MSI SELF ASSESSMENT – NAVAREA X

Submitted by: AUSTRALIA

1.   ACTION REQUIRED

The CPRNW is requested to:

a)   note the NAVAREA X information provided in accordance with the MSI self-assessment template; and

b)   advise on the matter of having to conduct annual or other regular tests concerning an Inmarsat prime satellite contingency as mentioned in Section 11.

2.   BACKGROUND

Australia is the NAVAREA X coordinator and detailed information in respect of MSI broadcasts can be found in the Admiralty List of Radio Signals (ALRS) Vol 5, 2007/08 edition and the Annual Australian Notices to Mariners, 2007 edition. The scheduled MSI broadcasts are at 0700 UTC and 1900 UTC and promulgated by both the IOR and POR satellites.

The Australian content in the latest edition of the IMO Master Plan provided by circular GMDSS.1/Circ.9 dated 30 March 2007 has been reviewed and is up to date.

3.   COMMENTS

The following numbers of Inmarsat-C SafetyNET messages were broadcast from July to June of each year:

Type/Year	2005	2006/Av. time to issue broadcast		2007/Av. time to issue broadcast	
NAVAREA X	14	8	10 Mins	12	89 Mins[1]
AUSCOAST	374	340	19 Mins	346	37 Mins
LOCAL	84	89	24 Mins	72	24 Mins

Table 1: Numbers of SafetyNET Messages Broadcast

Note 1: NAVAREA X 013/2006 took 13.6 hours to issue. Notification was received at 2349 UTC, 17 Nov 2006 and the warning was issues at 1324 UTC, 18 Nov 2006. It concerned the seismic survey vessel Pacific Titan and a delay in the start of the survey.

4.   NAVTEX COVERAGE

Australia does not broadcast coastal warnings via Navtex. The maritime areas around Australia have been designated GMDSS Sea Area A3. Coastal and local warnings are broadcast using SafetyNET to take advantage of the Navtex emulation capability of the Inmarsat-C MES. The psuedo Navtex areas are provided in Figure 1 below.
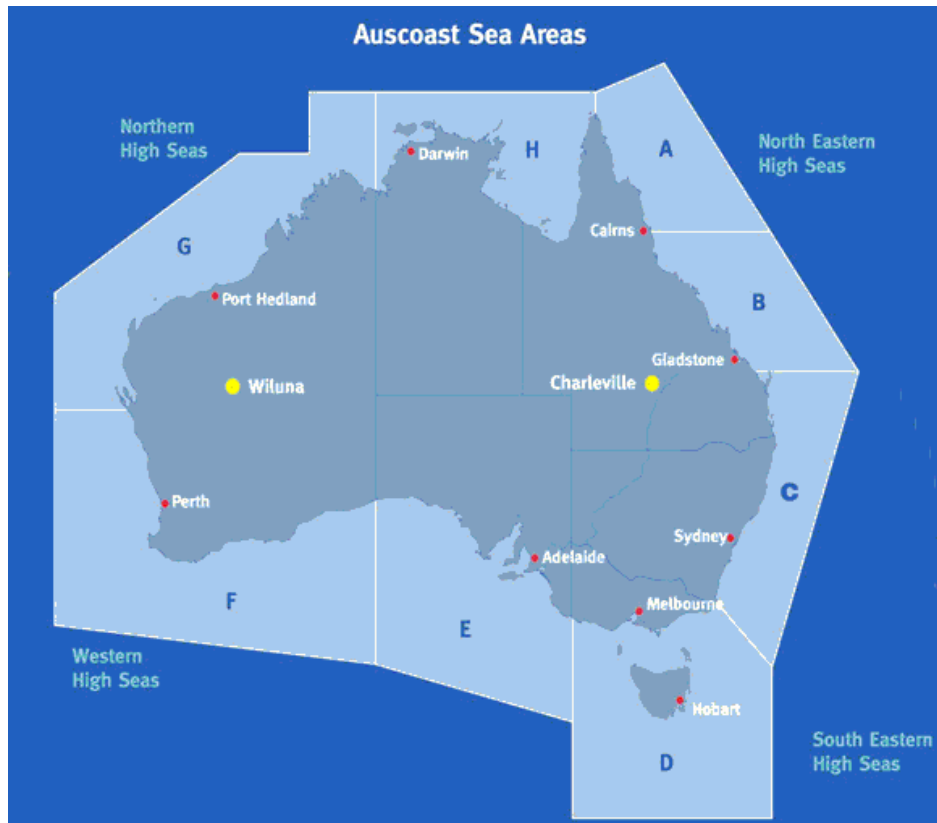

Figure 1: Australian Coastal areas – NAVTEX B1 code

5.   OPERATIONAL ISSUES

The Emergency Response business unit of the Australian Maritime Safety Authority has a contractual arrangement in place with the Perth/Burum LES Operating Company. This arrangement requires Perth/Burum LES to provide an availability of at least 99.5 percent per calendar month. The availability of the Inmarsat C service over the past 12 months is provided in Table 2 below.

MONTH	IOR/POR
July 2006	100
August 2006	100
September 2006	100
October 2006	100
November 2006	99.87
December 2006	100
January 2007	100
February 2007	99.75
March 2007	100
April 2007	94.4[2]
May 2007	100
June 2007	99.46
Average for 12 Months	99.46%

Table 2 – PERTH/BURUM LES Sat-C AVAILABILITY

Note 2: In April 2007 RCC Australia requested the Inmarsat NOC, London to broadcast the following message in view of problems being experienced by the Perth/Burum LES in broadcasting SafetyNET traffic. MSI broadcasts resumed at 0700 UTC, 11 April 2007 after a period of some 4 days.

FM RCC AUSTRALIA 070700Z APR 2007
PERTH LES HAS BEEN INOPERATIVE SINCE 070000Z APR 2007
1. SHIPS WITH INMARSAT-C MESSAGES ADDRESSED TO RCC AUSTRALIA, INCLUDING AUSREP MESSAGES AND AUTOMATED POLLING, NORMALLY USING PERTH/BURUM LES (POR 212, IOR 312), SHOULD CONSIDER USING AN ALTERNATIVE LES UNTIL FURTHER NOTICE.
2. A SAR WATCH FOR VESSELS PARTICIPATING IN AUSREP HAS BEEN TEMPORARILY DISCONTINUTED. VESSELS ARE REQUESTED TO USE ALTERNATE MEANS IN PROVIDING AUSREP INFORMATION.
3. MARITIME SAFETY INFORMATION BY EGC MESSAGES WILL NOT BE BROADCAST AT THIS TIME. MARITIME SAFETY INFORMATION CAN BE OBTAINED VIA INTERNET AT: www.amsa.gov.au (MARITIME SAFETY INFORMATION) AND VIA LIMITED COAST RADIO STATIONS AS PER ALRS VOL 1 PART 2.
4. RCC AUSTRALIA WILL ADVISE WHEN SERVICES ARE RESTORED.
REGARDS RCC AUSTRALIA

In January 2007 with the merging of Stratos and Xantic and the consolidation of SafetyNET services the process of transmitting messages via Burum, station ID 12 commenced. By March 2007, NAVAREA X and Coastal SafetyNET traffic were being submitted to Burum and in May 2007 traffic to Perth, station ID 22 ceased. However, on 25 June 2007 a serious anomaly was noted where vessels commenced receiving multiple copies (in some cases 100+ copies of the same message) of SafetyNET traffic originated by RCC Australia. Some ships reported the problem directly to RCC Australia and indicated they had turned their MES terminals off. This was the first notification that RCC Australia received of the problem. A check of the RCC Australia monitoring IOR/POR terminals confirmed the ships' reports. As a consequence, traffic was manually submitted at scheduled times and on 28 June 2007 Stratos reverted to SafetyNET transmissions via

Perth LES, station ID 22 as this station is known to have provided a stable service. This situation remains extant at this time and reported to Inmarsat and IMSO.

Contingency arrangements were in place with the Singapore Sentosa LES in the event that the Perth LES became unserviceable. However, with the demise of X.25 communications at the Singapore LES and the rationalization of Perth/Burum LES this service was not available during the May/June outages. Action is now in hand to automate the submission of messages by e-mail to LES Sentosa.

In September 2006 Australia reported that a test of the Inmarsat prime satellite contingency was undertaken in October 2005 whereby messages were exchanged with the SafetyNET hub at Inmarsat, London. These contingency tests were undertaken with MSI information being submitted using appropriate C Codes. Advice on the need for annual testing would be appreciated.

During the period July 2006 to June 2007, Australian marine surveyors undertook 3078 port state control inspections. Of these inspections, 127 vessels (4.1 %) were noted to have some form of MSI deficiency, either there was a problem with their Inmarsat-C MES or that the MSI was not available.

At the 8th CPRNW meeting it was mentioned that it would be useful, in terms of MSI broadcasts, to have an indication of the maritime routes undertaken by vessels. Figure 2 provides such an indication of the density of traffic around the Australian coast and within its search and rescue region which extends from 075 East to 163 East longitude. The figure indicates the high volume of traffic from the west coast via the Sunda and Lombok Straits and from the east coast via the east off Papua New Guinea to/from Japan, China, etc. Furthermore it does indicate that there is relatively high traffic throughout NAVAREA X except for the area south of Tasmania. The data has been taken from ships reporting to the Australian Ship Reporting system during 2006.
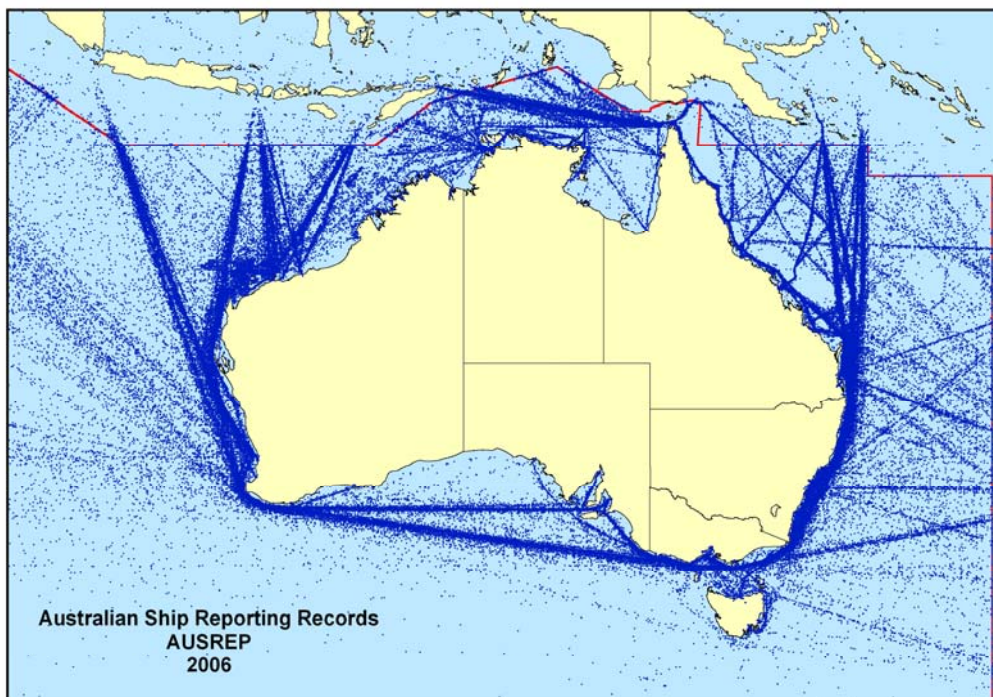

Figure 2: Shipping Traffic Around Australia - 2006

6.   CAPACITY BUILDING

Officers from the Emergency Response business unit of the Australian Maritime Safety Authority visited Port Moresby, Papua New Guinea in August 2007 to establish first hand the SAR and MSI needs of Papua New Guinea. On completion of the report of the visiting officers a SAR/MSI workshop will be tailored to meet the needs of Papua New Guinea.

7.   OTHER ACTIVITIES

A major upgrade of the RCC Australia system took place in July 2007. The new system is called the "Nexus" System.

This upgrade also provided for a new operator interface to submit SafetyNET messages to the LES. Attachment 1 provides examples of the operator interface. The upgrade also took into account the draft IMO eleventh Sub-Committee on Radiocommunications and Search and Rescue (COMSAR 11) draft circular concerning an analysis and recommendations on MSI promulgation via the EGC SafetyNET system.   RCC Australia is now broadcasting SAR messages using the C2 service area codes 34 and 44.

In addition, Nexus includes the capability for the operator to monitor the receipt of all broadcasts by the POR and IOR MES installed in Canberra and Fremantle. Attachment 2 provides an example of this capability.

8.   NAVAREA WEBSITE

In addition to the normal SafetyNET broadcasts, navigational warnings are also available at the following web site:
http://www.amsa.gov.au/search_and_rescue/distress_and_safety_communications/MSI/AUSMSI.htm

The web site is updated in almost real time, that is, within 30 minutes of issuing a new warning or the cancellation of a current warning.

The following statistics for the one-year period, 1 July 2006 to 30 June 2007, shows the number of times the following AMSA MSI www link was accessed:

http://www.amsa.gov.au/search_and_rescue/distress_and_safety_communications/maritime_safety_information.asp

Hits	
Hits	4,301
Average Hits per Day	11
Average Hits per Visitor	3.63
Incomplete Requests	0
Visitors	
Visitors	1,186
Average Visitors per Day	3
Bandwidth	
Bandwidth	0 B
Average Bandwidth per Day	0 B

Table 3: AMSA MSI Web Link Visits
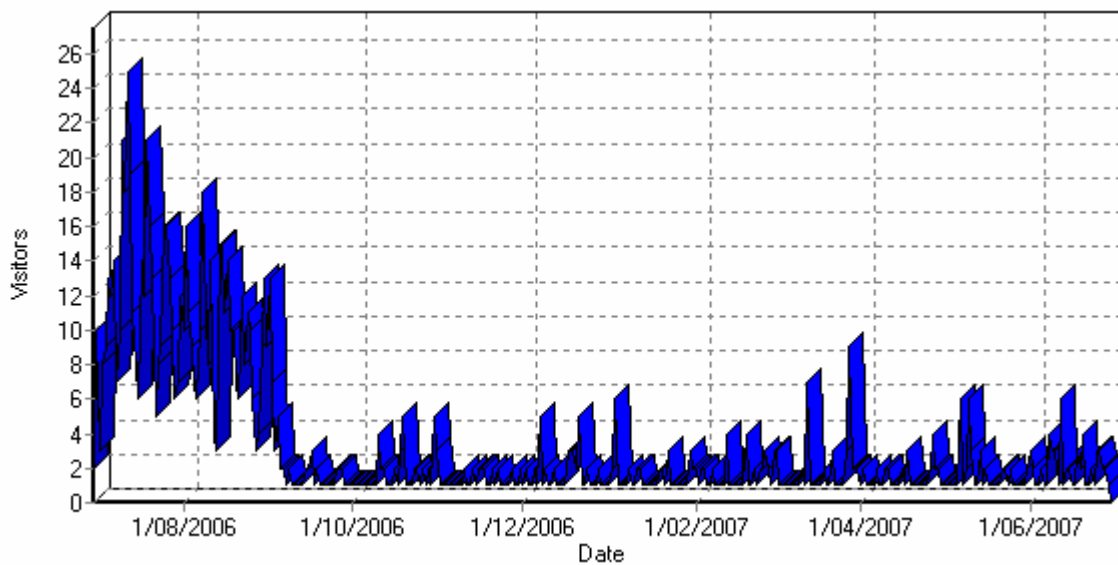
Figure 3: Daily Activity on AMSA MSI Web Link

9.   NAVAREA X CONTACT INFORMATION

The 24/7 NAVAREA X contact information is:

Senior Search and Rescue Officer (Maritime)
RCC Australia
Emergency Response
Australian Maritime Safety Authority
GPO Box 2181
Canberra ACT 2601
Australia

Phone + 61 2 6230 6811
Fax +61 2 6230 6868
E_Mail: rccaus@amsa.gov.au

The CPRNW NAVAREA X contact is:

Mr Chris Payne
Emergency Response
Australian Maritime Safety Authority
PO Box 1332
Fremantle WA 6959
Australia

Phone +61 8 94302130
Fax + 61 8 94302121

10.   RECOMMENDATIONS

NIL

11.   ACTIONS REQUIRED

Australia/NAVAREA X Coordinator requests advice on need and procedure to conduct regular Inmarsat prime satellite contingency tests.

ATTACHMENT 1

EXAMPLE OF SAFETYNET OPERATOR INTERFACE
RCC AUSTRALIA NEXUS SYSTEM

Setting Broadcasts using C-Codes

\# Ships within circular area receive broadcast

\# Broadcast is sent out as Safety

\# Broadcast is CATB and will repeat 12hrly until cancelled by RCC Australia

C-Codes in Message Format

C1 - Priority

C3 – Address rule (Centre of circle and radius)

C5 – Language (Always 0 English)

C2 – Service Code

C4 – Repeat code (12hrly)

All SafetyNET EGC Messages Received by the POR/IOR MES Monitors

EGC Message Search

Received: 030650 UTC AUG 2007 to 030807 UTC AUG 2007 Last Hour | Search

Priority: | Service Type: | Clear

Ocean Region: | LES ID: | NCS ID:

Title/Body: | RCC Orginator: ☑

EGC Message Search

Data Received
030720 UTC AUG 2007
Ocean Region
POR
EGC Priority
Safety
EGC Service Type
Urgency, Met or Nav Warning to Circular Area
EGC Address
9 S 135 E 200
Message Size
878
RCC Australia Document Id
4817063

Received DTG	Subject	Priority(C1)	Service(C2)	Address(C3)	Ocean C...	LES	NCS Ms...	NCS	Size	Rep...
030720 UTC AUG 2007	POR:NavWarn Distr...	Distress	Urgency o...	20+4 S 157+5 E	POR	21	1078	244	634	26
030720 UTC AUG 2007	POR:CoastalWarn S...	Safety	Coastal W...	10 G A	POR	22	13067	244	318	22
030720 UTC AUG 2007	POR:Met NavWarn ...	Safety	Urgency, ...	13 S 148 E 180	POR	22	10718	244	878	8
030720 UTC AUG 2007	POR:Met NavWarn ...	Safety	Urgency, ...	9 S 135 E 200	POR	22	10714	244	878	8
030720 UTC AUG 2007	POR:CoastalWarn S...	Safety	Coastal W...	10 G A	POR	22	10277	244	283	27
030719 UTC AUG 2007	IOR:CoastalWarn Sa...	Safety	Coastal W...	10 G A	IOR	22	13485	344	216	13
030719 UTC AUG 2007	IOR:CoastalWarn Sa...	Safety	Coastal W...	10 G A	IOR	22	12074	344	212	6
030719 UTC AUG 2007	IOR:CoastalWarn Sa...	Safety	Coastal W...	10 E A	IOR	22	10288	344	243	27
030719 UTC AUG 2007	IOR:CoastalWarn Sa...	Safety	Coastal W...	10 G A	IOR	22	10765	344	278	23
030719 UTC AUG 2007	IOR:CoastalWarn Sa...	Safety	Coastal W...	10 G A	IOR	22	13066	344	318	22
030719 UTC AUG 2007	IOR:CoastalWarn Sa...	Safety	Coastal W...	10 G A	IOR	22	10186	344	212	28
030719 UTC AUG 2007	IOR:CoastalWarn Sa...	Safety	Coastal W...	10 G A	IOR	22	13068	344	215	22
030719 UTC AUG 2007	IOR:Met NavWarn S...	Safety	Urgency, ...	13 S 148 E 180	IOR	22	10717	344	878	8
030719 UTC AUG 2007	IOR:CoastalWarn Sa...	Safety	Coastal W...	10 G A	IOR	22	10276	344	283	27
030719 UTC AUG 2007	IOR:CoastalWarn Sa...	Safety	Coastal W...	10 G A	IOR	22	10188	344	214	28
030715 UTC AUG 2007	POR:CoastalWarn S...	Safety	Coastal W...	10 G A	POR	22	13065	244	215	22
030715 UTC AUG 2007	POR:CoastalWarn S...	Safety	Coastal W...	10 G A	POR	22	10182	244	214	28
030715 UTC AUG 2007	POR:CoastalWarn S...	Safety	Coastal W...	10 G A	POR	22	12075	244	212	6
030715 UTC AUG 2007	POR:CoastalWarn S...	Safety	Coastal W...	10 G A	POR	22	10371	244	210	26
030715 UTC AUG 2007	POR:CoastalWarn S...	Safety	Coastal W...	10 G A	POR	22	13484	244	216	13
030715 UTC AUG 2007	POR:CoastalWarn S...	Safety	Coastal W...	10 G A	POR	22	10184	244	212	28
030715 UTC AUG 2007	POR:CoastalWarn S...	Safety	Coastal W...	10 G A	POR	22	10189	244	206	28
030715 UTC AUG 2007	POR:CoastalWarn S...	Safety	Coastal W...	10 A A	POR	22	13253	244	211	18
030714 UTC AUG 2007	IOR:CoastalWarn Sa...	Safety	Coastal W...	10 G A	IOR	22	13252	344	211	18
030714 UTC AUG 2007	IOR:CoastalWarn Sa...	Safety	Coastal W...	10 G A	IOR	22	10368	344	210	26
030710 UTC AUG 2007	POR:ENID Routine ...	Routine	Download...	ID	POR	04	1933	244	77	1
030710 UTC AUG 2007	POR:Group Routine ...	Routine	Group Call	6348	POR	17	110	244	47	0
030709 UTC AUG 2007	IOR:Group Routine ...	Routine	Group Call	6348	IOR	17	110	344	47	0
030705 UTC AUG 2007	POR:ENID Routine ...	Routine	Download...	ID	POR	04	1933	244	77	0
030705 UTC AUG 2007	POR:Met NavWarn ...	Safety	Urgency, ...	40 S 145 E 400	POR	22	312	244	1241	0

Message Details

03-06:19 244 3030 EGC
LES 222 - MSG 10714 - Met/NavWarn Safety Call to Area: 9 S 135 E 200 - Rep# 8

XANTIC LES 22 999 3-AUG-2007 07:13:11 955097

AMSA_ER 4817063

FM RCC AUSTRALIA 060654Z JUL 2007 AUSSAR 2006/7321
COMPULSORY TORRES STRAIT PILOTAGE

MASTERS OF VESSELS 70 METRES IN LENGTH OVERALL OR GREATER, AND ALL LOADED OIL, CHEMICAL TANKERS OR LIQUIFIED GAS CARRIERS ARE ADVISED THAT AUSTRALIAN LAW HAS BEEN AMENDED TO REQUIRE A LICENCED PILOT TO BE ENGAGED WHEN NAVIGATING THE TORRES STRAIT.

ALL VESSELS WILL BE AUTOMATICALLY CHECKED FOR COMPLIANCE AND THE FAILURE TO EMBARK A LICENSED PILOT MAY RESULT IN PROSECUTION.

MASTERS OF VESSELS SHOULD ENSURE CONTACT IS MADE IN A TIMELY MANNER WITH A PILOTAGE PROVIDER TO GUARANTEE A LICENSED PILOT IS BOOKED.

THE FOLLOWING ARE THE CONTACT DETAILS OF THE TWO COMPANIES THAT CAN PROVIDE LICENSED PILOTS:

SafetyNET EGC Messages exported to Excel Spreadsheet

Received DTG	Subject	Priority(C1)	Service(C2)	Address(C3)	Ocean Code	LES	NCS Msg Id	NCS	Size	Repeat
03-08-07 08:05	POR:Met NavWarn Urgent Call to Area: 13 N 113 E 180	2	24	13 N 113 E 180	2	3	488	244	668	0
03-08-07 08:04	IOR:Group Routine Call to Area: 26309	0	2	26309	3	12	318	344	305	0
03-08-07 08:04	IOR:CoastalWarn Safety Call to Area: 10 G B	1	13	10 G B	3	22	317	344	1242	1
03-08-07 08:00	POR:MetWarn Fore Safety Call to Area: 11	1	31	11	2	3	487	244	1118	0
03-08-07 07:59	POR:CoastalWarn Safety Call to Area: 10 G B	1	13	10 G B	3	22	317	344	1242	0
03-08-07 07:44	POR:Met NavWarn Safety Call to Area: 40 S 150 E 999	1	24	40 S 150 E 999	2	22	316	244	673	1
03-08-07 07:39	IOR:MetWarn Fore Safety Call to Area: 10	1	31	10	3	22	315	344	994	1
03-08-07 07:39	POR:Met NavWarn Safety Call to Area: 40 S 150 E 999	1	24	40 S 150 E 999	2	22	316	244	673	0
03-08-07 07:29	IOR:MetWarn Fore Safety Call to Area: 10	1	31	10	3	22	315	344	994	0
03-08-07 07:25	POR:Met NavWarn Safety Call to Area: 13 S 148 E 180 - CQ 2006/7322	1	24	13 S 148 E 180	2	22	10718	244	878	8
03-08-07 07:24	IOR:MetWarn Fore Safety Call to Area: 10 - NAVX 007/07	1	31	10	3	22	10369	344	248	26
03-08-07 07:24	IOR:MetWarn Fore Safety Call to Area: 9	1	31	9	3	22	314	344	1342	0
03-08-07 07:24	IOR:Met Nav Warn Safety Call to Area: 13 S 148 E 180 - CQ 2006/7322	1	24	13 S 148 E 180	3	22	10717	344	878	8
03-08-07 07:24	POR:Met NavWarn Safety Call to Area: 40 S 145 E 400	1	24	40 S 145 E 400	2	22	311	244	2589	1
03-08-07 07:24	POR:CoastalWarn Safety Call to Area: 10 G A - AUSCOAST G 191/07	1	13	10 G A	2	22	10764	244	278	23
03-08-07 07:20	POR:MetWarn Fore Safety Call to Area: 10 - NAVX 007/07	1	31	10	2	22	10370	244	248	26
03-08-07 07:20	IOR:NavWarn Safety Call to Area: 67+16 N 44+81 E	1	4	67+16 N 44+81 E	3	17	111	344	796	0
03-08-07 07:20	POR:CoastalWarn Safety Call to Area: 10 D A - AUSCOAST D 211/07	1	13	10 D A	2	22	87	244	285	6
03-08-07 07:20	POR:CoastalWarn Safety Call to Area: 10 E A - REISSUE OF AUSCOAST E 174/07	1	13	10 E A	2	22	10287	244	243	27
03-08-07 07:20	POR:CoastalWarn Safety Call to Area: 10 D E	1	13	10 D E	2	22	313	244	2392	0
03-08-07 07:20	POR:CoastalWarn Safety Call to Area: 10 B A - REISSUE OF AUSCOAST B 178/07	1	13	10 B A	2	22	10284	244	235	27
03-08-07 07:20	IOR:Met Nav Warn Safety Call to Area: 9 S 135 E 200 - CQ 2006/7321	1	24	9 S 135 E 200	3	22	10715	344	878	8
03-08-07 07:20	POR:Met NavWarn Safety Call to Area: 40 S 145 E 400	1	24	40 S 145 E 400	2	22	312	244	1241	1
03-08-07 07:20	POR:Met NavWarn Safety Call to Area: 40 S 145 E 400	1	24	40 S 145 E 400	2	22	310	244	1384	1
03-08-07 07:20	POR:NavWarn Distress Call to Area: 20+4 S 157+5 E	3	4	20+4 S 157+5 E	2	21	1078	244	634	26
03-08-07 07:20	POR:CoastalWarn Safety Call to Area: 10 G A - AUSCOAST G 204/07	1	13	10 G A	2	22	13067	244	318	22
03-08-07 07:20	POR:Met NavWarn Safety Call to Area: 13 S 148 E 180 - CQ 2006/7322	1	24	13 S 148 E 180	2	22	10718	244	878	8
03-08-07 07:20	POR:Met NavWarn Safety Call to Area: 9 S 135 E 200 - CQ 2006/7321	1	24	9 S 135 E 200	2	22	10714	244	878	8
03-08-07 07:20	POR:CoastalWarn Safety Call to Area: 10 G A - REISSUE OF AUSCOAST G 181/07	1	13	10 G A	2	22	10277	244	283	27
03-08-07 07:19	IOR:CoastalWarn Safety Call to Area: 10 G A - AUSCOAST G 208/07	1	13	10 G A	3	22	13485	344	216	13
03-08-07 07:19	IOR:CoastalWarn Safety Call to Area: 10 G A - AUSCOAST G 197/07	1	13	10 G A	3	22	12074	344	212	6
03-08-07 07:19	IOR:CoastalWarn Safety Call to Area: 10 E A - REISSUE OF AUSCOAST E 174/07	1	13	10 E A	3	22	10288	344	243	27

ATTACHMENT 2

Operator Monitoring of SafetyNET EGC Broadcasts