National Oceanographic Data Center

DIGITAL DATA SETS

User Services NOAA's National Data Centers **National Oceanographic Data Center** Silver Spring, MD 20910 February 2008





U.S. DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration National Environmental Satellite, Data and Information Service National Oceanographic Data Center

NODC Environmental Information Bulletin 93-2 (Revised)

How to order NODC Products

This flier lists all CD-ROM and DVD data products available from the National Oceanographic Data Center (NODC). A price list and order form are provided near the back. Please note the shipping/handling charges described at the bottom of the price list and add to the final cost. Please also note that only credit card orders can be accepted directly by NODC. Orders containing checks or money orders must be mailed to the NNDC Fiscal Group address (see below.)

Prepayment is required for non-Federal customers and payment may be made by:

- Check or money order (in U.S. dollars drawn on a U.S. bank and made payable to the "NOAA National Data Centers")
- Credit card (Visa, Master Card, American Express or Discover)
- Foreign wires should be sent directly to First Chicago NBD, routing transit code 0710-00013, with credit to DDA #11-71542 (NOAA National Data Centers). *You must add an additional \$15 to your order to cover the bank's service charge*

A two-tier pricing schedule is in effect. For orders submitted by mail, e-mail, telephone or fax, customers in the United States affiliated with government agencies, universities, or other non-profit organizations are eligible to receive products at the discount price, regardless of how ordered..

ORDER ONLINE

All customers are eligible to receive products at the discount prices if ordered online via the NOAA National Data Centers' online store. The NNDC Online Store may be accessed via the NODC web site at: http://www.nodc.noaa.gov/(Link to "Online Store" at the lower right of page.) This a secure site and Visa, MasterCard, American Express and Discover cards are accepted.

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Telephone orders should be directed to: 301-713-3277

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• All other orders containing payment:

NOAA's National Data Centers Information Manufacturing Corporation % Fiscal Department 310 State Route 956 Rocket Center, WV 26726-9229

CUSTOM DATA SETS ON CD-ROM, DVD or via FTP

Data downloaded online by the customer is free of charge. Custom data selections from the NODC data archive files, for output to recordable CD-ROM's, DVD or via ftp, may also be requested. Charges apply for the latter. Please see price list.

Cover photo credit: Dr. James P. McVey, NOAA Sea Grant Program (NOAA Photolibrary, www.photolibrary.noaa.gov)

• The WORLD OCEAN DATABASE 2005 (WOD05) is now available. This new release adds nearly 900,000 profiles to the database, and includes data for 29 different ocean variables (see below), including chemical tracers and plankton data. The WOD05 data, are available via the NODC website: www.nodc.noaa.gov and may be searched using the WODSelect tool provided there. The World Ocean Database 2005 is also available on a single DVD.

Dataset	Source	No. of Stations
OSD	Bottle, low-resolution Conductivity-Temperature-Depth (CTD), low-resolution XCTD data, and plankton data	2,258,437
CTD	High-resolution CTD data and high-resolution XCTD data	443,953
MBT	Mechanical Bathythermograph (MBT) data, Digital Bathythermograph (DBT), micro-BT	2,421,935
XBT	Expendable Bathythermograph (XBT) data	1,930,399
SUR	surface only data (bucket, thermosalinograph)	9,178
APB	Autonomous Pinniped Bathythermograph: Time-Temperature-Depth recorders attached to elephant seals	75,665
MRB	Moored buoy data from Tropical Atmosphere-Ocean (TAO), PIRATA (a moored array in the tropical Atlantic), MARNET (a German network of moored buoys that measure ocean & atmospheric conditions in the North Sea and Baltic Sea), and TRITON (a Japanese network of moored buoys in the western tropical Pacific which measure ocean & atmospheric conditions)	445,371
PFL	Profiling Float Data	168,988
DRB	Drifting Buoy data from surface drifting buoys with thermistor chains	108564
UOR	Undulating Oceanographic recorder data from a Conductivity/Temperature/Depth probe mounted on a towed undulating vehicle	46,699
GLD	Glider data	338
Total Stations		7,900,349
Plankton	(from the OSD data)	150,250

WOD data may be obtained for observed levels (measurements as a function of depth or pressure, as submitted by the data originators), or at standard depth levels (observed level data interpolated to specific standard depth levels.)

Measured variables include: temperature (7.9 million profiles), salinity (2.7 million profiles), dissolved oxygen, phosphate, silicate, nitrate, pH, total chlorophyll, total alkalinity, partial pressure of carbon dioxide, dissolved inorganic carbon, tritium, helium, delta helium-3, delta carbon-14, delta carbon-13, argon, neon, chlorofluorocarbon-11, chlorofluorocarbon-113, delta oxygen-18, pressure, plankton taxonomy and biomass.

WOD2005, 1 publication with DVD

• WORLD OCEAN ATLAS 2005 (WOA05) is a set of objectively analyzed (10 grid) climatological fields of in situ temperature, salinity, dissolved oxygen, Apparent Oxygen Utilization (AOU), percent oxygen saturation, phosphate, silicate, and nitrate at standard depth levels for annual, seasonal, and monthly compositing periods for the World Ocean, based on the World Ocean Database. It also includes associated statistical fields of observed oceanographic profile data interpolated to standard depth levels on both 10 and 50 grids

WOA2005, 1 DVD

• WORLD OCEAN ATLAS 2005 FIGURES (WOAF05) contains a collection of "JPEG" images of objectively analyzed fields and statistics generated from the World Ocean Atlas 2005. The ocean variables included in the atlas are:

- » Disc 1: temperature, salinity
- » Disc 2: dissolved oxygen, apparent oxygen utilization, and percent oxygen saturation
- » Disc 3: dissolved inorganic nutrients (phosphate, nitrate, and silicate).

WOAF2005, 3 DVD set

- INTERNATIONAL OCEAN ATLAS SERIES. A series of international atlases is being coordinated by the World Ocean Data Center for Oceanography as part of the UNESCO IOC GODAR (Global Oceanographic Data Archaeology and Rescue) project. Nine atlases are currently available:
- Volume 1. *Climatic Atlas of the Barents Sea 1998: Temperature, Salinity, Oxygen.* Time series and monthly climatology data collected from 74,256 ocean stations between 1898-1993 are provided in a format conducive for use with spreadsheets or databases.
- Volume 2. *Biological Atlas of the Arctic Seas 2000: Plankton of the Barents and Kara Seas*. Data collected between 1913-1999 (158 cruises, 4,608 stations, 13,356 plankton samples) includes distribution patterns of physical and biological variables; a list of plankton taxa of the Arctic Seas; and phytoplankton photos.
- Volume 3. *Hydrochemical Atlas of the Sea of Okhotsk 2001*. Includes temperature, salinity, oxygen, percent oxygen saturation, and nutrient data for the Sea of Okhotsk between 1992-1997 (422 profiles, 10 variables)
- Volume 4. *Atlas of Temperature-Salinity Frequency Distributions: North Atlantic Ocean*. Contains more than 80,000 plots of empirical distributions of temperature and salinity for the North Atlantic Ocean in 5 degree squares.
 - Disc 1: seasonal distributions for all standard levels from 0-400m
 - Disc 2: annual distributions for the deeper 500-5500m standard levels
- Volume 5. Russian Marine Expeditionary Investigations of the World Ocean (Online only)
- Volume 6. Zooplankton of the Arctic Seas 2002. Physical and biological data for the Arctic and sub-Arctic regions extending from the Barents Sea to the Northwest Pacific, sampled during 25 scientific cruises for the period of 1903-1956.
- Volume 7. 36-Year Time Series (1963-1998) of Zooplankton, Temperature, and Salinity in the White Sea. Raw data for temperature & salinity measurements between 1961-1999; zooplankton collection data from 1963 to 1998. (Publication/CD-ROM set) OUT OF PRINT available online only
- Volume 8. History of the Arctic Exploration 2003: Cruise Reports, Data. 1870 to 1941 oceanographic observations in the Eastern Arctic seas provided in electronic form for use in the studies of the World Ocean (Online only)
- Volume 9. Climatic Atlas of the Arctic Seas 2004: Part I. Database of the Barents, Kara, Laptev, and White Seas Oceanography and Marine Biology (Publication/DVD set) [NOAA Atlas NESDIS 58/NODC-DVD-06]
- Volume 10. Climatic Atlas of the Sea of Azov 2006. (Publication/CD set) [NOAA Atlas NESDIS 59/NODC-164]

IOA Series, 11 discs

(Most are also available in publication form, and all are available online)

• WORLD OCEAN CIRCULATION EXPERIMENT (WOCE) GLOBAL DATA VERSION 3.0 2002. The World Ocean Circulation Experiment of the World Climate Research Programme is dedicated to providing improvements in the ocean circulation models used in climate prediction. Resources and expertise from nearly 30 countries have been combined to produce unprecedented in-situ and satellite observations of the global oceans between 1990-1998. In accordance with the WOCE data sharing policy, this Global Data Version 3.0 DVD set makes available a unique and incredibly diverse set of data, which will assist climate researchers and marine scientists in unraveling many important, but still poorly understood, physical processes. This 2 disc set consists of:

• Disc 1- Data Information Unit

- Air Sea Fluxes
- Current Meter Moorings
- Drifters (Surface Velocity Program)
- Hydrography
- Profiling Floats
- Sea Surface Salinity
- Shipboard ADCP
- Subsurface Floats
- Surface Meteorology
- Upper Ocean Thermal

WOCE 2002 ver. 3, 2 DVD set.

• Disc 2- Data Information Unit

- Bathymetry
- In situ Sea Level (Fast Delivery)
- In situ Sea Level(Delayed Mode)
- Satellite Data Sea Surface Temperature
- Satellite Data Sea Surface Height
- Satellite Data Sea Surface Winds
- eWoce: Electronic Atlas of WOCE Data

• OCEAN CURRENT DRIFTER DATA. These data include the Surface Current (Ship Drift) Data Archive obtained by

the NODC from the U.S. Naval Oceanographic Office, and the World Ocean Circulation Experiment (WOCE) Subsurface Float Data released by the WOCE Subsurface Float Data Assembly Center located at the Woods Hole Oceanographic Institution.

Disc 1 of this set holds both the **surface current** (**ship drift**) **data** and the **subsurface float data**. The surface current (ship drift) data file contains over 4 million surface current observations, almost all of which were collected by the ship drift method. Date, data source, position, and current direction and speed are recorded for each observation. The subsurface float data set consists primarily of SOFAR (Sound Fixing and Ranging) and RAFOS (SOFAR spelled backwards) float trajectories. These floats are ballasted for a target depth and acoustically tracked. Some recently released ALACE (Autonomous Lagrangian Circulation Explorer) float trajectories are also included with this float data set. ALACE is a subsurface float that cycles vertically from a depth where it is neutrally buoyant to the surface where it is located by, and relays data to, System Argos satellites. The subsurface float data has approximately 475 float trajectories and 432 float-years of data, mostly from the North Atlantic Ocean.

Disc 2 holds surface current data summaries in the NODC Surface Current (Ship Drift) Long Summary format.

The data are summarized by ten-degree square, one-degree square, and month for all years. For specified one-degree squares and months, the summaries provide:

- total number of observations,
- number of calms.
- resultant current direction and speed,
- north and east current components, and
- a statistical distribution and analysis of observations by 15 speed classes and eight compass directions.

OCDD, 2 discs

• NSWC MOORED ADCP DATA 1994-1995. This database contains Acoustic Doppler Current Profiler (ADCP) data collected during 1994-1995 on the eastern shelf of Florida. The data were collected at 10-minute intervals by a bottom mounted 300-KHz ADCP unit (from RD Instruments, San Diego, Calif.) which was set offshore Fort Lauderdale, Florida at a depth of 140 meters. The instrument is positioned at approximately 26° 04.0' N by 80° 03.5' W. This unit is supported by the United States Naval Surface Warfare Center (NSWC), which receives data directly from the ADCP by way of a submerged cable. Following negotiations in 1993, a cooperative effort was established between the National Oceanic and Atmospheric Administration (NOAA) and the NSWC to forward the ADCP data collected by NSWC to the NOAA Atlantic Oceanographic and Meteorological Laboratory (AOML) in Miami, Florida. Since April 1994, AOML has been receiving the data from NSWC.

This CD-ROM contains six subdirectories:

BINARY contains the original ADCP files as received from NSWC

ASC contains corresponding processed ADCP files in an ASCII format

FLT contains the ADCP data in a format processed to give north-south and east-west velocities at each bin depth PLOTS contains the velocities found in the flat files projected as color Hovmueller plots in GIF format README contains the documentation files, and

PGMS subdirectory contains sample FORTRAN programs that can be used to analyze the data.



- THE JOINT GLOBAL OCEAN FLUX STUDY (JGOFS) INTERNATIONAL DATA COLLECTION. Data collected and compiled by JGOFS member countries between 1989-2000, are available on DVD. The data sets were copied "as is", and therefore each has its' own format, citation policy and machine compatibility limitations. A second disk (CDR) was released containing the 1990-1997 Arabia Sea data. These data include nearly 2500 temperature profiles. The profiles usually included salinity, as well as some chlorophyll, dissolved oxygen and optical attenuance measurements.
 - Disc 1: Volume I: Discrete Datasets (1989-2000) (DVD)
- **Disc 2:** CTD, XBT & SeaSoar Data, Arabian Sea Process Study 1990-1997 (CDR) (*JGOFS*, 2 discs)

• SEA LEVEL DATA. The data on this CD-ROM are provided in two main directories. One directory contains **Tropical Ocean-Global Atmosphere** (**TOGA**) project sea level data, file formats, and associated documentation. The other main directory contains the **Permanent Service for Mean Sea Level (PSMSL)** data, documentation, and a few related data sets.

The **TOGA** sea level data is managed by the TOGA Sea Level Center at the University of Hawaii in cooperation with the NODC through the Joint Archive for Sea Level. This archive holds hourly, daily, and monthly sea level values in standard formats from 289 sea level stations in the Pacific, Atlantic, and Indian Oceans. These data are collected in support of the TOGA project and are primarily in the tropical ocean areas of TOGA interest (30° N - 30° S). This CD-ROM contains the TOGA sea level holdings as of July 1994, as well as quality assessments and an inventory list of all stations, including geographic positions and data time spans.

The **Permanent Service for Mean Sea Level** is based at the Proudman Oceanographic Laboratory, Bidston Observatory, United Kingdom, and the PSMSL data set contains monthly and annual mean values of sea level from approximately 1500 tide gauge stations around the world. Other related data sets are also included such as the IAPSO (International Association for the Physical Sciences of the Ocean) Tidal constants data set and the Revised Local Reference annual mean values. This CD-ROM holds the PSMSL data holdings as of August 1994.

Sea Level Data, 1 disc

• ATLAS OF SURFACE MARINE DATA 1994. This set of nine CD-ROMs contains raw and objectively analyzed fields of surface marine anomalies of fluxes of heat, momentum, and fresh water, and includes other parameters of interest. These revised monthly mean fields are derived from individual observations in the Comprehensive Ocean-Atmosphere Data Set (COADS Release 1 and an interim release for the 1980's) from January 1945 to December 1989, and are analyzed on a 1-degree by 1-degree global grid. Corrections have been made to reduce wind speed bias associated with an erroneous Beaufort equivalent scale, to quality control night-time fractional cloud cover observations according to the brightness of the sky, to consider weather-associated "sky obscured" cloudiness observations as valid observations of 100% cloud cover, and to correct for erroneously missing "clear" present weather observations after 1981. The data are in Unidata's NetCDF format. User friendly access subroutines in FORTRAN are included on the CD- ROMs for those unfamiliar with NetCDF.

This set of 9 discs contain the following data:

- Disc 1 Directly observed quantities and number of observations
- Disc 2 Heat, momentum, and fresh water fluxes
- Disc 3 Miscellaneous derived quantities
- Disc 4 Heat flux sensitivity to sea surface temperatures
- Disc 5 Anomalies of observed and surface flux quantities for 1990 1993
- Disc 6 0.5 x 0.5 degree analysis: Monthly Climatology Set
- Disc 7 0.5 x 0.5 degree analysis: Weekly Climatology Set Part 1
- Disc 8 0.5 x 0.5 degree analysis: Weekly Climatology Set Part 2
- Disc 9 0.5 x 0.5 degree analysis: Weekly Climatology Set Part 3

ASMD 1994, 9 discs	
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• GULF OF MEXICO HYDROGRAPHIC AND MARINE MAMMAL DATA. This CD-ROM was produced in cooperation with the Texas A&M University (TAMU), Department of Oceanography. It includes hydrographic and marine mammal sighting data for the Gulf of Mexico. The marine mammal data is from the GulfCet Program sponsored by the U.S. Minerals Management Service and headquartered at the TAMU Galveston Campus.

The files on this CD-ROM are divided into two data groups:

**TAMU-GULFCET hydrographic data** were collected in 1992-1993 by researchers from the Texas Institute of Oceanography and TAMU-Galveston during the course of a field program to study the distribution and abundance of cetaceans (whales and dolphins) in the north-central and western Gulf of Mexico.

GULFCET\ MAMMALS files contain cetacean sighting data from eight seasonal aerial surveys, four spring ship surveys conducted by the NOAA National Marine Fisheries Service, and seven TAMU ship surveys. The TAMU-OCEANOGRAPHY hydrographic data were collected over a broader area of the Gulf of Mexico during the period 1987-1995. The data have been drawn together from 46 cruises over the 9-year period and consist of CTD, XBT, and bottle data as well as some processed data para- meters such as dynamic height and splined XBT data.

• NOAA MARINE ENVIRONMENTAL BUOY DATABASE. These CD-ROMs hold historical marine meteorological, oceanographic, and wave spectra data collected by moored buoys and C-MAN (Coastal-Marine Automated Network) stations operated by the NOAA National Data Buoy Center (NDBC). C-MAN stations are located at coastal and near-shore sites on piers, offshore towers, lighthouses, and beaches. The NDBC buoys began reporting in the early 1970's and the NODC archive holds data from February 1970. The first C-MAN stations became operational in March 1983. The NODC archive of C-MAN data begins in 1985. Principal measured parameters reported by both moored buoys and

C-MAN stations include air temperature and pressure, wind speed and direction, wind gust, and sea surface temperature. The buoys (and a few C-MAN stations located on offshore platforms) also report wave data, which usually include wave height, wave period, and wave spectra. Since the late 1980's, some buoys have reported directional wave spectra. Data files for each buoy or C-MAN station are arranged chronologically in directories by their station identifier. Each file contains data for one month for that buoy or station. These interactive CD-ROM's contain all of the NOAA National Data Buoy Center buoy data archived at the NODC through December of 1997. Data since that time are available online, and may also be requested on CD-ROM, if large amounts of data, or special selections are required. These data are compressed, flat ASCII files, stored in monthly segments in the NODC F291 file format. The CD-ROM's are html compatible and, with an internet browser, options exist for locating and viewing the data, and for gathering information on buoy locations, period of record, data availability, etc. Hyperlinks are also included for obtaining online archived data stored since December 1997, and for real-time data access at the National Buoy Data Center. Access is not limited to use with an internet browser, however. Files may be easily located on the CD-ROM and downloaded directly to a PC or unix system. Detailed instructions and decompression software are included on each CD-ROM to support this option.

Data on the CD-ROMs are separated by ocean areas as follows:

- Disc 1: Upper North Atlantic
- Disc 2: Mid- and lower North Atlantic
- Disc 3: Gulf of Mexico
- Disc 4: Great Lakes
- Disc 5: Lower Eastern and U.S. Pacific Coast
- Disc 6: Upper Eastern Pacific
- Disc 7: Alaska, Hawaii and other Pacific buoys

Buoy Webdiscs - 7 discs

- LOUISIANA-TEXAS SHELF PHYSICAL OCEANOGRAPHY PROGRAM (LATEX-A). LATEX-A data were collected from the Mississippi River to the Rio Grand between April 1992 and December 1994 to build a baseline for understanding the Gulf of Mexico shelf circulation and transport processes. During this field phase, instruments recording horizontal ocean current, temperature and conductivity were maintained on an array of 33 moorings. The LATEX mooring instrumentation consisted of 81 current meters measuring current speed and direction, temperature and conductivity; five direction wave gauges measuring current speed and direction, temperature and pressure; and one inverted echo sounder measuring acoustic travel time and bottom temperature and pressure. Eight moored meteorological buoys measured wind speed and direction, air and sea surface temperature and barometric pressure. Sixteen free-drifting buoys provided information on their locations and sea surface temperature via satellite. Ten hydrographic/ADCP surveys were conducted, with continuous ADCP measurements taken along the cruise track. At each hydrographic sampling station, continuous profiles were made of conductivity, temperature, dissolved oxygen, downwelling irradiance, particle scattering, fluorescence, and beam attenuation. Up to 12 water samples were analyzed for dissolved oxygen, salinity, phytoplankton. Water samples were analyzed for dissolved oxygen, salinity, phytoplankton pigments, silicate, urea and ammonium, and surface and bottom particulate matter concentrations. Secchi disk depths were taken at each daylight station.
- **Disc 1** contains moored current meter data and meteorological buoy data, inverted echo sounder (IES), XBT and expendable sound velocity profiler (XSV) data. Meteorological and current meter data reports are also included.
- **Disc 2-4** contain MiniSpec directional wave data and SeaData non-directional wave data from five sites. This is burst data from which all wave information can be derived. The wave data project reports are also included.
- **Disc 5** contains nine ADCP data sets collected during the hydrography cruises on the NW Gulf of Mexico Shelf, and approximately 1650 CTD casts and associated bottle data. It also has other ancillary data sets such as drifter data, nutrients and pigment data, and includes the final data project reports.

LATEX-A, 5 discs

• GEOSAT ALTIMETER DATA: ENHANCED JGM-3 GEOPHYSICAL DATA RECORDS. This set of 10 CD-ROMS contains improved geophysical data records (GDRs) from the U.S. Navy Geodetic Satellite (GEOSAT). The data span both the Geodetic Mission (GM, March 1985-September 1986) and the Exact Repeat Mission (ERM, November 1986-December 1989). The GM data were initially classified, but in 1995 were released by the Navy and distributed by NODC on CD-ROM. These GM GDRs were based on the original Naval Surface Weapons Center orbit. The ERM data have always been unclassified and were last issued on CD-ROM in 1991. These "T2" GDRs were based on orbits computed using the GEM-T2 gravity model. For this 1997 release, a new satellite ephemeris has been computed by NASA's Goddard Space Flight Center using the JGM-3 gravity model. The JGM-3 orbits reduce the radial orbit error (nearly 1 meter during the GM and about 50 cm during the ERM) to the 10-15 cm level over the first 3.5 years of the mission. In addition, these new GDRs contain the following enhanced geophysical corrections that significantly increase the overall accuracy of the data: CSR 3.0 tides; model troposphere corrections from the NCEP/ NCAR reanalysis; IRI95 ionosphere corrections; and a new sea state bias correction based on wind, wave, and satellite attitude. The GDRs are stored in daily files in chronological order through the Geodetic and Exact Repeat Missions. The data are in the same 78-byte integer binary format as previous releases of the GEOSAT GDRs. Disc 1 (first disc holding the GM data) and Disc 5 (first disc holding the ERM data) contain documentation, tabular data, "high-precision" corrections, figures, and the CD-ROM Handbook, which can be viewed using standard Web browsers. More extensive documentation and analyses are available in the Online Handbook, which is a "living" document on the Web. The data can be ordered in three ways: the complete set of 10 discs holding both the Geodetic and Exact Repeat Mission data; the four discs (nos. 1-4) holding only the Geodetic Mission data; or the six discs (nos. 5-10) holding only the Exact Repeat Mission data.

GEOSAT JGM-3 GDR's, 10 discs

• GEOSAT ALTIMETER CROSSOVER DIFFERENCES FROM THE GEODETIC MISSION. The first 18 months of GEOSAT operations (April 1985 to September 1986) were referred to as the Geodetic Mission. The altimeter crossover differences from the Geodetic Mission are contained on this set of eight CD-ROMs in the form of crossover difference records (XDRs). XDRs were constructed for the first 2.5 years of the GEOSAT mission, that is, data from the Geodetic Mission plus the first year of the Exact Repeat Mission. This was done to minimize the effect of the 5-week data gap (October 1 to November 8, 1986) between the two missions. The data are in a binary Hewlett-Packard format, but each disc contains a module that enables the data to be converted to binary VAX format. The GEOSAT altimeter crossover difference records are documented in a NOAA handbook, a copy of which is provided with each order.

• **GEOSAT GLOBAL WIND/WAVE DATA.** This CDROM holds global wind/wave data derived from altimeter data collected during the Geodetic Mission of the U.S. Navy Geodetic Satellite (GEOSAT). The data span the period from March 31, 1985 through September 30, 1986. The Navy released the radar backscatter (from which wind speed is derived) and the significant wave height data. This disc holds these data and includes two wind speed fields that were computed using different algorithms. The README file on this disc also provides three additional wind speed algorithms proposed since 1988 and a bibliography that includes references to papers that discuss the algorithm used to compute significant wave height. The wind/wave data are recorded as 26-byte binary records.

GEOSAT Wind/Wave, 1 disc

GEOSAT GM Crossover, 8 discs

### NODC DIGITAL PRODUCTS PRICE LIST

U.S. academic institutions, government agencies, and other nonprofit organizations are entitled to receive a discount of approximately 25% off regular prices for their data orders. This price list gives both the retail and discount prices for NODC CD-ROM products. The discount price applies to *all* online orders.

Atlas of Surface Marine Data 1994:		Standard/Discount		
Individual Disks Complete set (9 discs)	\$100 \$900	\$75 \$675		
	7, 00	70.0		
Geosat Altimeter Data: Enhanced JGM-3 Geophysical Data Records	¢400	¢200		
Data from the Geodetic Mission (1985-86, 4 discs)  Data from the Exact Repeat Mission (1986-89, 6 discs)	\$400 \$600	\$300 \$450		
Complete set (10 discs)	\$1000	\$750		
Geosat Altimeter Crossover Differences	¢100	ф <b>7.</b> 5		
Individual discs Complete set (8 discs)	\$100 \$800	\$75 \$600		
complete set (6 dises)	φοσσ	φοσσ		
Geosat Global Wind/Wave Data (1 disc)	\$100	\$75		
Gulf of Mexico Hydrographic and Marine Mammal Data (1 disc)	\$100	\$75		
International Oceanographic Atlas Series: Vol 1: Climatic Atlas of the Barents Sea 1998 International Oceanographic Atlas Series: Vol 2: Biological Atlas of the Arctic Seas 2000				
Individual discs		\$55		
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Individual discs		\$18		
International Oceanographic Atlas Series: Vol 7: 36-yr Time Series Publication with CDR insert	OUT OF I	PRINT		
International Oceanographic Atlas Series: Vol 9: Climatic Atlas of Arctic Seas 2004 Publication with DVD insert	\$55	\$40		
International Oceanographic Atlas Series: Vol 10: Climatic Atlas of the Sea of Azov Publication with CD insert	\$73	\$65		
JGOFS International Collection				
Volume I: discrete Datasets (1989-2000) (DVD) CTD, XBT & SeaSoar Data, Arabian Sea Process Study 1990-1997 (CDR)		\$0 \$0		
Louisiana-Texas Shelf Physical Oceanography Program (LATEX-A):				
Individual discs	\$100	\$75		
Complete set (5 discs)	\$500	\$375		
NOAA Marine Environmental Buoy Webdiscs				
Individual discs	\$100	\$75		
Complete set (7 discs)	\$700	\$525		
NSWC Moored ADCP Data 1994-1995 (1 disc)	\$100	\$75		
Ocean Current Drifter Data:				
Individual discs	\$100	\$75		
Complete set (2 discs)	\$200	\$150		

Sea Level Data (1 disc)	\$100	\$75
World Ocean Database 2005 Data Sets (DVD)		
Publication with DVD insert	\$32	\$27
World Ocean Atlas 2005 Analyzed Fields & Statistics		
Individual discs		\$7
World Ocean Atlas 2005 Figures (DVD)		
Individual discs		\$7
World Ocean Circulation Experiment (WOCE) Global Data Version 3.0		
Individual discs		\$8
Complete DVD set(2 discs)		\$16
World Ocean Database 2001 Data Sets (DVD)		
Individual discs		\$19
Complete set (8 discs)		\$152
World Ocean Atlas 2001 Analyzed Fields & Statistics		
Individual discs		\$19
Complete Set (3 discs)		\$57
World Ocean Atlas 2001 Figures (DVD)		
Individual discs		\$39
Complete Set		\$117
Data Selection and Retrieval*		
Computer data transfer (ftp, e-mail)		\$198
Copy to CD or DVD		TBD*
One-To-One Data Copy*		
Computer data transfer (ftp, e-mail)		\$165
Copy to CD or DVD		TBD*

#### Prices are subject to change without notice.

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#### **Questions? Contact NODC User Services for assistance:**

■ TELEPHONE: 301-713-3277 ■ FAX: 301-713-3302 ■ E-MAIL: <u>NODC.Services@noaa.gov</u>

^{*}Prices are being determined. Please contact <a href="MODC.Services@noaa.gov">MODC.Services@noaa.gov</a> for cost information

## **NATIONAL OCEANOGRAPHIC DATA CENTER**

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Overnight rush surcharge: For overnight delivery by express package se academic institutions, government agencies, and ot			
TOT	AL PAYMENT (th	ank you!)	

The lower price applies to orders from US universities, research institutions, and state & local governments. All orders placed online via the NOAA National Data Centers Online Store also qualify for the lower cost: http://www.nndc.noaa.gov

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