

## MSI Self Assessment NAVAREA X

Submitted by Australia

### SUMMARY

Executive Summary: Annual report of NAVAREA X MSI activities for the period July 2011 to June 2012.

Action to be taken: Paragraph 12.

Related documents: Nil.

## 1. Background

1.1 NAVAREA X extends from the Antarctic at longitude 080° E thence,

30° 00 S 080° 00 E	30° 00 S 095° 00 E	12° 00 S 095° 00 E
12° 00 S 127° 00 E	10° 00 S 127° 00 E	10° 00 S 141° 00 E
00° 00 S 141° 00 E	00° 00 S 170° 00 E	29° 00 S 170° 00 E
45° 00 S 160° 00 E		

thence to the coast of the Antarctic continent at longitude 160° 00 E.

The graphics display of NAVAREA X is available from various documents including the UK Hydrographic Office publication ALRS Volume 5.

1.2 NAVAREA X MSI broadcasts are undertaken through the service provider, Inmarsat, and via Burum LES in particular. Messages are transmitted to Burum LES using XOT (X.25 over TCP) and messages are received from Burum via TCP/IP. MSI messages are transmitted in a non-interactive manner to Burum LES.

1.2.1 The Australian MSI provider has contractual arrangements with its SafetyNET provider requiring an availability of 99.5% per calendar month. The availability of the service for July 2011 to June 2012 is provided in Table 1 and averaged 99.87%.

Month	IOR/POR Availability
July 2011	99.67
Aug 2011	100.00
Sep 2011	99.79
Oct 2011	98.99
Nov 2011	100.00
Dec 2011	100.00

Jan 2012	100.00
Feb 2012	100.00
Mar 2012	100.00
Apr 2012	100.00
May 2012	100.00
Jun 2012	99.98

**Table 1 SafetyNET Provider Availability**

1.3 All navigational warnings (NAVAREA X, coastal and local warnings) are transmitted via SafetyNET on the IOR and POR satellites at the scheduled times of 0700 and 1900 UTC. Messages are also transmitted on receipt of the information. Warnings are monitored automatically via an IOR and POR MES in almost real time using special EGC monitoring software which precludes the need to power down and reboot the MES at regular intervals.

1.4 Coastal warnings are transmitted via SafetyNET to nine defined B1 coastal areas. These coastal areas are A to H around the Australian coast (see Figure 1 below) and area N around New Caledonia. New Caledonia scheduled broadcasts are at 0140 and 1340 UTC.



**Figure 1: Australian MSI Coastal Areas**

The above information is included in the Annual Australian Notices to Mariners which is available from the web site, <http://www.hydro.gov.au/n2m/about-notices.htm>

1.5 Weather broadcasts for METAREA X are the responsibility of the Australian Bureau of Meteorology. Details of the SafetyNET broadcasts can be obtained from the website, <http://www.bom.gov.au/marine/radio-sat/bureau-inmarsat.shtml>

1.6 The number of SafetyNET messages promulgated for METAREA X:

2009-2010	13,500
2010-2011	13,000
2011-2012	12,700

1.7 Operational Points of Contact for National Coordinators within NAVAREA X were checked and updated 17 July 2012.

COUNTRY	TELEPHONE	FACSIMILE	EMAIL
New Caledonia	+687 292332	+687 292303	mrcc.nc@lagoon.nc
Papua New Guinea	+675 3213033	+675 3213051	npion@nmsa.gov.pg
Solomon Islands	+677 21609	+677 23798	mrcc@solomon.com.sb
Vanuatu	+678 22339	+678 22475	lbeandi@vanuatu.com.vu

**Table 2: Points of Contact for NAVAREA X National Coordinators**

## **2. Comments**

2.1 The following numbers of navigational warnings were broadcast via SafetyNET from July to June of each year:

Type/Year	2010		2011		2012	
	Average Time to Issue Broadcast		Average Time to Issue Broadcast		Average Time to Issue Broadcast	
NAVAREA X	18	9 Mins	18	15 Mins	32	12 Mins
AUSCOAST	314	8 Mins	376	10 Mins	332	11 Mins
LOCAL	88	14 Mins	149	15 Mins	87	14 Mins

**Table 3: Numbers and Timing of Navigational Warnings**

2.2 Australia regularly provides updates for the IMO Master Plan and these are reflected in the latest edition of the Master Plan, GMDSS.1/Circ.13 dated 23 May 2011.

## **3. NAVTEX Coverage**

Australia does not broadcast navigational warnings on NAVTEX and within NAVAREA X no other National Coordinators use NAVTEX. Coastal warnings are broadcast via SafetyNET using the relevant C codes.

## **4. Operational Issues**

4.1 During the period July 2011 to June 2012, Australian marine surveyors undertook 3002 Port State Control ship inspections. There were 92 MSI related deficiencies related to “facilities for reception of maritime safety information.” To further improve receipt of MSI

an Australian Marine Notice 13/2011, as provided in Attachment 1, has been distributed to the maritime industry.

4.2 In the previous report for WWNWS3, Australia reported that all non-MSI SafetyNET broadcasts were being transmitted on both IOR and POR regardless of the location of the subject matter. System changes have been made so that only incidents within 095° E to 145° E are broadcast on both ocean region satellites. Incidents west of 095 ° E and east of 145° E are selectively broadcast on IOR or POR respectively.

4.3 In December 2011, Stratos advised of an unplanned degradation of Inmarsat C via LES 012 (Perth) in the fixed to mobile direction that lasted approximately 10 hours. Consequently, Australia, as a declared Sea Area A3, was unable to broadcast any Navarea X warnings on SafetyNET during that period. In the event that SafetyNET is unavailable in the future, Australia has developed a Navarea X template that is broadcast on HF DSC by our associated radio station RCC Australia/VIC.

## 5. Quality Management Survey

NAVAREA	ISO 9001 -2008	Promulgate “In-Force” Bulletins	Promulgate “No-Warning” Messages	Monitor Broadcast in almost real time	24/7 contact information provided	Promulgate two scheduled broadcasts	IMO Master Plan updated
X	YES	YES	YES	YES	YES	YES	YES

**Table 4: Promulgation of Navigational Warnings per Resolution A.706 (17)**

5.1 NAVAREA X does not broadcast “In-Force” messages on SafetyNET but all current MSI is available from the AMSA website and e-mail at any time. Coastal areas A to H will show “Nil Warnings” when those areas are selected on SafetyNET.

## 6. Contingency Planning

6.1 The NAVAREA X coordinator work place is supported by a disaster recovery facility (DRF) 13 kilometres from the primary site. The DRF site supports all the functionality of the primary site including computing and communication systems in an almost “hot standby” environment. In the past year, RCC Australia/NAVAREA X Coordinator personnel have transferred to the backup site and operated from there for one week. In addition, the backup site systems have been made operational while personnel remained at the primary site.

6.2 Australia (Navarea X) and South Africa (Navarea VII) have an agreement-in-principle to develop a contingency plan to provide backup communications on SafetyNET in the event of a major failure of each other’s capability to broadcast navigational warnings. This proposal is in its infancy and a further report will be made at the next meeting.

## 7. Capacity Building

7.1 Australia is very conscious of the need to help develop the capacity of Papua New Guinea (PNG) and the Solomon Islands to promulgate MSI, particularly with regard to the

shipping routes to and from Asia that pass through the area as per the diagram of ship position reports below.

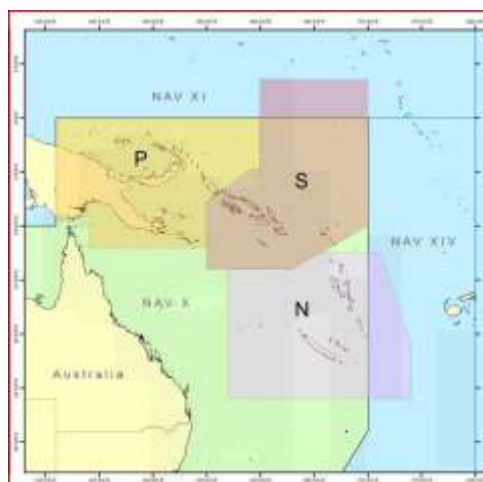


**Figure 2: Shipping Traffic - Papua New Guinea - 2012**

7.2 Under an AusAID programme, Papua New Guinea is upgrading their coast radio network to provide a new GMDSS compliant system for Sea Areas A1 off Port Moresby and A3 to cover all of their coastal and ocean waters. MRCC Port Moresby is to be provided with an Inmarsat C terminal for monitoring EGC and MSI, and e-mail access will be provided to allow lodgement of MSI with the EGC system at an Inmarsat Land Earth Station.

7.3 With funding from the Asia Development Bank, the Solomon Islands installed a new GMDSS installation at MRCC Honiara that provides Sea Area A1 and A3 services with VHF and HF DSC. MSI will be promulgated locally on 6 MHz.

7.4 NAVAREA X has work-in-progress to assist Papua New Guinea and the Solomon Islands in promulgating coastal SafetyNET warnings with the use of B1 codes P and S respectively as per the diagram below. At this time the situation is more promising for Papua New Guinea as MRCC Port Moresby will have the appropriate capability installed.



**Figure 3: Proposed SafetyNET Coastal Areas – P and S**

## **8. Other Activities**

8.1 NAVAREA X continues to provide NAVAREAs IV and XII with all monitored MSI traffic from POR and IOR in almost real time via e-mail to the USA MSI authority NavSafety NGA.

8.2 NAVAREA X also provides, in almost real time, copies of all New Zealand MSI traffic received on the NAVAREA X POR MES.

8.3 Australia hosted the 11th Meeting of the IHO South West Pacific Hydrographic Commission (SWPHC) in Brisbane 15-16 February 2012. As part of the IHO Capacity Building Programme for the SWPHC nations, a 'Ports & Shallow Water Bathymetry Technical Workshop' was conducted prior to the meeting, over 13-14th February. There were participants from Cook Islands, French Polynesia, Kiribati, Niue, New Caledonia, Palau, Papua New Guinea, Samoa, Solomon Islands, Vanuatu and SOPAC. Australia, France, New Zealand, United Kingdom and CARIS provided the instructors for the workshop. Participants benefited from an improved understanding of port and shallow water surveying activities throughout the SW Pacific region and where they may obtain assistance, advice and other resources. Details of the above can be downloaded from the IHO website: ([http://www.iho.int/mtg\\_docs/rhc/SWPHC/SWPHC11/SWPHC11\\_Docs.htm](http://www.iho.int/mtg_docs/rhc/SWPHC/SWPHC11/SWPHC11_Docs.htm))

## **9. NAVAREA Website**

Current MSI can be obtained from the web site at:

[http://www.amsa.gov.au/search\\_and\\_rescue/Distress\\_and\\_Safety\\_Communications/Maritime\\_Safety\\_Information.asp](http://www.amsa.gov.au/search_and_rescue/Distress_and_Safety_Communications/Maritime_Safety_Information.asp)

The website allows the users to obtain the latest MSI by automatic response on the browser and to an e-mail address. As well as all navigational warnings in force, both methods also deliver a Summary of Mobile Drilling Rigs and a Summary of Special Purpose Vessels that are no longer available on SafetyNET as they will have been cancelled after six weeks and promulgated in Notices to Mariners Section III.

The website is updated in almost real time when warnings are issued and cancelled. In total there were 8,700 unique visitors (non-repeat views) for the year July 2011 to 2012 with an average time of 1:01 minutes spent on the page.

## **10. NAVAREA Contact Information**

No change to that currently promulgated.

## **11. Recommendations**

None.

## **12. Actions requested**

The Sub-Committee is invited to note the report.

## **13. Summary**

The NAVAREA X self-assessment report highlights MSI activities for the period July 2011 to June 2012. NAVAREA X compliance in respect of “Nil Warnings” promulgation of “In-Force” Bulletins as per the quality management survey has been highlighted. MSI traffic received on the IOR and POR by the NAVAREA X MES monitors is provided to USA and New Zealand authorities in almost real time. Australia and South Africa have an agreement-in-principle to develop a mutual contingency plan to provide backup communications on SafetyNET in the event of a major failure of each other’s capability to broadcast navigational warnings. Papua New Guinea and the Solomon Islands are upgrading their MSI capabilities and the setting up of new SafetyNET coastal areas is a work-in-progress.





## Marine Notice 13/2011

### Receipt of Maritime Safety Information (MSI)

#### Purpose

The purpose of this Marine Notice is to advise that all ships transiting NAVAREA X or otherwise approaching the Australian coast should ensure that they can receive all Maritime Safety Information (MSI) necessary for the intended voyage.

Masters are reminded that they should ensure their Inmarsat-C Enhanced Group Calling (EGC) receivers are configured to receive MSI messages for the NAVAREA X and coastal warning areas appropriate to their intended voyage. In addition, the types of MSI to be received within the coastal warning areas need to be selected (e.g. navigational warnings).

It should be noted that ships may need to receive MSI whilst in port.

#### Background

MSI, as defined in Regulation IV/2 of the International Convention for the Safety of Life at Sea, 1974 (SOLAS 74), as amended, includes navigational and meteorological warnings, meteorological forecasts, and other urgent safety-related messages broadcast to ships.

The Australian Rescue Coordination Centre (RCC Australia) and the Australian Bureau of Meteorology promulgate MSI for NAVAREA X through the Inmarsat-C EGC service. Such MSI is received on board ships as a SafetyNET message. The Australian coastal area is divided into eight areas, denoted by the letters A to H. More information on MSI is provided in the Admiralty List of Radio Signals (ALRS) Volumes 3 and 5, the Australian Seafarers Handbook, the Australian Annual Notices to Mariners, Australian GMDSS Handbook and the IMO SafetyNET Manual.

MSI receiving capability is part of the mandatory equipment required to be carried on board ships under the provisions of SOLAS 74, Chapter IV (Radiocommunications) as amended.

#### Possible problems with the receipt of MSI

Problems with the receipt of MSI can arise. Some manufacturers use the term NAVTEX instead of

SafetyNET in their user manuals for Inmarsat-C terminals, and this can cause confusion. Australia uses the Inmarsat's SafetyNET EGC as the primary means of promulgating MSI. Australia does not provide a NAVTEX service.

It has been reported that some shipboard Inmarsat-C EGC receivers have not been correctly configured for the proper selection of EGC messages. It is important to ensure that the appropriate coastal warning areas are selected on shipboard Inmarsat-C terminals.

Ships can also obtain the latest MSI from RCC Australia via the internet. In order to obtain such MSI information by way of an automated email response, enter your email address at the URL below:

[www.amsa.gov.au/Search\\_and\\_Rescue/Distress\\_and\\_Safety\\_Communications/Maritime\\_Safety\\_Information.asp](http://www.amsa.gov.au/Search_and_Rescue/Distress_and_Safety_Communications/Maritime_Safety_Information.asp)

It is recommended that ships compare the receipt of MSI via the internet with that received via SafetyNET.

Further enquiries regarding the proper receipt of MSI can be addressed to:

Manager  
Ship Inspections and Registration  
Maritime Operations Division  
Australian Maritime Safety Authority  
GPO Box 2181  
CANBERRA ACT 2601

Graham Peachey  
Chief Executive Officer  
19 August 2011

Australian Maritime Safety Authority  
GPO Box 2181,  
Canberra City ACT 2601

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