



~ **British Oceanographic Data Centre** ~

# **Annual Report**

**1998-1999**

In April 1999, BODC celebrated a decade of achievement since NERC first established it at the Proudman Oceanographic Laboratory in early 1989. During this period, the Data Centre has earned an international reputation for managing data from large-scale field experiments and for developing innovative data products. It has pioneered an end to end approach to marine data management, often being involved with the initial collection of data at sea, invariably assisting in the working up and quality control of data and then assembling the data for use by the principal investigators, prior to their eventual publication on CD-ROM.

Over the past decade, BODC has published comprehensive data sets for the NERC North Sea project; the NERC Biogeochemical Ocean Flux Study in the Northeast Atlantic; the NERC Arabesque project in the Arabian Sea and the first phase of the EU Ocean Margin Exchange (OMEX) project focused around the Goban Spur at the shelf edge of the Celtic Sea. Over 95% of the data collected on the 98 cruises involved in these projects were successively worked through to final publication on CD-ROM. They covered an extremely wide diversity of physical, chemical and biological data collected not only in the water column but also in the benthic and atmospheric boundary layers. Over 200 scientists from 50 laboratories in 10 countries were involved in the collection and supply of these data to BODC.

At present, BODC is actively engaged in managing the data from a further one hundred cruises collected within the framework of the following projects:

- \* the UK component of the World Ocean Circulation Experiment (WOCE)
- \* the marine components of NERC's Land Ocean Interaction Study (LOIS) in the areas of the Humber Estuary and the Hebridean Shelf Edge
- \* NERC's Plankton Reactivity in the Marine Environment (PRIME) project
- \* the hydrographic component of NERC's Atmospheric Chemistry Studies in the Ocean Environment (ACSOE)
- \* the second phase of the EU's Ocean Margin Exchange (OMEX) project at the Iberian Margin
- \* the EU Processes of Vertical Exchanges in Shelf Seas (PROVESS) project in the North Sea
- \* the EU Inlet Dynamics Initiative in the Algarve (INDIA) project based around a tidal inlet of the Ria Formosa in southern Portugal

BODC acts as the Project Data Centre for each of the above and good progress continued to be made in ensuring that the data were properly worked up and made readily available to project participants. Increasingly the World Wide Web is being used to keep participants informed on the data collected and their availability.

During the year, work was completed in the assembly, ready for publication, of the data from the LOIS Shelf Edge Study off the Hebridean Shelf. This includes some 22 cruises of RRS Challenger and RRS Charles Darwin and associated data from moorings and bottom landers. The data were subjected to a detailed audit and extensive supporting documentation was compiled. Likewise, work neared completion on assembling the PRIME project database, comprising data from RRS Discovery cruise 221 in the Northeast Atlantic, the Bergen Mesocosm Experiment of 1995 and the biological and hydrographic data collected in the early 1970s at Ocean Weather Ship India.

In addition to providing data management support to large scale field programmes, BODC staff continued to be involved in a wealth of other activities including the assembly of CTD data for the national oceanographic database; operating the WOCE international data assembly centre for sea level data; managing data from the UK National Tide Gauge Network; and assembling inventories of marine data collected by UK organisations. During the year, BODC serviced over 4000 customer requests for data or information, of which over 2500 were serviced directly from BODC's on-line systems and a further 1140 resulted in the supply of BODC's standard CD-ROM products.

Since its formation, BODC has pioneered and maintained a number of innovative marine data products including the GEBCO (General Bathymetric Chart of the Oceans) Digital Atlas; the UK Digital Marine Atlas (UKDMAP) and the European Directory of Marine Environmental Data (EDMED). Acting under the joint auspices of the IOC and the IHO, BODC maintains the GEBCO Digital Atlas as the authoritative bathymetric chart of the world's oceans and updates it with new bathymetric compilations as they become available. A second edition CD-ROM of the Digital Atlas was published by BODC in 1997 and over 1000 copies have been sold or distributed to 800 organisations in 83 countries worldwide. Updating work over the past year has concentrated on the Indian Ocean, the Arctic Ocean and the Northeast Atlantic.

One of the highlights of the year was the publication of the Third Edition of UKDMAP. Distributed on CD-ROM for use with Windows 95/NT, the Atlas features a completely redesigned user interface, and includes over 1600 thematic charts relating to the seas and coasts around the British Isles. It covers a wide range of topics including fisheries, sea birds, sea mammals and marine biology; heritage and conservation areas; marine geology and geomorphology; winds, waves, currents and tides; temperature, salinity and chemical distributions; and a range of chart indexes and data catalogues. In addition to geographically referenced material, the Atlas also contains textual information which will permit the user to identify sources of data, information and expertise on most aspects of the UK's marine environment.

*BODC is hosted by CCMS on behalf of the marine science programme of NERC.  
It is part of an international network of oceanographic data centres and is NERC's Designated  
Data Centre for marine data.*

