

Subactivity: NOAA's Data Centers & Information Services
Line Item: Archive, Access & Assessment

GOAL STATEMENT:

The goal of Archive, Access, and Assessment (AAA) is to provide long-term archive, access (customer service), stewardship, and assessments of observation data to a wide range of worldwide users. Through NOAA's National Data Centers (NNDCs), environmental data, information, products, and services support atmospheric, oceanographic, and the solid earth and solar-terrestrial physical sciences to facilitate sustained economic growth, scientifically sound environmental management, and public safety to the Nation and the international community.

BASE DESCRIPTION:

The AAA line item provides the core funding for the three NNDCs: the National Climatic Data Center, the National Oceanographic Data Center, and the National Geophysical Data Center. This line item also supports the nation-wide NOAA library system, and data rescue activities through the Climate Database Modernization Program (CDMP).

The NNDCs provide the Nation with the long-term stewardship archive of past, present, and future environmental observations and associated data recorded across the United States and globally. Access to long time series of environmental data is critical to satisfying the Nation's wide range of needs related to the national security, the economy, the environment, and public safety. Approximately one-third of U. S. economic activity is weather sensitive and this figure continues to increase. Business and government policies and decisions impacting water and energy management, manufacturing, transportation, food production, public health, and many other socio-economic issues depend on quality climate and weather data records. Collectively, the three national data centers acquire over one petabyte (10^{15}) of new data annually, provide access to an archive exceeding 3.5 petabytes, and support over 100 million worldwide queries per year, providing data transfers to over two million customers. By 2017, the projected ingest of new data will exceed seven petabytes per year and the cumulative archive volume managed and accessible to customers will exceed 144 petabytes.

Climate Archive, Access, and Assessment: The National Climatic Data Center (NCDC), located in Asheville, North Carolina, is the largest climate data center in the world, and is the Nation's designated federal records center for climate data. The NCDC receives, processes, archives, provides access, disseminates, and conducts objective assessments of remote (satellite) and in-situ (land, ocean, and atmosphere) observations. National and international observing systems provide both a national and a global perspective of the Earth's dynamic environment and health. Paleoclimate "proxy" records, i.e., pre-instruments, such as ice and coral cores, and tree rings, are also collected, archived, and made available to the global community of researchers and other interested users. The NCDC also manages the conversion of historical data records to electronic format and accessibility via the Internet through the Climate Database Modernization Program.

Over the past three years, the NCDC, in cooperation with scientists and other NOAA activities and federal agencies, has designed and is deploying the Nation's first climate quality observing network, the U. S. Climate Reference Network (USCRN). The NCDC is a designated World Data Center (WDC) for Meteorology and WDC for Paleoclimatology.

The NCDC provides data, information, products and services to a large and diverse global community, delivering data and information to nearly two million customers each year. The NCDC provides access and data retrieval via the worldwide web/Internet, and also responds to thousands of requests received via e-mail, phone, fax, and the mail. The NCDC routinely produces operational products for climate monitoring, such as the U. S. Drought Monitoring and the State of the Climate reports, and is a major contributor to the North American Drought Monitoring Report. These and other assessments support business and government policy and decision makers and implementers. The NCDC works very closely with the Regional Climate Centers and state climatologists to provide support and services at regional and local levels.

Ocean Archive, Access, and Assessment: The National Oceanographic Data Center (NODC), located in Silver Spring Maryland, is the nation's permanent archive for oceanographic data, ensuring the public's access to and the scientific stewardship of the long-term observational record of the global ocean and its ecosystems. These holdings document the physical and chemical properties of the oceans, currents, weather and biota as observed from ships, buoys, satellites and other ocean and coastal platforms extending back nearly 150 years. The NODC serves more than 300,000 users annually through the Internet and a variety of publications including atlases and technical reports published on digital media and paper. Examples of the most requested products include the World Ocean Database and Atlas, the International Atlas of the Ocean series, and the World Ocean Circulation Experiment data set. The user community includes resource managers, researchers, educators, and maritime industry professionals from federal, state and local agencies as well as academia and the public. NODC is a designated WDC for Oceanography.

The NOAA library, located within the NODC, operates on behalf of all agency programs to support NOAA staff in their work and to provide the public with access to NOAA information. It includes the central library located in Silver Spring Maryland, and regional libraries in Seattle Washington, and Miami Florida. The central library also organizes agency-wide information services such as journal subscriptions and online reference services to support NOAA employees nationwide through 37 affiliated libraries at NOAA facilities throughout the United States. The NOAA library's collection currently consists of over 1.7 million volumes and thousands of electronic documents and visual images on topics related to NOAA's diverse missions

Geophysical Archive, Access, and Assessment: The National Geophysical Data Center (NGDC), located in Boulder Colorado, builds and maintains long-term archives of scientific data, with a special emphasis on scientific stewardship of data acquired by NOAA observing systems. Data holdings include bathymetry, solar, geophysical, space environment, and earth observing satellite data. The NGDC plays an integral role in the Nation's research into the environment, at the same time providing public domain data to a wide group of users. The NGDC: works very closely with NOAA's Space Environment Center to provide archive and access of space-based and terrestrial space weather observations; works with contributors of scientific data to prepare documented, reliable data sets, currently maintaining more than 850 digital and analog data sets; and continually develops data management programs that reflect the changing world of geophysics in an era of electronic data access.

The NGDC operates World Data Centers for solid earth geophysics, marine geology and geophysics, solar terrestrial physics, and glaciology for the International Council of Science under the auspices of the U.S. National Academy of Sciences.

Base activities support the objective, “Advance understanding and predict changes in the Earth’s environment to meet America’s economic, social, and environmental needs” under the Department of Commerce Strategic goal of “Observe, protect, and manage the Earth's resources to promote environmental needs.”

PROPOSED LEGISLATION:

None.

SUMMARIZED FINANCIAL DATA

(Dollars in thousands)

Subactivity: NOAA's Data Centers & Information Services	FY 2005 ACTUALS	FY 2006 CURRENTLY AVAILABLE	FY 2007 BASE PROGRAM	FY 2007 ESTIMATE	INCREASE / DECREASE
Line Item: Archive, Access & Assessment					
Archive, Access & Assessment - (C)	14,528	10,288	10,572	17,272	6,700
Archive, Access & Assessment - (CT)	2,244	3,524	3,583	3,967	384
Archive, Access & Assessment - (ECO)	7,656	7,429	7,644	8,556	912
Archive, Access & Assessment - (MS)	2,921	2,235	2,280	2,554	274
Archive, Access & Assessment - (WW)	3,205	1,394	1,453	1,605	152
Climate Database Modernization KY	7,811	7,692	2,023	1,361	(662)
Climate Database Modernization MD	5,421	5,426	1,499	993	(506)
Quality Assurance/Quality Control (NC)	1,479	-	-	275	275
Climate Database Modernization WV	7,811	7,692	2,133	1,434	(699)
GOES Data Archive Project	2,437	2,466	-	-	-
Payment to OMAO	328	-	-	-	-
National Climatic Data Center	-	296	-	-	-
Integrated Environmental Applications & Information Center	-	2,959	-	-	-
TOTAL	55,841	51,401	31,187	38,017	6,830
FTE	199	290	290	290	-

Note: The dollars in this table represent budget authority.

PROGRAM CHANGES FOR FY 2007:

Archive, Access & Assessment: (0 FTE and \$8,422,000): NOAA requests an increase of 0 FTE and \$8,422,000 for a total request of \$33,954,000 to restore funds requested in FY 2006 to carry out data archive, access and assessment activities. This critical funding allows the data centers to maintain data and information services to the private sector, academia, and all levels of government.

Specifically, FY 2007 funding will allow human-to-human interactive data and information services to continue on a full-time basis, thereby maintaining timeliness and quality of service for 50,000 users per year. NOAA will continue to deliver critical climate assessments and reports, including the U.S. Climate Change Science Program Report and monthly climate monitoring reports. In addition, NOAA will continue international partnerships for the sharing of data; deliver monthly North American US Drought Monitor reports to thousands of users; proceed with work on climate related coastal erosion and inundation with academic and federal partners; and meet customer requirements by providing large-array data requests to users on a timely basis.

Climate Database Modernization Program (CDMP): (-0 FTE and -\$1,592,000): NOAA requests a decrease of 0 FTE and \$1,592,000 for a total request of \$4,063,000 due to other, higher priority activities. Through the CDMP contractors, NOAA and the NCDC manage the conversion of historical data records to electronic format and accessibility via the Internet. The requested funding supports basic operational efforts such as processing and keying incoming NOAA records, image access, subscription services and accounts receivable. The current CDMP contract is in its final year and the follow-on contract will be negotiated or competed for competitive pricing.

TERMINATIONS FOR FY 2007: The following programs, or portions thereof, are terminated in FY 2007: Climate Database Modernization: KY (\$5,647,000), Climate Database Modernization: MD (\$3,930,000), Climate Database Modernization: WV (\$5,537,000), and GOES Data Archive Project (\$2,466,000).

Subactivity: NOAA's Data Centers & Information Services
Line Item: Coastal Data Development

GOAL STATEMENT:

The goal of the Coastal Data Development (CDD) program is to provide increased utilization of coastal and oceanographic data using web-based search and access and geographic information systems (GIS) techniques, which will improve understanding, management and use of coastal areas.

BASE DESCRIPTION:

The CDD program is located at and managed by the National Coastal Data Development Center (NCDDC) at the Stennis Space Center, Mississippi. The focus of NCDDC is to improve the quality of web-based search and access tools and implement web-based access to priority data sets from federal, state, and local repositories. Geospatial display capabilities have been added that allow the user to link the data to coastal imagery, charts, bathymetry to obtain a complete “data picture” of the ecosystem of interest. To identify priority data sets, NCDDC coordinates with Federal, State, and local agencies, academic institutions, non-profit organizations and the private sector to create a unified, long term database of coastal data sets available from a variety of sources. The NCDDC develops and maintains a catalog of available coastal data, builds gateways to these sources, ensures the equality of the metadata, populates and updates the databases, and provides on-line search and access and geospatial display for the coastal user community.

The CDD program supports NOAA’s Ecosystem strategic goal which aims to build the capacity of federal, state, local, and international managers to make decisions that protect, restore, and use coastal ecosystem services. The Earth’s coastal ecosystems are home to a wealth of natural resources, and the lives and livelihoods of people are linked to these national treasures. Sustainable growth of our coastal regions is critical to our economy by supporting commercial and recreational fishing, waterborne commerce, home construction, and tourism.

Base activities support the objective, “Advance understanding and predict changes in the Earth’s environment to meet America’s economic, social, and environmental needs” under the Department of Commerce Strategic Goal of “Observe, protect, and manage the Earth’s resources to promote environmental needs.”

PROPOSED LEGISLATION:

None.

SUMMARIZED FINANCIAL DATA

(Dollars in thousands)

Subactivity: NOAA's Data Centers & Information Services	FY 2005 ACTUALS	FY 2006 CURRENTLY AVAILABLE	FY 2007 BASE PROGRAM	FY 2007 ESTIMATE	INCREASE / DECREASE
Line Item: Coastal Data Development					
Coastal Data Development	4,510	5,380	4,546	4,546	-
TOTAL	4,510	5,380	4,546	4,546	-
FTE	12	-	-	-	-

Note: The dollars in this table represent budget authority.

PROGRAM CHANGES FOR FY 2007:

None.

Subactivity: NOAA's Data Centers & Information Services
Line Item: Regional Climate Centers

GOAL STATEMENT:

The National Climatic Data Center's Regional Climate Centers (RCC) Program was developed to meet local and regional needs for climate data, research-based information, and expertise.

BASE DESCRIPTION:

NOAA will contract with the six regional climate centers to improve access to accurate and reliable climate information. The centers also monitor and report current climate conditions in the regions they serve. The expertise and data resources of the RCC are available to assist in interpreting present conditions, quantifying climate variability, and assessing the likelihood of extreme weather events that often produce major social, economic and environmental impacts in a region.

RCC activities requested support the objective, “Advance understanding and predict changes in the Earth’s environment to meet America’s economic, social, and environmental needs” under the Department of Commerce Strategic goal of “Observe, protect, and manage the Earth's resources to promote environmental needs.”

PROPOSED LEGISLATION:

None.

SUMMARIZED FINANCIAL DATA

(Dollars in thousands)

Subactivity: NOAA's Data Centers & Information Services	FY 2005 ACTUALS	FY 2006 CURRENTLY AVAILABLE	FY 2007 BASE PROGRAM	FY 2007 ESTIMATE	INCREASE / DECREASE
Line Item: Regional Climate Centers					
Regional Climate Centers	2,464	2,959	-	-	-
International Pacific Research Ctr (U of H)	1,971	1,972	-	-	-
Pacific Ocean and Environmental Info Center	986	-	-	-	-
TOTAL	5,421	4,931	-	-	-
FTE	1	-	-	-	-

Note: The dollars in this table represent budget authority.

PROGRAM CHANGES FOR FY 2007:

TERMINATIONS FOR FY 2007: The following programs were terminated in FY 2007: Regional Climate Center (\$2,959,000), International Pacific Research Center (U of H) (\$1,972,000), Integrated Environmental Applications & Info Center (\$2,959,000), and NCDC – Prototype Data Grids (\$296,000).

Subactivity: NOAA's Data Centers & Information Services
Line Item: Environmental Data Systems Modernization

GOAL STATEMENT:

The goal of Environmental Data Systems Modernization (EDSM) is to provide increased access and utility to environmental data, information, products, and services through the use of innovative technologies and techniques.

BASE DESCRIPTION:

Environmental data and information under the stewardship of NOAA are vital to a wide range of weather sensitive sectors of the economy such as, energy and water resources management, aviation, construction, engineering, utilities, food production (agriculture and aquaculture businesses), multi-modal commerce, tourism, manufacturing, and the insurance industry. Business and government leaders and researchers have critical needs for quality long time-series of historical and recent national and global data to evaluate the current status of the environment, to assess long-term environmental trends, and to predict future environmental conditions and events.

Environmental Data Systems Modernization (EDSM) consists of three components: Satellite Active Archive (SAA), NOAA Virtual Data System (NVDS), and Scientific Data Stewardship. The SAA provides immediate web-based digital access to satellite data and is an important part of the Comprehensive Large Array Data Stewardship System (CLASS). NVDS provides the NNDCs' partial operational and maintenance information technology support to fulfill their Access, Archive, and Assessments mission responsibilities. Scientific data stewardship (i.e., collecting, processing, product development, access, distribution, archiving) consists of an integrated suite of functions to preserve and exploit the full scientific value of NOAA's environmental data. Successful implementation of stewardship will ensure maximum use of NOAA's environmental data, now and in the future.

NOAA is developing an integrated, national and global observing system that will bring together all aspects of environmental monitoring on common platforms to ensure data quality, to manage data efficiently for the long-term, and to make these data easily and readily accessible. NOAA plans to accomplish these goals through a program of scientific data stewardship and integrated surface observations.

Base activities support the objective, "Advance understanding and predict changes in the Earth's environment to meet America's economic, social, and environmental needs" under the Department of Commerce strategic goal of "Observe, protect, and manage the Earth's resources to promote environmental needs."

PROPOSED LEGISLATION:

None.

SUMMARIZED FINANCIAL DATA

(Dollars in thousands)

Subactivity: NOAA's Data Centers & Information Services	FY 2005 ACTUALS	FY 2006 CURRENTLY AVAILABLE	FY 2007 BASE PROGRAM	FY 2007 ESTIMATE	INCREASE / DECREASE
Line Item: Environmental Data Systems Modernization					
TOTAL	8,828	9,256	9,346	9,346	-
FTE	30	13	13	13	-

Note: The dollars in this table represent budget authority.

PROGRAM CHANGES FOR FY 2007:

None.