Capacity Building Regional Meeting for the Middle East & North Africa
19th – 21st April 2011
Izmir, Turkey

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IODE (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.’
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 the principles of data and information management but also promotes the use of "standards" amongst all IODE centres and thus achieve interoperability between centres.

OceanTeacher supports the IODE training activities by providing training tools for Oceanographic Data and Information management.

Need for specific training and education in data/information management?

- No formal recognized degrees/curricula in oceanographic data management and library management
- Data managers start as either (ocean) researchers or IT specialists
- Acquire the knowledge, hands on expertise and experience
IODE history of Capacity Development

- Capacity development has been a cornerstone of the IODE Programme since the programme started (1961)
- 1961 – 1997: 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 (NODCs)
  ii. organization of group training courses
  iii. support for internships in established national oceanographic data centres
  iv. provision of equipment

‘Ocean Teacher’ History (late 1990’s)

- 1997: IODE Resource Kit (CD Rom based: marine and data management material, software, training manuals, etc)
- Comprehensive self-training and resource tool – web-based – for newly established NODCs, and to assist managers and staff members to acquire the skills to set up new IODE centres
- 2001: Ocean Teacher
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

www.oceanteacher.org
OceanTeacher Components (binary structure)

- **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.

- **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 built upon the MediaWiki software.

OceanTeacher Classroom

- **Moodle**
  - Content Management System (CMS) – also known as a Learning Management System
  - Popular among educators as a tool to create dynamic content
Ocean Teacher: ‘binary’ model

Classroom: Moodle

Digital Library: Mediawiki

Video contents: www.vimeo.com/iode

OTA Courses Structure:

- Basic
- Advanced
- Applied
- Accredited
- Interdisciplinary
- Continuing Professional Development (CPD)
• Basic Courses
Survey courses of fundamental principles in data or information management. These courses assume current familiarity with marine data and information, but provide the first instance of definitions and working principles that have not been developed in previous undergraduate/graduate education.

• Advanced Courses
Courses beyond the survey level that tackle complex topics beyond the basic concepts. In data management, for example, these courses would examine relationships between data publication, their formats, and methods to analyze them within the provided software packages.

• Applied Courses
Courses that directly tackle very specialized treatment of specific data types, or data for specific applications. Examples of these courses would be a workshop to create and quality control a sea-level data management system for a particular site, or a workshop to create and publish an online web mapping system for a part of the world oceans.

• Accredited (University) Courses
Courses, sometimes very similar to the above, developed specifically to meet formal university course requirements of coordinating institutions.

• Continuing Professional Development (CPD) Courses
Courses designed to provide professional information and data managers with updated information, new information, or refresher information on selected topics of interest. Typically, these courses include former trainees or fully qualified professionals who seek expanded familiarity with “hot topics”.

Ocean Teacher Digital Library Content:

- General
- Marine Data Management
- Marine Information Management
- Marine Spatial Planning (MSP)
- Tsunamis
- Glossaries
The Training Academy will contribute to:

- Building high quality and up-to-date expertise in oceanographic data and information management and exchange in new national oceanographic data centres (NODCs) and related facilities;

- Keeping staff in existing national oceanographic data centres (NODCs), marine information centres and related facilities up-to-date with the latest methodological and technical developments (continuous professional development);

- Creating awareness for the importance of oceanographic data management and marine information management with university students (marine environmental studies) to ensure that they will contribute quality data to data centres during their future career;

- Creating awareness for the importance of oceanographic data management with experts in oceanography and related disciplines.
Target Audience(s)

• 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

OceanTeacher Academy

• Need for a regular cycle of standardized courses, relevant for all regions
• Standard curriculum of annually organized courses
• Trainees selection
• Surveys
• Flanders Gov. Funding
• Language problem (Eng. only)
OTA Course Calendar (2011)

<table>
<thead>
<tr>
<th>Dates</th>
<th>Course Title [virtual]</th>
<th>Open for applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20 May</td>
<td>OceanTeacher Academy Course: Introduction to Marine GIS (Oostende)</td>
<td>Closed</td>
</tr>
<tr>
<td>19-27 May</td>
<td>Accredited OTA Course: University Curriculum in Marine Data Management (Ghent)</td>
<td>Closed</td>
</tr>
<tr>
<td>23-27 May</td>
<td>OceanTeacher Academy Course: Training Course on Disaster Planning and Recovery (Oostende)</td>
<td>Closed</td>
</tr>
<tr>
<td>10-14 Sep</td>
<td>OceanTeacher Academy Course: Basic Marine Data Management (Oostende)</td>
<td>1955-176</td>
</tr>
<tr>
<td>10-14 Sep</td>
<td>OceanTeacher Academy Course: Training Course on Data Collection and Quality Assurance (Oostende)</td>
<td>1955-176</td>
</tr>
<tr>
<td>19-23 Sep</td>
<td>OceanTeacher Academy Course: Training Course on Data Management for Young Scientists (Oostende)</td>
<td>1955-176</td>
</tr>
<tr>
<td>26-30 Sep</td>
<td>OceanTeacher Academy Course: Training Course on Data Collection for Information Professionals and in Depth Digitization Practices (Oostende)</td>
<td>1955-176</td>
</tr>
</tbody>
</table>

Under development (2011):
- Outreach and Communication Tools
- Marine Spatial Planning

IODE Project Office
(Oostende, Belgium)

- Training Centre
- International Conference centre
- Data/Information Services hub (web servers)
- Expert Centre
IODE Project Office (Oostende, Belgium)

- 2005-10: 850 students from 120 countries
- ~15 events/year
PERSGA/ALECSO - IOC/GLOSS-GOOS

Training Workshop on Sea-level Data Analysis for the Red Sea and Gulf of Aden Region
Jeddah, Kingdom of Saudi Arabia
15-19 April 2000

Abstract
Training Workshop on Sea-Level Data Analysis for the Red Sea and Gulf of Aden Region. The main objective of the workshop is to train participants from Djibouti, Egypt, Jordan, Saudi Arabia, Sudan and Yemen on collection and analysis of data and the encouragement in exchanging such data. It reports on the status of methods and material used in the region and provides a set of recommendations for future sea-level activities.

- 17 participants (Saudi Arabia, Yemen, Egypt, Sudan, Jordan, Djibouti)

Cooperation with Partners

• POGO
• BIOS
• International Ocean Institute (IOI)
• SeaDataNet
• JCOMM – MetOcean modelling
• EUMETSAT
• CPPS SPINCAM project
future:

- New partnerships
- Include OTA courses in partnering training programmes
- Course accreditation
- Regional training centres: “Centres of Excellence”
- Translations - currently only English
- Distance learning/Blended learning
- More trainers/lecturers
- Courses provider