



## NOAA SATELLITES AND INFORMATION SERVICE

### CLIMATIC DATA CENTER ARCHIVE, ACCESS, AND ASSESSMENT



**The National Requirement:** The Nation requires access to quality assured climate data and information that are essential for monitoring long-term trends that may adversely affect US lives and property, and the Nation's environmental, national, homeland and economic security.

**NOAA's Response:** NOAA Satellites and Information Service operates the National Climatic Data Center (NCDC). NCDC serves as steward/archivist of the world's largest collection of atmospheric data. "Protecting the Past, Revealing the Future" is NCDC's motto which reflects the National need for access to a long-time series of climatic data by virtually every sector of the economy. NCDC's data are used in making decisions critical to: national defense; economic development; industrial productivity; energy development/distribution; world food supplies; public health/safety/welfare; and natural resources. Scientists and leaders have a critical need for climate records to assess long-term environmental trends, to evaluate the status of the environment, and to predict future environmental conditions and events. This makes NOAA's climate data archive a national treasure that our country must maintain and protect. Congress recognized this value and gave NCDC a legal mandate to archive and provide access to weather and climate data. Throughout the 1990s, the archive experienced steady growth in digital data. The explosion of Internet-based technologies resulted in an enormous increase in the number of users who request and access NOAA weather and climate data. In 2004, NCDC data volumes exceeded one petabyte. By the year 2011, data volumes will increase to over 56 petabytes. Despite progress made in providing electronic access to NOAA data, vast quantities of data remain accessible only via labor-intensive, manual search and retrieval activities. Although spending on environmental research and observation programs increased task of data management and archive programs needed by the new data streams NOAA is bringing online. As a result, sufficient resources no longer exist to serve the needs of NOAA data users. NCDC continues to improve the procedures for computing "climate normal" information used by industry, making it appropriate and timely for business planning and decision-making. Funds also support updating data records to include new sources of data and transitioning this activity to an operational service mode. NCDC recently commissioned the Climate Reference Network (CRN), 44 sites in 28 states which will provide the highest quality, most complete record of surface temperature and precipitation across the U.S. for a period of 50 to 100 years.

**Partners and Customers:** NCDC, located in Asheville, NC, with a paleoclimate team in Boulder, CO, and a U.S. Global Climate Observing program in Silver Spring, MD, services a wide range of users at international, federal, state and local levels working in utility and energy efficiency, building and construction, weather and climate, research, and legal fields. NCDC has contract partners in West Virginia, Kentucky, Maryland and North Carolina, as well as the Regional Climate Centers located in Illinois, Louisiana, Nebraska, Nevada, New York and South Carolina and state climatologists in most states.

**Financing:** The FY 2005 Budget includes **\$32.521 million** for Archive, Access, and Assessment and includes funds to support NCDC activities.

**For additional information:** [www.ncdc.noaa.gov/oa/ncdc.html](http://www.ncdc.noaa.gov/oa/ncdc.html) and [www.nesdis.noaa.gov](http://www.nesdis.noaa.gov)