OceanTeacher: IODE’s Capacity Development Strategy for Marine data and Information

Greg Reed, Co-Chair IODE
Linda Pikula, Chair IODE Group of Experts on Marine Information Management
IODE and Capacity Development

• One of the major objectives of the IODE Programme is to assist Member States to acquire the necessary capacity to manage marine data and information and become partners in the IODE network.

• Training teaches the principles of data and information but also promotes the use of "standards" amongst all IODE centres and thus achieve interoperability between centres.
History of Capacity Development

- Capacity development has been a cornerstone of the IODE Programme since the programme’s inception fifty years ago.
- Between 1961 and 1997 the IODE capacity building programme was based upon four types of activities:
  i. expert missions to Member States to advise on the establishment of national oceanographic data centres
  ii. organization of group training courses
  iii. support for internships in established national oceanographic data centres
  iv. provision of equipment.
New Approach to Capacity Development

• In late 1990s IODE applied a new way to build capacity in developing member states.
• This new ‘strategy’ is based upon these four elements:
  – providing equipment
  – providing training
  – providing seed funding
  – working to address regional as well as national goals
• This new strategic approach is called the ODIN (Ocean Data and Information Network) strategy
• Has been applied from 1997 onwards
  – ODINAFRICA, ODINCARSA, ODINCINDIO
  – ODINWESTPAC, ODINECET, ODIN-BlackSea, ODINPIMRIS
What is OceanTeacher?

- A training resource to support IODE capacity development activities
- Provides training tools for Oceanographic Data and Information management
- Comprehensive resource tool for newly established NODCs
- Underpins the education and training requirements of the ODINs
What is OceanTeacher?
OceanTeacher supports the IOCDE training activities by providing training tools for Oceanographic Data and Information management.

Visit the OceanTeacher Digital Library
A wiki-style library of documents on Marine Data and Information Management.

Visit the OceanTeacher Classroom
Courses on data and information management based upon Moodle.

Course Calendar
Information on Training Courses in 2009–2010

Registration
Information on how to participate in a course

News & Events
22 November 2010: Course Prospectus 2011 now available - Courses open for applications
OceanTeacher Components

• **OceanTeacher Digital Library**
  - data and information management materials, including software (open source), quality control and analysis strategies, and reference documents. The wiki-style Digital Library is build upon the MediaWiki software.

• **OceanTeacher Classroom**
  - courses on oceanographic data and information management.
  - based upon Moodle software
  - contains a collection of outlines, notes and links to miscellaneous documents in the Digital Library.
  - registration enables assistance by lecturers as well as communication with other students before, during and after the course.
Cruise Summary Report (CSR)

Description

The Cruise Summary Report (CSR), previously known as ROSCOP (Report of Observations Samples Collected by Oceanographic Programmes), is an established international standard designed to gather information about oceanographic data. ROSCOP was conceived in the late 1950s by the IOC to provide a low level inventory for tracking oceanographic data collected on Research Vessels.

The ROSCOP form was extensively revised in 1990, and was re-named CSR (Cruise Summary Report), but the name ROSCOP still persists with many marine scientists. Most marine disciplines are represented in ROSCOP, including physical, chemical, and biological oceanography, fisheries, marine contamination/pollution, and marine meteorology. The ROSCOP database is maintained by ICES.

CSR/ROSCOP Database

ROSCOP data for most research cruises conducted in the North Atlantic area since the 1960s are available from the ICES Online ROSCOP Database. SeaDataNet also maintains a database for the Cruise Summary Report Inventory.

Sample CSR Record

This is an example of a CSR metadata record for the cruise for the Belgica in the North Sea - BELGICA CRUISE ST2002/20.

Additional Resources

- SeaDataNet Cruise Summary Report Inventory, Maintained by the German Oceanographic Data Centre.
- CSR/ROSCOP hard copy form

Subsections of this article

No subsections available

Information about this article

Short title: Cruise Summary Report
Description: The Cruise Summary Report (CSR) is an established international standard designed to gather information about oceanographic data collected on Research Vessels. Expertise level: Intermediate
Classroom

• Uses Moodle
  – Content Management System (CMS) – also known as a Learning Management System
  – Popular among educators as a tool to create dynamic content
Courses

Course categories

- Interdisciplinary
  - Developing Institutional Websites
- Marine Information Management
  - Specialized courses
    - Writing for Professional Publications
    - Disaster Planning and Recovery for Marine Librarians
    - Literature and Databases of the Marine Sciences
    - Preservation and Archiving of Digital Media
    - Marine Information Products for Websites
    - Digital Asset Management
- Oceanographic Data Management
  - Basic Courses
    - Ocean Data Collection Development (2010)
    - Ocean Data Products and Synthesis (2010)
    - Ocean Data Management for Young Scientists
    - Introduction to Ocean Data Management for Students of the Environment
  - Advanced Courses
    - Introduction to Marine GIS with SAGA
    - Environmental Imagery and Satellite Data Management
  - Applied Courses
    - MapServer Application for a Marine Atlas
    - MetOcean Modeling Jamboree-III
    - Marine Data Products for Websites
  - Accredited Courses
    - University Curriculum in Marine Data Management (2011)
- Continuing Professional Development
  - Introduction to Metadata for Marine Data Managers
  - Establish IODE Ocean Data Portal Data Provider
  - Marine Data Management “Roadmap” Exercises
  - Use of Satellite Wind & Wave Products for Marine Forecasting

- Basic
- Advanced
- Applied
- Accredited
- Interdisciplinary
- CPD
OceanTeacher Academy

- Need for a regular cycle of standardized courses, relevant for all regions
- Standard curriculum of annually organized courses
OTA Objective

• The objective of the OceanTeacher Academy (OTA) is to offer a teaching programme of courses related to oceanographic data and information management and the development of related products and services.

• The OTA promotes the development of regional training nodes which will contribute to the long-term impact of capacity building activities of IOC/IODE and other partner programmes
Target Audience

• The OTA target audience includes:
  – NODC staff (newly established and established centres)
  – Marine library staff (newly established and established libraries)
  – University students and scientists who need training in data and information management
  – Staff of facilities working in related disciplines who need familiarization with oceanographic data management techniques
OTA Course Calendar

- Planned courses for 2011

<table>
<thead>
<tr>
<th>Dates</th>
<th>Title</th>
<th>Venue</th>
<th>Application closing date</th>
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</thead>
<tbody>
<tr>
<td>16–20 May</td>
<td>Data Management: Marine GIS</td>
<td>Oostende, Belgium</td>
<td>1 January</td>
</tr>
<tr>
<td>23–27 May</td>
<td>Information Management: Disaster Planning and Recovery</td>
<td>Oostende, Belgium</td>
<td>1 January</td>
</tr>
<tr>
<td>12–16 September</td>
<td>Information Management: Grant writing, Professional writing</td>
<td>Oostende, Belgium</td>
<td>1 June</td>
</tr>
<tr>
<td>12–16 September</td>
<td>Data Management: Basic data management</td>
<td>Oostende, Belgium</td>
<td>1 June</td>
</tr>
<tr>
<td>19–23 September</td>
<td>Data Management: Data Management for Young Scientists</td>
<td>Oostende, Belgium</td>
<td>1 June</td>
</tr>
<tr>
<td>19–23 September</td>
<td>General course: Outreach and Communication Tools</td>
<td>Oostende, Belgium</td>
<td>1 June</td>
</tr>
<tr>
<td>26–30 September</td>
<td>Information Management: Data Curation for Information Professionals + In-depth digitization</td>
<td>Oostende, Belgium</td>
<td>1 July</td>
</tr>
</tbody>
</table>
Cooperation with Partners

- POGO Centre of Excellence in Marine Observations
- International Ocean Institute (IOI)
- SeaDataNet
- JCOMM – MetOcean modelling
- EUMETSAT
- CPPS SPINCAM project
Future

• New partnerships
• Include OT courses in partner training programmes
• Accreditation
• Regional training centres: “Centres of Excellence”
• Translations - currently only English
• Need more content providers
• Need more course presenters