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**Report of the IOC Project Office for IODE**  
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## 1. INTRODUCTION

In order to respond to new challenges faced by the IODE Programme, an “IOC Project Office for IODE” has been established in Oostende, Belgium, with substantial support from the Government of Flanders (Belgium) and City of Ostend (<http://www.iode.org/projectoffice/>). Details of the Project Office creation are provided in the report to IODE-18 ([Document IOC/IODE-XVIII/12](#)). With the opening of the IOC Project Office for IODE on 25 April 2005, the IODE programme entered a new era of capacity building and ocean data/information services.

The main objectives of the Project Office are:

- (i) to establish a creative environment facilitating the further development and maintenance of IODE and partner data and information management 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; and
- (ii) to 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.

To achieve these objectives the IOC Project Office provides the following:

- further develops, strengthens and maintains IOC/IODE ocean data and information management training programmes and training tools;
- provides an environment (‘think tank’) where ocean data and information experts and students can work, meet and discuss;
- develops, hosts and maintains IOC/IODE’s ocean information systems and related public awareness tools;
- promotes collaboration between all expert levels active in ocean data (and data product) and information management, including scientists, data managers and other users;
- hosts specialized short-term training courses in ocean data and information management; and
- provides a laboratory environment for the development and beta testing of ocean data and information management technology.

Through its close collaboration with, and proximity to the Flemish Marine Data and Information Centre (FMDC) of the Flanders Marine Institute (VLIZ), the Project Office is able to effectively interact with its focus audiences (researchers, data managers, students) who provide a feedback mechanism enabling continuous adjustment of services to the needs of the focus audiences.

## **2. ACTIVITIES REPORT 2005-2006**

### **2.1 UNEXPECTED ADDITIONAL RESOURCES**

The original work plan for the development of the IOC Project Office for IODE foresaw a gradual development of the Office over a period of 3-4 years. This growth path was estimated based upon the foreseeable level of available resources (financial and human) that could be provided by IOC as well as expected extra-budgetary support. The real growth path has been substantially different due to the following reasons::

- In 2005, the Government of Flanders made available €60,000 for equipment and general operational expenses of the Office. This amount was originally budgeted for the basic support in 2004 (office rental, utilities, Internet) provided as part of the Memorandum of Understanding. However as the Office opened in April 2005 these funds had remained unused. The funds were used to purchase computer hardware for the offices and training rooms, as well as for all office furniture;
- In 2005, following the 26 December 2004 Indian Ocean tsunami, the Government of Flanders committed the amount of €500,000/year (for an initial period of 5 years i.e. 2005-2009) for capacity building activities and related expenses at the Project Office. These funds are provided to the Project Office through the Flanders Marine Institute (VLIZ) which manages these funds on behalf of the Government of Flanders. A work plan for the use of the funds is submitted every year in December by the Head of the Project Office, for approval by the Government of Flanders. Funds are disbursed through the Flanders Marine Institute. The accounts are therefore audited as part of the VLIZ accounts audit.

The 2005-2009 additional financial allocation is earmarked as follows:

- Staff component (approx. 34%) (see 2.1.1)
- Equipment and consumables component (approx. 6%)
- Training/meeting/invited expert component (approx. 60%)

The substantial additional funding provided by the Government of Flanders enabled an accelerated implementation of the work plan initially programmed for the period 2005-2006.

The work plan for 2005-2006 was based upon the requirements identified by the IODE Committee (Eighteenth Session, 26-30 April 2005), in particular its technology development and Ocean Data and Information Network (ODIN) capacity building elements. It included also the extensive infrastructure building of the Project Office itself.

A detailed overview of the Project office budget and expenditure is provided in 3.

#### 2.1.1 Staffing

Thanks to the additional funding provided by the Government of Flanders it was possible to hire three permanent staff members for the Project Office. Administratively they were recruited (local recruitment) and are managed by the Flanders Marine Institute (VLIZ).

The selection and hiring of the permanent locally recruited Project Office staff was done in September-November 2005. The following staff members were recruited:

- Administrative assistant (Kristin de Lichtervelde) (as from 9/2005)
- IT Specialist (Mark Van Crombrugge) (as from 11/2005)
- Training coordinator (Dr. Wouter Rommens) (as from 11/2005)

### 2.1.2 Infrastructure:

Initial infrastructure (minimum furniture and several computers) was bought using €60,000 mentioned above just prior to the official opening of the Office. Additional necessary furniture/equipment/computer hardware and software were bought during 2005-2006. The project office is now fully furnished, equipped and operational. It has the following facilities and the main equipment:

- large conference hall/auditorium with audio/video system (capacity of 80-140 persons depending on room configuration)
- two training/meeting rooms (air conditioned) with a capacity of up to 24 persons each. The two rooms can be joined
- conference room for expert meetings (capacity up to 15 people). This room has been converted in December 2006 to a Video Conference room (equipped with LifeSize HD Videoconference system )
- workspace for the Project office staff (4 persons) equipped with PCs, printers, office furniture
- workspace for visiting experts, equipped with PCs, printers, office furniture
- 30 PCs and 1 laptop for trainings/visitors
- 10 printers (B/W laser, color laser, inkjet)
- 3 video projectors (one for each event room)
- 6 servers installed in dedicated air conditioned server room with backup facility
- broadband Internet connection (850 Kb/s)
- software (including MS-Office suites on all PCs, 18 licences for ArcView 9 with Space and 3-D analysts donated by ESRI)

### 2.2. IT RELATED ACTIVITIES 2005-2006

The main objective of IT related activities in 2005-2006 was to migrate all IODE related IT products and services from UNESCO/IOC Headquarters (Paris, France) to the Project Office. The following actions were implemented:

- Installation of the IODE Project Office web servers and updating of the IT infrastructure
- Launching of the Project Office web site in June 2005 (<http://www.iode.org/projectoffice>)
- Installation of the OdinPubAfrica e-repository/website server (document IOC/IODE-XIX/30)
- Work jointly with the ETDMP (Joint JCOMM/IODE Expert Team on Data Management Practises) and VLIZ on implementation of the JCOMM/IODE ETDMP End to end data management (2EDM) Pilot Project prototype (document IOC/IODE-XIX/22)
- Transferring of all IODE and several IOC web sites to the Project Office and supporting them on the Project Office servers
- Host and manage the OceanTeacher project (document IOC/IODE-XIX/43)

- Host and manage the OceanExpert project including the IODE alumni database creation (document IOC/IODE-XIX/29)
- Host 25 ODINAFRICA national partner web sites
- Set up and maintain Sympa mailing list system and host 25 IOC/IODE related mail-lists
- Develop and host the ODINAFRICA Sea Level Data Facility demonstrator (<http://www.sealevelstation.net>) and ODINAFRICA TideTool (<http://www.sealevelnetwork.net>) sites
- Re-develop and host the IODE web site in close collaboration with GOOS and JCOMM (enabling shared people, events and document management)

By the end of 2006 all IODE IT services and products have been migrated to the Project Office, except the Regional OceanPortals ([www.africanoceans.net](http://www.africanoceans.net) and [www.portaloceanico.net](http://www.portaloceanico.net)) which remain on the UNESCO servers in Paris as they are funded by the UNESCO Regular Programme Cross-Cutting Theme (CCT) funds. These projects will end in December 2007.

### 2.3 TRAINING COURSES

Organization of the training courses and workshops is one of the main Project Office activities. In 2005-2006 the Project Office organized 29 training courses and workshops. Some of them were basic courses for the IODE ODINs and some were specialised workshops, e.g. Workshop on biodiversity data management for trainees from different regions. Some of the events were organized jointly with another institutions and programmes: JCOMM, IOI, GLOSS, EURASLIC, MarBEF.

A full list of the trainings is attached as Annex 1.

Many lectures are now video recorded and made available via the OceanTeacher Video Library. Several new training courses were developed (e.g. Combined Modeling and Data Management Training Workshop). More information on the Project Office training activities is available in the document IOC/IODE-XIX/43 (OceanTeacher) and document IOC/IODE-XIX/42 (Training activities at the IOC Project Office for IODE).

### 2.4 HOSTED EVENTS

In addition to the training events described in 2.3 the Project Office hosted a wide variety of different meetings, seminars, workshops. About 20 different meetings were organized by IOC/IODE and 53 external meetings were organized mostly by VLIZ for local, regional and international events related to the marine and environmental issues.

### 2.5 EXPERT VISITS

More than 250 experts (including participants of IODE-XVIII) made a short (1 day) visit to the Project Office in 2005-2006. 32 experts visited the Project office for a longer period (several days – several weeks) to work jointly with the Project Office, VLIZ scientists, and other visitors.

### 2.6 PROJECT OFFICE PARTICIPATION IN EC PROJECTS

Because of its technical facilities and meeting/course hosting capabilities the IODE project Office was able to join several projects funded by the European Commission. These include:

**ASCABOS project: Supporting Programme for Capacity Building in the Black Sea Region towards Operational Status of Oceanographic Services (started in January 2005 – ending in January 2008).**

A dedicated Project web site is available at <http://www.ascabos.io-bas.bg/>. The Project Office is involved mainly in the in the Project Work Package 3 - Expertise. The main objectives of the WP3 are:

- Transfer technology, know-how and operational experience to the end-users through a programme of training courses.
- Increase expertise through education and training of young scientists and end-users.
- Transfer best practices and sharing experiences for the organization and management of forecasting system.

Funds provided to the Project Office: participation without funding.

**SIMORC project: System of Industry Metocean data for the Offshore and Research Communities (started in June 2005 – ending in November 2007).**

A description of this project and a role of IODE within it described in the document IOC/IODE-XIX/33). The SIMORC project web site: <http://www.simorc.com/>.

Funds provided to the Project Office: approx. €70,000.

**MOTIVE project: Marine Overlays on Topography for Annex II Valuation and Exploitation (started in September 2005 – ending in September 2007).**

MOTIIVE builds on the work of the MarineXML project, which ended in February 2005. It provides a documented methodology for implementing and monitoring data harmonisation activities between INSPIRE (Infrastructure for Spatial Information in Europe) ‘Annex I’ (hydrography, including marine areas), ‘Annex II’ (elevation, including shoreline) and ‘Annex III’ (thematic marine/coastal) datasets, the latter including coastal zone management areas, natural risk zones (e.g. flooding), oceanographic geographical features (currents, wave heights), and sea regions. IODE project Office is a subcontractor within this project. It provides the technical secretariat and maintains the project web site <http://www.motive.net/>.

Funds provided to the Project Office: €18,000.

**SeaDataNet Project: a Pan-European infrastructure for ocean and marine data management (started in April 2006 - – ending in April 2011).**

A description of this project and a role of IODE within it described in the document IOC/IODE-XIX/32). The project web site is: <http://www.seadatanet.org/>.

Funds provided to the Project Office: €200,000.

## 2.7. NEW PILOT/DEMONSTRATION PROJECTS HOSTED BY THE PROJECT OFFICE

There are several new pilot/demonstration projects hosted by the Project Office:

**TideTool (Indian Ocean sea level gauge monitor dashboard)**

TideTool is developed by Stuart Weinstein (PTWC, Hawaii, USA) in cooperation with Laura Kong (ITOIC, Hawaii) as a contribution to the Indian Ocean Tsunami Warning System (IOTWS) programme of the Intergovernmental Oceanographic Commission of UNESCO (IOC). This service is hosted by the IOC Project Office for IODE (<http://www.sealevelnetwork.net/>). This is an experimental system used for demonstration purposes. It shows the sea gages location on a map and the recent signal obtained from the gages in a graphical form. The view is refreshed automatically every 30 seconds.

### Sea Level Data Facility Demonstration

Beta-test of a new service developed jointly by the IODE Project Office and the Flanders Marine Institute (VLIZ) for the benefit of the ODINAFRICA sea level network (part of GLOSS) and the Indian Ocean Tsunami Warning and Mitigation System (IOTWS). The service (<http://www.sealevelstation.net>) will enable to:

- monitor the operational status of sea level stations in African coastal areas and the Indian Ocean in real-time;
- send emails and/or SMS messages to station operators indicating failure of their sea level station data transmission;
- plot sea level data (recent and historic);
- download sea level data.

### Virtual Lab (Creation of a prototype of the IOC/IODE Ocean Modeling Virtual Laboratory)

The idea to create an Ocean Modeling Virtual Laboratory (VL) using the IODE/VLIZ joint IT infrastructure was born at the “first Combined Modeling and Data Management Training Workshop” organized jointly by IODE and JCOMM in 2005 to avoid a difficult task for participants to install and implement the same models at their home institutions. This idea was supported by the IODE-XVIII and JCOMM-II meetings and further supported and developed during the second Combined Modeling and Data Management Training Workshop held in Oostende in October 2006.

The Virtual Laboratory will be a computing environment bringing together the data, models and interfaces needed to run ocean hydrodynamic models. The VL approach will permit to centralize downloading and reformatting the data needed for the models at the IODE and VLIZ data centres. The computers of the VL will then be made available to the ‘modeling’ scientific community at the IOC Project Office for IODE in Oostende and over the Internet. The first version of VL will be operational by the end of 2007. It is planned that the following models will be available in this version: MIPOMM (Storm surge model, NMI, Norway), BSPOM (Ocean circulation model, MHI, Ukraine), ITT TSS (Tropical storm surge model, IT, India).

## 2.8 PROJECT OFFICE PROMOTION

Project Office promotion was done permanently through:

- Dedicated Project Office web site;
- Links to the Project Office web site from other relevant web sites;
- Presentations at the scientific and project meetings (15 presentations);
- Publication of information on the Project Office in the different magazines, brochures, and mass media.
- Preparation and distribution of the Project Office leaflet
- Organization of introduction visits of local and international experts.
- Organization of high level visits to the Project Office (Mrs Fientje Moerman, Vice-Minister-President of the Flemish Government, in April 2006, and HRH Prince Laurent of Belgium in September 2006)

## 2.9 PROJECT OFFICE SUMMARY STATISTICS 2005-2006

- |  |     |
|--|-----|
| • Number of training courses organized:                                  | 29  |
| • Number of trainees:  | 270 |
| • Number of countries experts from which were trained:                   | 79  |
| • Number of the medium and long term expert visits:                      | 33  |
| • Overall number of experts and trainees visited the Project office:     | 439 |
| • Overall number of countries experts from which visited Project office: | 87  |

- Number of IOC/IODE related meetings and workshops hosted by the Project office: 20
- Number of external meetings hosted by the Project office: 53
- Number of EU Projects in which the Project Office is involved: 4
- Number of the Web sites hosted: 55

### 3. SUMMARY REPORT ON REVENUE AND EXPENDITURE

As mentioned in 2.1, the Government of Flanders provides basic support (office rental, utilities, Internet access, i.e. in kind) as well as an amount of €500,000/year (for an initial period of 5 years i.e. 2005-2009) for capacity building activities and related expenses at the Project Office. In addition revenue was obtained through activities implemented by the Project Office (e.g. hosting of training courses, meetings) or through projects.

#### 3.1. FLANDERS ANNUAL CONTRIBUTION FOR CB ACTIVITIES

##### Budget 2005-2007 (in K€)

| Budget line              | 2005                        | 2006            | 2007       |
|--------------------------|-----------------------------|-----------------|------------|
| Training courses         | 246.5                       | 230             | 231        |
| Support staff            | 58.5                        | 170             | 175        |
| Expert visits            | 50                          | 70              | 65         |
| Infrastructure/equipment | 110                         | 25              | 30         |
| Consumables              | 10                          | 5               | 10         |
| <b>Total</b>             | <b>475</b>                  | <b>500</b>      | <b>511</b> |
| Remark                   | 25 K to be received in 2006 | First full year | Indexed    |

#### 3.2 ADDITIONAL SUPPORT IN KIND AND CASH FOR PROJECT OFFICE ACTIVITIES (2005-2006)

The Project Office has also attracted additional contributions in kind and cash to support its activities, mostly the training activity. Main contributions are listed below with a money source in the square brackets

|  |                 |
|--|-----------------|
| Donation of the GIS software [ESRI BeLux]                          | <b>€126,000</b> |
| Expert visit of Linda Pikula [OceanTeacher Project]                | <b>€4,400</b>   |
| Expert visit of Sergey Belov – [E2EDM pilot project]               | <b>€2,100</b>   |
| Expert visit of Polish scientists [Polish Institute of Oceanology] | <b>€2,300</b>   |
| Participation of trainers in Jamboree [Norwegian Institutions]     | <b>€9,900</b>   |
| Partial support for the ECET MIM meeting [EURASLIC]                | <b>€500</b>     |
| Support of Trainee from Kuwait [Kuwait]                            | <b>€2,600</b>   |
| Support of Trainee from Russia [Russia]                            | <b>€1,600</b>   |
| Partial support of the trainee from Indonesia [Indonesia]          | <b>€1,200</b>   |
| Partial support of the trainee from Bulgaria [Bulgaria]            | <b>€1,200</b>   |
| Support of the IODE/MarBEF training 2006 [MarBEF]                  | <b>€3,000</b>   |
| Expert visit of scientists from IBSS, Ukraine [IBSS]               | <b>€2,500</b>   |

|   |                 |
|---|-----------------|
| Support of the IODE/IOI training course [IOI]     | <b>€10,100</b>  |
| Support of the Jamboree-2 [WMO]                   | <b>€7,600</b>   |
| Support of the Jamboree-2 [IOC/ IOTWS-NO]         | <b>€26,400</b>  |
| Support of the IODE/MarBEF training 2007 [MarBEF] | <b>€4,000</b>   |
| <b>Total</b>                                      | <b>€205,400</b> |

#### 4. WORK PLAN 2007

##### 4.1 STAFFING (Supported by IOC/IODE)

Head of the Project Office (Vladimir Vladymyrov). The necessary sum to cover expenses for his salary is €82,100 (108,000 USD). It is planned that  $\frac{1}{4}$  of this sum will be paid from SIMORC EC project,  $\frac{1}{4}$  will be used from SeaDataNet EC project and  $\frac{1}{2}$  will be used from IOC regular budget. His main tasks are: management of the Project Office staff and activities including short and long term planning of the Event Calendar; coordination of work of the GEBICH and ETDMP IODE expert groups; coordination of IODE work within the EC projects (SeaDataNet, SIMORC, MOTIIVE, ASCABOS); coordination of work of the IODE projects and working groups (MEDI, GODAR, MarineXML), coordination of work within new pilot projects (ODINBLACKSEA, Virtual Lab, Ocean Dataportal); development of the new types of the training courses; the Project Office promotion.

Additional staffing for 2007:

A web application developer (Johan Mares), will be recruited in March 2007 (cost shared with VLIZ at 50%). Staff cost - €20,000 (cost to the Project Office). Funding for this position will be sourced from extra-budgetary projects and other IOC activities for which the Project Office provides hosting/maintenance tasks. His main tasks are: (i) to support and update the IODE web applications that run at the Project Office servers; (ii) to develop new web applications/services for current/new IODE projects.

Annelies Groen – web product content editor, will be recruited in March 2007, half time. Staff cost - €10,000. Her main tasks are quality control and correction of information in the IODE web sites (first priority – OceanExpert) and manual input of new information. The cost will be covered by the related projects (eg OceanExpert).

##### 4.2 INFRASTRUCTURE

It is planned to update the Project Office infrastructure as follows:

- put a transparent partition wall to separate one room for the Project office staff
- install additional air conditioning units
- buy 6 PCs for the training rooms
- buy 1 new server
- buy a new color printer.

##### 4.3 IT RELATED ACTIVITIES

Ongoing activities will be continued including restructuring of the joint Project Office/VLIZ IT infrastructure through subdividing the production and development servers.



## 4.4 TRAINING COURSES

The following training courses are planned to be held at the Project Office in 2007.

|    | <b>Planned Courses</b>   | <b>Dates<br/>(preliminary)</b> | <b>Funded by</b>                  | <b>Cost<br/>Estimation for<br/>Project Office</b> |
|----|--|--------------------------------|-----------------------------------|---|
| 1  | E-repository Training  | 23-28 April                    | Project Office                    | 40 K€   |
| 2  | SeaDataNet Project. DM Training  | 12-17 Feb                      | SeaDataNet<br>Project             |   |
| 3  | IODE/MarBEF Biodiversity DM Training   | 19-23 Mar                      | Marbeff<br>Project Office         | 20 K€   |
| 4  | ODINAFRICA Marine Biodiversity Data<br>mobilisation workshop   | 26 Mar -06<br>Apr              | ODINAFRICA<br>Project             |   |
| 5  | ASCABOS Project. Training for Young<br>Scientists on modelling of ocean processes<br>and operational forecasting practices for<br>the Black Sea region | 23-27 Apr                      | ASCABOS<br>Porject                |   |
| 6  | GLOSS/ODINAFRICA 2-nd Training on<br>Sea Level Data  | Autumn                         | ODINAFRICA<br>Project             |   |
| 7  | DBCP. Training Course on Buoy<br>Programme Implementation and Data<br>Management   | 11-15 Jun                      | Project Office /<br>other sources | 30 K€   |
| 8  | E2EDM System Training  | Autumn                         | Project Office                    | 40 K€   |
| 9  | ODINAFRICA Marine Biodiversity Data<br>mobilisation workshop   | 3 -14 Dec                      | ODINAFRICA<br>Project             |   |
| 10 | Training for Young Scientists - Ocean<br>DM: from Measurement to Product   | 4-9 June                       | Project Office                    | 40 K€   |
| 11 | Virtual Lab Training (follow up of<br>Jamboree workshops)  | Autumn                         | Project Office<br>+ WMO ??        | 40 K€   |
| 12 | ODINECET MIM Training (intermediate<br>level)  | Autumn                         | Project Office                    | 40 K€   |
|    |  |                                |                                   |   |
|    | <b>Total: 12 events</b>  |                                |                                   | <b>250 K€</b>                                     |

## 4.5 HOSTED EVENTS

According to the statistics, the Project office holds about 30 hosted events per year. Mostly they are organized by VLIZ. At the moment (February 2007) 4 events were already held and 8 more are booked by VLIZ.

## 4.6 EXPERT VISITS

The Project office does not have a detailed plan for the expert visits. The short term visits are occasional and cannot be planned. The medium/long term visits are related to the IODE projects and meetings urgent needs, to VLIZ activity, to other visits, to trainings events and their preparation, etc.

#### 4.7 PROJECT OFFICE PARTICIPATION IN EC PROJECTS

Participation in the following EC Projects will continue in 2007:

- SIMORC
- SeaDataNet
- MOTIIVE
- ASCABOS

No new EC project are envisaged for 2007.

#### 4.8 NEW PILOT/DEMONSTATION PROJECTS

Continuation of work within the TideTool, Sea Level Data Facility Demonstration, and Virtual Lab projects, start of work within the Ocean Dataportal project.

### 5. PROPOSED WORK PLAN 2008-2009

In 2008-2009 the project office will continue the same main directions of activity as in 2005-2007 within the available budget with the priority for training/capacity building for developing countries. More detailed plan can be compiled after the IODE plan for 2008-2009 will be developed.

It is worth to mention that funds for the Head of the Project Office position are not secured for 2008-2009 (see document IOC/IODE-XIX/14).

### 6. Action Requested from the Committee

**The Committee is requested to:**

- **Comment on the Project Office development and activities.**
- **Revise and complete the Project Office work plan based upon planned IODE activities (global, regional) and bearing in mind available resources**
- **Identify necessary human resources for the IODE Secretariat (including the IODE project Office) and recommend ways and means to obtain/secure these resources.**

## **Annex 1**

### **IOC/IODE related events at the IOC Project Office for IODE in 2005-2006**

#### **Training workshops 2005**

- ▶ ODINAFRICA Basic Oceanographic Data Management Workshop.  
Dates: Apr 11-29, 2005  
Regions: Africa,
- ▶ ODINAFRICA Marine Biodiversity Data Management training course.  
Dates: Apr 18-22, 2005  
Regions: Africa,
- ▶ ODINAFRICA Marine Information Management training course  
Dates: Aug 15 – Sep 03, 2005  
Regions: Africa,
- ▶ IODE/JCOMM Combined Modeling and Data Management Training Workshop (Jamboree)  
Dates: Sep 02-10, 2005  
Regions: Africa, South America and Caribbean, Asia (Indian Ocean)
- ▶ ODINCINDIO Ocean Data Management training course  
Dates: Oct 10-22, 2005  
Regions: Asia (Indian Ocean)
- ▶ ODINCARSA Basic Oceanographic Data Management Training Workshop  
Dates: Nov 07-19, 2005  
Regions: South America and Caribbean, Africa
- ▶ ODINCARSA Marine Information Management Training Workshop  
Dates: Nov 09-19, 2005  
Regions: South America and Caribbean
- ▶ ODINCARSA Oceanographic Data Management Training Workshop (advanced)  
Dates: Nov 21-26, 2005  
Regions: South America and Caribbean, Africa
- ▶ ODINAFRICA Web service development training  
Dates: Dec 05-09, 2005  
Regions: Africa
- ▶ Training course on development of electronic repositories on marine related publications from Africa (ODINPubAfrica)  
Dates: Dec 05-09, 2005  
Regions: Africa

#### **Training workshops 2006**

- ▶ ODINCINDIO Marine Information Management Training.  
Dates: Feb 13-24, 2006  
Regions: Indian Ocean Region (Asia), Africa
- ▶ MarBEF/IODE/VLIZ Training Course on Marine Biodiversity Data Management.

Dates: March 6-11, 2006

Regions: Africa, Europe, Asia (Indian Ocean), South America

► First ODINAFRICA Workshop for Marine Biodiversity Data Compilation.

Dates: 13-22 March, 2006

Regions: Africa

► Marine Information Management training for the ECET (European Countries in Economic Transition) countries.

Dates: 13-24 March, 2006

Regions: Eastern Europe

► UNESCO/IOC/GTZ/ESRI/VLIZ Coastal Planning training course on Territorial Planning in Coastal Zones to cope with tsunamis and other marine hazards.

Dates: 2-12 May, 2006

Regions: Africa, Indian Ocean (Asia)

► Ocean Data Management training course for the Indian Ocean Countries.

Dates: 8-19 May, 2006

Regions: Indian Ocean (Asia), Europe

► ODINAFRICA Atlas Data Mining workshop.

Dates: 6-16 June, 2006

Regions: Africa

► International Training Course on Tsunami Numerical Modeling: Course I - Tsunami Sources and Tsunami Propagation.

Dates: 6-16 June, 2006

Regions: Africa, Europe, Asia (Indian Ocean), Asia (Pacific Ocean), Australia

► ODINAFRICA Atlas Coordination and Planning workshop.

Dates: 19-23 June, 2006

Regions: Africa

► Joint IODE/IOI (International Ocean Institute) Training Course on the GIS and Remote Sensing Data.

Dates: 18-23 September, 2006

Regions: Asia (Indian Ocean), South America and Caribbean, Africa, Europe

► ODINAFRICA Advanced Data Management workshop

Dates: 25-29 Sep, 2006

Regions: Africa

► ODINAFRICA Atlas Progress workshop

Dates: 02-04 Oct, 2006

Regions: Africa

► Second ODINAFRICA Web Improvement workshop.

Dates: 02-06 October, 2006

Regions: Africa

► Combined Modeling and Data Management Training Workshop (Jamboree-II).

Dates: 8-14 October, 2006

Regions: Africa, Eastern Europe, South America, Asia (Indian Ocean), Asia (Pacific Ocean)

► ODINAFRICA Workshop for Marine Biodiversity Data Compilation.

Dates: 6-17 November, 2006

Regions: Africa

► GLOSS/ODINAFRICA Training Course on Sea Level Observation and Interpretation.

Dates: 6-17 November, 2006

Regions: Africa, Eastern Europe

► OceanTeacher KEWLNextGen Editors training.

Dates: 20-24 November, 2006

Regions: Europe, Australia, USA

► Third ODINAFRICA Marine Atlas Assembly workshop

Dates: 27 Nov -01 Dec, 2006

Regions: Africa

► ISSTOCAM Training Workshop on Web Map Server

Dates: 04 - 15 Dec, 2006

Regions: South America

#### **Other IOC/IODE Related Workshops and Meetings**

ECET Union List of Serials meeting, 27-28 Oct 2005

IOC Meeting on MLA2, 7-8 Nov 2005

SIMORC Project CG/AB meeting, 20 Dec 2005

ODINAFRICA Secretariat Meeting, 31 Jan-3 Feb 2006

IODE Officers Meeting, 6-7 Feb 2006

OceanTeacher Steering Group, 8-10 Feb 2006

IODE/HAB cooperation meeting, 27-28 Feb 2006

ASCABOS Project WP3 meeting, 27 Feb-1 Mar 2006

ODIN ECET planning meeting, 25 Mar 2006

Sea Level Metadata Web Service Meeting, 28-29 Mar 2006

ODINAFRICA Sea Level Data Meeting, 29-30 Mar 2006

ODINAFRICA Project Seminar, 24-26 Apr 2006

ODINAFRICA Project Management Meeting, 27-28 Apr 2006

GEBICH - III Meeting, 27-28 Nov 2006

IODE-UNEP workshop, 30 Nov 2006

Several IOC Videoconference meetings

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