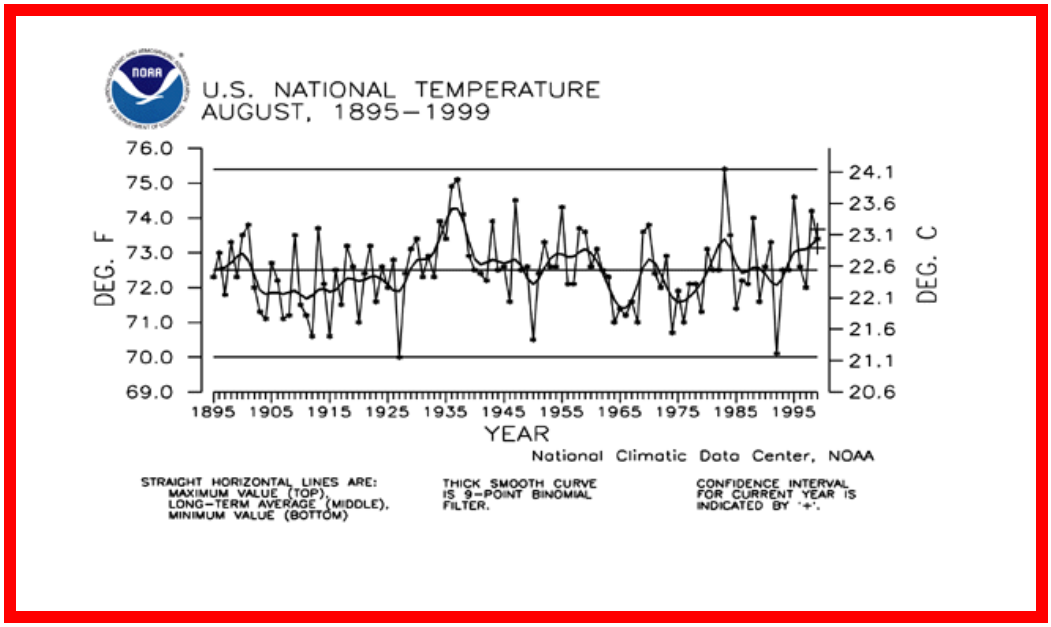
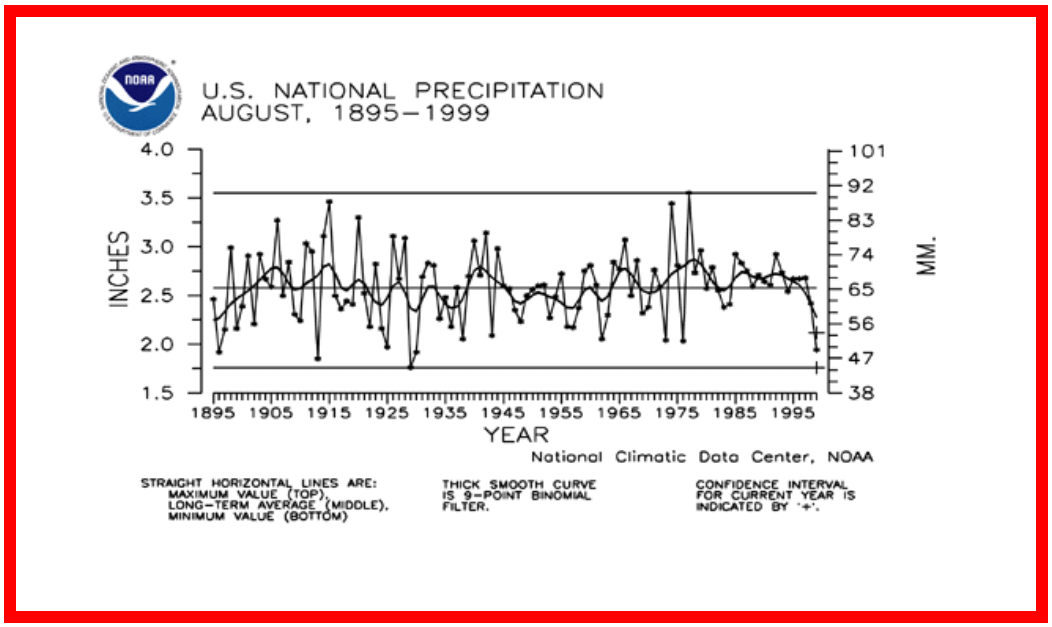
Monthly Activity Report

August 1999





Preliminary data for August 1999 indicate that the monthly mean temperature averaged across the contiguous United States was warmer than the long-term mean and ranked as the 23rd warmest August since 1895. About 16 percent of the country was much warmer than normal, while less than one percent of the country was much cooler than normal (top figure).

Based upon preliminary data, August 1999 ranked as the fifth driest August on record. Nearly 19 percent of the country was much drier than normal while about three percent of the country was much wetter than normal (bottom figure).

DIRECTOR'S HIGHLIGHTS

July Monitoring Report Focuses on Northeastern U.S. Drought

The National Climatic Data Center released its web-based July global and national climate monitoring report on August 13th. Portions of the U.S. climate summary had been released to the National Oceanic and Atmospheric Administration's (NOAA) Public Affairs Office a week earlier in preparation for a joint Commerce/ Agriculture press conference on the worsening Northeastern U.S. drought. The July report added a special "Drought in the U.S." section that focused on regional and state drought statistics, and included time series of drought indices as well as precipitation and temperature. Although numerous states in the area had either their driest or second driest growing season (April-July) in 105 years of record, the drought index ranks the current episode as third in magnitude, exceeded in severity by droughts in 1930 and the mid 1960s. Globally, both land and ocean temperatures continued above the long-term mean (for July, the combined land-ocean global value was above the mean for the 23rd consecutive year), however temperatures were much lower than the record values recorded in 1998.

Press Briefing

The National Climatic Data Center's (NCDC) Climate Monitoring and Rapid Response Team provided July 1999 and 1999 growing season graphics to the National Oceanic and Atmospheric Administration's (NOAA) Public Affairs Office for use in a joint Commerce/Agriculture press briefing on August 6th. Speaking at the briefing were Commerce Under Secretary Robert Mallett, NOAA Administrator James Baker, and Agriculture Secretary Glickman. The speakers, using NCDC's graphics, emphasized the unprecedented nature of the mid-Atlantic and New England drought. For the April-July 1999 growing season, New Jersey, Delaware, Maryland and Rhode Island all experienced their driest April-July period in 105 years. Graphics files were provided to NOAA Public Affairs in less than 18 hours following data receipt.

NNDC Server System Used to Support White House Press Conference

The National Climatic Data Center used the NOAA National Data Centers (NNDC) Server Oracle System to provide data in connection with an August 2, 1999, White House Press Conference related to recent climatic extremes, especially the heat wave and drought. Several data subsets, including monthly and daily data (means and extremes) for Charleston, SC, Washington, D.C., Cincinnati, OH, and St. Louis, MO, were provided using the online database.

FY 00 Budget and Agency Assessment Determined for Health Unit Participants

The Federal Occupational Health Unit (FOHU) budget for FY 00 has been finalized and participating agency assessments have been determined. A total of 354 employees, including 171 National Climatic Data Center (NCDC) employees and 183 personnel from seven other federal agencies, will be eligible to receive health and fitness services from the contract physician, health unit nurse and fitness instructor. Letters are currently being prepared for distribution to participating federal agencies detailing the FY 00 budget agency assessment and requesting approval of a Memorandum of Agreement with NCDC for provision of occupational health services for FY 00.

Reduction in Services Support

The National Climatic Data Center (NCDC) has begun actively working with departing contract

employees in the service areas being transitioned to the government on October 1, 1999. Three teams in Climate Services Division are meeting daily with the Orkand Product Orders personnel to observe operational processing of digital, satellite, and certification orders. One team is observing digital imaging and layout processes performed in the Orkand Photographics area. Two individuals are working with Orkand document imaging staff and data rescue systems. Property inventories of government-furnished items to the affected contractor support areas are in progress.

CLIMATE DATA AND INFORMATION SERVICES

✦ Database Development

Air Force Data

DATSAV 3, a global surface hourly observational data set created by the U.S. Air Force Combat Climatology Center (co-located with NCDC), has been updated through 1998 for near-line customer servicing by the National Environmental Satellite, Data, and Information Service (NESDIS). The data volume is a few hundred gigabytes. It is the most requested database serviced by NCDC, and is illustrative of the kind of cooperative service to the nation that was intended when the joint Department of Commerce-Department of Defense weather records centers were established in Asheville, NC, in the early 1950s.

GFDL R15 Greenhouse Ensemble Database

The National Climatic Data Center (NCDC) archived and distributed a set of 12 Geophysical Fluid Dynamics Laboratory (GFDL) Atmosphere/ Ocean Coupled General Circulation Model experiments. The experiments compare the effects of model initial conditions and the starting time of transient radiative forcings on global mean surface air temperature and the North Atlantic thermohaline circulation. The full 200GB database will be archived in a mass store robotics environment and available for customer servicing. A 20GB subset of annual and monthly values for selected variables will be placed on-line to provide online anonymous ftp access to these data. The online data will be available to users in September 1999 and the full 200GB database will be available in October 1999.

Hourly Precipitation Data (HPD) Statistics

The National Climatic Data Center (NCDC) has completed the software to summarize the HPD into 26 “rain event statistics” for nearly 5,000 stations. Each station will have year/month and period of record (POR) statistics for each rain gauge type used during its respective POR. Precipitation statistics include information on monthly means, storm duration (hours), intensity, extremes, frequency and number of days exceeding various thresholds. Processing, including inventory information, will be completed by the end of September 1999. FY 00 work will involve developing display software and products. Once completed, these data will replace the current Hourly Precipitation Data Rainfall Event Statistics (TD-9651) database.

GIS Climatic Division Boundaries Shape Files

National Climatic Data Center personnel updated Geographic Information System (GIS)-compatible shape files for the boundaries of the contiguous U. S. climatic divisions. These were placed on the "Inventories/Station Lists" web page at: http://www.ncdc.noaa.gov/ol/climate/surfaceinventories.html. Several requests for these files are now being received each week as GIS software and its uses permeate the research world.

Summary of the Day from the Regional Climate Centers (RCCs)

The National Climatic Data Center is working on receiving and reformatting near-real-time Coop Observations from the RCCs. The goal is to make preliminary Coop data available to web customers within a day of observation time.

✦ Data and Information Distribution

WSR-88D

The National Climatic Data Center (NCDC) has successfully tested transfer of WSR-88D (NEXRAD) Level II archive directly to the Hierarchical Data Storage System (HDSS). NCDC will operationally implement the enhancement within a few weeks. This development will eliminate the need for the 8mm tape archive of future incoming data. However, migration of the existing 350 TB archive, and improvements to data access as recommended by the National Research Council, remain to be addressed.

Data Rescue

Information Management Corporation of Kentucky (IMC) is imaging the National Climatic Data Center's (NCDC) aviation observation hourly records. This work is scheduled to end in late September or early October 1999. Therefore, NCDC will stop outgoing shipments now and turn efforts to incoming (return) shipments. By the end of FY 99, IMC will have completed a total of 15,728,331 images. So far, progress on this project has been outstanding.

During the month of August 1999, the Meteorological Paper Imaging project shipped 2,502 boxes of paper records to the West Virginia contractor. This gives a total of 40,503 units shipped or approximately 17 million pages. During August, the return of original records was restarted; a total of 2,616 boxes were returned. A total of 91 CD-ROMs were received from the contractor, with these containing over 740K million images. In total, NCDC has now received 2,045 CD-ROMs containing 15.4 million images.

Approximately 500 fiche per week are continually being shipped to Image Entry (IE) for keying under MMK1 (Cooperative Observations). During August, 2,031 fiche were shipped to IE for keying under the data rescue project, bringing the total to 17,688 since the beginning of the project. To date, 34 cartridges of keyed cooperative daily data have been returned to NCDC containing data from 13,959 fiche. Seventy-nine percent of the data shipped to IE has been keyed and returned to NCDC.

NCDC Web-Site Additions

The images and sound files describing the specific Automated Surface Observing System (ASOS) sites for the ASOS Wind Documentation Project sponsored by the National Oceanic and Atmospheric Administration's (NOAA) Hurricane Research Division/Atlantic Oceanic Meteorological Laboratory (AOML), under funding from the U.S. Weather Research, have been put on the National Climatic Data Center's (NCDC) web site. There are eight images for each site and two sound files. Currently, 59 sites are included with approximately 350 to be added as the Weather Service Forecast Offices send in the images and sound files. The NCDC was funded for this effort by the AOML.

World Weather Records Series Nears Completion

Processing for the remaining volumes of the World Weather Records 1981-1990 series has been

completed, and the negatives have been delivered to the printer. Volume 4 (Asia) which includes 438 stations, Volume 5 (Africa) with 279 stations, and Volume 6 (Islands of the World) with 295 stations were the final volumes completed. Printing is scheduled for completion in mid-October and distribution should take place in December. The entire 1981-90 series of World Weather Records will be added to the TD-9644 database.

Climate Watch

The Climate Watch page for August 1999, placed on-line on August 17th, features a short summary of the landfall of Hurricane Camille in 1969. Satellite and Next Generation Weather Radar (NEXRAD) images and text of the Texas landfall of Hurricane Bret on August 22, 1999, have been included as well as additional U.S. station extremes of heat and precipitation for August 1999.

Hurricane Bret Information

Satellite images, satellite movie loops, precipitation amounts, and other information related to Hurricane Bret are included in the National Climatic Data Center's (NCDC) Climate Watch web page for August 1999. The highest officially reported rainfall amount, 12.73 inches in a 48-hour period ending at 7:00 A.M., August 24th, was reported in Sarita (Kenedy County), TX. Next Generation Weather Radar (NEXRAD) estimates in surrounding isolated areas indicated nearly 30 inches. Rain gauge reports are few in these sparsely populated areas. Bret's damage was minimal due to its compact size and low populations in the areas near the landfall.

NOAA KLM User's Guide CD-ROM Available

The new "NOAA KLM User's Guide (With Imagery and Digital Data)" CD-ROM is now available from NCDC on paper and CD-ROM. The CD provides data set documentation along with examples of imagery and the data stream itself for NOAA-15 and future polar-orbiting satellites. These products will be offered through the Online Store. The CD-ROM mirrors the web site at URL: http://www2.ncdc.noaa.gov/docs/klm/index.htm. The disc is arranged as a series of HTML files that are linked to each other through the Welcome Page.

Publication CD-ROM Demonstration

The enhanced National Climatic Data Center (NCDC) Serial Publication CD-ROM was demonstrated during August. This product, primarily intended to satisfy depository library requirements, contains all serial publication images and ASCII file data for a calendar quarter. The previous version only contained publication (pdf) images. Users can now view publication images and also import equivalent digital data to their applications.

METAR Observations in Marada Access System

The National Climatic Data Center (NCDC) completed a system for availing users of all domestic METAR observations through the existing on-line system for surface airways data access. This more than doubled the availability of METAR reports. The NCDC receives these data through the Gateway Ingest system and will build a data access interface compatible with the existing on-line airways data access system.

✦ Requests from News Media

Interviews

Mike Changery, Climate Monitoring Branch Chief at the National Climatic Data Center, and members of his team conducted a number of interviews with news media, including USA Today Radio News, following the National Oceanic and Atmospheric Administration's release of July 1999 and growing season 1999 drought and temperature data. The majority of the news outlets were in areas most affected by the drought, including the Washington, D.C., and Philadelphia, PA, markets. Mike also conducted a live radio interview with WOL, a news/talk station in the Washington, D. C., area. Other interviews were conducted with North Dakota media on extreme wetness in the

upper Plains, an Ohio station on functions of the National Climate Extremes Committee and its role in validating the seasonal snowfall record at Mt. Baker, and Bloomberg News on historical perspective of the heat wave in the Ohio Valley area.

Newspaper Interview

Dr. Tom Peterson, Acting Chief of the Scientific Services Division of the National Climatic Data Center, was interviewed by Kiyoshi Ando of the Japanese daily newspaper *Nikkei* regarding putting recent climatic events into historical perspective.

Phone Interview

On August 30, 1999, Dr. David Easterling, Acting Chief of the Climate Archeology and Analysis Branch, was interviewed by a reporter from *Creative Loafing Atlanta***,** a leisure weekly in Atlanta, GA, for a story on climate change.

Scientific American Article

The National Climatic Data Center provided information for an upcoming article in the *Scientific American* concerning scientific progress over the past half century (1950-2000) in various fields, including climate and weather prediction. The information covered three themes: weather forecasting improvements, seasonal/interannual forecasts, and improvements in modeling the effects of humans on the climate.

Phone Request from the Washington Post

The Washington Post was provided information regarding extreme rainfall statistics for the U.S. and the World. Data from the Corps of Engineers Weather and Climate Extremes Book were used to provide this information

✦ Private Industry Interactions

American Agricultural Economic Association

A National Climatic Data Center employee served as a panel member at a Nashville, TN, meeting of the American Agricultural Economic Association on August 7th. The Association met to discuss the observed climate change signature and its potential impact on agriculture. Panel members, including a climate modeler and an agricultural botanist, gave presentations on their respective topics, which was followed by a question/answer session. Additional speakers covered issues related to climate variability impact on agricultural production and sustainable agriculture.

Fuel Conservation

The National Climatic Data Center provided maps of number of days below minimum temperature thresholds to Espar Heating Systems. Espar is working with the Department of Transportation to reduce the amount of diesel fuel consumed by idling trucks when temperatures drop below 50 degrees. It is estimated that nearly 400 million gallons of fuel are consumed while idling over the course of a year. In addition to the fuel costs, idling significantly increases maintenance costs, up to $3 per hour, for each hour the engine is idled. Espar has developed an efficient fuel heater which costs only pennies an hour and eliminates the large maintenance costs. The temperature threshold maps will be used to identify areas of the country where the new heaters will have the largest impact.

Climate Atlas Update

The National Climatic Data Center (NCDC) has received 193 of the 385 total maps that Oregon State University (OSU) is providing for the new U. S. Climate Atlas. Much work has been accomplished over the past several months so that NCDC can review and modify these maps using ArcView. OSU plans to provide the remaining 192 maps by the end of the year. There are still some unresolved questions concerning what type of files (e.g., shape files, grid files or image files) will be provided on CD-ROM. The shape and grid files will allow the user more flexibility using Geographic Information System (GIS) maptools such as ArcView and ArcExplorer, but the file size may be too large to put on CD-ROM. Various compression routines are being investigated. NCDC is also working on an additional 200-300

maps for such parameters as "days with...", sky condition, sea level pressure, winds, vegetation index, tornadoes and hurricane tracks. Version 1 of the CD-ROM should be available in the spring of 2000.

Weather Derivatives Business – Improved Data Access via the Web

National Climatic Data Center personnel have completed the development work on a contract to provide Earth Satellite Corporation (EarthSat) with the capability to download multiple weather stations in a single order via the Online Store. EarthSat is currently performing beta tests on the new access module. These data are derived from the edited and unedited Local Climatological Data Sets. Customers are now able to generate several files including all stations for a desired month time-frame. EarthSat will use this new feature to streamline and improve their analyses in the emerging Weather Derivatives business.

✦ Interesting Requests

What Goes Up Must Come Down

The National Climatic Data Center (NCDC) was contacted by a gentleman interested in obtaining meteorological data which will be used to determine wind speed during a hot air balloon ride. The balloon excursion originated from Winchester, VA, but came to an abrupt end in nearby Berryville as the pilot made a crash landing in a farmer's pasture. The passenger, who paid for the balloon ride, sustained injuries from the accident. The pilot claims that surface winds were less than 10 knots, however, hourly surface weather observations from the Winchester airport substantiate the passenger's claim that the surface winds were stronger.

Relic Hunters

A park ranger contacted the National Climatic Data Center (NCDC) to obtain meteorological data which will be used to prosecute several relic hunters. The hunters were charged with illegally digging for Civil War bullets and other memorabilia at Cold Harbor Battlefield on the outskirts of Richmond, VA, sometime during the evening of July 7, 1999. Apparently rain had fallen the night before, and the culprits left shoe prints in the mud. The NCDC provided hourly surface weather observations from Richmond for the period in question. The ranger will use this meteorological data to determine the specific times that precipitation fell, which in turn, will give the prosecutors a better handle on the approximate time the defendants were plundering the area for buried Civil War artifacts.

PDSI Values Correlated with Tree Growth

For his ongoing research, Dr. Michael Huston of the Department of Civil and Environmental Engineering at the University of Tennessee was provided the algorithms the National Climatic Data Center (NCDC) uses to calculate the Palmer Drought Severity Index (PDSI) and its various related indices. Dr. Huston plans to calculate the PDSI for his locality (Oak Ridge, TN) as a single station analysis that would be comparable to the PDSI for climatic divisions (i.e., use the same basic parameters, but use local temperature and precipitation instead). He has already used the Tennessee climatic division PDSI data with several different types of data such as stream flow and tree growth, and has found remarkably strong qualitative correlations. Since he is working with annual variations in tree growth, he wants to see whether any local peculiarities in the climate around Oak Ridge explain the fine-scale patterns better than the regional averages.

✦ Technology Applications

NNDC Server System Sales Set Records During August

The NOAA National Data Centers (NNDC) Server at the National Climatic Data Center (NCDC) set monthly records for orders during August 1999. The Online Store recorded 1,386 orders, including 258 orders through the NNDC Server System, with many orders containing multiple items. The NNDC Server provides on-line access at NCDC to six full period-of-record data

sets, and now includes the preliminary Cooperative Station data. Revenues were roughly double July figures, mainly due to extensive announcements via e-mail and other media. Also, nearly 5 gigabytes of data were provided free of charge to NOAA and education users through these systems. The Center plans to continue to advertise and expand these systems to attract new users and to continue the transition from off-line to on-line ordering of data and products.

FY 00 HPCC Proposals

Ten High Performance Computing and Communications (HPCC) proposals have been submitted by the Principal Investigator (PI) from National Environmental Satellite, Data, and Information Service (NESDIS) activities, and one proposal with a NESDIS Co-PI. NESDIS activities submitting proposals include: the National Climatic Data Center (four), the National Oceanographic Data Center (two), the Office of Research and Applications (two), the University of Wisconsin and Colorado State University (one each), the National Geophysical Data Center (two), and the National Oceanic and Atmospheric Administration (NOAA) Information Center (one). The latter is a NOAA Corporate Next Generation Internet proposal. The NESDIS coordinator reviewed the proposals and provided each PI with comments in an effort to assist the PI with improving the structure of the proposal for committee review and evaluation. Evaluation of all FY 00 NOAA HPCC proposals is scheduled for September.

✦ Regional and State Climate Centers

State Climatologist Exchange Program

Dr. Dan Leathers and Dr. Ted Sammis, State Climatologists for Delaware and New Mexico respectively, will be visiting the National Climatic Data Center (NCDC) during September under the State Climatologist Exchange Program.

What is "Normal"?

Arnold Court, retired climatologist from California, met with the National Climatic Data Center's (NCDC) Normals Program Manager to discuss the development of daily normals for the 1971-2000 period. Arnold said that the State Climatologists will be sending a letter to NCDC expressing their concern about publishing spline-fit smoothed daily normals and using a 30-year period for normals generation. Arnold reported that the consensus is that daily normals should be based on unsmoothed data and that long period averages of 50 to 100 years are more representative. NCDC is currently reviewing previous work on this topic and is performing a comparison of various techniques for computing normals.

SCIENTIFIC AND PROFESSIONAL ACTIVITIES

✦ Working Groups/Committees/ Meetings

American Bar Association Annual Meeting

Representatives from the National Climatic Data Center (NCDC) attended the American Bar Association's (ABA) Annual Meeting in Atlanta, GA, August 4-9, 1999. The group hosted NCDC's booth display at the ABA Expo which featured 128 exhibits. This was the first time NCDC has targeted this particular conference, which drew over 9,000 lawyers from across the nation. Samples of publications such as the Local Climatological Data (LCD) and Cooperative Data (CD), along with CD-ROMs and other NCDC products that lawyers typically request, were available for viewing. Interviews about NCDC were given to the *Atlanta Constitution Journal*, the *ABA Journal*, and the *American Lawyer Media Group*. Speakers at the meeting included President Clinton, Attorney General Janet Reno, and Kenneth Starr.

Metadata Review

The Regional Climate Centers are participating in a review of National Climatic Data Center (NCDC) station metadata; stations with identifier discrepancies and location anomalies are identified with Geographic Information System analyses. Kevin Robbins of the Southern Regional Climate Center distributed station metadata problems to the State Climatologists at a meeting held recently in Charleston, SC, and has received over 30 responses or metadata corrections. These corrections will be incorporated into the Unified Climate Access Network metadata base, and will be forwarded to NCDC for inclusion in the Station History Information Processing System.

✦ Visitors

Tropical Prediction Center Personnel Visit NCDC

Brian Jarvinen, Colin McAdie, and Joan David of the Tropical Prediction Center/National Hurricane Center (TPC/NHC) visited the National Climatic Data Center (NCDC) on July 29, 1999. The purpose of their visit was to meet with NCDC staff who are working on the publication *Tropical Cyclones of the North Atlantic Ocean, 1871 - 1998*. This is the fifth revision of the book originally entitled *Tropical Cyclones of the North Atlantic Ocean 1871 - 1977*, and it includes updated North Atlantic Ocean tropical cyclone facts, figures, charts, graphs and track maps. The team reviewed a mock-up of the book and chose a 3-D satellite image of Hurricane Mitch for the front cover. Due to the book's thickness (approximately 205 pages), it will be published by an outside source. The *Tropical Cyclone* book will be available for sale by NCDC this fall.

Visiting Scientists

Two visiting scientists from the Chinese Meteorological Administration arrived at the National Climatic Data Center on August 15th for a six-month stay. Mr. Ren Fumin will work in the Climate Archeology and Analysis Branch initially analyzing typhoon-precipitation relationships in China in parallel with a similar study currently underway for the U.S. Mr. Guofu Wang will work in the Active Archive Branch learning database management methods.

Three visiting scientists are involved with the National Climatic Data Center's satellite-based climate monitoring activities. Sam Shen, a professor at the University of Edmonton, Alberta,

Canada, is spending 2 months working on aspects of the blended satellite/in-situ product. Two of his efforts involve improvements in the blended contribution from the Global Historical Climate Network (GHCN) data set, by reconstructing the set for complete global year-month coverage in the band 30N to 30S and determining error characteristics by year for this same band. He is also involved in calculating optimal weights for the blended data set. Goulong Li, a Ph.D. student at Edmonton, is spending a month assisting in writing software for these tasks. John Christy from the University of Alabama at Huntsville visited for a week assessing upper air data from the Comprehensive Aerological Reference Data Set and comparing temperature profiles with satellite derived tropospheric temperature anomalies.

National Research Council Visitor

Dr. Judith Nyquist, the Deputy Director and Program Administrator of the Associateship Programs at the National Research Council, visited the National Climatic Data Center (NCDC) August 26th. She discussed the potential of NCDC sponsoring a visiting post-doctorate or senior research associateship with several NCDC leaders. Also included in the discussion were possible external sources of support for an associateship position.

✦ Publications

Article Published in Bulletin

The June 1999 issue of the Bulletin of the American Meteorological Society contains an article co-authored by National Climatic Data Center employee Tami Creech while she was a graduate student at Northern Illinois University (Changnon, D., T. Creech, N. Marsilli, W. Murrell, and M. Saxinger, 1999: Interactions with a Weather-Sensitive Decision Maker: A Case Study Incorporating ENSO Information into a Strategy for Purchasing Natural Gas. *Bull. Amer. Meteor. Soc.*, 80, 1117-1125). The project was part of an Applied Climatology course in which students worked in teams on semester-long projects with outside companies. The course provided students an opportunity to apply their meteorological skills as well as enhance their oral and written communication skills. This particular project was performed to supply the heating plant manager of Northern Illinois University with weather tools in order to aid in their natural gas purchasing decision.

Historical Data

National Climatic Data Center personnel are engaged in a joint effort with the Western Regional Climate Center to update the statewide data published in the Historical Climatology Series 6-1 publication, Statewide Average Climatic History, and to provide visualization tools for the data. The publication, last produced in 1982, contains state values and ranks for year-month and year-multi-month temperature/precipitation, heating/cooling degree days, and drought indices beginning in 1895. Although updated data are available, no readily accessible system exists to display the data dynamically as current months are added.

✦ Interactions with NOAA Line Offices

NOAA Resource Guide

John Hughes, the National Climatic Data Center's (NCDC) Outreach Program Coordinator, provided updated NCDC information to the National Environmental Satellite, Data, and Information Service's Public Affairs Office for an updated National Oceanic and Atmospheric Administration (NOAA) Resource Guide. The Guide was last published in 1995 and is a compendium of nearly 1,000 definitions and explanations of terms and issues used in NOAA every day. It also has contact information to help with getting information listed in the guide quickly and accurately.

Data for a Degree Day Study

Mr. Jon K. Eischeid, of the National Oceanic and Atmospheric Administration's (NOAA) Climate Diagnostics Center Environmental Research Laboratory, was supplied a copy of the National

Climatic Data Center's "U.S. Divisional and Station Climatic Data and Normals" CD-ROM for use in a heating/cooling degree day study. The CD provides monthly heating and cooling degree day totals for each climatic division since 1931.

North American Radiosonde CD-ROM Update

The "Radiosonde Data of North America" CD-ROM Version 2.0 series (1994-1997 update) has been mailed to National Weather Service Regional Headquarters for subsequent distribution to individual stations. Version 2.0 uses updated access software which is available on a web site from the Forecast Systems Laboratory.

✦ Other Contacts

Climate Graphics Provided

In response to a request from a consultant working on the 1998 Annual Report by the Council on Environmental Quality, the National Climatic Data Center (NCDC) is providing graphics of annual climate data from a variety of tables and graphs included in NCDC's Climate of 1998 Annual Review.

Rising Lake Levels

An investigator with the Federal Emergency Management Agency (FEMA) contacted the National Climatic Data Center (NCDC) to obtain meteorological data which will be used in a study involving several lakes in North Dakota. The gentleman will be attempting to assess whether increases in local lake levels were caused by abnormally high precipitation or were a result of dumping from nearby industries. The NCDC offered climatological data from the publication *Climatography of the U.S. #81 Monthly Station Normals of Temperature, Precipitation, and Heating and Cooling Degree Days (1961-1990).*

EMPLOYEE ACTIVITIES

✦ EEO and Community Outreach

Support to Minority-Serving Institutions

John Hughes, the National Climatic Data Center's (NCDC) Outreach Program Coordinator, coordinated NCDC's response to the National Environmental Satellite, Data, and Information Service on FY 00 Support to Minority-Serving Institutions. Input was received from NCDC's Diversity Coordinators on attending career days at Historic Black Colleges and Universities in North Carolina. Sponsoring College and High School students in various cooperative summer job programs was also discussed. Housing at the University of North Carolina at Asheville dormitories was considered since the cost of housing for students has been a problem in the past.

Asheville Federal Executive Association Meeting

John Hughes represented the National Climatic Data Center (NCDC) at the Asheville Federal Executive Association Meeting held at the VA Medical Center on Monday, August 20, 1999. Some of the topics discussed were this year's Combined Federal Campaign, the Public Employee Recognition Awards Program, and other local federal agency issues.

Local Federal Coordinating Committee

On August 24th and 31st, John Hughes and Karol Pittman represented the National Climatic Data Center at the Local Federal Coordinating Committee Meetings. Plans were finalized for this year's Combined Federal Campaign kickoff ceremony to be held September 9th.

A. C. Reynolds Student Intern Program

Robbie Buzenberg from A. C. Reynolds High School in Asheville, NC, is participating in the Buncombe County High School Internship program at the National Climatic Data Center (NCDC). The purpose of the program is to provide students with a practical, positive, learning experience in the workforce, and to enable students to earn high school credit for school-to-work experiences of an academic nature. The internship program seeks to accomplish development of good habits, personal growth, communication skills, and the students' awareness of community resources.

Personnel Resources

New employee Jeff Arnfield was welcomed to the National Climatic Data Center (NCDC) in August. He will develop the station history database in ORACLE, and expand its content to serve the needs of NCDC.

✦ Training

LANDesk Training

Terri Esham, a Computer Specialist at the National Climatic Data Center, attended four days of LANDesk installation and administration classes in anticipation of a full deployment of LANDesk modules for desktop monitoring and management.

Cabletron Training

Mark Smith, a computer specialist at the National Climatic Data Center (NCDC), attended one week of Cabletron SmartSwitch training to support administration and maintenance of internal communication equipment in use at NCDC. Prior to this vendor-taught course, Mark completed the computer-based training "Cabletron Chassis and Sub-systems" prerequisite course.

IBM Storage Seminar

Doug Snowden and Jody Klein, computer specialists at the National Climatic Data Center (NCDC), attended a half-day briefing by IBM on their new "Shark" storage area network (SAN) offering. The "Shark" architecture will accept heterogenous access and scale to storage volumes above 10 terabytes.

Seminar Attended

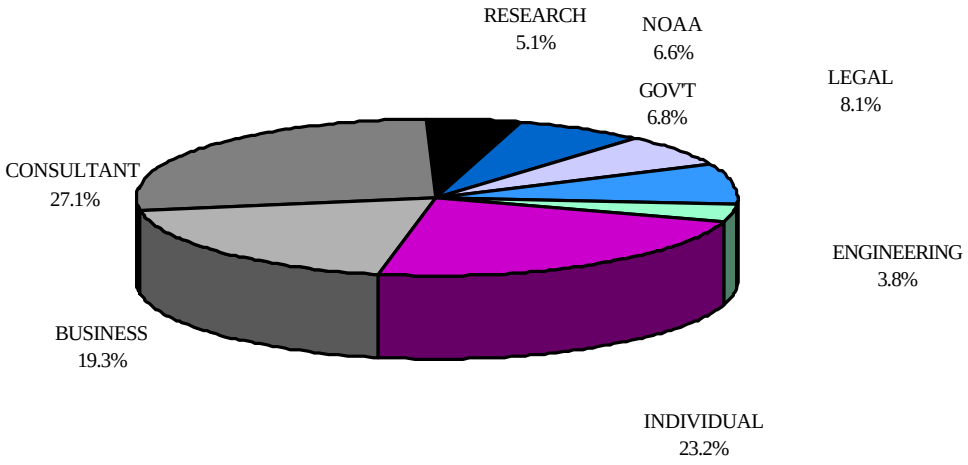
August Shumbera, the Active Archive Branch Chief at the National Climatic Data Center, attended a one-day seminar titled "Attitude Problems in the Workplace" during the month of August.

The following charts and graphs show the latest National Climatic Data Center user and data statistics.

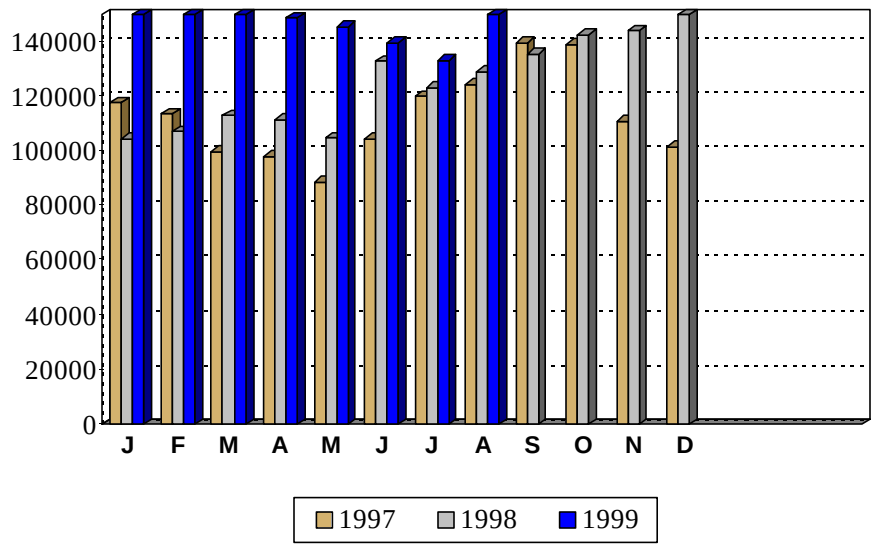
Customer Profile Based on Orders

No Information Available for August

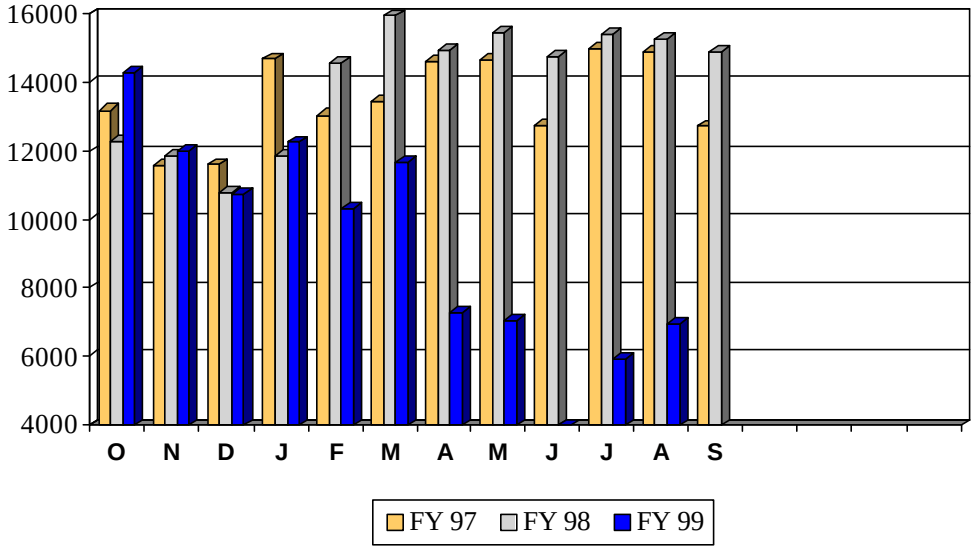
Customer Profile Based on Order Cost

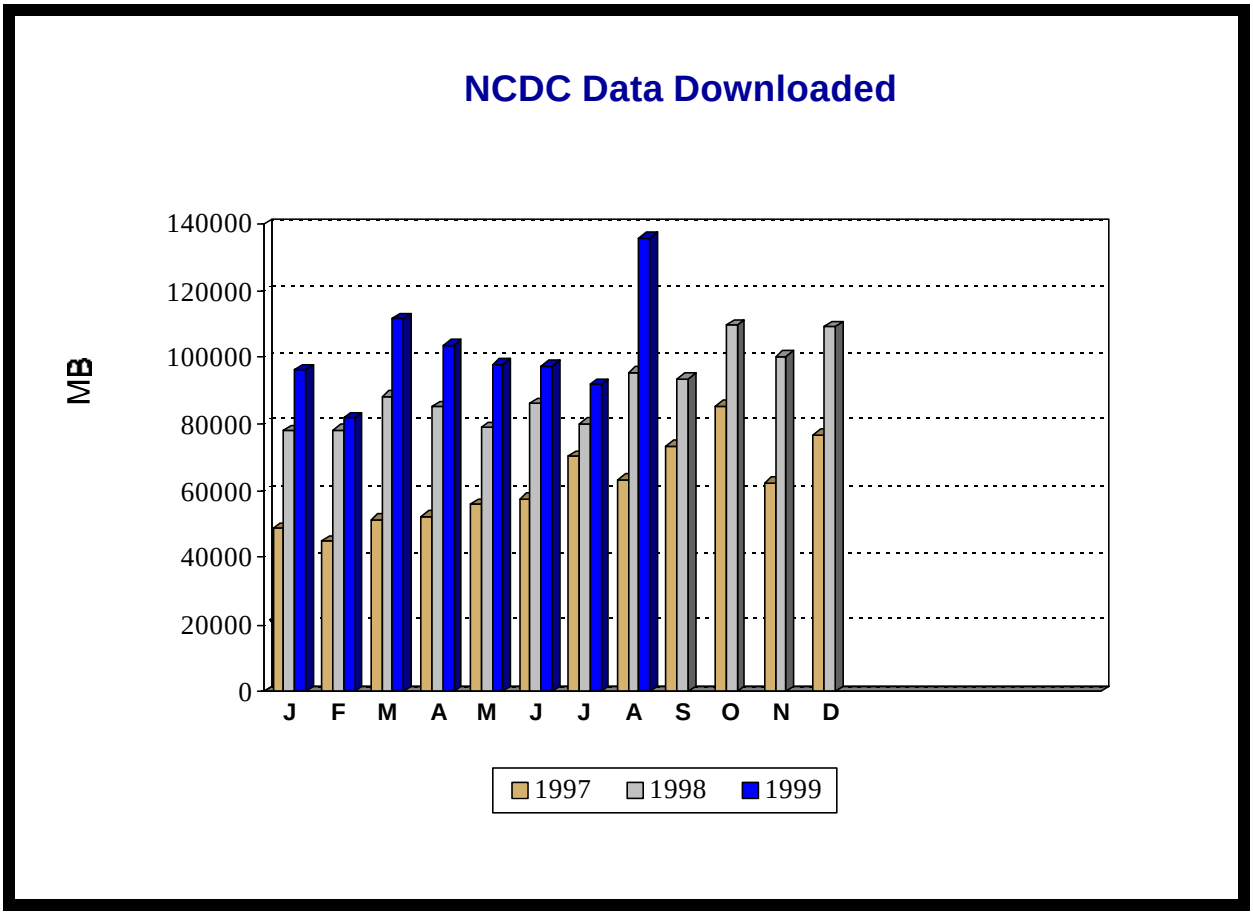


NCDC On-Line Users



NCDC Off-Line Customer Contacts

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