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

SHIP OBSERVATIONS TEAM (SOT)

EIGHTH SESSION

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SOOP, GO-SHIP, AND ASAP METADATA REQUIREMENTS

(Submitted by Martin Kramp (SOT Technical Coordinator, JCOMMOPS))

Summary and purpose of the document

This document provides information on progress regarding the collection of SOOP, GO-SHIP, and ASAP metadata, in line with the recommendations from JCOMM-4. It also provides information on the JCOMMOPS metadata collection scheme for SOOP metadata, as well as recommendations for the collection of ASAP metadata.

ACTION PROPOSED

The Team will review the information contained in this report, and comment and make decisions or recommendations as appropriate. See part A for the details of recommended actions.

Appendices: A. Recommendation 1 (JCOMM-4) – Provision of Ocean Instrument/Platform Metadata

- A - DRAFT TEXT FOR INCLUSION IN THE FINAL REPORT*JCOMM-4 guidance regarding metadata*

10.4.1 The Team recalled that JCOMM-4, through Recommendation 1 (JCOMM-4, see Appendix A) recommended in particular that (i) WMO Members and IOC Member States should record and provide through the appropriate mechanisms, on a routine basis the required metadata about ocean instruments and observing platforms that they operate; and (ii) JCOMMOPS should routinely contact platform operators so that the metadata are being submitted to the relevant Centres for Marine Meteorological and Oceanographic Climate Data (CMOCs¹), including for operational platforms and for historical ones.

SOOP Metadata

10.4.1.2 The Team recalled that a metadata collection mechanism has been established by SOOP through the SOOP annual XBT survey coordinated by JCOMMOPS. A dedicated metadata format² has been developed many years ago for SOOP operators to submit the ship metadata for every XBT profile on a yearly basis.

10.4.1.3 The Team noted with concern that while this mechanism had been implemented and maintained by the different SOOP agencies for more than a decade, and despite all efforts, including involvement of SOT and SOOIP chairs, a satisfying collection of SOOP metadata from participating agencies could not be resumed in the last two years. Nevertheless, the Team thanked NOAA-AOML for support in this matter, and also all involved Australian agencies, which have submitted data continuously, in a timely manner and appropriate format.

10.4.1.4 The Team discussed the matter and once again agreed that the JCOMMOPS SOOP survey is an important monitoring tool, and should as before be coordinated and produced by JCOMMOPS and the SOT Technical Coordinator, who is seen an actor independent of national interests. Indeed, while the Team recognizes that the implementation of SOOP is driven by both national and global interests, the monitoring of the SOOP must only reflect how the global requirements are met (the monitoring of how the national requirements are met is the responsibility of Members and Member States).

10.4.1.5 The Team also agreed that as already successfully implemented for ASAP platform metadata, the establishment of a SOOP platform metadata collection is now of high importance, in addition to operational deployment metadata.

10.4.1.6 To support the reestablishment of the metadata collection mechanism, the Team decided on the following:

- (i) To help create an active agency and contact list for the international SOOP programme;
- (ii) To establish an *ad hoc* Task Team on SOOP metadata, chaired by [TBD], and comprised of [TBD], and the SOT Technical Coordinator. The Team requested the *ad hoc* Task Team to start working immediately and to report to the SOT Chair and SOOIP Chair on its achievements no later than mid-2016 (**action; ad hoc TT on SOOP metadata; end 2015**). The ad hoc Task Team shall:
 - Review the SOOP metadata format (e.g, should it be updated to better reflect the donor programs ?) by June 2015;
 - Create a list of active SOOP agencies, with data management contacts (by

¹ Per JCOMM-4 decision, National Marine Data and Information Service (NMDIS, Tianjin, China) of the China State Oceanic Administration (SOA) and the Deutscher Wetterdienst (DWD, Hamburg, Germany) undertake the functions of CMOCs on a trial basis.

² http://www.jcommops.org/doc/metadata/submission_format.html

June 2015); and

- Create a SOOP platform metadata collection, linked to a ship list (by Dec. 2015).
- (iii) SOOP members (active XBT agencies) to provide the SOOP metadata on a semestrial basis to JCOMMOPS (**action; SOOPIP members; Feb. and Aug. of each year**).
- (iv) The SOT Technical Coordinator to resume routine production on a semestrial basis of the SOOP survey (**action; SOT TC; asap and ongoing**); and

GO-SHIP Metadata

10.4.1.7 Mr Kramp reported that GO-SHIP has established a format and procedure to gather and publish cruise metadata³ and that a mechanism is under construction to monitor the fulfillment of GO-SHIP data-requirements⁴, in close cooperation with the CLIVAR and Carbon Hydrographic Data Office (CCHDO). Similar to the so-called hydrotable⁵ a new JCOMMOPS tool will allow registering and monitoring of GO-SHIP cruises from the earliest planning phase to the final delivery of all emerging data to appropriate data centers.

Automated Shipboard Aerological Programme (ASAP) Metadata

10.4.1.8 The Team recalled its discussion and decisions at SOT-7 regarding the collection of ASAP metadata. The SOT Technical Coordinator reported on the work undertaken during the intersessional period in this regard.

10.4.1.9 Mr Kramp explained that based on the format endorsed at SOT-7, and in close cooperation with the ASAP Task Team Chair, metadata from almost all ASAP platforms have been gathered and published as decided at the last session. The missing data from the Japanese programme can hopefully be added shortly. The Team invited Japan to provide the SOT Technical Coordinator with the Japanese ASAP platform metadata (**action; Japan; June 2015**).

10.4.1.10 Mr Kramp reminded the team that this mechanism refers to Pub47 regarding ship-related metadata. Referring to agenda items 3.4, 7.4, and 8.1.2, issues arise from this practice: ASAP platforms on ships which are not part of VOS cannot (mandatory fields) and should not (statistics for inactive VOS) be registered in Pub47, and ASAP platforms are also installed on ships with multiple entries in Pub47, i.e. without clear reference.

10.4.1.11 The Team recalled that at some later stage, the ASAP metadata will have to become consistent with the requirements for the WIGOS Operational Information Resource (WIR), and the Surface component (OSCAR/Surface) of the Observing System Capability Analysis and Review Tool (OSCAR⁶).

10.4.1.12 The Team also agreed on the following recommendations:

- (i) SOT members to provide the SOT TC with information on community meetings, and reports, and other information as appropriate (**action; SOT members; ongoing**);
- (ii) SOT members to privilege mailing lists for communication inside the community.

Appendix: 1

³ <http://www.go-ship.org/Cruise-Notice.pdf>

⁴ http://www.go-ship.org/GO-SHIP_CMST.pdf

⁵ <http://ushydro.ucsd.edu/hydrotable/>

⁶ <http://www.wmo.int/oscar>

APPENDIX A

RECOMMENDATION 1 (JCOMM-4) – PROVISION OF OCEAN INSTRUMENT/PLATFORM METADATA

RECOMMENDATION 1 (JCOMM-4)

PROVISION OF OCEAN INSTRUMENT/PLATFORM METADATA

THE JOINT WMO/IOC TECHNICAL COMMISSION FOR OCEANOGRAPHY AND MARINE METEOROLOGY,

Noting:

- (1) Recommendation 3 (JCOMM-III) – Provision of ocean data acquisition system and water temperature metadata
- (2) The Abridged Final Report with Resolutions and Recommendations of the Third Session of the Joint WMO/IOC Commission for Oceanography and Marine Meteorology (WMO-No. 1049), general summary, paragraphs 5.2.10, 6.1.5, 6.1.11.4, 6.2.5, 7.1.5, 7.2, 7.4, 10.1.7, 10.2.7
- (3) Resolution 24 (Cg-XVI) – Marine Meteorology and Oceanography Programme,
- (1) Resolution 50 (Cg-XVI) – Implementation of the WMO Integrated Global Observing System (WIGOS),
- (1) The final report of the third meeting of the JCOMM Expert Team on Marine Climatology (JCOMM/MR-No. 70),
- (2) The final report of the fourth session of the JCOMM Data Management Programme Area Coordination Group (JCOMM/MR-No. 71),
- (7) The final report of the Eighth Session of the JCOMM Management Committee (JCOMM/MR-No. 83),
- (8) The Final report of the workshop for a new Marine Climate Data System (MCDS) meeting, including the draft MCDS strategy in JCOMM MR-No. 90;
- (9) The summary report of the Twenty-First Session of the IOC Committee on International Oceanographic Data and Information Exchange (IODE-XXI);
- (10) Recommendation 7.2/1 (JCOMM-IV) – Marine Climate Data System (MCDS)

Considering:

- (1) The importance of instrument and platform metadata in a number of domains including climate applications and research (for example, bias correction), and operational applications, permitting amongst other things to interpret the data correctly, ensure traceability to standards, enhance coherence of data records, and facilitate quality monitoring activities.
- (2) That China has fully developed an Ocean Data Acquisition System (ODAS) Metadata Service (ODASMS) for assembling, preserving and disseminating metadata on ODAS platforms.

- (3) That there is a number of systems in place that are collecting metadata from ocean observing platforms (e.g. WMO Publication No. 47, European Directory for Initial Ocean and Observing Systems – EDIOS maintained by the SeaDataNet infrastructure) that can contribute metadata to the MCDS.
- (4) The Development of the JCOMM Marine Climate Data System (MCDS), including WMO-IOC Centres for Marine-meteorological and Oceanographic Climate Data (CMOCs), providing an integrated data-flow for the collection of marine-meteorological and oceanographic climate data, including metadata from in situ ocean observation platforms.
- (5) That metadata systems require the active involvement of all Members/Member States which operate such platforms and equipment to provide updated metadata in a routine fashion.

Recommends:

- (1) Members/Member States to record and provide through the appropriate mechanisms, including CMOCs – once established – on a routine basis required metadata about ocean instruments and observing platforms that they operate.
- (2) Members / Member States providing the functions of the ODASMS into their CMOC should they establish one.
- (3) The JCOMM in situ Observation Programme Support Centre (JCOMMOPS) to routinely contact platform operators so that the metadata are being submitted to the relevant CMOC(s), including for operational platforms and for historical ones.

Requests the Secretary-General of WMO and the Executive Secretary of UNESCO/IOC, to assist Members/Member States, as necessary, in the submission of metadata to the CMOCs.

This Recommendation replaces Recommendation 3 (JCOMM-III), which becomes obsolete.
