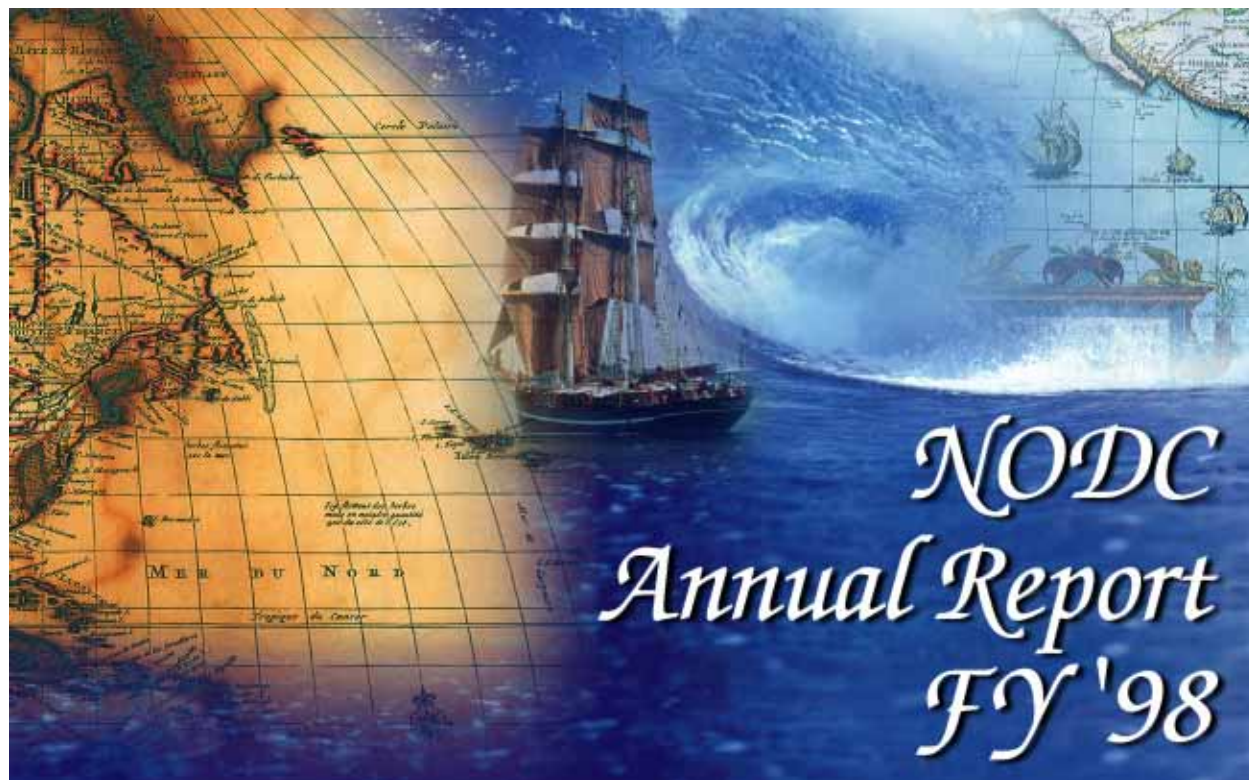




The NODC is the nation's archive and distribution center for U.S. coastal and global ocean data. It supports the strategic goals of the U.S. Department of Commerce and the National Oceanic and Atmospheric Administration.



Message from the Director

This 1998 International Year of the Ocean has been a time of substantial challenges, change and accomplishments at the National Oceanographic Data Center (NODC). We redirected resources to form a new Coastal Ocean Laboratory while fully supporting NODC's deep ocean data management activities. We also welcomed the Laboratory for Satellite Altimetry, whose expertise is recognized at the highest levels. Dr. Susan F. Zevin joined the National Environmental Satellite Data and Information Service (NESDIS) in July in a newly created position of Deputy Assistant Administrator for Environmental Information Services. This addition to the NESDIS Senior Executive staff provides a higher level of visibility and management support for NODC.

I am proud of the diligent and expert NODC staff and of their accomplishments in 1998. With new science staff members brought on board this year to enrich NODC, I am certain that we will experience substantial accomplishments in 1999. Most importantly, we will be well prepared to enter the 21st Century with a highly capable and effective NODC.

*Henry R. Frey, Ph.D.
Director
October 1, 1998*

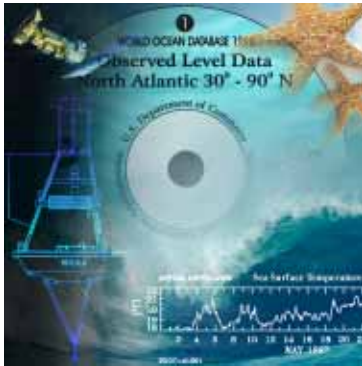


New Data Products

Ocean Profile Database

Access to over 8 million profiles is available through NODC's web page. Customers may search geographic regions and time periods for data from this integrated database and download up to 500 profiles per query. Data from BT, STD, CTD, and bottle samples are combined in the database, and include measurements of 22 parameters.

World Ocean Database 1998



NODC's Ocean Climate Laboratory (OCL) re-released World Ocean Database 1998 (WOD98). This product expands on World Ocean Atlas 1994 (WOA94) by including nitrite, pH, alkalinity, chlorophyll, and

plankton, as well as all available metadata and meteorology and atlases of data distributions. WOD98 is an International Year of the Ocean product.

World Ocean Circulation Experiment Global Data on CD-ROM

NODC, working with the World Ocean Circulation Experiment (WOCE) Data Products Committee, distributed the WOCE Global Data Version 1.0 data set on CD-ROM. The dataset includes hydrographic data (with surface meteorology and bathymetry), upper ocean temperature, moored current meter, subsurface float, surface drifter, acoustic doppler current profiles, sea level, and satellite altimetry and temperature. All CDs include documentation and products, as well as data, and can be accessed with an Internet browser.

LATEX

The Louisiana-Texas Shelf Physical Oceanography Program (LATEX) was a six-year initiative to identify key dynamical processes governing the circulation, transport, and cross-shelf mixing of the waters on the Texas-Louisiana shelf. Sponsored by the Minerals Management Service (MMS) of the Department of the Interior, LATEX is the largest shelf physical oceanography research project yet undertaken. Data from the project are available from NODC on a 5-disk CD-ROM set.

NODC's Role in the NOAA Virtual Data System

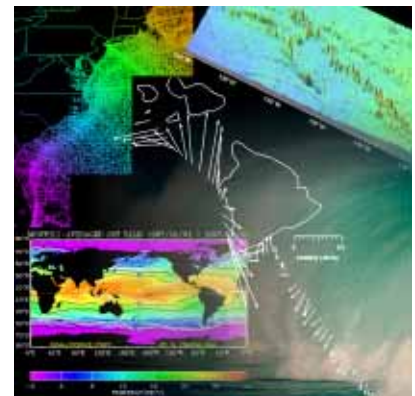
NODC actively participated in development of the NOAA Virtual Data System (NVDS) that is scheduled for completion in 2000. The NVDS is a logically-centralized physically-distributed system that will enable users to search, access, browse, and download oceanographic, climatological, and geophysical data through a single query point.

In support of NVDS goals, NODC: upgraded its information technology infrastructure; lead the NVDS team to provide common tools to monitor system and network operation; developed a system to provide FGDC-compliant metadata to the NVDS server; hosted the operating COMPS (Customer Order Management and Processing System) operation, including credit card ordering; and, placed six NODC datasets online.

Interactive Data Access and Retrieval

The Interactive Data Access and Retrieval System (IDARS) is in advanced stages of development. Its goal is to provide a common graphical user interface-based tool that allows visual browsing of many types of data online. Users may also view graphical representations of data.

IDARS is supporting the NVDS development. NVDS data searches which link to NODC servers will tie into IDARS data display and graphical capabilities. NOAA Buoy Data retrieved through NVDS may now be displayed graphically through IDARS.





Highlights

- To strengthen NODC's responsiveness to the nation's needs for coastal data and information, the Coastal Ocean Laboratory was formed. Seven physical and chemical coastal oceanographers were recruited. Meetings of the NOAA Coastal Ocean Data Working

Groups resulted in stakeholders' requirements and a plan to focus on priority issues.

- The Interagency Taxonomic Information System (ITIS), which was developed from the NODC Taxonomic Code file, was awarded Vice President Gore's Hammer Award for improved efficiency in the Federal Government. ITIS is a multi-agency partnership cooperating on the development of an on-line, scientifically credible, list of biological names focusing on the biota of North America. See <http://www.itis.usda.gov>.
- The NOAA Library, housed in NODC, opened access to its WINDandSEA, the oceanic and atmospheric sciences Internet locator. Presently WINDandSEA has over 800 selected links to science and policy sites organized by topic and alphabetically within topic. See <http://www.lib.noaa.gov>.
- The NOAA Central Library continued its leadership role in the newly formed organization, Atmospheric Science Librarians International (ASLI) by maintaining the organization's homepage at <http://www.lib.noaa.gov/asli/asli.html> and providing up-to-date information. Library staff coordinated the organization's program at the annual meeting of the American Meteorological Society.
- NODC merged the contents of its separate ocean profile data bases into a single, on-line Ocean Profile



Data Base. More than 8 million profiles are accessible.

- The Laboratory for Satellite Altimetry provided national leadership in the use of altim-

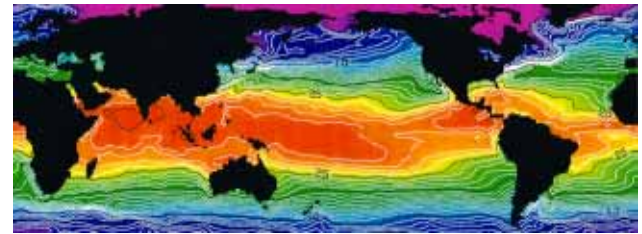
eter data to monitor the 97-98 El Niño event. For that work, the Laboratory received the Department of Commerce's highest award, the Gold Medal.

- The Director is serving as the Technical Program Chairman for the Marine Technology Society's Ocean Community Conference '98 to be held at Baltimore, Maryland, in November 1998.
- Dr. Frey accepted an invitation to serve on the Steering Committee of the U.S. Coastal Component of the Global Ocean Observing System (C-GOOS).

International Activities

Mr. Harrison Ong'anda, Mombasa, Kenya, completed 2 months of IOC-funded training at NODC in November 1997. He was given hands-on training and experience in the functions of NODC. His final product was a data management plan for the Kenya National Oceanographic Data Centre.

A senior delegation of the State Oceanic Administration of the People's Republic of China visited NODC on May 5. During discussions, SOA expressed interest in exchanging information about the management of coral reef data, and data for marine environmental monitoring and protection. The delegation was led by SOA Administrator Zhang Dengyi and included Prof. Chao Jiping (Honorary



Director, National Marine Environment Forecasting Center), and six members of SOA staff. Other scientists from Russia, South Africa, Japan, and the Ukraine visited NODC for briefings, data exchange, and collaborative research. Additional activities engaged in by members of NODC include:

- Janice Beattie of the NOAA Central Library was re-elected as chair of the Aquatic Sciences and Fisheries (ASFA) Advisory Board, which is co-sponsored by the United Nations International Oceanographic Commission.
- Robert Gelfeld, Ocean Climate Laboratory, was elected to chair the Working Group on Marine Data Management, of the International Council for Exploration of the Seas.
- Dr. Frey led a delegation to the Sixth Working Group on U.S.-P.R.C. Data Cooperation at Beijing.
- World Data Center A (Oceanography) published an atlas of the Barents Sea in collaboration with Russian institutions. Atlases in other regions are planned for the "International Ocean Atlas Series".



New Staff

Kurt Schnebele - Deputy Director, NODC. B.S. and M.S. in oceanography from the University of Washington and

the Naval Postgraduate School, respectively. He has over 30 years experience in oceanography and program management. As a NOAA Corps officer, he served on five NOAA Ships, the last two as Commanding Officer. Most recently, he was Executive Director of the NOAA Office of Oceanic and Atmospheric Research.

Wayne Wilmot - Chief, Coastal Ocean Laboratory. B.S. in Electrical Engineering from the University of Maryland; PhD in Oceanography from the University of Washington; M.S. in Technical Systems management from Johns Hopkins University. He has 26 years experience in coastal physical oceanographic field studies, numerical modeling, ecosystem dynamics, and systems development for observation and simulation systems.

Catherine Stephens - Physical Scientist (Ocean Climate Laboratory). B.S. and M.S. in Meteorology from Florida State University. Previous work includes 4 years at NASA Goddard working on improving a coupled ocean/atmospheric model. At the OCL, she is helping to create a blended chlorophyll dataset, and establishing statistical methods necessary to blend *in-situ* and satellite chlorophyll data.

L. Charles Sun - Oceanographer (Coastal Ocean Laboratory). B.S. in Oceanography from National Taiwan Ocean University; M.S. in Physical Oceanography from National Taiwan University; Ph.D. in Physical Oceanography from North Carolina State University. His areas of expertise are multi-variate analysis of oceanographic data, numerical modeling, data assimilation, Web information dissemination, graphics and visualization.

Michelle Paraso - Oceanographer (Coastal Ocean Laboratory). B.S. in Marine Science Biology from Long Island University; M.S. in Oceanography (biological and physical) from Old Dominion University. She is leading the development of a hazardous algal bloom database at NODC.

Margaret M. Deksheneiks - Oceanographer (Coastal Ocean Laboratory). B.A. in Environmental Science from the University of Virginia; M.S. in Biological Oceanography and PhD in Physical Oceanography from Old Dominion University. She is studying conditions for thin layer algal blooms, and will develop applications of the hazardous algal bloom database at NODC.

John Holdzkom - Oceanographer (Coastal Ocean Laboratory). B.S. in Physics and PhD in Physical Oceanography from Old Dominion University. He is ingesting physical oceanographic data into on-line databases, and building systems to assimilate *in-situ* and remotely sensed data into numerical models for coastal oceans.

Steven Rutz - Oceanographer (Coastal Ocean Laboratory). B.S. in Geological Oceanography from the University of Michi-

gan; M.S. in Marine Science from the University of South Carolina. He is building coastal ocean physical oceanographic databases.

Michael Ford - Oceanographer (Coastal Ocean Laboratory). B.S. in Biology from Providence College; M.S. in Biological Oceanography from the University of Connecticut. Michael is building coastal ocean plankton databases.

Diana Abney - Technical Information Specialist (NOAA Central Library). B.A. in Library Science from the University of the District of Columbia. She accepted into an upward mobility program with emphasis on digitization and processing of library material.

Albert E. Theberge - Technical Information Specialist (NOAA Central Library). M.S. in Management from the Naval Postgraduate School and 27 years as a NOAA Commissioned Officer. He joined the library's Reference team providing information on NOAA and NOAA-related subjects for the public and staff at the Silver Spring campus.

Lynda Warden - Secretary (NOAA Central Library). She provides secretarial support to the NOAA Central Library and the Laboratory for Satellite Altimetry.

FY 99 Plan

- Ensure that all data sets obtained by NODC are archived.
- Expand the amount of data available online.
- Provide increased access to cross-discipline data sets through the NOAA Virtual Data System.
- Publish the World Ocean Atlas, a twelve-volume set of data distributions and analyses.
- Sponsor a workshop on the Global Ocean Data Archeology and Rescue Program (GODAR) to review accomplishments and provide direction for the future.
- Co-sponsor a workshop on Coral Reef Data Management in support of the President's Executive Order on Coral Reef Protection.
- Publish GEOSAT altimeter and ERS1/2 marine gravity field products
- Develop a coral reef data base.
- Develop a harmful algal bloom database.



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