

WORLD METEOROLOGICAL ORGANIZATION

INTERGOVERNMENTAL OCEANOGRAPHIC
COMMISSION (OF UNESCO)

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

SOT-IV/Doc. IV-2.3.2
(15.II.2007)

FOURTH SESSION

ITEM IV-2.3.2

GENEVA, SWITZERLAND, 16 TO 21 APRIL 2007

Original: ENGLISH

**VOSP-V
PROGRAMME IMPLEMENTATION**

Report and Recommendations from the PMO-III

(Submitted by the Secretariats)

Summary and purpose of document

This document provides details regarding the outcome of the Third International Workshop of Port Meteorological Officers (PMO-III, Hamburg, Germany, 23 to 24 March 2006), which was held at the Bundesamt für Seeschifffahrt und Hydrographie (BSH) and officially co-sponsored by the WMO and the Deutscher Wetterdienst (DWD). The Appendix of this document lists the recommendations made by the workshop.

ACTION PROPOSED

The Ship Observations Team is invited to:

- (a) Review the workshop's recommendations;
- (b) Consider them for inclusion in the SOT Workplan;
- (c) Consider making recommendations for organizing a Fourth International PMO Workshop.

Appendix: Recommendations from the PMO-III

DISCUSSION

Introduction

The Third International Port Meteorological Officers Workshop (PMO-III, Hamburg, Germany, 23 to 24 March 2006) was held at the Bundesamt für Seeschifffahrt und Hydrographie (BSH) and officially co-sponsored by the WMO and the Deutscher Wetterdienst (DWD). Thirty-nine delegates from twenty-four countries attended the Workshop. The major goals of the workshop were to convey important recent developments (e.g., regarding WMO Publication No. 47, *Enhanced PMO Communications*), as well as promoting global standards of service.

As a result of the discussions, twenty-four recommendations were adopted, plus an additional two sets of recommendations regarding ship security and transition to table driven code forms.

The recently adopted Recommendations dealt with the following issues, to include: (i.) updating procedures for WMO Publication 47 (e.g., deleting inactive ships, consolidated ship routes, web-based system proposed by USA and copyright issues for pictures), (ii.) proposed actions to recruit more ships, (iii.) education and outreach programmes, (iv.) improvement of the VOSClm data submission, (v.) proper installation of instrumentation on vessels, (vi.) updating the list of Inmarsat Land Earth Stations (LES), (vii.) ship inspection forms, (viii.) reporting on observing practices, (ix.) monitoring, quality information and feedback, (x.) web tools (e.g., map showing PMO network and contact details), and (xi) requirements for national reports.

It was also agreed to recommend the continuity of PMO Workshops to be held every 3 to 4 years. The USA tentatively offered to host the next International PMO Workshop (PMO-IV).

A longer-term solution arising from discussions at SOT-III, JCOMM-II, and PMO-III-INT was proposed for consideration by the Fifty-eighth WMO Executive Council (EC-LVIII). It was recommended to re-classify ship data transmitted in FM-13 SHIP format from essential data to additional data. This would have limited distribution of the data beyond NMHSs and would have required a special agreement with third parties regarding the specific use of the data. The PMO Workshop also recommended removing ship call signs from the radio-facsimile charts.

Details of the Workshop's recommendations are provided in the Appendix to this document.

APPENDIX

RECOMMENDATIONS FROM THE PMO-III

No.	Recommendation	to/action by	Target date
1	Recommendations regarding ship security are provided below.	WMO EC	30/6/2006
2	Recommendations regarding migration from SHIP to BUFR code form are provided below.	<i>Ad hoc</i> TT	2012
3	To write to Member Countries to ask them to delete ships that are no longer active from their list of VOS and from their regular submissions to WMO Publication No. 47.	WMO	30/6/2006
4	To write to the International Chamber of Shipping (ICS) to encourage recruitment of vessels and to ask it to contact shipping associations and make specific recommendations in this regard.	WMO	30/6/2006
5	To approach maritime colleges at the national level and promote SOT and PMO activities.	Member Countries	Ongoing
6	To provide delayed-mode VOSclim data in the current format (IMMT-3) which includes the additional VOSclim elements. Minimum Quality Control Standards (MQCS-V) should be applied.	Contributing Members	Ongoing
7	To take steps to recruit more ships within available resources (as ship recruitment is slow); Member Countries to promote SOT and VOS and to explain data requirements.	Member Countries	ASAP
8	Installation of instruments and observing equipment on VOSclim recruited ships should be made with due attention paid to their exposure and location. Simple arrangement drawings should be made to better document instrument location and exposure.	PMOs	Ongoing
9	JCOMM-II approved changes to WMO Publication No. 47. These changes included a range of new fields, improved field description and better documentation. The new version of WMO Pub. No. 47 (Version 3), is planned for introduction on 1/7/2007 (Database structure, semi-column and XML formats). Member Countries to provide their input for WMO Pub. No. 47 in the new format after this date.	Member Countries	1/7/2007
10	The list of consolidated ship routes for inclusion in the WMO Pub. No. 47 must be proposed for adoption at the SOT-IV.	SOT-IV	1/3/2007
11	The USA offered a web-based ship metadata collection/editing and display system. A beta version will be available soon. Interested Member Countries were invited to contact Robert Luke.	Member Countries and NOAA/NDBC	ASAP
12	Information on additional phenomena (e.g., meteors, lightning, cetacean, etc.) could be inserted on the E-SURMAR wikipedia website. The PMOs are invited to check the website.	PMOs	ASAP
13	Member Countries must be careful with copyright of pictures made available via the web (e.g., ship's pictures, observed phenomena, etc.). Observers storing pictures in electronic logbooks should be aware that such pictures will then belong to the public domain. Electronic logbooks	PMOs	Ongoing

No.	Recommendation	to/action by	Target date
	should include a specification requesting the person entering pictures in the system to agree with picture sharing (e.g., by clicking on a "yes, agreed" button).		
14	Contact Inmarsat to request that they provide regular updates of the Inmarsat list of Land Earth Stations (LES) that accept special access code 41.	WMO	30/6/2006
15	A copy of proposed foreign VOS ship inspection form presented at the meeting will be distributed by email to all PMOs. The PMOs are invited to check the form and provide feedback to the Chairperson of SOT by 1 June 2006.	PMOs	1/6/2006
16	The PMOs are urged to use the foreign VOS inspection form which will be made available from the VOS website, and return details about such inspections to the VOS Focal Point in the country of recruitment.	PMOs	ASAP
17	The NMHSs are urged to provide Robert Luke, Chairperson of the SOT Task Team on Instrument Standards, with details regarding the type of barometer and barograph used on their VOS as well as the instrument pressure setting.	Member Countries	ASAP
18	The PMOs are urged to: (i.) familiarise themselves with observing instruments and practices used on foreign vessels, and (ii.) use monitoring tools available via the web (listed under JCOMMOPS and VOS websites).	PMOs	ASAP
19	The KNMI has developed software to detect formatting errors in observations, and will contact the NFP of VOS to provide them with a list of such errors. The KNMI is also invited to consider producing statistics on such errors and to provide the information to NFP. The KNMI can offer this software to other Met Services, if requested. Interested Member Countries are invited to contact the KNMI.	Member Countries and KNMI	ASAP
20	Member Countries are invited to volunteer to publish a SOT newsletter on behalf of the Task Team on VOS Recruitment and Programme Promotion. Newsworthy material, for use by all NMHS publishing a marine-based newsletter, will be available from a Wiki website hosted by the E-SURFMAR which will act as a repository for such material.	Member Countries	Ongoing
21	Australia, E-SURFMAR, and JCOMMOPS are invited to collaborate to produce a dynamic web map showing the PMO network and providing associated contact information on the PMOs and the ports they service (e.g., PMO references by clicking on a port).	Australia, E-SURFMAR and JCOMMOPS	31/12/2006
22	PMO networks impacts on the quantity and quality of recruited ships. For NWP applications, it is not necessarily the number of ships that counts but the number of observations, their quality and timeliness. The number of observations can be raised either by increasing the number of ships, or increasing the number of observations from each ship through the use of automated observing systems and the transmission of hourly data. However, for climate applications, increasing the number of ships is more relevant (bias reduction).	Member Countries	Ongoing

No.	Recommendation	to/action by	Target date
23	Member Countries are invited to inform Mr Graeme Ball of URLs of National VOS or PMO websites they are maintaining for inclusion on the VOS website.	Member Countries	ASAP
24	Member Countries are urged to complete their SOT National Reports for 2006 as soon as possible and to submit them to the WMO Secretariat (ECharpentier@wmo.int), including VOSP, ASAPP, and SOOPIP Sections. Only seven countries thus far have submitted input to the WMO. Details on format can be found on WMO website, located at the following web address: http://www.wmo.ch/web/aom/marprog/Programme-Areas-and-Activities/SOT/national-reports-fmt.htm .	Member Countries	ASAP
25	The Meeting agreed to organize International PMO Workshops every 3 to 4 years.	WMO	2009
26	The USA has tentatively offered to host the next International PMO Workshop (PMO-IV).	USA and WMO	2009

RECOMMENDATIONS ON SHIP SECURITY ISSUE

Ship security remains a concern for shipping companies and Member Countries, mainly due to the increasingly high number of ship piracy acts (more than 300 attacks each year, 30 crew members killed in 2004). The publication of a ship's identification, and more importantly its position via websites, is regarded with great concern by shipping companies, and can lead to some companies requesting that their ships be de-recruited from the VOS. This has already happened in several instances since mid-2003. For example, Australia has lost more than 5000 ship reports per year because of such concerns from a fishing company, and Japan has lost more than 300 VOS between March 2005 and December 2005.

A proposed short-term solution could be to use a generic call sign (e.g., "SHIP"), although this: (i.) impacts on the integrity and usefulness of WMO Publication No. 47, (ii.) prohibits the relay of quality information from monitoring centres back to ship operators because identification of the relevant ship operator becomes practically impossible, and (iii.) does not address ship security concerns for those ships sailing in regions where the traffic is low.

A proposed longer-term solution, arising from discussions at the SOT-III, JCOMM-II, and PMO-III-INT is being proposed for adoption by the WMO Executive Council (EC-LIX), that, "WMO recommends that NMHSs reclassify ship data transmitted in FM-13 SHIP format from essential data to additional data". This would limit distribution of the data beyond NMHSs and would require a special agreement with third parties regarding the specific use of said data. For this proposal to succeed, it will require the support of all NMHSs, due mainly to the question of who owns the original data.

The PMO-III-INT also recommended that, "WMO recommend that NMHSs remove ships' call signs from charts distributed to ships via the radio-facsimile or other means".

Other possible options that could be implemented nationally or regionally were as follows:

1.) Japan proposed a solution where a ship's call signs transmitted via Inmarsat code 41 could optionally pass through a filter at LES Yamaguchi, whereby the real call sign would be replaced by letters "SHIP" before GTS insertion. Decisions whether or not to replace the ship's call sign by "SHIP" would be the responsibility of the ship or the NMHS of the recruiting country. Countries adopting such a solution were urged to maintain a private database to help resolve monitoring problems.

2.) The E-SURFMAR Programme Manager proposed a scheme of generic call signs to identify particular ship categories (Minos, Batos, TurboWin, etc.). This would have the benefit of hiding the true identity of a ship, but would not solve the problem in low traffic areas. Also, this would assist with the compensation scheme established under E-SURFMAR. For example, ships' call signs could be coded Qtccnn where Q is letter "Q" (not used by any country at present), tt represents the ship category, cc the country operating the ship, and nn a sequential number (from 00 to ZZ).

RECOMMENDATIONS ON MIGRATION FROM SHIP TO BUFR CODE FORM ISSUE

- 1) Mr Frits Koek and Ms Sarah North undertook the task to review the required data and metadata elements that would be required in a VOS (including VOSclim) BUFR template. The resultant list would then be submitted to a new informal *ad hoc* SOT Task Team on VOS Migration to BUFR (Mr Frits Koek, Ms Sarah North, Mr Pierre Blouch, Mr Graeme Ball, Ms Julie Fletcher, Mr Etienne Charpentier) by 1 June 2006. Comments were submitted by the Team by 1 July 2006.
- 2) The WMO will liaise with the CBS ET-DRC and the ET-MTDCF, and advise that the SOT is working on revisiting the list of elements for inclusion in the VOS BUFR template for ship data and is seeking ET-DRC help.
- 3) The SOT and the ET-DRC will liaise to develop a draft a BUFR template suitable for VOS and VOSclim, which will be submitted for endorsement by the SOT-IV.

The Meeting considered possible implementation scenarios, which is as follows:

- (i) Phase 1 (target 2007): Member Countries to work on software that converts SHIP to BUFR (1 to 1 conversion) and implement it on a case-by-case basis.
- (ii) Phase 2 (target 2006 to SOT-IV): Analyze requirements and consider possible solutions (e.g., proprietary format + metadata) to BUFR, or ("SOT" format + metadata) to BUFR. The "SOT" format is a format inspired on FM-13 SHIP format and should be regarded as a proprietary; it is not intended for direct GTS distribution but as a practical means of using slightly modified existing software to achieve BUFR distribution of the data on the GTS.
- (iii) Phase 3 (target 2008): Implementation of proposed recommendations.
- (iv) Phase 4 (target 2012): Operational system in place.