INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION  
(of UNESCO)

Sixteenth Session of the IOC/WESTPAC Co-ordinating Committee for the North-East Asian Regional-Global Ocean Observing System (NEAR-GOOS-CC-XVI)

Tokyo, Japan, 8-9 December 2015

Status of the China Delayed Mode Data Base for NEAR-GOOS

Submitted by
NMDIS, China

1. General Status

Key information shall include:

i. Host agency: National Marine Data and Information Service (NMDIS)

ii. China Delayed Mode Data Base (CDMDB) for NEAR-GOOS has been routinely maintained and upgraded to guarantee the operational running of the website. URL: http://near-goos.coi.gov.cn

NMDIS provides full technical and financial support to the database and website.

2. User registration and access status

i. Total number of registered users for the service so far, and where they are mainly from? And which fields they are working in?

Users can get access to the data and products of the CDMDB open and freely. At the current stage, a universal user name, neargoos, is set with the same spelling password. The number of registered users is no more calculated.

ii. Statistical data on the total number of accesses to the Database is on average 10-20 IP addresses per day.

3. Data and/or products available at the Data Base

3.1 Data provided in the Data Base

<table>
<thead>
<tr>
<th>Serial</th>
<th>Description of data</th>
<th>Source</th>
<th>Type</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Delayed mode temperature and wind-wave data</td>
<td>China Oceanographic Stations, (COS)</td>
<td>Oceanography</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Monthly mean sea level data</td>
<td>COS</td>
<td>Oceanography</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Marine meteorological data, wave, sea surface temperature and salinity data</td>
<td>COS</td>
<td>Oceanography</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Hourly sea level data</td>
<td>COS</td>
<td>Oceanography</td>
<td></td>
</tr>
</tbody>
</table>
Remarks

Code identification, decoding, format check, code transform, standardization, primary quality control, visual inspection, calibration, etc, are carried out before the creation of standard format datasets. The quality control procedure includes range check, illegal code check, station identification check, etc. Data files are stored in ASCII format and updated monthly.

1 China Oceanographic Station Data

The China Coastal Station Data cover a wide range of quasi-real time data including marine meteorology, wave, temperature, and salinity from 13 Chinese ocean stations (Xiaochangshan, Laohutan, Zhifudao, Xiaomaidao, Lianyangang, Lvs, Shengshan, Dachen, Xiamen, Dongshan, Nanji, Beishuang, and Zhelang) since May 1999.

2 Monthly Mean Sea Level Delayed Mode Data

Monthly Mean Sea Level Delayed Mode Data are from the 6 China stations (Dalian, Kanmen, Nansha, Xisha, and Lvs) since January 2010.

3 Temperature and Salinity Delayed Mode Data

The delayed mode data of surface temperature and salinity obtained from 4 Chinese Stations (Shidao, Xiaomaidao, Lianyangang, and Yinshuichuan) are available since January 1996.

4 Wave and Wind Delayed Mode Data

The delayed mode data of wind wave are obtained from 4 Chinese Stations (Shidao, Xiaomaidao, Lianyangang, and Yinshuichuan) since January 1996.

3.2 Products provided in the Data Base

<table>
<thead>
<tr>
<th>Serial</th>
<th>Description of product</th>
<th>Source</th>
<th>Type</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.3 Relevant technical manuals, handbook developed for the NEAR-GOOS

OPERATIONAL MANUAL FOR THE NORTH-EAST ASIAN REGIONAL GOOS (NEAR-GOOS) DATA EXCHANGE (version 1.0)

4. Any other activities (observations, trainings etc) conducted under the framework of NEAR-GOOS

No
5. **Cooperation with other projects, and/or programmes, and/or organizations**

As a public welfare institution directly subordinates to the State Oceanic Administration (SOA) of China, NMDIS fulfils the national obligations in international marine information exchange and relating activities, and host the Western Pacific Regional Centre of International Ocean Institute (IOI). On behalf of China, NMDIS participated in many international ocean-related organizations and programs such as IOC, JCOMM, GOOS, and GLOSS etc. Currently, NMDIS also hosts China Argo Data Center, China GTSSP Data Center, China NEAR-GOOS Delayed Mode DataBase, CMOC/China, Ocean Data and Information Exchange Node of Western Pacific (ODINWESTPAC) and many national centers or national nodes. In the mean time, the efficient communication with other relevant international and regional projects resulted in fruitful outcomes. The main progress is as follows:

**(1) Argo**

China Argo Data Centre has developed operational data processing system by which the latest global Argo data are downloaded daily, quality control is executed automatically and a continuously updating database is managed. Beyond that, the data products are produced monthly and both the dataset and information product are made publicly available on the website. Since last NEAR-GOOS session (till Aug. 2015), China Argo Data Centre has downloaded and processed Argo profile data of about 190,000 casts, with a total amount of 4.2GB, completed 2°×2° and 5°×5° global surface level, 1000m, 1500m, and 2000m current data products from Oct 2013 to Aug 2015 and released online.

**(2) GLOSS**

The monthly mean sea level data of 6 China oceanographic stations were reported to the University of Hawaii Sea Level Center (UHSLC) and Permanent Service for Mean Sea Level (PSMSL) every month. Real-time and delayed-mode sea level data receiving and processing system was developed to download data from the UHSLC website and to conduct standardization processing and quality control of sea level data.

**(3) ODINWESTPAC**

In the past two years, ODINWESTPAC has made a number of progresses: updated the national focal points; a number of products from NMDIS (oceanic institutions of the region, Chinese ocean experts, Chinese coastal station data) were linked and/or operationally updated on the ODINWESTPAC website; WESTPAC community was established under OceanDocs, and 67 records uploaded, which were also uploaded on the ODINWESTPAC website; the First Planning Workshop for ODINWESTPAC were held in March 2014; and a side meeting was convened on May 14 during the 10th Intergovernmental Session of the IOC Sub-Commission for the Western Pacific (WESTPAC-X).

The first planning workshop for the Ocean Data and Information Network for the WESTPAC region (ODINWESTPAC) was held in Tianjin, China between 4 -7 March 2014. Co-sponsored by the Government of China (NMDIS), the meeting was attended by 22 participants from 9 WESTPAC Member States. The meeting discussed the current status of data and information management, marine economy, marine development and management in the region; adopted a work plan for 2014-2016; discussed and reached consensus on the improvement of marine data and information exchange and service, as well as capacity building of member states in the Western Pacific region.

With the purpose of promoting the substantial development of the ODINWESTPAC pilot project, ten representatives of five member countries (China, Indonesia, Japan, Republic of Korea and Thailand) and the IOC/WESTPAC Chair Dr. Somkiat Khokiattiwong, and IODE Co-Chair, Prof. Yutaka Michida attended the side meeting for ODINWESTPAC during WESTPAC-X.
According to the workplan developed on the First Planning Workshop in 2014, the side meeting reviewed the progresses made since the first planning workshop, had a constructive discussion on oceanographic data and information service in the Western Pacific Region, capacity building acceleration of member states, and workplan for the next two years. All participants exchanged their views on the challenges and opportunities faced by the project and how to effectively promote the cooperation and communication among countries of the region. It is suggested that an internal Advisory Group for the project could be established to promote the substantial involvement of member states.

(4) CMOC/China

After 3 Years’ operational running on a trial basis, WMO and IOC officially approved the establishment of Centre for Marine-Meteorological and Oceanographic Climate Data (CMOC) at NMDIS, SOA (CMOC/China), in Tianjin, through the 17th WMO Congress Resolution CG-17 4.2.3(3)/1, and the 28th IOC Assembly Decision IOC-XXVIII, Dec.7.1.3, respectively. Since then, China has become the first and only country which was approved constructing and running a CMOC.

Taking the approval as a new starting point, CMOC/China will, in line with the Statement of Commitment, CMOC/China Workplan for 2015-2016, focus on the WMO and IOC members needs for high quality marine meteorology and oceanographic climate data, contribute to improve availability, rescue and archival of contemporary and historical data, metadata and products and obtain standardized and high quality marine data and products in a more timely manner.

Through the construction and operational running of the CMOC/China, NMDIS will further involve in and contribute to the international oceanographic data and information exchange and technology communication and cooperation in the future.

(5) IODE NODC accreditation

NMDIS, acting as the National Oceanographic Data Center of China (CNODC), values the importance of quality management. Since 2002, NMDIS has been operating with the authentication of ISO9000 Quality Management System. And CNODC has developed the quality manual, procedure documents, management documents and work instructions for data processing, quality control as well as product development. In respond to the IODE Recommendation-IODE-QMF-XXII.18 on the establishment of the Quality Management Framework (IODE-QMF) adopted on the 22nd Session of IODE (IODE-XXII), CNODC submitted its application for the accreditation of IODE NODC soon after the IODE-QMF Project was commenced in November 2014, and finished all the required procedures efficiently under the help and instruction of QMF Steering Group (QMF-SG).

In March 2015, the 23rd Session of the IODE held in Belgium approved the application, and awarded CNODC the Status of Accredited IODE National Oceanographic Data Centre, making CNODC one of the first IODE NODCs that have attained the status of IODE QMF accreditation. NMDIS will, in the future, closely cooperate with the IODE QMF-SG to help other NODCs with their development of quality management system and application for IODE accreditation.

6. Suggestions on the future NEAR-GOOS development

No