

MSI SELF ASSESSMENT

Submitted by AUSTRALIA

1. ACTION REQUIRED

None, submitted for information only.

2. GENERAL

Australia is the coordinator for NAVAREA X. Three types of navigational warnings are issued within NAVAREA X, NAVAREA warnings, coastal warnings and local warnings. The primary means of transmitting navigational warnings is the international SafetyNET service through the Perth Inmarsat Land Earth Station (LES). All warnings are broadcast on the Pacific and Indian Ocean Region satellites (POR and IOR) on receipt with an echo and then at the scheduled times of 0700 UTC and 1900 UTC, once only ie. without an echo. It should be noted that Australia does not broadcast any warnings on NAVTEX.

The Australian Rescue Coordination Centre (RCC Australia) in Canberra, which is manned 24 Hours/7 Days per week, issues all navigational warnings. RCC Australia is a section of the Emergency Response business unit of the Australian Maritime Safety Authority (AMSA).

No broadcast warnings are issued in respect of weapons firing and exercise areas. Australian Annual Notice to Mariners No. 9/2005 lists and defines the restricted, prohibited and surface restricted areas. The range authorities are responsible for ensuring that no risk of damage occurs to surface vessels and clear range procedures apply.

Australian MSI broadcasts can also be obtained via the Internet from address, ausmsi@amsa.gov.au. The requestor need only enter the address in the e-mail message user interface and nothing else. The requestor will be provided with a listing of all Australian MSI broadcasts as per Attachment 1 within a few minutes of the request. NAVAREA X and other warnings can also be obtained from the AMSA world wide web (WWW) site at: www.amsa.gov.au/search_and_rescue/Distress_and_Safety_Communications/Maritime_Safety_Information.asp

It has been noted that there does not appear to be a trend for vessels to obtain MSI via the WWW or e-mail. It is assumed that this may be on account of the requirement for vessels to prove to marine surveyors during port state control (PSC) inspections the receipt of MSI via the Inmarsat-C SafetyNET system. It should also be noted that MSI obtained via the e-mail or WWW provide all current navigational warnings and vessels need to selectively obtain the specific warnings for their area of operation

Most navigational warning broadcasts issued by Australia are coastal warnings. Only a few warnings are issued as NAVAREA X warnings. This is on account of the approximately 250 nautical mile offshore limit used in the coastal warnings boundary, which is consistent with the range normally, provided by medium frequency (MF) voice broadcasts. This is in accordance with the World-Wide Navigational Warning Service (WWNWS) document, section 4.2.2.1. The definitions of terms used in navigational warnings by RCC Australia are given in Attachment 2.

The Emergency Response business unit of the Australian Maritime Safety Authority has a contractual arrangement in place with the Perth LES Operating Company. This arrangement requires Perth LES to provide an availability of at least 99.5 percent per calendar month. The availability of the Perth LES over the past 12 months is provided in Table 1 below.

MONTH	IOR/POR
July 2004	99.30
August 2004	99.90
September 2004	100.00
October 2004	100.00
November 2004	100.00
December 2004	99.98
January 2005	100.00
February 2005	100.00
March 2005	99.97
April 2005	100.00
May 2005	99.95
June 2005	100.00
Average for 12 Months	99.92

Table 1 – PERTH LES AVAILABILITY

3. NAVAREA X WARNING BROADCASTS

NAVAREA X warnings are transmitted using the C Codes as specified in Section A, Annex 4 of the International SafetyNET Manual. For the initial broadcast the C1 to C5 codes are set to 1, 31, 10, 11 and 00 respectively. The C4 repetition code is then set to the category B code 16 ie. repeat the broadcast every 12 hours without an echo at the scheduled broadcast time of 0700 UTC or 1900 UTC until cancelled.

During the one-year period commencing July 2004 to June 2005, 14 NAVAREA X warnings were issued. It took an average time of 1 hour 8 minutes to issue a NAVAREA X broadcast from the time of notification to RCC Australia. It is appreciated that the WWNWS document states at section 3.2.1.1.1 that SafetyNET warnings should be broadcast within 30 minutes of receipt of original information. However, it should be noted that advice on outages of some navigational aids are received during daylight hours and with the intent to repair the aid before dark and thus no warning is issued on receipt of this information. The repair to the aid is sometimes delayed and then a warning is issued. This delay in issuing a warning impacts the average time of issuing a warning.

4. COASTAL WARNING BROADCASTS

To facilitate the reception of coastal warnings around the Australian coast, a similar concept to the NAVTEX B1 character is used and eight coverage areas, A to H have been identified. This is depicted in Figure 1 below. These warnings are termed AUSCOAST warnings.

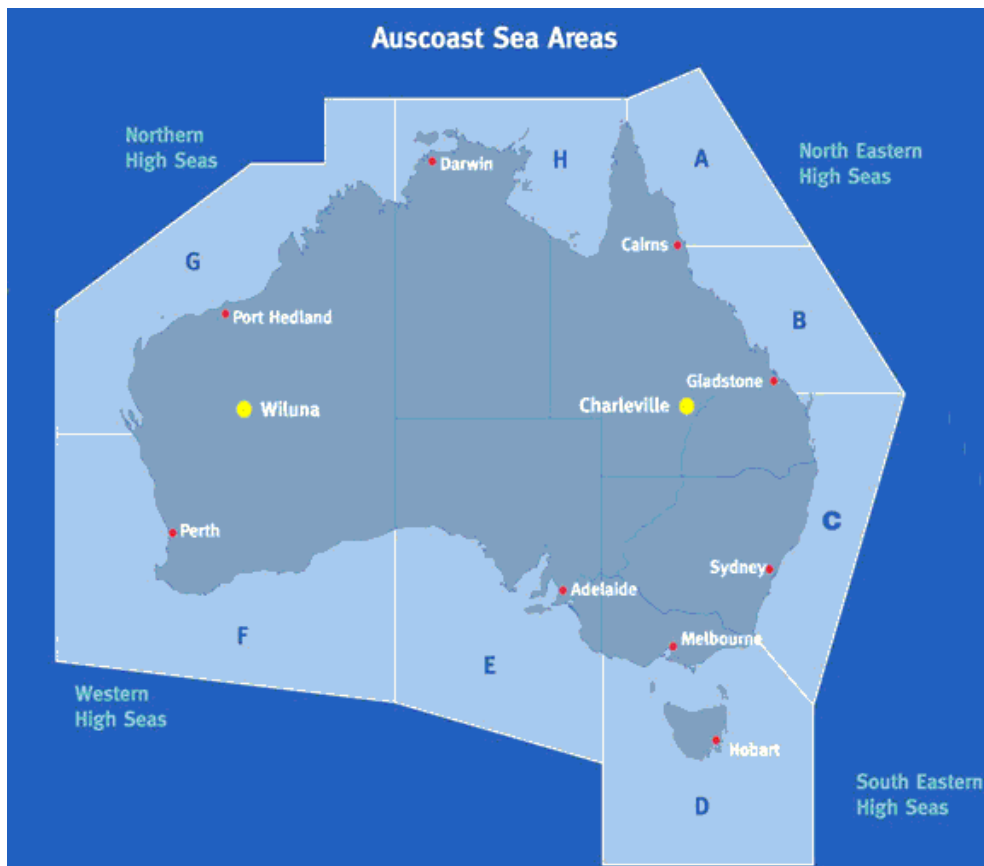


Figure 1 – Australian Coastal Areas for use with SafetyNET Broadcasts

Example of a Coastal Warning message created by RCC Australia:

Auscoast warnings are transmitted using the C Codes as specified in Section A, Annex 4 of the International SafetyNET Manual. For the initial broadcast the C1 to C5 codes are set to 1, 10DA, 10, 11 and 00 respectively with B1 code set to coastal area D (or as required) and B2 code set to “A” indicating a navigational warning. The C4 repetition code is then set to the category B code 16 ie. repeat the broadcast every 12 hours without an echo at the scheduled broadcast time of either 0700 UTC or 1900 UTC until cancelled.

During the one-year period, July 2004 to June 2005, 374 Auscoast warnings were issued. It took an average time of 42 minutes to issue an Auscoast warning broadcast from the time of notification to RCC Australia.

5. LOCAL WARNING BROADCASTS

These types of warnings are issued as “Sea Safety Messages (SSM)” and are normally minor hazards eg. floating logs, and the duration of the warning is finite, that is, a SafetyNET C4, category B repetition code is not used. Whilst the C codes used are similar to Auscoast warnings the B2 code is set to “L”, additional navigation warning code. During the one-year period, July 2004 to June 2005, 84 local warnings were issued. It took an average time of 29 minutes to issue a local warning broadcast from the time of notification to RCC Australia.

6. MONITORING MSI BROADCASTS

RCC Australia actively monitors its scheduled 0700 UTC and 1900 UTC warning broadcasts via two mobile earth stations monitoring the IOR and POR satellites. If a scheduled broadcast is not received then a message (copy below) is automatically generated and transmitted to the duty RCC Australia officer.

AUTOMATIC SYSTEM WARNING

The following Inmarsat-C EGC messages have not been received at or near their expected DTG.

This could be a result of a problem with our transceiver, communications or software. Alternatively, the messages may not have been transmitted by the satellite.

Please investigate.

OR	Cat	Msg Ref	Last received	expected DTG	Subject
I	B	396130	090702 JUL 05		ACW D 194/05

7. BACKUP LES ARRANGEMENTS

AusSAR has arrangements with the Sentosa, Singapore LES to submit SafetyNET MSI messages in the event that Perth LES has an extended outage. These arrangements are tested and another test is planned for August 2005. The RCC Australia software has been modified to undertake this contingency procedure but it still requires AMSA IT personnel support to make additional configuration changes and thus the contingency process is not seamless.

8. PORT STATE CONTROL (PSC) MSI INSPECTIONS

During the period July 2004 to June 2005 Australian marine surveyors undertook 3397 PSC inspections. Of these inspections, 80 vessels (2.3%) were noted to have some form of MSI deficiency, which in the main, included:

- Vessels’ crew unaware that Australia does not broadcast on NAVTEX and as a consequence their Inmarsat-C MES were not setup to receive Australian coastal warnings;

- Vessels' crew were not aware of how to configure their MES to receive SafetyNET broadcasts; and
- Vessels' crews were unaware of the difference between a "fixed" area and "NAVTEX" area with respect to their MES user interface.

In general most ships receive the NAVAREA X broadcasts given the default configuration of the MES user interface and GPS input for "fixed" areas but not the coastal broadcasts, which require user input to configure. There has been the unusual case of a vessel not receiving a NAVAREA X warning and this anomaly was attributed to a problem with the GPS input to the MES.

9. NON-SOLAS VESSELS MSI BROADCASTS

The Australian States and Territories maritime authorities broadcast coastal warnings at scheduled times on VHF and 8176 kHz via nine limited coast radio stations (CRS) as per Table 2. These limited CRS are also depicted in Figure 1, Section 4.

LIMITED COAST RADIO STATION FACILITIES AND FREQUENCIES

<i>Coast Radio Station</i>	<i>Callsign</i>	<i>Radiotelephone frequencies monitored</i>	<i>Warnings Navigation</i>	<i>Broadcast Time</i>	<i>ASA</i>
Sydney	Coast Radio Sydney	4125, 6215, 8291 kHz	8176 kHz	1057 2357 EST (0057 1357 UTC)	B, C, D
Gladstone	Coast Radio Gladstone	4125, 6215, 8291 kHz	8176 kHz	0857 2157 EST (2257 1157 UTC)	A, B, C
Cairns	Coast Radio Cairns	4125, 6215, 8291 kHz	8176 kHz	0957 2257 EST (2357 1257 UTC)	H, A, B
Darwin	Coast Radio Darwin	4125, 6215, 8291 kHz	8176 kHz	1127 1927 CST (0157 0957 UTC)	G, H, A
Port Hedland	Coast Radio Port Hedland	4125, 6215, 8291 kHz	8176 kHz	1257 1657 WST (0457 0857 UTC)	F, G, H
Perth	Coast Radio Perth	4125, 6215, 8291 kHz	8176 kHz	1457 1857 WST (0657 1057 UTC)	E, F, G
Adelaide	Coast Radio Adelaide	4125, 6215, 8291 kHz	8176 kHz	1327 1727 CST (0357 1257 UTC)	D, E, F
Melbourne	Coast Radio Melbourne	4125, 6215, 8291 kHz	8176 kHz	0757 1257 EST (0257 2157 UTC)	C, D, E
Hobart	Coast Radio Hobart	4125, 6215, 8291 kHz	8176 kHz	1557 EST (0557 UTC)	C, D, E

Table 2 – Limited CRS Frequency and Broadcast Schedules

Note:

ASA – Auscoast Sea Areas as depicted in Figure 1, Section 4.

ATTACHMENT 1

RESPONSE FROM USING ausmsi@amsa.gov.au

Maritime Safety Information current at 260534 UTC JUL 05.

Issued by the Australian Maritime Safety Authority,
Maritime Rescue Coordination Centre (RCC Australia).

This is an automatic reply.

Part 1. Distress, Urgency, CQ and Safety messages:

PAN PAN

FM RCC AUSTRALIA 210140Z JUL 05 AUSSAR 05/6147

ARDEN ISLET TO BRAMBLE CAY CHART AUS 840

7 METRE WHITE FIBREGLASS BANANA BOAT POWERED BY TWO YAMAHA 40HP
OUTBOARD MOTORS WITH 10 PERSONS ONBOARD SANK IN VICINITY OF 09 15.7S
143 04.0E DURING AFTERNOON 19 JULY. PERSONS LAST SIGHTED AT GIMINI
REEF (09 14S 143 03E) DURING EVENING 19 JULY. 1 SURVIVOR LOCATED
ASHORE VICINITY TURE TURE VILLAGE (09 06.0S 143 00.0E) 20 JULY.
REQUEST ALL VESSELS TRANSITTING THIS AREA KEEP A SHARP LOOK OUT AND
REPORT SIGHTINGS TO THIS STATION OR TO RCC AUSTRALIA VIA TELEPHONE
+61262306811, INMARSAT THROUGH LES PERTH (POR 222, IOR 322), SPECIAL
ACCESS CODE (SAC) 39, TELEX 7162025, HF DSC 005030001 OR FAX
+61262306868.

Part 2. NAVAREA X warnings:

FM RCC AUSTRALIA 030634Z JUN 05

NAVAREA X 003/05

MARINERS ARE ADVISED THAT NAVAIDS IN PNG WATERS ARE UNRELIABLE DUE TO
DETERIORATION AND VANDALISM. REHABILITATION OF AIDS IS UNDERWAY.

Part 3. Coastal warnings:

AUSCOAST coastal warnings - area A:

FM RCC AUSTRALIA 040815Z APR 05

AUSCOAST WARNING 118/05 NE.COAST

NARDANA PATCHES BUOY REPLACED BY BEACON IN
POSITION 10 30.3S 142 14.6E.

BEACON CHARACTERISTICS:

STRUCTURE: WHITE SINGULAR PILE 8.3M HIGH

CHARACTER: FL(4) RED 12.0S

LIGHT ELEVATION: 5M ABOVE MHHW

RANGE: 7.5NM

THE LIGHT IS PARTIALLY OBSCURED TO THE NORTH OF THE STRUCTURE.

AUSCOAST coastal warnings - area B: nil.

AUSCOAST coastal warnings - area C: nil.

ATTACHMENT 1

RESPONSE FROM USING ausmsi@amsa.gov.au (contd)

AUSCOAST coastal warnings - area D:

FM RCC AUSTRALIA 240713Z JUL 05
AUSCOAST WARNING 203/05 SE.COAST
SPECIAL PURPOSE VESSEL GIULIO VERNE/IBPU ENGAGED IN CABLE REPAIR
OPERATIONS IN POSITION 38 50.73 S 147 00.12 E
2.5 NM CLEARANCE REQUESTED.

FM RCC AUSTRALIA 082057Z JUL 05
AUSCOAST WARNING 194/05 SE.COAST
DRILL RIG OCEAN PATRIOT IN POSITION 38 43.2S 142 39.7E 2.5 NM
CLEARANCE REQUESTED

FM RCC AUSTRALIA 210632Z JUN 05
AUSCOAST WARNING 184/05 SE.COAST
DRILL RIG ENSCO 102 IN POSITION 38 31.1S 147 50.4E
2.5 NM CLEARANCE REQUESTED

FM RCC AUSTRALIA 080535Z FEB 05
AUSCOAST WARNING 051/05 SE.COAST
CAPE SCHANCK DGPS ALRS 3156 IN POSITION 38 29.5S 144 53.2E
REDUCED POWER.

AUSCOAST coastal warnings - area E: nil.

AUSCOAST coastal warnings - area F: nil.

AUSCOAST coastal warnings - area G:

FM RCC AUSTRALIA 190710Z JUL 05
AUSCOAST WARNING 200/05 NW.COAST
DRILL RIG SEDCO 703 IN POSITION 19 57.6S 115 08.3E 2.5 NM CLEARANCE
REQUESTED

FM RCC AUSTRALIA 120020Z JUL 05
AUSCOAST WARNING 196/05 NW.COAST
CHART AUS4722 - INDIAN OCEAN NORTHERN PART
DRILL RIG ATWOOD EAGLE IN POSITION 14 26.6S 121 38.5E 2.5 NM
CLEARANCE REQUESTED

FM RCC AUSTRALIA 071542Z JUL 05
AUSCOAST WARNING 193/05 NW.COAST
SEISMIC SURVEY VESSEL VERITAS VIKING II TOWING 2.5NM CABLES IN AREA
FROM 21 06S TO 21 27S AND 114 44E TO 114 59E.
5NM CLEARANCE REQUESTED.

FM RCC AUSTRALIA 021521Z JUL 05
AUSCOAST WARNING 189/05 NW.COAST
DRILL RIG ENSCO 106 IN POSITION 20 44.2S 115 34.2E
2.5 NM CLEARANCE REQUESTED

ATTACHMENT 1

RESPONSE FROM USING ausmsi@amsa.gov.au (contd)

FM RCC AUSTRALIA 191311Z JUN 05
AUSCOAST WARNING 183/05 NW.COAST
SEISMIC SURVEY VESSEL RAMFORM VANGUARD/C6TU8 TOWING 4.0 NM CABLES IN
AREA BOUNDED BY 21 00S TO 21 21S AND 113 50E TO 114 30E. WIDE BERTH
REQUESTED.

FM RCC AUSTRALIA 191235Z MAY 05
AUSCOAST WARNING 160/05 NW.COAST
DRILL RIG JOHN BROOKES IN POSITION 20 26.8S 115 07.2E.
2.5 NM CLEARANCE REQUESTED

AUSCOAST coastal warnings - area H:

FM RCC AUSTRALIA 120600Z JUL 05
AUSCOAST WARNING 197/05 N.COAST
CHART AUS296 GOODS ISLAND TO PROUDFOOT SHOAL
BOOBY ISLAND LIGHT K3274 IN POSITION 10 36.25S 141 54.68E ALTERED.
CHARACTER FL 10S, FLASH 0.1S, ECLIPSE 9.9S, COLOUR WHITE, RANGE 20NM.

FM RCC AUSTRALIA 060412Z JUL 05
AUSCOAST WARNING 191/05 N.COAST
DRILL RIG OCEAN BOUNTY IN POSITION 10 08.1S 130 08.5E
2.5 NM CLEARANCE REQUESTED

FM RCC AUSTRALIA 160459Z JUN 05
AUSCOAST WARNING 180/05 N.COAST
WARNAWI ISLAND LIGHT K3312.6 IN POSITION 11 48.8S 136 01.7E
DESTROYED

Part 4. Summary of Mobile Drilling Rigs :

NAME	POSITION
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ATWOOD EAGLE	14 26.6S 121 38.5E
ENSCO 102	38 31.1S 147 50.4E
ENSCO 106	20 44.2S 115 34.2E
ENSCO 56	20 26.8S 115 07.3E
EXETER MUTINEER FIELD	19 16.6S 116 36.8E
JACK BATES	21 28.9S 113 59.3E
JOHN BROOKES	20 26.8S 115 07.2E
OCEAN BOUNTY	10 08.1S 130 08.5E
OCEAN LEGEND	19 42.3S 116 42.4E
OCEAN PATRIOT	38 43.2S 142 39.7E
SEDCO 703	19 57.6S 115 08.3E

For information on coastal areas, please refer to the ANNUAL
AUSTRALIAN NOTICES TO MARINERS or the AUSTRALIAN GMDSS HANDBOOK.

The date-time format used is "ddhhmmZ mon yy", where "Z" indicates
UTC. Australian Eastern Standard Time is 10 hours ahead of UTC.

Feedback/suggestions can be sent to: msi_sup@amsa.gov.au

TO REPLY TO THIS EMAIL PLEASE USE rccaus@amsa.gov.au

TERMS USED IN NAVIGATION WARNINGS

Station

The authorised and exact location of a navigational aid.

Established in position

Any type of aid placed in operation for the first time at a given station.

Re-established in position

Any type of aid placed in operation at a station at which a similar type of aid with identical characteristics had been previously established, but subsequently destroyed, withdrawn or discontinued.

Unlit

When a light is out because of defective equipment, maintenance or any other unintentional or deliberate occurrence, and it is intended to restore it to normal as soon as practicable.

Unreliable

When an aid of any type is not exhibiting its correct characteristics and it is intended to restore it to normal as soon as practicable.

Reduced power

When an aid of any type is not operating at its correct power, but is exhibiting its correct characteristics and it is intended to restore it to normal as soon as practicable.

Off station

When a floating aid is adrift, missing or out of position and it is intended to replace it as soon as practicable.

Altered

When the characteristics or structure of any aid have been altered, without changing the type of aid or its station.

Altered in position

When a change is made to the station of an aid, that is, its location, without changing the type of aid, character or structure.

Destroyed

Any type of aid damaged so as to no longer be of use as a navigational aid, but remnants of the structure may remain.

Restored to normal

Any type of aid which had been 'unlit', on 'reduced power' or 'temporarily discontinued', which has been serviced and now exhibits its correct characteristics and power.

ATTACHMENT 1

TERMS USED IN NAVIGATION WARNINGS

Replaced in position

A floating aid previously described as 'off station' or 'temporarily withdrawn' is returned to its correct station.

Temporarily replaced by

When any aid is discontinued, withdrawn or off station and another aid of a different type or characteristic is immediately established at the same station.

Temporarily withdrawn

When a floating aid has been entirely removed from its station and no similar aid left in its place, but it is intended to re-establish the aid in the near future.

Temporarily discontinued

When a sound signal or radio beacon service is silent because of defective equipment or maintenance or any other unintentional or deliberate occurrence and it is intended to restore it to normal as soon as practicable.

Permanently withdrawn

When a floating aid has been entirely removed from its station with no similar aid left in its place and it is not intended to re-establish that aid at that station in the future.

Permanently discontinued

When any aid, including a sound signal or radio beacon service, but excluding a floating aid, is removed from a station because it is no longer required.