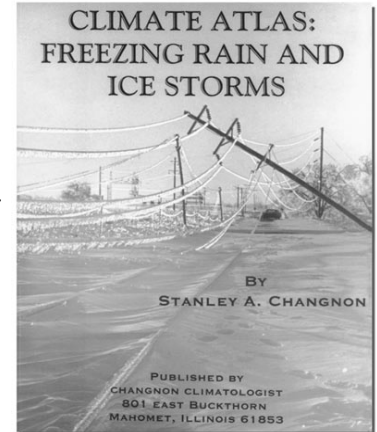
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The National Climatic Data Center's News Highlights is a quarterly publication for NCDC data users. Address comments or article suggestions to:
ncdc-outreach@noaa.gov

Freezing Rain Climate Atlas Available:

The publication titled "Climate Atlas: Freezing Rain and Ice Storms" by Stanley A. Changnon of Changnon Climatologist is now available through NCDC's on-line store. This publication provides the results of the OGP funded project that Stan and Tami Houston recently completed. This is the first ever climate atlas concerning ice storms and freezing rain occurrences across the United States. Insured property losses from ice storm catastrophes in the United States average \$326 million (in 2000 dollars) annually. Ice storms also cause major damage to the natural and planted environments as well as loss of life and injuries. This atlas will be of interest to those interested in how weather impacts man and the environment, especially those who design weather-sensitive structures. The price will be \$2 online plus \$5 S&H, and \$5 off-line plus \$5 S&H.

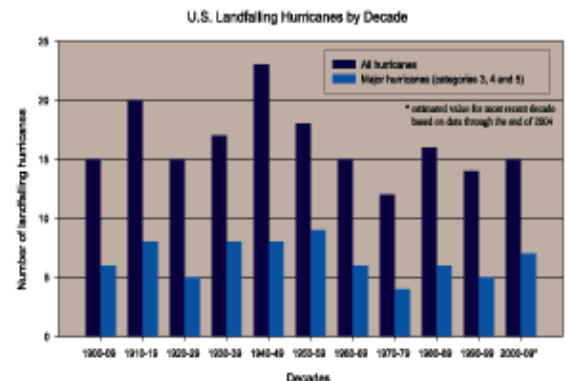
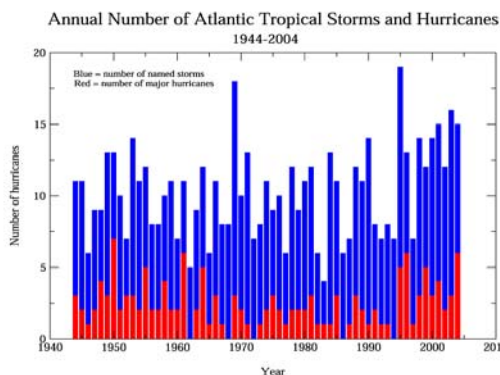


State of the Climate:

Temperatures were again warmer than average across much of the world's land and ocean surfaces. The global temperature for 2004 is expected to be no less than the fourth warmest on record, continuing a trend of warmer temperatures that resulted in an increase of approximately 1 degree F since 1900 and a rise almost three times that rate since 1976. Other global events in 2004 included: a record number of tropical cyclones impacting Japan, below normal monsoon rainfall in India, a severe heatwave in Australia during the late summer, and a developing El Nino that is expected to continue into early 2005.

The 2004 annual average temperature for the United States was the twenty-fourth warmest since national records began in 1895. Much of the contiguous U.S. experienced a cooler than average summer while Alaska had its warmest summer on record. Large parts of the West remained in drought near year's end although some relief occurred with above average precipitation in the fall from parts of Colorado and New Mexico westward. Precipitation totals for 2004 were above average in many parts of country, particularly in the South and East, where several landfalling hurricanes and tropical storms contributed to the above average totals. In all, nine storms affected the U.S. including six hurricanes. Four of the six hurricanes made landfall on or near the Florida coast, making it the only state since Texas in 1886 to sustain the impact of four hurricanes in one season.

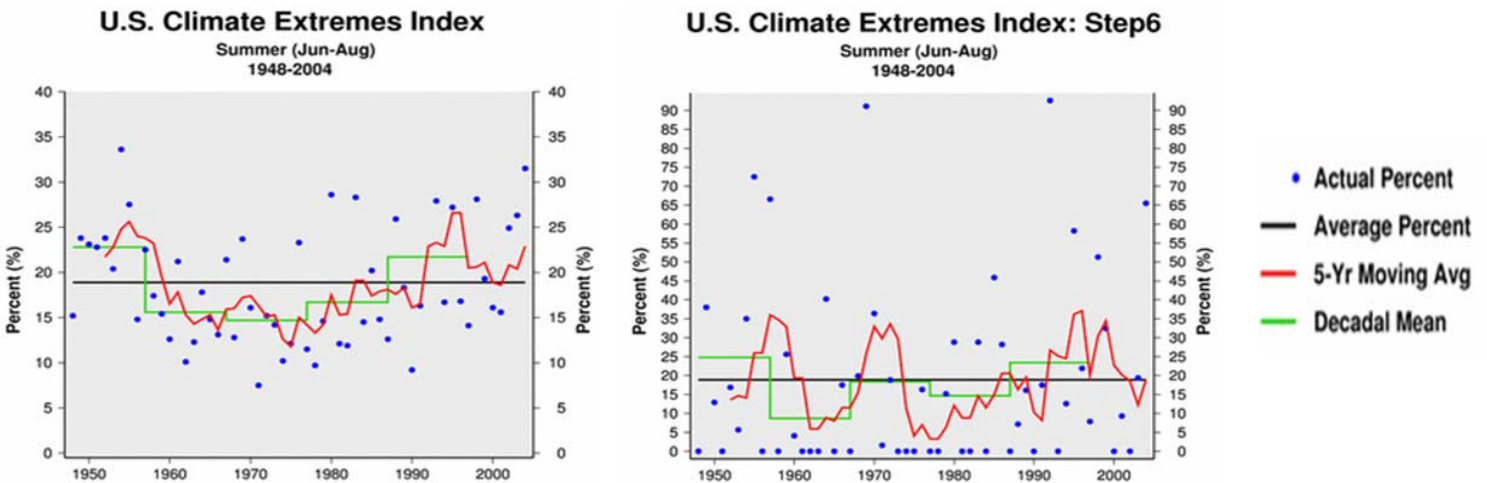
The system URL is: www.ncdc.noaa.gov/oa/climate/research/2004/perspectives.html



U.S. Climate Extremes Index (CEI):

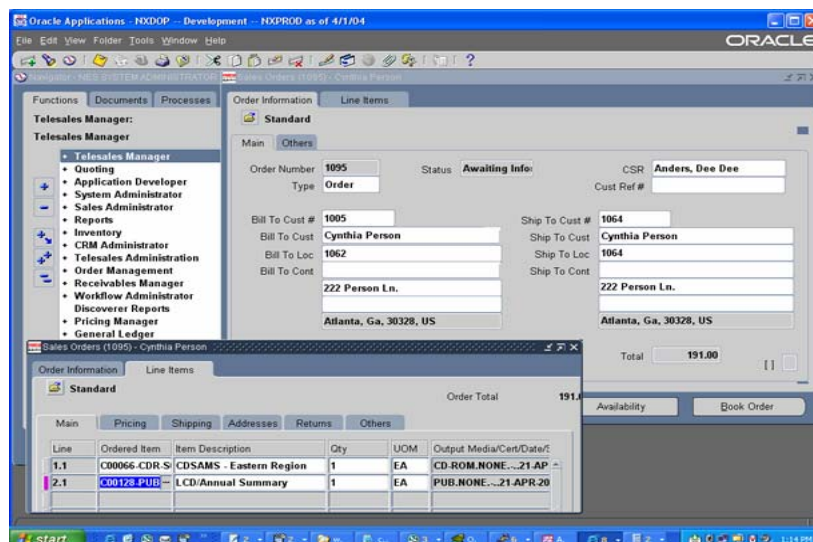
The Climate Extremes Index (CEI) was first introduced in early 1996 with the goal of summarizing and presenting a complex set of atmospheric parameters to describe climate changes in the United States. One primary purpose of developing a climate index such as the CEI was to be able to illustrate climate variations and trends so that they are easily understood by nonspecialists, as well as to be potentially used in policy decisions. Over the past several years, scientists in the Climate Monitoring Branch have been working to update the CEI and use near-real-time meteorological data to run the index operationally. One major addition that was developed was to add a sixth step to the CEI, that takes into account the intensity of landfalling hurricanes on the U.S. The first operational run of the CEI at NCDC was conducted in spring 2004, and it is now routinely updated on a seasonal and annual basis. In September 2004, the second operational run was conducted summarizing the climatic conditions across the U.S. during the summer (June-August). The summer 2004 CEI was 32%, which was well above the expected value of 20%. The cumulative affect of landfalling tropical cyclone winds over the contiguous U.S. was the 5th strongest since 1948, which included a number of landfalling tropical systems that affected the eastern U.S. during August.

The system URL is: <http://www.ncdc.noaa.gov/oa/climate/research/cei/cei.html>



NESDIS e-Commerce System (NeS) Implemented:

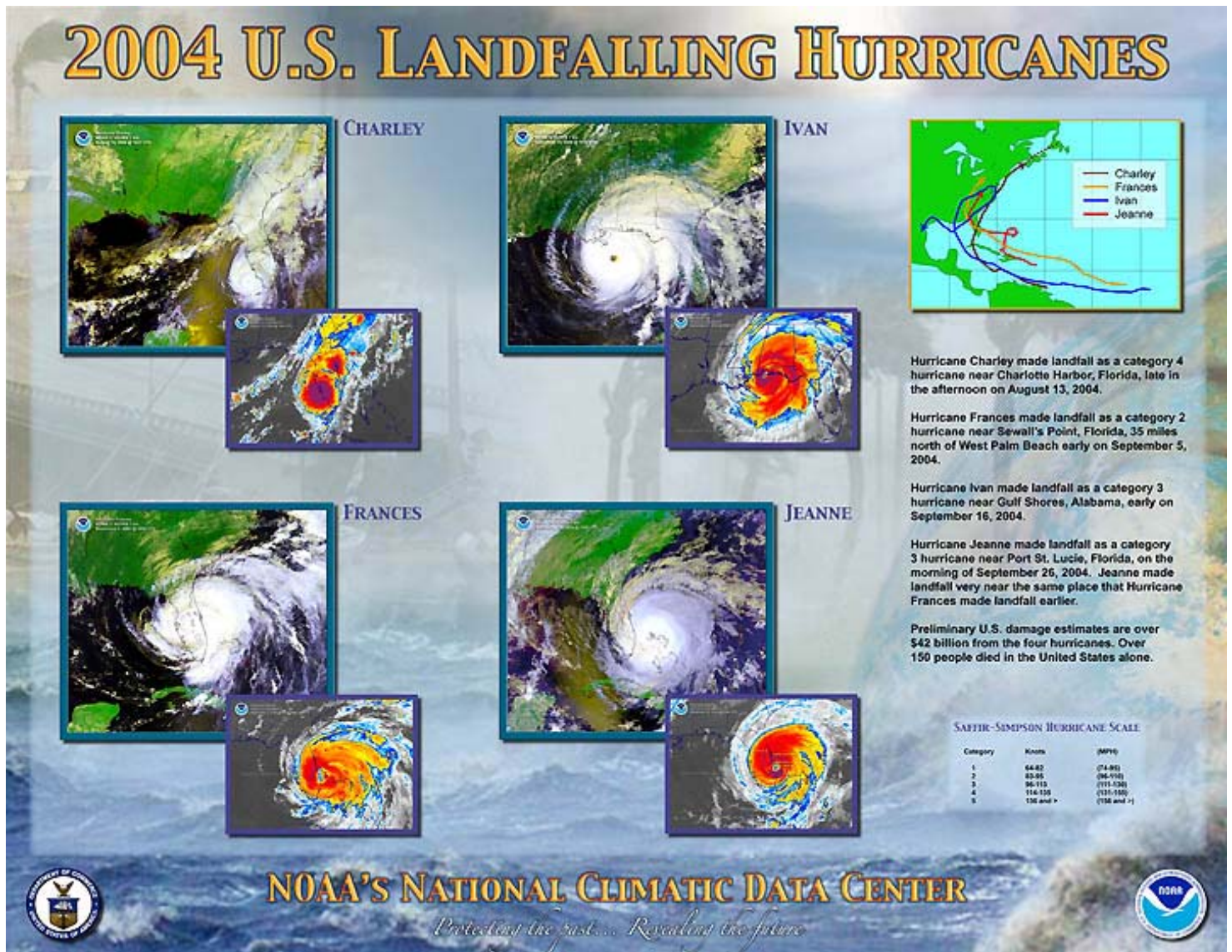
The NESDIS e-Commerce System (NeS) has been successfully implemented at the three NOAA Data Centers, meeting milestones established two years ago, with full operational mode beginning on October 1, 2004. The National Climatic Data Center (NCDC), the National Oceanographic Data Center (NODC), and the National Geophysical Data Center (NGDC) are now entering all off-line orders into NeS. These are orders which are paid for by Data Center customers for delivery on various media, such as CDROM. This has been an exceptional achievement thanks to the hard work and dedicated efforts of the NeS team. NeS will serve as the e-commerce system for all paid orders for the Comprehensive Large-Array data Stewardship System (CLASS) and the National Virtual Data System (NVDS). NeS will also be expanded in the future to include order processing for the Regional Climate Centers. It replaces a previous system which had reached obsolescence.



Four Landfalling Hurricanes:

During the 2004 hurricane season, four Category 2 - Category 4 hurricanes made landfall: Charley (**Category 4**), Frances (**Category 2**), Ivan (**Category 3**), and Jeanne (**Category 3**). These were major impacts for Florida and much of the southeast and east coast. The preliminary U.S. damage estimate is over \$42 billion for the four storms with over 150 fatalities. Andrew (**Category 5**) in 1992 is still the most costly single storm with \$27 billion in damages. In Florida, more than one out of every five homes were damaged by hurricanes this year. Detailed information, satellite images, disaster reports and access to recent and historical digital data can be found at the websites below.

The system URLs are: <http://www.ncdc.noaa.gov/oa/climate/research/hazards/index.html>, <http://www.ncdc.noaa.gov/oa/reports/billionz.html>, and <http://cdo.ncdc.noaa.gov>



U.S. Climate Reference Network Proves Valuable:

After nearly a year of commissioned operation, the U.S. Climate Reference Network (USCRN) is already helping to improve the tracking of temperature and precipitation trends, giving NOAA scientists and the Nation's decision makers more insight into climate variability and change. NOAA's top official said the USCRN is poised to be a key tool on the world stage. Currently there are 59 commissioned USCRN stations operating in 29 states, logging real-time measurements of surface temperature, precipitation, wind speed and solar radiation. NOAA's Geostationary Operational Environmental Satellites, or GOES, relay the data from these ground-base stations to the agency's National Climatic Data Center in Asheville, N.C., which posts the observations online. Current plans are to commission 12 new stations in 9 additional states early in FY 2006. Officials stated a fully deployed network of 110 stations is planned for the contiguous U.S.

The system URL is: www.ncdc.noaa.gov/oa/climate/uscrn



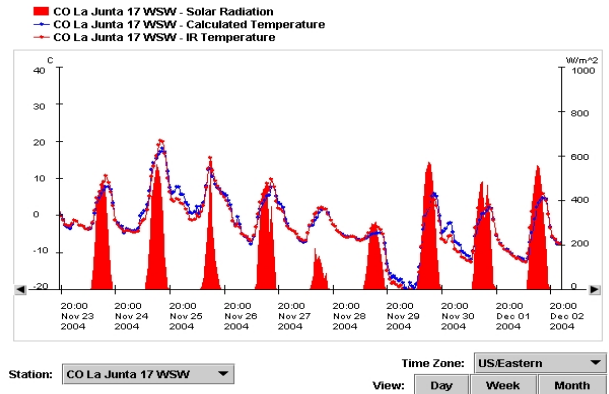
Aspirated temperature shields



Deploying a USCRN station



SC McClellanville 7 NE USCRN station



Air temperature, solar radiation and infrared temperature graph from USCRN station

Global Surface Data DVD:

An Integrated Surface Hourly (ISH) DVD with all global ISH data for 2003 is now available for purchase. The single DVD contains individual data files for each station, along with all required metadata, documentation, etc. This comprises approximately 15 gigabytes of data (compressed onto one DVD) for over 11,000 stations worldwide, with hourly and synoptic weather data. Temperature, wind, pressure, precipitation, snow depth, visibility, cloud cover, and other elements are typically available.

The system URL is: <http://ols.ncdc.noaa.gov/plolstore/plsql/01store.prodspcific?prodnum=C00353-CDR-S0001>

