

WORLD METEOROLOGICAL ORGANIZATION

**INTERGOVERNMENTAL OCEANOGRAPHIC
COMMISSION (OF UNESCO)**

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

SOT-V/Doc. III-2.3
(26.03.2009)

SHIP OBSERVATIONS TEAM

ITEM III-2.3

FIFTH SESSION

GENEVA, SWITZERLAND, 18-22 MAY 2009

Original: ENGLISH

PORT METEOROLOGICAL OFFICERS

(Submitted by Graeme Ball, SOT Chairperson, and Julie Fletcher, VOSP Chairperson)

Summary and purpose of the document

At SOT-IV, the VOS Panel again reinforced the view that Port Meteorological Officers play an important role in all of the observing programs of the SOT. In terms of the VOS Scheme, they play a vital role in maintaining the strength of the VOS Scheme, as well as contributing to the volume and frequency of accurate observations. This document reviews the status of PMO Global network and summarizes the Port Meteorological Officers Roles and Responsibilities.

ACTION PROPOSED

The Panel will review the information contained in this report, and comment on the suggested recommendations.

Appendices:

- A - DRAFT TEXT FOR INCLUSION IN THE FINAL REPORT

III-2.3.1 Julie Fletcher, Chairperson of the VOS Panel, reported on the status of the global PMO network and emphasized that the PMO network underpins the success of the Voluntary Observing Ships' Scheme (VOS).

III-2.3.2 The meeting noted that there were about 23 countries with 'active' VOS programmes, with these programmes being supported by approximately 80 PMOs. The team expressed concerns that since VOSP-V, Denmark had ceased its VOS programme with the loss of two PMOs, and that another European VOS programme was under review. On a brighter note, Brazil recommenced its VOS programme in 2008.

III-2.3.3 Whilst PMOs provide a vital role in recruiting, training and visiting VOS ships, their duties have increased to assist a range of SOT activities including, the loading of drifting buoys, XBTs and floats for deployment. Their work has become more technical and may include basic AWS maintenance, so PMOs of the future need to have a range of technical skills and good computer literacy. The proposal to hold an International PMO Meeting in 2010 was strongly encouraged to provide training to PMOs and the opportunity to strengthen relationships in a role, which relies heavily on international co-operation. The meeting urged the WMO Secretariat to commit resources in support of this Capacity Building activity (**action, WMO Secretariat, ASAP**).

III-2.3.4 Ms Fletcher drew the Panel's attention to the document summarizing 'The Role and Responsibilities of the PMO' and to the Quick Reference Guide for PMOs on the VOS website.

- B - BACKGROUND INFORMATION

1. Background

1.1 The global Port Meteorological Officer (PMO) network underpins the success of the Voluntary Observing Ships' Scheme (VOS). PMOs play a vital role in recruiting and visiting existing VOS ships, and in providing training, supplies and ongoing encouragement and feedback to the VOS observers.

2. PMO Functions

2.1 The Role and Responsibilities of the PMO are described in Annex A.

2.2 The VOS website provides a useful Quick Reference Guide for PMOs, designed to. (1) help newly appointed personnel become familiar with the functions of their position, (2) re-acquaint experienced personnel with these functions; and (3) promote the resources available to fulfil these functions. This URL of this guide is < http://www.bom.gov.au/jcomm/vos/quick_reference_pmo.html >

3. Status of PMO Network

3.1 The following numbers are taken from the WMO list of PMOs.

- Number of countries with a PMO: 38
- Number of countries with an 'active' VOS programme: approx 23
- Global Number of PMOs: approx 110
- Number of 'Active' PMOs: approx 80

3.2 Many parts of the globe however are lacking a PMO presence. With the exception of South Africa and Kenya, the African continent is devoid of PMO services. Similarly, there are large gaps in South America, especially on the west coast.

3.3 There is a real concern about declining PMO numbers and VOS programmes globally. Since

SOT-IV, Denmark has ceased its VOS programme with the loss of two PMOs, and another European VOS programme is under review. On a brighter note, Brazil recommenced its VOS programme in 2008.

4. Evolving PMO role

4.1 In the past, many National Meteorological Services (NMS) selected PMOs who had previous sea experience, but more recently, PMOs have been selected, based on their knowledge of meteorological coding and observing standards, and their willingness to train and encourage shipboard observers to make reports. The PMO role requires an ability to work to deadlines, to be able to encourage and cajole ships' Masters and Officers to join the programme and make reports. The work is often performed in the evening, night or weekends and in all types of weather, in an environment where there is often hazardous and noisy machinery operating.

4.2 The global PMO network is an important resource, and although traditionally the PMO was tasked with supporting the VOS programme, increasingly the duties have expanded to assist a range of other marine programmes. These activities include:

- Finding suitable ships to deploy drifting buoys, XBT, profiling floats etc
- Loading drifting buoys on ships for deployment
- Assisting with storage and loading of profiling floats
- Loading consumables for SOOP and ASAP

4.3 The work of a PMO is becoming more technical with an emphasis on using E-logbook software and an increasing number of AWS installations. It has become necessary therefore, for PMOs to be conversant with the installation of E-logbook software and the retrieval of the delayed-mode data. With regard to AWS, installations PMOs are being asked to check and replace AWS sensors and trouble shoot AWS problems. In order to be able to respond to a range of VOS situations, including basic AWS maintenance, the PMOs of the future should have a range of technical skills and good computer literacy.

5. PMO Training

5.1 Despite of the fact that WMO occasionally conducts a Regional PMO Training Workshop in developing areas, the training of the PMO is a national responsibility. WMO also conducts International PMO meetings every three to four years. The last International PMO meeting (PMO-III) was held in Hamburg, Germany, 2006. WMO is considering holding PMO-IV in 2010, but funding for this is still uncertain.

5.2 The benefits of an International meeting for PMOs cannot be overstated. PMOs essentially work on their own, servicing local, regional and national ports, so the opportunity to get together to discuss issues and strengthen relationships is important in a role which relies heavily on international co-operation.

6. Recommendations

6.1 The meeting is invited to make the following recommendations:

- (i.) That NMS, recognising the importance of PMOs, to the global VOS Scheme and other national, regional and international marine programmes, commit to strengthen, or at least retain existing PMO services.
- (ii.) That future PMO recruits possess traditional PMO skills combined with good computer skills and technical expertise.

(iii.) That WMO considers making commitment to hold PMO-IV in 2010.

Appendix: 1

APPENDIX A

REVIEW OF PMO ROLE AND RESPONSIBILITIES

Background

Port Meteorological Officers (PMOs) play a vital role in maintaining national Voluntary Observing Fleets (VOF) as part of the JCOMM Voluntary Observing Ship (VOS) Scheme. In recent years, the role has increased in many countries to provide support to other marine meteorological or oceanographic observing programmes.

The VOS Panel, particularly through the SOT Task Teams dealing with VOS issues, is endeavouring to harmonise the functions and practices of Port Meteorological Officers. Harmonising, the way that PMOs deal with ships is becoming increasingly important as ships, trade worldwide and are likely to be visited by more than just its home PMO.

Role

The PMO:

1. Is a representative of the National Meteorological Service (NMS) and the primary contact point with local maritime authorities and the marine community at large; and
2. Directly contributes to the success and viability of the JCOMM VOS Scheme by helping to maintain:
 - a. The size of the international VOS Fleet (VOF); and
 - b. The quality and frequency of ships' weather reports.

Responsibilities

The responsibilities of the PMO are broadly defined in numerous WMO publications, including:

1. WMO Technical Regulations (WMO No. 49);
2. Guide to Marine Met. Services (WMO No. 471); and
3. Manual on Marine Met. Services (WMO No. 558).

Specific functions

At the national level, many NMS will specifically define the responsibilities of its PMO in national guides, manuals and instructions. These are often dependent on the port being serviced, and the type and volume of marine traffic visiting the port, and will include some or all of the following functions:

1. Recruit ships of any nationality into and maintain the national VOF.
2. Maintain accurate records of the ships recruited into the national VOF, including:

- a. Full ship details, as required for WMO No. 47;
 - b. All supplied and recovered instrumentation; and
 - c. All instrument checks and calibrations dates
3. Regularly visit ships recruited to the national VOF to:
- a. Maintain contact with the Observers;
 - b. Provide ongoing training to Observers;
 - c. Maintain and inspect the meteorological and selected oceanographic instruments;
 - d. Check the presence and condition of supplied handbooks, meteorological tables and charts;
 - e. Maintain the ship's supply of logbooks, autographic charts, muslin, wicks and other mandatory consumables; and
 - f. Recover and inspect completed logbooks, autographic charts and electronic logbook data.
4. Provide the following services to a VOS, regardless of the ship's nationality and country of recruitment:
- a. Perform a barometer check.
 - b. Check meteorological code tables.
 - c. Check instructions for Observers.
 - d. Provide advice on bulletins, including a list of areas for which forecasts are issued and to update the relevant facsimile broadcast schedules.
5. At the request of the Master of a VOS, regardless of its country of recruitment, perform these services:
- a. Check other meteorological and selected oceanographic instruments; and
 - b. Provide advice or assistance on meteorological matters.
6. Promote and maintain liaison with:
- a. Other intra-national PMOs and the NMS;
 - b. Harbour authorities and shipping companies;
 - c. Merchant marine schools and yacht clubs; and
 - d. International PMOs as necessary
7. To enquire with the ship's officers regarding any problems that may be experienced with :
- a. the transmission of meteorological and oceanographic observations to Land Earth Stations or other facilities.
 - b. the reception and adequacy of forecasts, bulletins, facsimile broadcasts, and to bring this information to the attention of the national meteorological service.
8. Support complementary national, international and regional marine meteorological and oceanographic programmes, such as:
- a. The deployment of drifting buoys and profiling floats; and
 - b. The SOOP & ASAP.
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