WORLD METEOROLOGICAL ORGANIZATION

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (OF UNESCO)

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

SHIP OBSERVATIONS TEAM

FIFTH SESSION

GENEVA, SWITZERLAND, 18-22 MAY 2009

SOT-V/Doc. III-4.2
(19.04.2009)

ITEM III-4.2

Original: ENGLISH

IMO – REPORT ON WMO / IMO ACTIONS, PROGRESS ON MSC CIRCULAR AND OTHER RELEVANT ISSUES TO THE TEAM

(Submitted by the Secretariat)

Summary and purpose of the document

This document provides information on activities undertaken in liaison with the International Maritime Organization (IMO). This includes, in particular, the revision of MSC No. 1017, the Marine Meteorological Services Monitoring Programme and the expansion of the Global Maritime Safety Services and the World-Wide Navigational Warning Services into Arctic waters.

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. MSC.1/Circ.1293 (replacing MSC Circ. 1017)
B. Marine Meteorological Services Monitoring Programme (letter and questionnaire)
C. Limits of METAREAs

- A - DRAFT TEXT FOR INCLUSION IN THE FINAL REPORT

WMO Voluntary Observing Ship' (VOS) Scheme

III-4.2.1 The Team noted with appreciation, that following the SOT-IV recommendations, and the follow up discussions with the VOSP Chairperson, the SOT Chairperson, and the Secretariat, a revised version of the MSC Circ. 1017 "Participation in the WMO Voluntary Observing Ships' (VOS) Scheme" (11 June 2001), was submitted to the eighty-fifth Session of the IMO Maritime Safety Committee (MSC), London, 26 November to 5 December 2008. The MSC revoked MSC/Circ. 1017 and issued MSC.1/Circ.1293 on 10 December 2008.

III-4.2.2 The new circular addresses ship owners and masters concerns with regard to VOS data exchange, and indicates how the WMO community is addressing the issue. It enlightens the need for the VOS scheme participation of the shipping industry vis-à-vis the concerns expressed. It also includes references to the Regulation V/5 on Meteorological Services and Warnings of the SOLAS convention. A copy of the Circular is provided in Appendix A.

Marine Meteorological Services Monitoring Programme

III-4.2.3 The Team noted that the new questionnaire to monitor and evaluate the effectiveness of the weather and sea bulletins, produced and transmitted by National Meteorological Services, was sent out by the Secretariat in March 2009. It requested the Port Meteorological Officers and National VOS Focal Points to fully, engage in this exercise and to ensure the maximum distribution of the questionnaire to shipmasters.

Expansion of the Global Maritime Distress and Safety System (GMDSS) and the Worldwide Navigational Warning Service (WWNWS) into Arctic Waters

III-4.2.4 The Team noted that in 2006, IMO decided to expand the Global Maritime Distress and Safety System (GMDSS) and the World-Wide Navigational Warning Service (WWNWS) into the whole of the Arctic Ocean, including the opening of the Northern Sea Route for international shipping. The Team therefore, discussed the possibility of expanding the VOS scheme and the PMO network into the Arctic region, and agreed that this would require identifying maritime companies sailing regularly in the region and likely to provide long-term commitment to the VOS, as well as establishing PMO offices at appropriate ports in the region. The Team invited its members to investigate that option and discuss with maritime companies as appropriate (***action; SOT members; SOT-VI***).

- B - BACKGROUND INFORMATION

WMO Voluntary Observing Ship' (VOS) Scheme

1. At the Third SOT Session (Brest, France, 7-12 March 2005), the Voluntary Observing Ship (VOS) Panel Chairperson, Ms Julie Fletcher, reminded the Meeting that some recent recruitment opportunities had been unsuccessful. This was because the Duty Officer in charge could not justify taking weather observations as part of his/her normal duties (in accordance to the ship's standing orders). The Meeting agreed that despite the SOLAS convention, and the importance it places on taking weather observations, there is a clear need for further promotion of the VOS. The session recalled, that Maritime Safety Committee (MSC) Circular No. 1017, "Participation in the World Meteorological Organization Voluntary Observing Ship' (VOS) Scheme", was issued by the International Maritime Organization (IMO) on 11 June 2001, in response to a request sent from the WMO to the IMO. It revoked a previous MSC Circular (MSC/Circ. 674.) issued in 1994, regarding the same matter and with the intent of enhancing the recruitment of merchant ships in the VOS Scheme. The MSC/Circ. No. 1017 included a brochure describing the VOS Scheme and its goals.

2. It was agreed during the SOT-III session, that reissuing such a MSC Circular might encourage

greater VOS recruitment. The meeting requested the VOS Chairperson and the WMO Secretariat to prepare an updated version of the Annex to MSC Circular 1017, and requested the WMO Secretariat to send a request to the IMO Secretariat to issue a MSC Circular accordingly. The session noted that a MSC Circular often did not reach mariners on ships and encouraged the PMO and VOS operators to provide a copy of said MSC Circular to mariners once it had been issued.

3. A draft of a revised MSC/Circ. 1017 was reviewed by the WMO-IMO Consultative meeting, Geneva, 12-13 February 2007. The meeting recommended to address the ship owners and masters concerns with regard to VOS data exchange in the revised circular and to indicate how the WMO community was addressing the issue. The revised circular should enlighten the need for the VOS scheme participation of the shipping industry vis-à-vis the concerns expressed. It should also include references to the Regulation V/5 on Meteorological Services and Warnings of the SOLAS convention. The Meeting agreed that the revised draft circular should be considered by the Fourth SOT meeting for complementing it.

4. The fourth SOT meeting (SOT-IV), Geneva, Switzerland, 16-21 April 2007, recalled the recommendations from the WMO-IMO consultative meeting, regarding the update of the MSC circular 1017. That recommendation sought to include in a revised version of the MSC circular reference to the concerns expressed by ship owners and masters regarding VOS data exchange. The VOSP chairperson was asked to liaise with the WMO Secretariat in this matter, in view of submitting the revised circular to the IMO MSC at its 83rd session.

5. A new draft version was discussed with the VOSP Chair and the Secretariat and submitted to the eighty-fifth Session of the IMO Maritime Safety Committee (MSC), London, 26 November to 5 December 2008. MSC revoked MSC/Circ. 1017 and issued MSC.1/Circ.1293 on 10 December 2008. The new Circular is provided in Appendix A.

Marine Meteorological Services Monitoring Programme

6. One of the primary focuses and goals of JCOMM/ETMSS is to ensure that NMHSs delivery high quality products and services in support of the expressed requirements of users, nationally, regionally and globally. Direct interaction with and feedback from users is an essential part of the provision of high quality and valuable marine services. Development of the marine meteorological services (MMS) monitoring programme, was initiated by the former Commission for Marine Meteorology (CMM) in 1981 and user surveys have been conducted every four years.

7. Subsequent sessions of the CMM, and then JCOMM, had reviewed the results of these surveys, and re-iterated their value to WMO Members and endorsed their continuation of support. JCOMM-II agreed on the need to continue maintaining a systematic long-term global MMS monitoring programme, based on the questionnaire and response format presently in use. The Commission also requested the ETMSS, to investigate the feasibility of expanding the survey to non-GMDSS users, to continue to make the survey available via the relevant JCOMM Web sites, and to publicise this availability amongst mariners as much as possible.

8. The IMO NAVTEX Coordinating Panel informed WMO that, from their survey on NAVTEX in general, a large number of mariners showed a concern on lack of commonality and ease of understanding with regard to weather information.

9. Based on that, a new questionnaire, adapted for the SOLAS and non-SOLAS vessels, was discussed and adopted by ETMSS-II (Angra dos Reis, Brazil, January 2007), including some changes proposed by the SOT-III in 2005 to clarify terms for ships where English was not necessarily the first language. In addition, ETMSS-II requested Michael Myrsilidis (Greece – ETMSS member), Val Swail (Canada – ETWS chairperson) and Vasily Smolyanitsky (Russian Federation – ETSI chairperson) to adapt the questionnaire to include sections on sea-state and sea-ice information and on the use of abbreviations in NAVTEX bulletins. The new updated questionnaire was then reviewed and adopted

by the SOT-IV in April 2007.

10. The Task Team on Maritime Safety Information, created under the ETMSS, again reviewed this questionnaire in Mach 2009, taking advantage of the participation of IMO and IHO representatives at the meeting. A final version of the questionnaire was sent in March 2009, to Port Meteorological Officers - Useful Contacts and National VOS Focal Points for distribution (see Appendix B). Results of this questionnaire will be presented to the third session of the JCOMM, in November 2009.

Expansion of the Global Maritime Distress and Safety System (GMDSS) and the Worldwide Navigational Warning Service (WWNWS) into Arctic Waters

11. IMO decided to expand the Global Maritime Distress and Safety System (GMDSS) and the World-Wide Navigational Warning Service (WWNWS) into the whole Arctic Ocean, including the opening of the Northern Sea Route for international shipping. It therefore established (IMO/COMSAR-10, London, March 2006) a joint IMO/IHO/WMO correspondence group on Arctic Maritime Safety Information (MSI) services to address this expansion. The definition and endorsement of the boundary limits of 5 new Arctic NAVAREAs/METAREAs (see Appendix C) and the formal endorsement of the commitments by Member States / Members to serve as ad-hoc NAVAREAs Co-ordinators (IMO MSC-83, October 2007) and METAREAs Issuing Services (WMO EC-LX, June 2008), i. e. Canada, Norway and the Russian Federation, have been achieved.

12. The WMO Executive Council (June 2008) welcomed and endorsed the commitments by the following NMHSs to serve as METAREA Issuing Service as follows:

- Environment Canada for METAREAs XVII and XVIII;
- Norwegian Meteorological Institute for METAREA XIX;
- Roshydromet for METAREAs XX and XXI.

13. ETMSS has contributed to the work of the Correspondence Group and, has begun to assist Arctic METAREA Issuing Services in developing their own operating plan and timelines for the implementation of operational services. However, the implementation of operational service is still to be organized by the Issuing Services within the next 2 years, with the support and coordination of the WMO Secretariat and the ETMSS. The estimated date for IMO, IHO and WMO to, officially declare the system fully, operational is 2010/2011.

14. Taking into account that VOS meteorological reports provide vital real-time information on the ocean weather conditions that improve the quality of the forecasts and warnings issued, through the SafetyNET and International NAVTEX services for mariners at sea, and as these services are necessary for the Arctic region, the Team is invited to consider the expansion of the VOS scheme and the PMO network into the Arctic region.

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Appendix: 3

APPENDIX A

MSC.1/CIRC.1293, 10 DECEMBER 2008
PARTICIPATION IN THE VOLUNTARY OBSERVING SHIP'S (VOS) SCHEME
(replacing MSC Circ. 1017)

INTERNATIONAL MARITIME ORGANIZATION
4 ALBERT EMBANKMENT
LONDON SE1 7SR

Telephone: 020 7735 7611
Fax: 020 7587 3210

IMO

E

Ref. T2-OSS/1.4

MSC.1/Circ.1293
10 December 2008

PARTICIPATION IN THE WMO VOLUNTARY OBSERVING SHIPS' (VOS) SCHEME

1 The Maritime Safety Committee (MSC), at its sixty-fourth session (5 to 9 December 1994), in response to a request for assistance from the World Meteorological Organization (WMO) on enhancing the recruitment of merchant ships into the Voluntary Observing Ships' (VOS) Scheme, approved and circulated MSC/Circ.674 regarding this matter. Since the merger in 1999 of the marine activities of the WMO and the Intergovernmental Oceanographic Commission (IOC) of UNESCO, the VOS Scheme has been a programme of the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM).

2 The Maritime Safety Committee, at its seventy-fourth session (30 May to 8 June 2001), in response to a further proposal from the WMO, subsequently updated and re-issued this circular as MSC/Circ.1017. It was noted at the time that the *Report of the Re-opened Formal Investigation into the Loss of the* ***MV Derbyshire*** had underlined the potential value of VOS observations to maritime safety, and recommended, *inter alia*, that consideration be given to reissuing this MSC circular.

3 Unfortunately, there has been further decline in the number of ships recruited into the VOS Scheme, regardless of the re-issuance of this circular. In December 2004, there were approximately 6,500 ships listed with the WMO as observing ships from 53 participating countries. By mid-2005, this figure had fallen to fewer than 6,000 ships; however, the analysis of ships' weather reports show that the number of VOS that are actively reporting is actually far less than indicated. Based on reports, during the first six months of 2005, there were approximately 3,025 ships worldwide reporting pressure, and only 2,652 reporting sea surface temperature.

4 The VOS meteorological reports provide vital real time feedback on ocean weather conditions to Weather Forecasters who use the data to improve the quality of the forecasts and warnings issued through the SafetyNET Maritime Safety Information (MSI) and the international NAVTEX services for mariners at sea. The VOS reports, therefore, form an important element in ensuring the safety of ships, their cargoes and crews. Furthermore, it should be noted that these reports also provide a valuable data source for studying the changes in climate which have become a matter of global concern in recent years.

5 IMO and, in particular, its Marine Environment Protection Committee are giving high priority to the work relating to the issue of climate change. Ships' meteorological observations are not only recognized as being essential for the provision of safety-related services for ships at sea, but also for climatological purposes, since the VOS reports' contribution to global climate studies is unique, when considering the role of the oceans in the global climate system.

6 Whilst the weather data collected under the VOS Scheme is provided for Forecasting, Climatology and Research applications, some VOS data have become available on public websites causing concern to ships' owners and masters because of the publication of ship identification and position data. WMO has therefore established a high-level dialogue, involving affected Members, IMO, ICS, shipping companies, relevant organizations and technical commissions, to propose a general and universally acceptable solution to the issue. This solution would address shipowners' and masters' concerns as well as those of the WMO community regarding data monitoring and quality information feedback requirements. This high-level dialogue resulted in the recommendation that ship's identification and location should not appear on public websites, including those of National Meteorological Services (NMS), in real time when this is not authorized by the shipowners and masters. As a temporary measure, WMO Executive Council therefore adopted Resolution 7 (EC-LVIII, 2006) and Resolution 7.7 (EC-LIX, 2007) authorizing its Members to implement open data distribution schemes where the ship's identification is masked. The continued participation of ships in the VOS Scheme remains critical.

7 It is essential that the volume of data provided by ships recruited to the VOS Scheme be maximized and, as such, the number of VOS participating in the Scheme increased wherever/whenever possible. It should be made clear that participation in the VOS Scheme is entirely voluntary and no charges are incurred by the ship, shipowner or ship operator, as the meteorological instruments and, in most cases, the cost of the observation transmission are borne by meteorological services.

8 In accordance with the provisions of SOLAS regulation V/5, Member Governments are invited to bring the relevant information in the attached brochure regarding the VOS Scheme to the attention of shipowners, ship operators, ship managers, masters and crews, and other parties concerned and to encourage them to support the JCOMM and their National Meteorological Service (NMS), by offering their ships to participate in the VOS Scheme. More information on this issue can be located at the following web address: http://www.bom.gov.au/jcomm/vos/index.html. Ships that pass through or operate in the data-sparse areas (shown by the lack of dots on the attached ship data coverage chart), are strongly encouraged to volunteer and join the VOS Scheme.

9 This circular revokes MSC/Circ.1017.

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ANNEX

THE VOLUNTARY OBSERVING SHIPS' (VOS) SCHEME

1 Background

The international scheme by which ships plying the various oceans and seas of the world are recruited by National Meteorological Services (NMS) for taking and transmitting meteorological observations is called **the Voluntary Observing Ships' (VOS) Scheme**. (See the following web address for further information: http://www.bom.gov.au/jcomm/vos/index.html).

The VOS Scheme is operated under the auspices of the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM), which was formed in 1999 through a merger of the marine activities of the World Meteorological Organization (WMO) and the Intergovernmental Oceanographic Commission (IOC) of UNESCO.

The forerunner of the scheme dates back as far as 1853, the year in which delegates of ten maritime countries came together at a conference in Brussels, on the initiative of Matthew F. Maury, then Director of the United States Navy Hydrographic Office, to discuss his proposal to establish a uniformed system for collecting meteorological and oceanographic data from the oceans and the use of these data for the benefit of shipping in return.

The Conference accepted Maury's proposal and adopted a standard form of ships' logs and a set of standard instructions for the required observations.

From the very beginning, ships' meteorological observations were recognized as being essential for the provision of safety-related meteorological services for ships at sea, as well as for climatological purposes.

2 The situation today

At present, the contribution that VOS meteorological reports make to operational meteorology, to marine meteorological services, weather routeing services and to global climate studies is unique and irreplaceable. During the past few decades, the increasing recognition of the role of the oceans in the global climate system has placed an even greater emphasis on the importance of marine meteorological and oceanographical observing systems.

One of the continuing major problems facing meteorology is the scarcity of data from vast areas of the world's oceans (so-called data sparse areas) in support of basic weather forecasting, the provision of marine meteorological and oceanographic services and climate analysis and research.

While meteorological satellites help substantially to overcome these problems, data from more conventional platforms (in particular VOS data) will remain essential for the foreseeable future, to provide ground-truthing for the satellite observations, and to provide important information that satellites cannot easily observe (notably pressure measurements). In addition, the VOS provide an essential contribution to the data input for the numerical weather prediction (NWP) models, which are the basis of most present-day forecasts and warnings, and provide real-time reports which can be used immediately in services for the mariner. The reports from the ships at sea are also used

operationally in the preparation and promulgation of Maritime Safety Information (MSI) forecasts and warnings of gales, as well as storms required by the GMDSS (e.g., SafetyNET and NAVTEX), and issued to mariners in accordance with the SOLAS Convention requirements.

Thus, without VOS observations, reliable and timely weather forecasts for mariners could not be provided.

3 The VOS Fleet Size

A peak in the total number of VOS was reached in 1984/85, when 7,700 ships worldwide were listed as participating in the VOS Scheme. Since then, there has been an irregular but noticeable decline. In December 2004, there were some 6,500 ships listed at WMO as observing ships from 53 countries and by mid-2005 there were fewer than 6,000 ships. However, analysis of ships' weather reports show that the number of VOS that are actively reporting is actually far less. Based on the first six months of 2005, there were approximately 3,025 ships worldwide reporting pressure, and only 2,652 reporting sea surface temperature. It is recognized that priority must often be given to other navigational duties, particularly in areas of dense shipping, and that there will be periods when a ship is in port or dry-dock and when it will not be possible to perform weather observations. However, the number of actively participating ships is clearly in a decline and needs to be reversed.

As might be expected, real-time reports from the VOS are heavily concentrated along the major shipping routes, primarily in the North Atlantic and North Pacific Oceans. The attached chart shows details of the geographical distribution of ships weather reports for December 2006, and the most striking feature is the large data-void areas in all southern hemisphere oceans. While this situation certainly reflects the relatively small numbers of ships sailing in these waters, it also makes it more essential that ships sailing in these areas actively participate in the VOS, thus contributing to the global observing programme and the consequent enhancement of the forecast and warning services to the mariner.

Of course, as the VOS reports are part of a global data capture programme, these reports are of value from all the oceans and seas of the world, and even the relatively well-frequented North Atlantic and North Pacific Oceans require more observational data.

4 What are the charges to be part of the VOS Scheme?

THERE ARE NO CHARGES TO THE SHIP OR TO THE SHIP OPERATOR

In accordance with the provisions of SOLAS regulation V/5, "Contracting Governments undertake to encourage the collection of meteorological data by ships at sea and to arrange for a selection of ships to be equipped with tested marine meteorological instruments (such as a barometer, a barograph, a psychrometer, and suitable apparatus for measuring sea temperature)".

The calibrated marine meteorological instruments that are required to undertake weather observing at sea are supplied free of charge to the ship by the National Meteorological Services (NMS). The installation of the equipment is usually performed by a Port Meteorological Officer (PMO), appointed and trained by the NMS, who will provide advice on observing the various meteorological elements at sea. The appointed PMO will also explain the use of the WMO SHIP code for reporting the observation, and offer guidance on transmitting the observations from the ship to shore using the ships satellite or terrestrial communications equipment.

THERE ARE NO CHARGES TO THE SHIP FOR THE TRANSMISSION OF VOS WEATHER REPORTS

Ships which send messages through Land Earth Stations (LESs) using special Access Code 41 will not incur any transmission charges.

After recruitment into a national VOS Fleet, the meteorological instruments will be regularly serviced, without charge to the ship or shipowner, generally by a PMO from the 'recruiting NMS' or by a PMO from the international PMO network.

5 How can you become involved?

If an Administration:

.1 Be aware that ships' meteorological reports can make a significant contribution to safety of life and navigation through higher quality forecasts and warnings.

.2 Ensure that your ship operators are aware of the VOS Scheme and encourage their active participation.

If a Ship Operator:

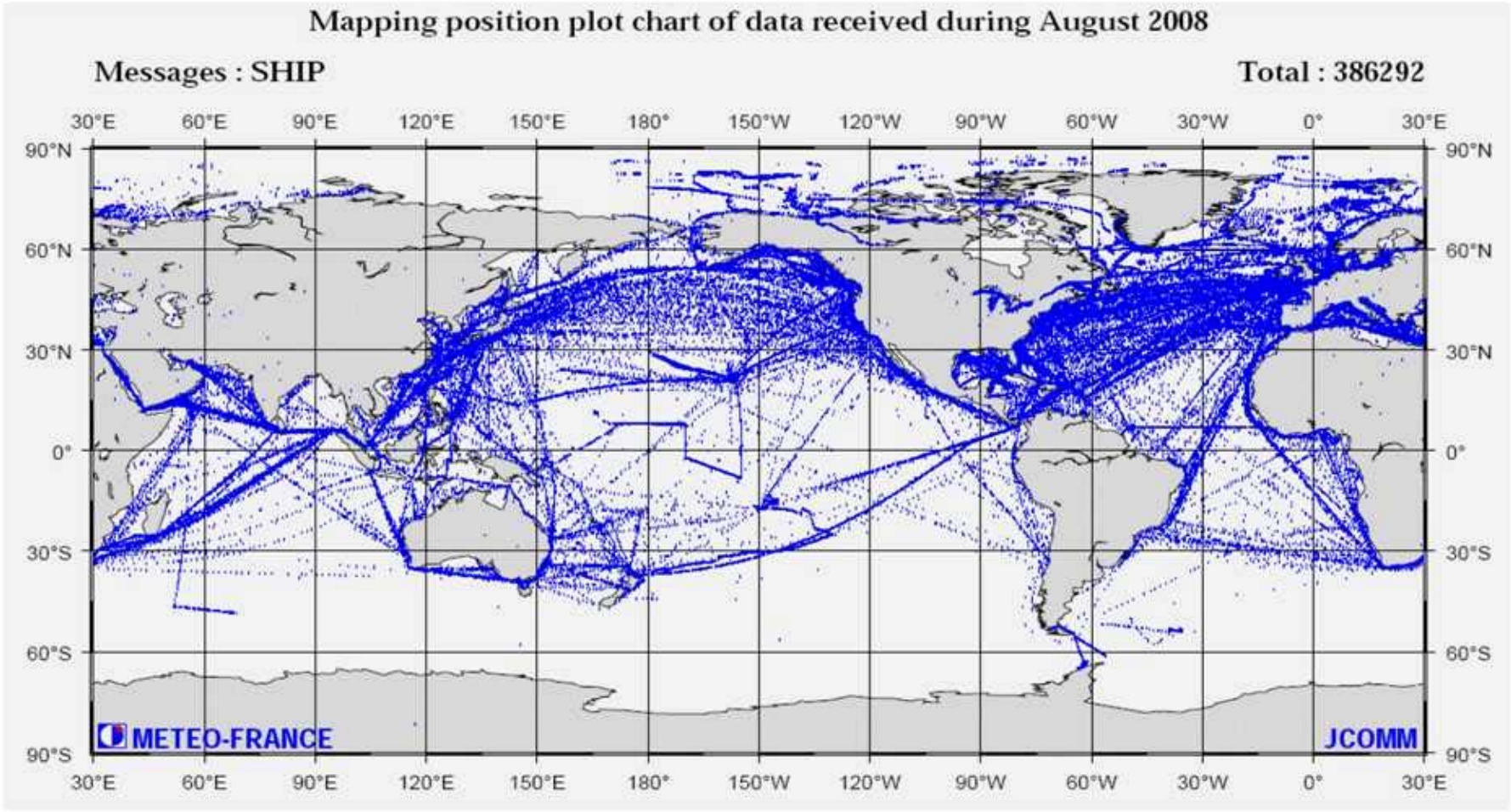
.1 Contact your National Meteorological Services (NMS), or a local Port Meteorological Officer (PMO), and nominate your ship(s) for recruitment into the VOS Scheme.

For further information contact:

Ocean Affairs Division
World Meteorological Organization
7 bis, avenue de la Paix
Case Postale No. 2300
CH-1211, GENEVA 2
Switzerland
Telephone: +41-22 730 82 37
Telefax: +41-22 730 81 28
E-mail: mmo@wmo.int

REMEMBER:

HELP IMPROVE THE QUALITY OF FORECASTS AND WARNINGS AND CONTRIBUTE TO THE ENHANCEMENT OF SAFETY AT SEA BY JOINING THE VOLUNTARY OBSERVING SHIPS' SCHEME



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APPENDIX B

MARINE METEOROLOGICAL SERVICES MONITORING PROGRAMME (LETTER AND QUESTIONNAIRE)

World Meteorological Organization
Organisation météorologique mondiale

Secretariat
7 bis, avenue de la Paix - Case postale 2300 - CH-1211 Geneva 2 - Suisse
Tel.: +41 (0) 22 730 81 11 - Fax: +41 (0) 22 730 80 40
E-mail: [illegible] - http://www.wmo.int

Our ref.: 8363-CB/WDS/MAP/MMO/MMS-Q3 GENEVA, 20 March 2009

Annexes: 2 (available in English only)

Subject: Monitoring of marine meteorological services

Action required: To note the information contained in this letter and return the completed questionnaire (Annex II) **by 26 June 2009**

Dear Sir/Madam,

Direct interaction with and feedback from users is an essential part of the provision of high quality and valuable marine services. The monitoring of marine meteorological services was initiated by the former Commission for Marine Meteorology (CMM) in 1981. Results of the latest four-yearly survey conducted in 2004 were presented to the second session of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM-II, Halifax, Canada, September 2005), which agreed on the need to continue maintaining a systematic long-term global marine meteorological services (MMS) monitoring programme, based on the questionnaire related to the quality, presentation and timeliness of MMS and response format presently in use. JCOMM-II also agreed that the format should be reviewed by the JCOMM Expert Team on Maritime Safety Services (ETMSS) prior to its distribution by the Secretariat, to national Port Meteorological Officers (PMOs), for onward distribution to ships' masters. The Commission decided to keep in force the adopted Recommendation 1 (CMM-XI, Lisbon, Portugal, April 1993) – Marine Meteorological Services Monitoring Programme (Annex I).

The Commission assigned to the Secretariat the specific task of coordinating future periodic monitoring exercises and preparing comprehensive analyses of the results of the monitoring, with the objective of formulating recommendations for improvements in marine weather services based on the shortcomings identified as a result of these monitoring activities.

Based on the request by JCOMM-II, the attached questionnaire (Annex II) has been reviewed by the ETMSS, in order to include a new section on sea-state and sea-ice information and on the use of abbreviations in NAVTEX bulletins. The responses will assist in preparing a report as well as making any necessary recommendations to the ETMSS, for submission to the third session of JCOMM scheduled for 4-11 November 2009.

Annex II is to be completed by the voluntary observing ships (VOS) recruited and/or visiting ports in your country. You are therefore kindly requested to make the necessary distribution of Annex II to the shipmaster of each of the VOS for their completion. It is desirable that shipmasters return the completed questionnaire to you as soon as possible, but no later than **26 June 2009**. They may also send it directly by mail or by fax to the addresses provided at the end of the questionnaire. Please feel free to make as many copies of Annex II as you think necessary for a maximum distribution. Alternately, you may wish to obtain and distribute an electronic version of the questionnaire, which could then be returned by the shipmasters directly via e-mail. In this case, you request this electronic version (as a Word document) from the WMO Secretariat at: mmo@wmo.int or download it from the GMDSS-weather Web site http://weather.gmdss.org.

...../2

The success of this exercise will, of course, depend on your individual contribution which is indeed rather demanding. However, if WMO is to fulfil its task of assisting its Members to improve their marine meteorological services, for the ultimate benefit of the end users, the information requested is essential. I thank you in advance for your effort and support.

Yours sincerely,

Geoff Love

(G. Love)
Director
Weather and Disaster Risk Reduction Department

To: Port Meteorological Officers - Useful Contacts and National VOS Focal Points

cc: Members of JCOMM)
Co-presidents of JCOMM)
JCOMM Services Coordination Programme Area Coordinator) (for information)
Chairperson, JCOMM Expert Team on Maritime Safety Services)
Regional Rapporteurs on Meteorological and Oceanographic Services)
Director, GOOS Project Office)

RECOMMENDATIONS ADOPTED BY THE SESSION

RECOMMENDATION 1 (CMM-XI)

MARINE METEOROLOGICAL SERVICES MONITORING PROGRAMME

THE COMMISSION FOR MARINE METEOROLOGY,

NOTING:

(1) Recommendation 1 (CMM-VIII) — Marine meteorological services monitoring programme,

(2) Abridged final report, CMM-IX, general summary, paragraph 5.7 and Annex II,

(3) Report and recommendations to CMM-XI by the Subgroup of Experts on Warning and Forecast Preparation on Marine Meteorological Services Monitoring,

CONSIDERING:

(1) The continuing importance to mariners of the provision of high quality, timely marine meteorological services,

(2) The need for routine and continuous monitoring of marine meteorological services to maintain the highest possible standards,

(3) The importance of keeping up-to-date information on the requirements of marine users for meteorological and oceanographic information and services,

RECOGNIZING the activities for the monitoring of marine meteorological services already effected by many Members,

RECOMMENDS:

(1) That a systematic, long-term marine meteorological services monitoring programme be implemented;

(2) That the programme be based on the questionnaire and response summary format given in the annex to this recommendation;

(3) That the monitoring should be undertaken by Members and co-ordinated by the WMO Secretariat and should take place on a routine basis every four years;

(4) That a comprehensive analysis of the results of the monitoring should be prepared by the WMO Secretariat following each four-yearly monitoring, and transmitted immediately to Members for follow-up action, as appropriate;

(5) That a brief summary of the results of this monitoring should be prepared for each session of CMM, as well as for sessions of the Advisory Working Group and the Working Group on Marine Meteorological Services;

INVITES Members to carefully review the results of this monitoring, including detailed criticisms and suggestions provided by users, and to take appropriate measures to correct identified deficiencies in marine meteorological services within their respective areas of concern, including through the distribution of results to marine forecasters and PMOs;

REQUESTS:

(1) The Advisory Working Group and the Working Group on Marine Meteorological Services to closely follow the implementation and results of this monitoring programme and to propose modifications, as appropriate;

(2) The Secretary-General to arrange for Secretariat support for the monitoring programme as detailed under **RECOMMENDS** above.

NOTE: This recommendation replaces Recommendation 1 (CMM-VIII) which is no longer in force.

MARINE METEOROLOGICAL SERVICES MONITORING PROGRAMME QUESTIONNAIRE

To Masters, Deck Officers, Skippers, Sailors, icebreaking services and other marine users

In order to monitor the effectiveness of the weather and sea bulletins produced and transmitted by Meteorological Services, the World Meteorological Organization would appreciate your cooperation in completing the following questionnaire. The objective of this programme is to improve the level of meteorological support to all marine user communities.

Ship's Name & Call Sign	
Type of ship (SOLAS or non-SOLAS)	
or other marine user activity (specify)	
Type (merchant, ferry, cruising, fishing, recreational, icebreaking), size and length of the vessel	
Country of registry	
Name of master	
Operational area(s)	
Voyage from	to
Date, time, position when the questionnaire completed	

Please complete the following questionnaire by placing a cross (x) under the appropriate column heading and providing additional information or comments as appropriate.

			Not used	Good	Average	Poor	Issuing Met Service	Station
1	**Reception of GMDSS info. Please rate the quality of reception:** (should be filled at least by SOLAS vessels)							
A	via INMARSAT SafetyNET							
B	via Navtex (518 kHz)	1st station						
		2nd station						
		3rd station						

Comments

			Not used	Good	Average	Poor	Issuing Met Service	Station
2	**Reception of other Safety information**		(This section should be filled at least by non-SOLAS vessels)					
A	via Navtex (490 or 4209.5 kHz)[1]	1st station						
		2nd station						
		3rd station						
B	via HF Radio							

[1] Information on the reception of Maritime Safety Information via the 4th or more stations should be provided in Section 10.

		Not used	Good	Average	Poor	Issuing Met Service	Station
C	via VHF Radio						
D	via visual signals						
E	via e-mail						
F	via GMDSS web site (http://weather.gmdss.org)[2]						
G	Via any other web interface						

Comments

		Not used	Good	Average	Poor	Issuing Met Service	Station
3	Storm and Gale warnings. Please rate the following:						
A	Comprehension of warnings						
B	Accuracy of warnings						
C	Terminology used						
D	Usefulness (anticipation, parameters, thresholds…)						

Comments

		Not used	Good	Average	Poor	Issuing Met Service	Station
4	Sea Ice and Icebergs Information (for mariners in areas with floating ice). Please rate the following:						
A	Clarity of information						
B	Accuracy of information						
C	Timeliness						
D	Terminology used						

Comments

[2] GMDSS web site provides access to Maritime Safety Information world-wide.

		Not used	Good	Average	Poor	Issuing Met Service	Station
5	Wave and Storm Surge Information. Please rate the following:						
A	Clarity of information						
B	Accuracy of information						
C	Timeliness						
D	Terminology used						

Comments

		Not used	Good	Average	Poor	Issuing Met Service	Station
6	Other parameters in Weather and Sea bulletins. Please rate the following:						
A	Comprehension of bulletins (including abbreviations)						
		Not used	**Good**	**Average**	**Poor**	**Issuing Met Service**	**LES/Navtex Station**
B	Accuracy of bulletins						
C	Are bulletins on time?						
D	Terminology used in bulletins?						
E	Usefulness (parameters,...)						

Comments

		Not used	Good	Average	Poor	Issuing Met Service	Station
7	Graphic/numeric broadcasts (e.g. Facsimile). Please rate the following:						
A	Are charts received on time?						
B	Accuracy of information on charts						
C	Comprehension of symbols						
D	Quality of reception						
E	Is this a useful service?	Yes ☐ No ☐					

If Yes, please comment on how the service could be improved.

Comments

		Not used	Good	Average	
8	**Land Earth Stations (LES) Inmarsat**				(This section should be filled only by Voluntary Observing Ships)
A	Rate your success in contacting a LES to send your weather observation messages (OBs)				LES: ____
B	Do you experience delays in sending your OBs?		**Yes** ☐	**No** ☐	
C	Do any LES refuse to accept your OBs?		**Yes** ☐	**No** ☐	LES (if Yes): ____

Comments

9	Other related problems (if any) – include ship's position, date and time.

10	**Any other comments not considered under the previous items and suggested improvements (e.g. met-ocean information in ECDIS, other required met-ocean parameters not mentioned under previous items)**

Use additional sheets if necessary.

For each case, complete one questionnaire

After completion, please return to the following address:

Marine Meteorology and Ocean Affairs Division
Weather and Disaster Risk Reduction Services Department
World Meteorological Organization
7 bis, avenue de la Paix
Case postale No. 2300
CH-1211 Geneva 2
Switzerland
Telefax: +41 22 730 8128
E-mail: mmo@wmo.int

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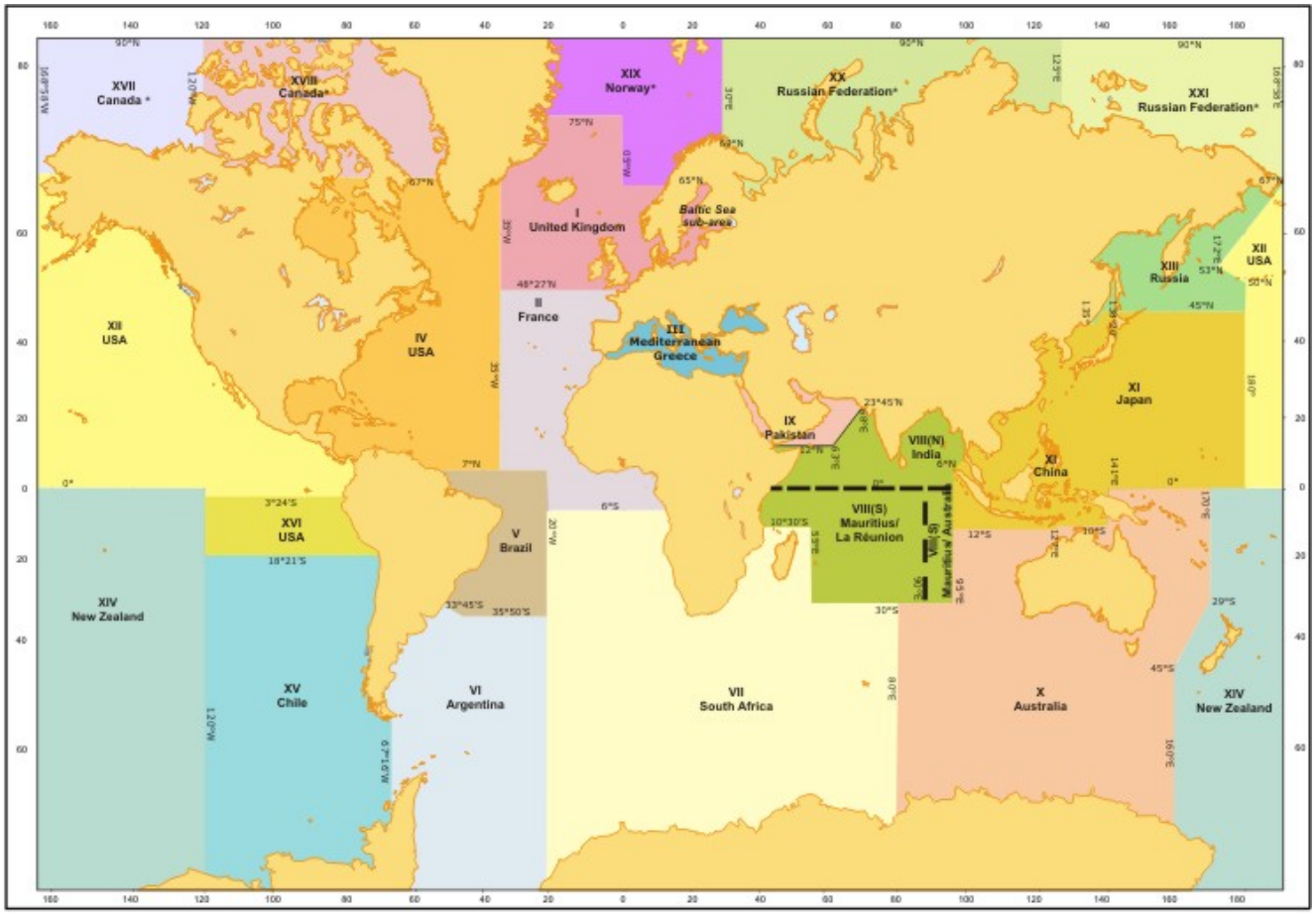
APPENDIX C

LIMITS OF METAREAS



* The GMDSS is under implementation for the Arctic METAREAs and is expected to be fully operational by 2010/11

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