

## **IODE: OCEANOGRAPHIC DATA AND INFORMATION MANAGEMENT IN AN INTERNATIONAL CONTEXT**

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The 'International Oceanographic Data and Information Management' (IODE) programme was established in 1961 'to enhance marine research, exploitation and development by facilitating the exchange of oceanographic data and information between participating Member States and by meeting the needs of users for data and information products'. Today the IODE network comprises nearly 70 data centres including three World Data Centres (part of the ICSU network of World Data Centres) and 64 National Oceanographic Data Centres (NODCs) or Designated National Agencies (DNAs). Some of these also take the role of Responsible National Oceanographic Data Centres (RNODCs) dealing with particular data types or regions.

The original terms of reference describe the NODC as 'a centralised facility for providing ocean data/information in a usable form to a wide user community. It acquires, processes, quality controls, inventories, archives and disseminates data in accordance with national responsibilities. It is charged with the responsibility for conducting international exchange. Traditionally, but not exclusively, deals with delayed mode data.'

At IODE-XVII (Paris, March 2003), the IODE Committee recognized the need to revise the IODE network in terms of the centralized role of NODCs towards a decentralized model that enables multiple data centre facilities in member states. In addition IODE-XVII called for extended data type coverage to include not only physical oceanography data but also chemical, biological, coastal and remotely sensed data and this in delayed mode as increasingly also in real-time mode. In addition the Committee called for greater attention to user needs and services.

IODE is fully embracing new technologies realizing their impact on commerce and industry. It is expected that new technologies will be able to assist with overcoming the traditional problems of formats and data exchange, as well as to dramatically improve access by users to data and information. In this regard IODE is actively involved in standards for ocean metadata, the development of a marineXML standard, e-repositories and e-learning. The IODE new technology initiatives will be framed within the 'Ocean Information Technology' project.

The IODE approach to capacity building, an IODE priority since 1961, has also dramatically changed in the past few years as demonstrated by the ODIN and OceanTeacher projects.

An 'IODE Project Office' will be opened in Oostende, Belgium in April 2005. It aims to 'establish a creative environment facilitating the further development and maintenance of IODE projects, services and products with emphasis on improving the efficiency and

effectiveness of the data and product/service stream between the stage of sampling and the user. It will assist in strengthening the capacity of Member States to manage oceanographic data and information and to provide ocean data and information products and services required by users'.

IODE-XVII has clearly decided that IODE needs to lead way in coordinating access to marine data and information to support needs of users, and this through close collaboration with sciences and operational oceanography. This will require the development of new technologies as well as to undertake major training at global scale for existing and new data and information management centres.

#### References

IOC of UNESCO. 2003. IOC Committee on International Oceanographic Data and Information Exchange, Seventeenth Session, UNESCO Headquarters, Paris, France, 3-7 March 2003.