MSI Self Assessment NAVAREA X

Submitted by Australia

SUMMARY

Executive Summary: Annual report of NAVAREA X MSI activities for the period July 2010 to June 2011.

Action to be taken: Paragraph 12

Related documents: NIL

1. Background

1.1 The limits of NAVAREA X, in general, extend from the Antarctic coast to the equator and from 080 E to 170 E longitudes. The precise coordinates are:

The coast of the Antarctic continent in longitude 80° 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 Vol 5.

1.2 NAVAREA X MSI broadcasts are undertaken through Inmarsat service provider, Stratos 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 the July 2010 to June 2011 is provided in Table 1 and averaged 99.95%.

Month	IOR/POR Availability
Jul 2010	100.00
Aug 2010	100.00
Sep 2010	100.00

Oct 2010	99.99
Nov 2010	99.99
Dec 2010	99.83
Jan 2011	99.91
Feb 2011	99.90
Mar 2011	99.87
Apr 2011	100.00
May 2011	99.85
Jun 2011	100.00

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 UTC 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 UTC 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 web site,

http://www.bom.gov.au/marine/radio-sat/bureau-inmarsat.shtml .

1.6 Operational Points of Contact for National Coordinators within NAVAREA X

Checked and updated 9 August 2011.

Country	Telephone	Facsimile	E-Mail	Other
New Caledonia	+68 7264772	+68 7292303	mrcc.nc@lagoon.nc	
Papua New Guinea	+675 3213033	+675 3210484	epetrus@nmsa.gov.pg	National Maritime Safety Authority (NMSA) Switchboard: +675 3211244
Solomon Islands	+677 21609 +677 21535	+677 23798	mrcc@solomon.com.sb	Switchboard: +677 21535
Vanuatu	+678 22339 +678 24766 Mobile: +678 7756048	+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	2009 Av. Time to issue broadcast		2010 Av. Time to issue broadcast		2011 Av. Time to issue broadcast	
NAVAREA X	14	16 Mins	18	9 Mins	18	15 Mins
AUSCOAST	328	8 Mins	314	8 Mins	376	10 Mins
LOCAL	88	13 Mins	88	14 Mins	149	15 Mins

Table 3: Numbers and Timing of Navigational Warnings

2.1.1 NAVAREA X follows the principles outlined in the IMO/IHO WWNWS guidance document, A.706(17), in particular sections 4.2.1.1 and 4.2.1.2. However, no NAVAREA X and Coastal warnings are currently broadcast in respect of "no warnings" messages and "in-force" messages and this procedure is being reviewed to align with international practice. Furthermore a separate NAVAREA X or coastal warning with a new number is also not broadcast when cancelling a warning. This may explain the reduced number of NAVAREA X warnings broadcast as compared to other NAVAREAs.

2.2 All SafetyNET broadcasts issued by the NAVAREA X coordinator include the originator and the date/time of message origination. NAVAREA X broadcasts are also prefaced with SECURITE, PAN PAN or MAYDAY. The end of a SafetyNET broadcast message is indicated by NNNN which leaves no doubt in the reader's mind that the whole message has been received. This practice is especially pertinent for long NAVAREA messages such as the current radiation hazard message for Fukushima, Japan.

2.4 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. The Inmarsat short access codes (SAC) supported by Australia are shown in Annex 8, The International SafetyNET Service, of the Master Plan.

3. NAVTEX Coverage

Australia does not broadcast navigational warnings on NAVTEX and within NAVAREA X no broadcasts are undertaken using NAVTEX. Coastal warnings are broadcast via SafetyNET using the relevant C codes.

4. Operational Issues

4.1 A long term warning concerning the radiation hazard off Fukushima, Japan continues to be broadcast by RCC Australia as NAVAREA X 006/11 since 16 June 2011. It was originally broadcast as NAVAREA X 004/11 commencing 31 March 2011. Other NAVAREAs, distant from the source of the hazard, also initiated similar broadcasts. There is no guidance in the Joint Manual concerning the promulgation of radiation hazards.

4.2 On occasions there have been other long term warnings broadcast which have not been defined as a NAVAREA X or coastal warning broadcast eg. compulsory Torres Strait pilotage.

4.3 During the period July 2010 to June 2011, Australian marine surveyors undertook 3131 Port State Control ship inspections. There were 91 MSI related deficiencies related to "facilities for reception of maritime safety information." To further improve receipt of MSI an Australian Marine Notice, as provided in Attachment 1, is proposed to be distributed to the maritime industry.

4.4 Currently all non-MSI SafetyNET broadcasts are being transmitted on both IOR and POR regardless of the location of the subject matter. It is intended that only incidents within 095 to 145 Degrees East longitude will be broadcast on both ocean region satellites. Incidents west of 095E and east of 145E will be selectively broadcast on IOR or POR respectively.

4.5 NAVAREA X provided feedback on 14 March 2011 to IHO, Inmarsat and others on all the Japanese tsunami warnings received on the IOR and POR since 11 March 2011.

4.6 The density of maritime traffic around Australia for 2010 is provided in Figure 2 below. Each dot represents a ship's position report.

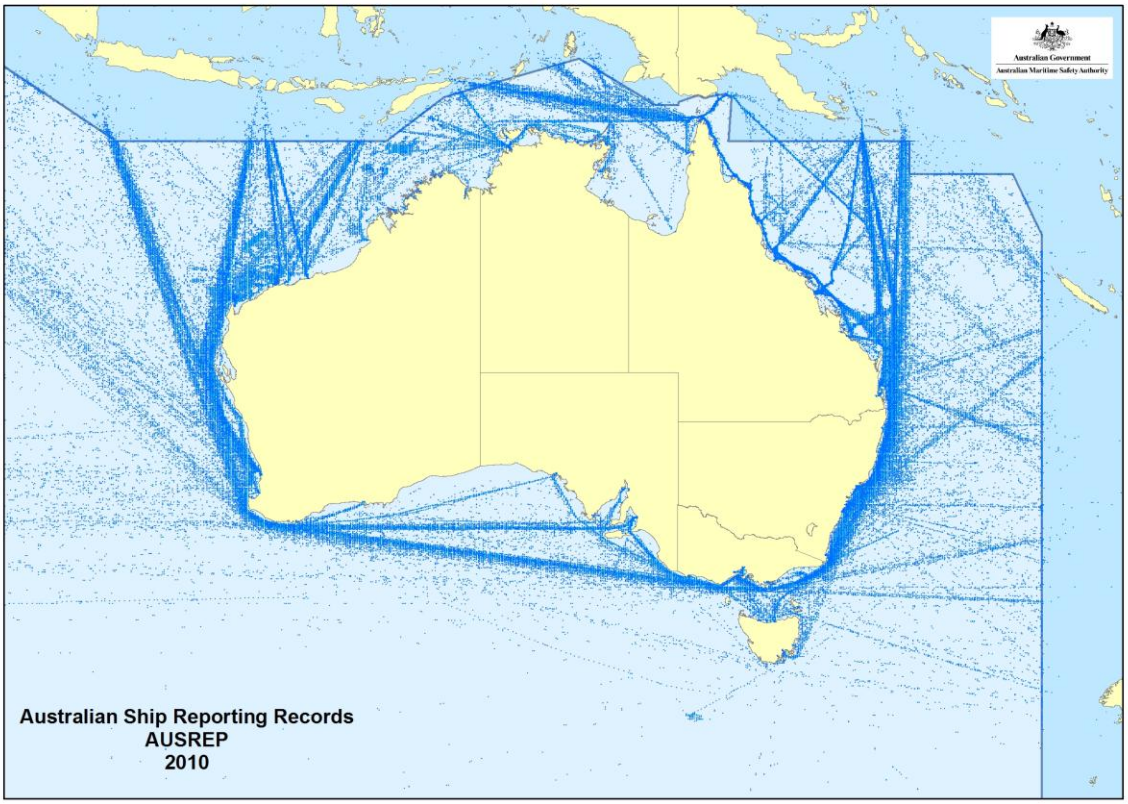


Figure 2: Shipping Traffic Around Australia - 2010

5. Quality Management Survey

NAVAREA	ISO 9001-2000	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	NO	NO	YES	YES	YES	YES

Table 3: Promulgation of Navigational Warnings per Resolution A.706 (17)

5.1 In order for NAVAREA X to comply with the requirement for "no warnings" and "in-force" bulletins and noting the varying formats and content used by NAVAREA coordinators the sub-committee is requested to provide specific guidance in respect of:

- the number of times the bulletin should be broadcast (self cancelling ?);
- the standard format to use; and
- listing just warnings in force at time of promulgation or listing all warnings issued in past six weeks regardless if some have been cancelled.

5.2 It is noted that NAVAREA IX in force warning 346 issued 0730 UTC, 31 July 2011 lists warnings for years 2008, 2009, 2010 and 2011. It has also been noted that some in-force

bulletins are repeated 14 times whilst others state “cancel this message” ie. effectively on receipt and broadcast just once.

6. Contingency Planning

6.1 At the request of NAVAREA IV and XII for all IOR messages in August 2010, NAVAREA X commenced providing all monitored IOR and POR MSI traffic to the USA MSI authority (NavSafety NGA) in almost real time via e-mail.

6.2 The NAVAREA X coordinator work place is supported by a disaster recovery facility (DRF) some 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. During the course of the year (July 2010 to June 2011) RCC Australia/NAVAREA X Coordinator personnel on a few occasions have transferred to the backup site and operated from there for extended periods. In addition, the backup site systems have been made operational whilst personnel remained at the primary site.

7. Capacity Building

7.1 NAVAREA X assisted in the provision of MSI training to countries in the Southwest Pacific Hydrographic Commission (SWPHC) in Sydney, in August 2010, after the WWNWS2 meeting.

7.2 NAVAREA X is considering assisting Papua New Guinea and the Solomon Islands in promulgating coastal SafetyNET warnings with the use of B1 codes P and S respectively. This is a work-in-progress task.

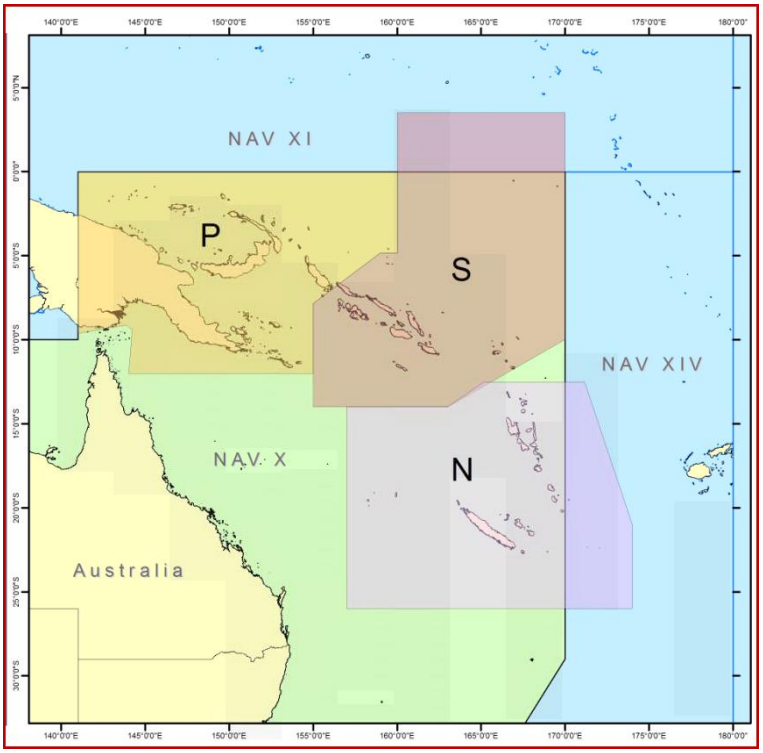


Figure 3: Proposed SafetyNET Coastal Areas – P and S

8. Other Activities

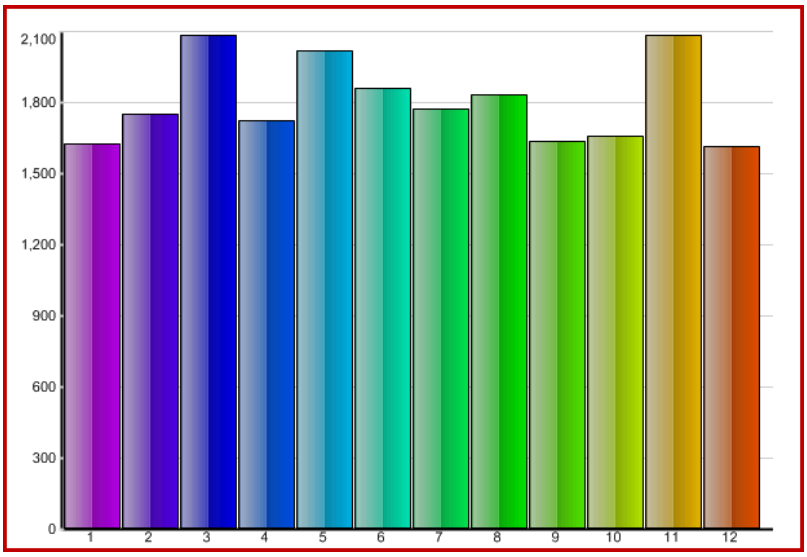
8.1 NAVAREA X assisted NAVAREA XIV, New Zealand in their endeavours to set up a SafetyNET coastal area around New Zealand. During this process a test was undertaken by RCC New Zealand to confirm that coastal warnings can be received for the additional NAVAREA configured in the MES ie. the MES located in New Zealand, with NAVAREA X configured as the additional NAVAREA was able to receive the Australian coastal warnings for area G with B2 code also configured to A.

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

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

The website is updated in almost real time when warnings are issued and cancelled.



#	Month	Hits
1	1	1,629
2	2	1,751
3	3	2,085
4	4	1,727
5	5	2,019
6	6	1,863
7	7	1,775
8	8	1,835
9	9	1,640
10	10	1,660
11	11	2,084
12	12	1,618
-	Total:	21,686

Figure 4: Number of MSI Hits on the AMSA Web Site, July 2010 to June 2011

10. NAVAREA Contact Information

No change to that currently promulgated.

11. Recommendations

It is suggested that the quality management survey table be amended to state “ISO 9001:2008”, given that this is the latest ISO standard.

As indicated in section 5.1, request guidance on the specific requirements for promulgating “in-force” bulletins and “no warning” messages.

12. Actions requested

The Sub-Committee is invited to note the report and in particular the recommendations.

13. Synopsis

The NAVAREA X self-assessment report highlights MSI activities for the period July 2010 to June 2011. Non-compliance in respect of promulgation of “in-force” bulletins and “no warning” messages as per the quality management survey have been highlighted and specific guidance has been requested on the matter. MSI traffic received on the IOR and POR by the NAVAREA X MES monitors is selectively provided to USA and New Zealand authorities in almost real time. Consideration is being given to setting up two new SafetyNET coastal areas in Papua New Guinea and the Solomon Islands.

ATTACHMENT 1

PROPOSED AUSTRALIAN MARINE NOTICE

Receipt of Maritime Safety Information (MSI)

Marine Notice XX/2011

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:

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