

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)
Twentieth-First Session of the IOC Committee on International Oceanographic
Data and Information Exchange (IODE-XXI)
Liege, Belgium, 23-26 March 2011
OCEAN DATA AND INFORMATION NETWORK FOR THE
WESTERN PACIFIC REGION (ODINWESTPAC)
PROGRESS REPORT 2009-2010
By Shaohua Lin, Coordinator of ODINWESTPAC

SUMMARY

1. Introduction

The objectives of the ODINWESTPAC project are (i) Develop a marine data and information network that will promote data and information exchange and collaboration between WESTPAC member states;(ii) Provide the marine data and information products to serve the needs of WESTPAC member states and other ODINs and IODE members in data and information management, oceanographic research, marine environmental protection, marine hazards prevention and mitigation, etc.; (iii) Develop cooperation with other international and regional data projects in data collecting, processing, management and service; (iv) Implement relevant capacity building activities which specially related to ocean data and information management and service.

2. The Progress of ODINWESTPAC Project during the intercessional period

ODINWESTPAC has been continuing to be coordinated by China since WESTPAC-VII which was held in Malaysia May 2008. It was set up primarily to provide effective capacity building framework, to promote regional collaboration in marine data and information and products sharing, to develop cooperation with other ODINs and international and regional projects/programs, and to provide data and information services mainly for the WESTPAC member states and other users.

During 2009 to 2010, ODINWESTPAC has been undertaking several activities:

2.1 The Project Coordinating Group has been established and taken some activities

Prof. Shaohua Lin, Honorary Director of NMDIS as the project coordinator. NMDIS has taken on the responsibility of the host center of ODINWESTPAC. Till now, NMDIS has received information of the focal points for data and

information management from 11 member states: Australia, Cambodia, China, Indonesia, Japan, Korea, Malaysia, Russia, Thailand, United Kingdom and Vietnam. And a small group discussion among some member states had been done. Three technical working groups to work for the project in the host center were set up and taking activities, more detailed information see Annex I

2.2 The Website Development

2.2.1 Infrastructure Construction

NMDIS has purchased two HP DL580 G5, a DELL OPTIPLEX 755, WINDOWS SERVER 2003 operating system and MICROSOFT SQL SERVER database management system that used for database construction and network service; Applied two websites www.odinwestpac.org and www.odinwestpac.cn for oceanic data and information integration, tried to build a ODINWESTPAC website of easy data and information access and communication. At present, the preliminary structure of the website has been completed and being integrated on HP DL580 G5 Server.

2.2.2 Website Development

2.2.2.1 The Web-side has been developed for marine information

After comparing several software platforms, DSPACE is chosen as the software platform of the REGIONAL E-REPOSITORY OF SCIENTIFIC PUBLICATIONS. The DSPACE software is a digital library system for storing, indexing of documents in digital format. It provides free access to the internet and redeveloped by users and is able to meet the need of building web pages for ODINWESTPAC.

Until now, the research, development, the set-up of the E-repository server and the administration has been done by NMDIS. And China has created its own collection and made its contribution to the REGIONAL E-REPOSITORY OF SCIENTIFIC PUBLICATIONS, and the Information about the main marine libraries in WESTPAC region has been collected and added to the website. And the directory of institutions in Malaysia and China has been collected and uploaded to the website.

ODINWESTPAC web site provides the search entry of IODE People and the retrieve entry of ASFA (Aquatic Sciences and Fisheries Abstracts). Other information to be uploaded into ODINWESTPAC is under collection now, which includes the directory of research institutions and experts in the region and the directory of publications in the region etc. that will be provided by member states.

A training course on oceanographic information upload/download is going to be carried out. Training materials are under preparation.

2.2.2.2 The Web-side has been developed for the marine data and data products

The data and products that we have been uploaded into the website are as follows:

a. Chinese Coastal Station data which include:

- Monthly mean sea level data of six Chinese coastal stations;
- Real-time meteorological, wave, temperature and salinity data of 13 stations;

b. Chinese session survey profile data which involve meteorology, temperature, salinity in areas of the South China Sea and the East China Sea.

c. Polar data obtained during Antarctic investigation by Chinese vessel will be collected.

d. Other regional and international cooperation programme and projects data:

- NEAR-GOOS data collected from Real-Time database and delay mode database of NEAR-GOOS
- Argo Data includes Chinese deployed Argo data and data collected from Global Argo Data Centers.
- GTSP data has been collected in near real-time and delay mode from China joined GTSP projects and will be collected continuously.

e. Marine data products

- China has been providing marine hydrological data products of the northwestern Pacific Region, which includes temperature, salinity, one-degree square area air temperature, air pressure, wind, wave, etc., and monthly statistical analysis product between 1950 -2002.
- A new reanalysis system has been developed by NMDIS for China coastal waters and adjacent seas to produce a dataset called China Ocean Reanalysis (CORA). The model in use is the NMDIS parallel version of POMgcs, in which impacts of wave breaking and tidal mixing are considered. The data assimilation scheme is a sequential 3D-Var implemented within a multi-grid framework. The data used include satellite SST, altimetry sea surface height anomaly, NCEP reanalysis surface wind stress, temperature and salinity profiles. The dataset includes sea surface height, temperature, salinity and current in the area and starts from Jan. 1986 and is real-time updated yearly and can be downloaded freely from the web site: <http://www.cora.net.cn>

- China Marine Environment Quality Bulletin, China Marine Economic Statistics Bulletin, Sea Area Use Management Bulletin, China Marine Satellite Application Report, China Oceanic Hazards Bulletin, China Sea level Bulletin, Marine Law Enforcement and Supervision Bulletin, Monthly Report on National Ocean Dumping Management, EL Nino Monitoring and Prediction
- And more marine data products will come from member states.

2..3. Cooperative with regional and international projects and programme

2..3.1 Cooperative with NEAR-GOOS and SEAGOOS

The NEAR-GOOS CC-XIII meeting has discussed and agreed to cooperation with ODINWESTPAC in using all of the data and products, and information of NEAR-GOOS which includes the organizations, expertise to ODINWESTPAC and provide services to for users in the WESTPAC region.

Has already discussed with the chairperson of SEAGOOS and will take cooperation in the near future.

2.3.2. Cooperative with IODE/ODP

On October 11-15, 2010 two experts from IODE/ODP, Dr. Sergey Belov and Dr. Sergey Sukhonosov paid a visit to NMDIS, the base center of ODINWESTPAC. During their stay, the experts helped to install ODP data provider software and service software on the ODINWESTPAC server, delivered a technical training and finished the metadata extraction and sharing distribution of ODP sharing data provided by the center. NMDIS has decided to use the ODINWESTPAC server as the IODE/ODP sub-node in the western Pacific region to receive and integrate the ODP sharing data list and metadata information of the region and send to the server of IODE headquarter. Currently, we have completed the registration and practical querying and indexing of the metadata information on the ODP website for part of the data provided by NMDIS. The registration, querying and sharing

of the JCOMM/ODAS metadata, which is built and operated by NMDIS, has also been realized.

Meanwhile, ODP experts expressed their interest of being invited to the ODINWESTPAC technical training in 2011, to carry out ODP technical trainings for more member states of the western Pacific region, for the purpose of promoting the progress of both the ODINWESTPAC and IODE/ODP, and to promote our works in data collection in general.

3. PROBLEMS ENCOUNTERED

In general, most activities of the project are going slowly, because we still lack of adequate attention from member states. And the data and information provided by member states is strongly requested. We still need to make effort in raising attention of member states, make sure all of their nominate focal points for data management and information management and also take activates. Besides, capacity building and training course have to be strengthened.

4. Work Plan and Budget for ODINWESTPAC, 2010-2011`

- Continue to contact with more member states in the region to join in the project and take their activities for developing of the project. And continue to collect marine data and information by member states, and making efficient exchange and services in the region.
- To have The Second Working Group Meeting of ODINWESTPAC in April 2011. To develop the strategy and working plan for the project and continue to collect the Needs for Capacity Building and we hope to be funded by IODE and IOC/WESTPAC with support for \$25k
- To have a training course for developing ODINWESTPAC in July 2011 and to assist technical personnel for implementing ODINWESTPAC projects in mastering the fundamental methods of marine data and information collecting, processing, management, and data and information uploading, downloading and application, thereby make sure the establishment and operation of the ODINWESTPAC website, and realize marine data and information exchange and sharing in the region. And the material of the training course is going to be prepared and choice from OCEANTECHER of IODE and needs of member states will be considered. And we are also

considering combine with IODE/ODP technical training. And we hope to be funded by IODE support for [\\$35k](#)

- To collect the cruise summary reports in the region from IODE histories ROSCOP report and member states. And to development the metadata bases documenting data available in the region.
- Prepare a directory of ocean and coastal observations, research and management projects and programmes implemented in the region (not limited to IOC activities)
- Prepare a directory of marine libraries and ocean publications, a directory of research institutions, experts and regional e-repository of scientific publications published by WESTPAC experts in the region.
- Continue to collect marine data and information from member states, regional cooperation project and international project; develop data products; enhance cooperation with NEAR-GOOS, NOWPAC, SEAGOOS etc. and provide Data Management Guides
- Continue to develop and maintain the Home Page of the project.
- To have The Third Working Group meeting of ODINWESTPAC in 2012. And we hope to be funded by IODE support for [\\$20k](#)

The more detailed work plan and Budget for ODINWESTPAC, during 2011-2012 see Annex II.

Annex I

The Establishment of ODINWESTPAC Coordinating Group and Working Group

In accordance with the decision made during the 7th Intergovernmental Session of the IOC Sub-Commission for the Western Pacific,

(1) Ms. Shaohua Lin, Honorary Director of National Marine Data and Information Service as Project Coordinator;

(2) The National Marine Data and Information Service is responsible for the construction of ODINWESTPAC.

(3) Focal points of the member states:

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After the project was launched, 3 working groups in NMDIS were set up,
namely:

a) External Contact and Training Group
Current members: Ms. Li Qin

Ms. Fangfang Wan

b) Information Group
Current members: Prof. Ying Yang

Ms. Nanyan Huang

Data Group

Current members: Mr. Wenxi Xiang

Prof. Dongsheng Zhang

Prof. Jixiang Chen

Mr. Guanghao Wei

Annex II

Work Plan and Budget for IOC/IODE/ODINWESTPAC, 2011-2012

| No. | Action/activity | Timing | Responsibility | Estimated cost |
|-----|---|------------------------------------|--|--|
| 1 | Continue to contact with more member states in the region to join in the project and take their activities for developing of the project. And continue to collect marine data and information by member states, providing efficient exchange and services in the region. | During the intercessional period | Prof. Shaohua Lin, Honorary Director of NMDIS as the project coordinator, Mr. Wenxi Zhu, Secretary of IOC/WESTPAC Sub-Commission All member states in the region | In kind |
| 2 | To have the Working Group meeting of ODINWESTPAC in April or July of 2011. And continue to collect the Needs for Capacity Building and develop the strategy and working plan for the project. | 1. April. or July of 2011 | The project coordinator to organize and prepare Mr. Wenxi Zhu, Secretary of IOC/WESTPAC Sub-Commission to coordinate And the Steering Committee of the project | 25,000 USD The host center, IODE IOC/WESTPAC |
| 3 | To have a training course for developing the project, to assist technical personnel for implementing ODINWESTPAC projects in mastering the fundamental methods of marine data and information collecting, processing, management, and data and information uploading, downloading and application, thereby make sure the establishment and operation of the ODINWESTPAC website, and realize marine data and information exchange and sharing in the region. Material of the training course is going to be prepared and choice from OCEANTECHER of IODE and needs of member states will be considered. | July of 2011 | Host center IODE Project Office IOC WESTPAC Sec Member states , . | 35,000 USD IODE Host center IOC/WESTPAC |
| 4 | To collect the cruise summary report in the region from IODE histories ROSCOP report and member states. And to develop the metadata bases documenting available data in the region. | Start from April 2009 and continue | Host center All member states | Host center In kind by member states IODE Secretary |
| 5 | Prepare a directory of ocean and coastal observations, research and management | Start from April 2009 and continue | Host center Invite the coordinators of the regional projects and international projects to participate. | In kind by member states |

| | | | | |
|---|--|---|---|---|
| | <p>projects and programmes implemented in the region (not limited to IOC activities)</p> | | <p>And also coordinate by IOC WESTPAC Sect. and the Steering Committee of the project.</p> | |
| 6 | <p>Prepare a directory of marine libraries and Ocean publications, a directory of research institutions, experts and regional e-repository of scientific publications published by WESTPAC experts in the region.</p> | <p>Start from April 2009 and continue</p> | <p>Input by member states.</p> <p>Coordination by IOC/IODE , IOC/WESTPAC Secretariat and the Steering Committee of the project.</p> <p>All member states.</p> | <p>In kind by member states</p> |
| 7 | <p>Continue to collect marine data and information from member states, regional cooperation project and international project; develop data products; enhance cooperation with NEAR-GOOS, NOWPAC, SEAGOOS etc. and provide Data Management Guides.</p> | <p>Start from April 2009 and continue</p> | <p>Host center</p> <p>All member states</p> <p>Invite the coordinators and members of the regional projects and international projects to participant</p> | <p>Host center and member states in kind</p> |
| 8 | <p>Continue to develop and maintain the Home Page of the project</p> | <p>Start from April 2009 and continue</p> | <p>Host center</p> <p>All member states</p> | <p>Host Center</p> <p>Member states in kind</p> |
| 9 | <p>Hold The Third Working Group Meeting of ODINWESTPAC</p> | <p>During 2012</p> | <p>Coordinate by IODE and IOC WESTPAC Secretariat</p> <p>Participate by member states focus points</p> | <p>20,000 USD</p> <p>IODE</p> <p>IOC/WESTPAC</p> |

| | | | | |
|----|--|------------------------------------|--|--------------------------|
| 10 | Provide Data Management Guides | End of 2012 | Host center | In kind by host center |
| 11 | Prepare a directory of marine libraries and Ocean publications | Start from April 2009 and continue | Input by MNDIS and member states Coordinate by IODE and WESTPAC Secretariat | In kind by member states |
| | Total | | | 85,000USD |