

**JOINT WMO-IOC TECHNICAL COMMISSION
FOR OCEANOGRAPHY AND MARINE
METEOROLOGY (JCOMM)**

JCOMM-4/BM. 7.3

Submitted by:

WMO Secretary-General
and UNESCO/IOC
Executive Secretary

Date:

14.03.2012

FOURTH SESSION

Original Language:

English

Yeosu, Republic of Korea,
23 to 31 May 2012

Agenda Items:

7.3

Status:

Draft 1

DATA MANAGEMENT PRACTICES: ACHIEVEMENTS AND FUTURE PRIORITIES

BACKGROUND MATERIAL

SUMMARY

CONTENT OF DOCUMENT:

Appendix A: Achievements, Progress and Recommendations regarding JCOMM-III priority activities for Data Management Practices during the Intersessional Period

Appendix B: Data Management Practices – Summary

RELATED DOCUMENT:

JCOMM-4/Doc. 7.3: Data Management Practices

ACHIEVEMENTS, PROGRESS AND RECOMMENDATIONS REGARDING JCOMM-III PRIORITY ACTIVITIES FOR DATA MANAGEMENT PRACTICES DURING THE INTERSESSIONAL PERIOD

1 During the intersessional period the work of the JCOMM/IODE Expert Team on Data Management Practices (ETDMP) has focused on (i) implementing the IODE/JCOMM Ocean Data Standards Pilot Project (ODS) (see <http://www.oceandatastandards.org>); (ii) improving metadata management; and (iii) development of the IODE Ocean Data Portal (ODP) including participation in the JCOMM Pilot Project for WIGOS. To deal with these 3 priority areas, three ETDMP Task teams were established at the JCOMM/IODE ETDMP-II meeting (April 2010).

2 The status of the IODE/JCOMM Ocean Data Standards Pilot Project (ODS) is reported on under Agenda Item 7.1.

3 The ETDMP Task Team on metadata management, Chaired by Ms Nicola Scott (UK) was tasked to compare semantic metadata profiles (MCP, SeaDataNet CDI, WMO Core) and make recommendations for better interoperability. Progress has been made with regard to defining a structure and performing profile comparisons. The Task Team was also instructed to consider ODAS metadata and META-T. Regarding the latter this work was completed and legacy recommendations were made.

4 Regarding the IODE Ocean Data Portal operation (ODP Version 1), substantial progress was made during the intersessional period, starting with the establishment of the Portal in 2009 and its software components (Data provider, Light Data Provider, Integration Server, ODP web site, ODP portal service). (see <http://www.oceandataportal.org>). By November 2011 a total of 12 data providers have been installed: US-NODC (USA), RIHMI-WDC (Russian Federation), NMDIS (China), MHI (Ukraine), ISDM (Canada), BGODC /IO-BAS (Bulgaria), IBSS (Ukraine), MHI (Ukraine), NODEC/NIMRD (Romania), GDNA (Georgia) Argentina, IMOS (Australia). Together they provide access to 62 data sets (corresponding with over 1,000,000 profiles).

5 In order to attract data providers and to build capacity in Member States for participation in ODP two regional training courses were organized for the Black Sea and WESTPAC regions respectively. In addition two expert missions were organized to Australia and Argentina. Concerning Latin America, after the training courses held in the July 2011 (Buenos Aires, Argentina) and installation of the IODE ODP Argentina node (Integration Server, Light Data Provider, Portal services), the Ministry of Science, Technology and Production Innovation (MINCyT) in Argentina took the lead in the establishment of the national data provider nodes and further contribution to the IODE. The future data providers will be presented by the Ministry's Information Systems Department and from other centers that produce sea data such as the National Research Institute on Fishery (INIDEP), the Argentinean Antarctic Institute, and some Research Institutes and Universities with oceanographic research activity. First Argentinean Data Provider in Patagonia (CENPAT) has been established. The process is pending by the renovation of the hardware in the MINCyT.

5 Concerning the US NODC node, it is planned to utilize the Light Data Provider function provided by the IODE Project Office/VLIZ Data Provider. The contribution of new data will be dependent upon the Light Data Provider upgrade (to fulfil the automatic GTSP inventory catalogue update) which is under development. The UK MetOffice Data Provider has been upgraded in the end of 2011 to the latest software version along with the Light Data Provider functionality. In China, the existing infrastructure for the Data Provider node is not sufficient to host an ODIN WESTPAC ODP regional node. A further upgrade is needed. For ODINBlackSea, the MHI (Ukraine) has submitted data (drifter profiles), while the rest of the BlackSea Centres either have not supplied any new data or no data at all.

6 Significant progress has been made with the development of ODP V2 (version 2) regarding

interoperability requirements (ISO 19139 metadata profiles), service-oriented approach and new portal services. In 2011 the ODP V2 alpha version components have been developed (Integration Server, Data Provider, Portal, Service Bus, DataCache and etc.). In addition, interoperability tests were completed successfully in the beginning of January 2012 between the EuroGEOSS broker system and IODE ODP. The ODP provided CSW with a number of metadata records in ISO 19139 format. Results of the tests can be found on <http://www.eurogeoss-broker.eu>.

7 The IODE Ocean Data Portal has been an active partner in the JCOMM Pilot Project for WIGOS. This Pilot Project has been an important contribution to the development of WIGOS and the WMO Information System (WIS). Because of the important synergies between ODP and the Pilot Project a joint Steering Group was established. The Pilot Project concluded in December 2010. Its legacy includes rationalized documentation on instrument best practices and standards (see also 7.1), the establishment of regional marine instrument centres, integration of marine data sets through interoperability with the WIS, and promoting quality management and standards. A list of legacy recommendations was included in the Pilot Project Report (see <ftp://ftp.wmo.int/Documents/PublicWeb/amp/mmop/documents/JCOMM-TR/J-TR-48-JCOMM-PP-WIGOS/J-TR-48-WIGOS-PP-JCOMM-Report.pdf>)

8 Due to their similarity attempts were also made to achieve interoperability between the IODE ODP and SeaDataNet (<http://www.seadatanet.org/>). The SeaDataNet project, funded by the EU under FP6 Research Infrastructures, was implemented between 2006 and 2011. It involved 50 partners from 35 countries comprising NODCs, research institutes, modelling centres and international organizations. Initial work was carried out to investigate interoperability between ODP and SeaDataNet but due to time and budget constraints of SeaDataNet it was not possible to complete the work. Achieving interoperability between ODP and SeaDataNet has been included in the terms of reference of SeaDataNet-II which started in October 2011.

9 The Russian Federation has offered to assist with the further development of the IODE Ocean Data Portal through the establishment and operation of a “National Support Centre for IODE/ODP” in Obninsk. The offer includes physical facilities as well as three full-time staff positions. Pending acceptance of the Offer by IOC the facility is expected to be established early 2013.

DATA MANAGEMENT PRACTICES – SUMMARY

1. During the intersessional period the work of the JCOMM/IODE Expert Team on Data Management Practices (ETDMP) has focused on (i) implementing the IODE/JCOMM Ocean Data Standards Pilot Project (ODS); (ii) improving metadata management; and (iii) development of the IODE Ocean Data Portal (ODP) including participation in the JCOMM Pilot Project for WIGOS. To deal with these 3 priority areas, three ETDMP Task teams were established at the JCOMM/IODE ETDMP-II meeting (April 2010).
 2. The priority activities for the JCOMM/IODE Expert Team on Data Management Practices (ETDMP) during the last intersessional period was decided by JCOMM-III, and the following achievements should be noted:
 3. The ETDMP Task Team on metadata management made progress regarding defining a structure and performing profile comparisons. The Task Team also completed work on ODAS metadata and META-T and made legacy recommendations.
 4. Regarding the IODE Ocean Data Portal (ODP) the project established the Portal in 2009 and developed relevant software components (ODP v1). By November 2011 a total of 12 data providers were installed, providing access to 56 data sets (corresponding with 1,000,000 profiles) Two ODP regional training courses were organized as well as two expert missions. Significant progress was made also with the development of ODP v2 with testing in January 2012. Cooperation has been established with GEOSS through testing interoperability between ODP and the EuroGEOSS broker system. It was not possible to complete interoperability arrangements with the SeaDataNet project (phase 1) but this is now planned within SeaDataNet-II.
 5. The IODE ODP has been an active partner in the JCOMM Pilot Project for WIGOS and a joint Steering Group was established. The Pilot Project concluded in December 2010. Its legacy includes rationalized documentation on instrument best practices and standards, the establishment of regional marine instrument centres, integration of marine data sets through interoperability with the WIS, and promoting quality management and standards.
 6. The Russian Federation has offered to assist with the further development of the IODE Ocean Data Portal through the establishment and operation of a “National Support Centre for IODE/ODP” in Obninsk.
-