INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)

Eighteenth Session of the IOC Committee on International Oceanographic Data and Information Exchange (IODE-XVIII)
Oostende, Belgium, 26-30 April 2005

IODE NATIONAL REPORT ON OCEANOGRAPHIC DATA MANAGEMENT AND EXCHANGE FOR SPAIN
1. **Name of Data Centre:** Centro Español de Datos Oceanográficos (CEDO)

2. **National IODE Coordinator:**
   Name: Maria Jesus Garcia  
   Address: Corazon de Maria 8  
   Tel: 34 91 3473612  
   Fax: 34 91 4135597  
   E-mail: mjesus.garcia@md.ieo.es

3. **Data Center Address:** Corazon de Maria 8, 28002 Madrid, Spain

4. **Data Center URL:** [http://indamar.ieo.es](http://indamar.ieo.es)

5. **IODE Data Center Designation Date:** 1968

6. **Description of national data flow:**

   How does data flow operate in your country (if possible illustrate by means of one or more diagrams)? This should cover:

   1. **Metadata management:**

   ![Metadata Flow Diagram]

   - At the discovery level (e.g. do you contribute to IOC/IODE MEDI, GCMD, EDMED, another system, none?)
     The CEDO contribute to EDMED
o At the Cruise level (e.g. do you contribute to IOC/IODE Cruise Summary Reports (ROSCOPs), other in-house system, none):

The ROSCOP are sending to ICES. The Current meter inventory to the international current meter inventory at BODC.

o For monitoring/operational systems (e.g. EDIOS, regional GOOS systems, etc)

The monitoring operational system, mainly tide gauge network and standard sections from IEO and coastal buoys from other organization have been sent to the EDIOS regional coordinator. Furthermore the request information from EUROGOOS and MEDGOSS have been fulfilled.

2. Data tracking:

o What systems are in place to track data through from collecting organisations to through to data dissemination?

Tracking data: mainly from the IEO organization. Only in case of some European project, as MEDAR, CANIGO, data from other institution have been compiled. We are doing a big effort to improve this situation.

Disseminate data: Data on the area of ICES are sending to the ICES. Data on the NAFO area are sending to the MEDS Data Centre. For the Mediterranean area, the historical data have been distributed in CD-ROM, in the frame of the MEDAR project, to the Data Centers and other institutions. For the user, the data are sending when request and not all the data are available. Nowadays, the sea level data from the IEO tide gauge network are freely available and disseminated through the web and also they are sending to the regional or global Sea Level Services or Data Centre as PSMSL, GLOSS or ESEAS. New tools are being developing in order to disseminate the hydro chemical data through the web.
Furthermore, most of the data from Buoys, operated by PdE are presented in real
time through the web and at annual basis, the data quality control is performed
before elaborated the statistics that are also presented through the web.

7. What is the structure of marine data management in your country:

1. How many organizations are involved? In principal two organizations

2. Who does what?

   Instituto Español de Oceanografía (CEDO): Compile and perform the quality control of
   historical data and elaborate statistics from the complete data sets. Mainly hydro-
   chemical data.

   Instituto Español de Oceanografía, IOC-IEO Science and Communication Centre on
   Harmful Algae in Vigo. International Database for Harmful Algae data &
   documentation

   Puertos del Estado (PE): operational purpose mainly sea level and waves forecasting.

3. What data goes where?

   IEO (CEDO): data from cruises (physical & bio-chemical )

   IOC-IEO (VIGO): Harmful Algae.

   PE Data Center: data from the buoys

4. Are there data for which there is no home?

   For all type of data there is place in these two Data Centers or the data goes directly to
   International Data Centers, as is the case of ARGOS. Anyway many data are keeping at
   the scientist box.

5. What gets passed on to other organisations?

6. What regional links and data centres are there?

   › Centro Español de Datos Oceanográficos (CEDO)
   › Banco de Datos Oceanográficos Puertos del Estado
   › IOC-IEO Science and Communication Centre on Harmful Algae in Vigo.

8. What are the strengths and problems of the present arrangements nationally, regionally and
internationally?:

   › The main problem is the lack of the National data Policy

9. What improvements could be made nationally, regionally and internationally?:

   › Agreement on exchange data between local and/or autonomy organization and national organization
   mainly for marine contamination data. But anyway the new Organization “Centro para la
Prevencion y Lucha contra la Contaminacion Marina”, in which the IEO belong to the Executive Commission, could help very much for data exchange between organizations.

- Establish a National Data Policy

10. What future national activities are planned?

- We are almost finishing a tool for search data through internet. Then next year the data, which are public available, will be accessible directly by internet.

- National project to “Establish a Spanish System for Operational Oceanography ( ESEOO)“, in which there are tasks related to compile the national data inventory for oceanography and meteorology, and, to homogenize the format to exchange data and the routinely analysis of the data, but even in this project not data policy has been established.

- A test on DODs between two institutions (Instituto de Ciencias Marinas, Barcelona & IEO(CEDO)) apply to the MEDAR data set.

- Probably a formal agreement between IEO and PE.

we expect for the next year or in two year to have a better coordination on data management in Spain, mainly focus in exchanging data.

11. What national, regional or international projects is your NODC involved in (both IODE and non-IODE) . Examples: Argo, GTSPP, EDMED, EDIOS, Sea-Search, GODAR.

ARGO, EDMED, Sea-Search, MEDAR, GLOSS, MEDGLOSS, CANIGO, ESEAS, Sea DataNet

For the EDIOS project we have been collaborating without being a partner.