

DATA MANAGEMENT GROUP

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The Data Management Group (DMG) is a separate group within the department of Physical Oceanography, funded by NWO-ALW and NIOZ.

It has a national role as data centre for the academic oceanographic community. It also serves as the National Antarctic Data Centre (NADC).

The main tasks of the DMG are to:

- **assist scientists during all phases of a project with data management**
- **archive and keep available and accessible all relevant data of NWO-ALW and NIOZ cruises.**

One of the highlights of the activities of the DMG in 2005 was the work carried out in the final phase of the European SeaSearch project and in the first phase of the new national NODC-i project. Both projects seek to build a European (SeaSearch) or a national (NODC-i) oceanographic data infrastructure. As a result, all the metadata of the CTD profiles in the Centralized Oceanographic Data and Information System (CODIS) can now also be viewed and queried through the SeaSearch Common Data Index (CDI) interface at <http://www.sea-search.net/cdi/welcome.htm>. The CDI interface also provides direct access to the data in the CODIS database.

Another highlight was the development of a geographic interface to the data managed by the DMG, based on the popular GoogleEarth software. An example of this interface has been printed on the cover of this annual report.

Meanwhile, the day to day work of populating the CODIS data base continued, resulting in a total of over 4800 CTD profiles in the hydrological database by the end of the year.

In 2005, the COREBASE database (<http://www.nioz.nl/corebase>) was further improved and new functionality was added. COREBASE is an online archive of stored sediment cores, developed in close cooperation with the Department of Marine Chemistry and Geology, to give a detailed inventory of the cores, their status and the analyses, performed on those cores. COREBASE also contains high resolution images of sediment cores obtained from the XRF-CoreScanner.

Both the CODIS and the COREBASE database prove to be very popular and are used with an increasing frequency. This year, the COREBASE database was accessed 172 times per day on

average and the CODIS database 235 times per day.

DMG staff participated in a series of national and international meetings related to oceanographic and Antarctic data management. At these meetings, DMG staff members gave 22 oral presentations and presented 5 posters on various aspects of scientific data management.

Three members of the DMG staff took an introductory course on ArcGIS, organized by and at the NIOZ.

The DMG also maintains a series of databases and project websites and pages. A part of these are dynamically linked. This activity includes the daily update of the cruise diary pages on the NIOZ website www.nioz.nl/cruises. The actual position of RV Pelagia is dynamically obtained from the US National Data Buoy Centre and shown on an online map. In addition to this, the software to gain an

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overview of the archive CDs and DVDs was improved and support was given for the in-house developed mooring software.

Another ongoing activity is assistance of scientists with data handling questions. Many requests for data and (graphical) data products, both from within the institute as from outside, were answered. These requests are very diverse and range from questions on the availability of data from scientists within the institute to providing assistance with graphical format conversion to scientists working at other institutes. Answering these requests fits perfectly in the end-to-end data management philosophy, adopted by the DMG since its inception.

During the CAMP-2005 cruise (64PE240), the DMG assisted the scientists onboard with the delivery and interpretation of weather information.

Staff of the DMG participated in the LOCO cruise onboard the RV Discovery (D289B) and in the LOCO - Towed ADCP (64PE235) and MOVE (64PE236) cruises onboard RV Pelagia, as well as in several 13-hours cruises within the Marsdiep-project. Part of the post processing of the CTD data for these and other cruises, was carried out by the DMG.

All relevant digital data, collected during the Pelagia cruises, have been archived on DVD-RAM and are stored in a safe, for use in case of permanent loss of data by the scientist. Following technical devel-

opments and due to the increased size of the collected datasets, the DMG has stopped using CDs for data archiving and has completely transferred to using DVDs.

Developments concerning the expected lifetime of both CDs and DVDs are closely watched.

Furthermore, web sites for the secretariats of the NODC and the International Research Ship Operators' Meeting (ISOM) are maintained by the DMG.

The DMG represents NIOZ and the Dutch academic oceanographic community within the National Oceanographic Data Committee (NODC). The DMG representative is the NODC Chairman.

As participant in the NODC, NIOZ actively participates in international projects and organizations such as the EU-SeaSearch project, the new EU-SeaDataNet project, the IOC Committee on International Oceanographic Data and Information Exchange (IODE) and the ICES-Working Group on Marine Data Management.

An additional task of the DMG is the development and maintenance of the Netherlands Antarctic Data Inventory (NADI, <http://www.nadi.nl>) for the Antarctic research projects in the Netherlands. Taco de Bruin is the Chief Officer of the Joint SCAR/COMNAP Committee on Antarctic Data Management (JCADM), which currently has representation from 30 countries. He is also one of the co-chairs of the

International Polar Year Subcommittee on Data Policy and Management.

The Data Management Group of the NIOZ maintains several databases of which the inventory of research cruises including hydrographical and related measured data (CODIS) and the inventory of cores (COREBASE) are the most typical examples. Both databases are now also published in a Google Earth™ compatible format, taking advantage of its nice and smooth interface to display stations and cores on the globe (Fig. 1.). Additional information about each station or core can easily be obtained by clicking on its marker on the map. If relevant, one can even trigger graphics of measured data from the presented list. This picture shows an example of a vertical salinity profile from station 101-1 of the ACSEX-2 cruise, taken on 23 march 2001 (Fig. 2.).

Google Earth is a registered trademark of Google, see <http://earth.google.com>



Fig. 1. Display of CTD stations through Google Earth.

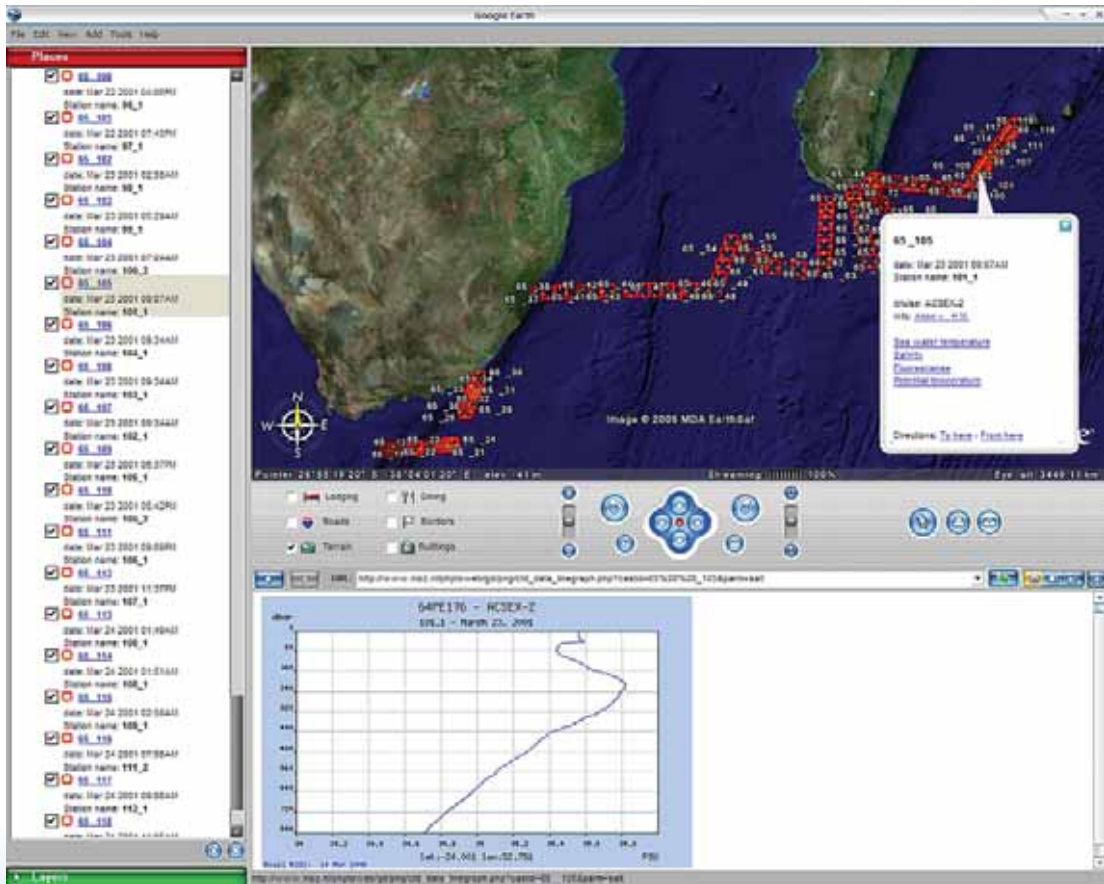


Fig. 2. Detailed information of the ACSEX-2 cruise using the Google Earth interface.