

MSI Self Assessment NAVAREA V

Submitted by BRAZIL

SUMMARY

Executive Summary: NAVAREA V provides the paper of MSI Self Assessment for PRNW1 (WWNWS1)

Action to be taken: Paragraph 11

Related documents: None

1. Background:

1.1 -The Radio Navigational Warnings broadcast in NAVAREA V is performed through the following services:

a) SafetyNET Service

The NAVAREA and Coastal warnings are broadcast by SafetyNET, in English, with messages transmitted twice a day, in programmed schedules 0030Z and 1230Z, by Tanguá Land Earth Station (LES) - AOR-E satellite - (Tel: +55 21 2121-4320/4314, Fax: 55 21 2121-4060, tangua@embratel.com.br). NAVAREA V warnings in force for more than six (6) weeks are not included in these messages, since they are issued in Notices to Mariners.

The Coastal Warnings are also transmitted by SafetyNET since Brazil does not use NAVTEX service.

The geographic boundaries of the NAVAREA V and Coastal areas are shown at Annex A.

b) Radio (VHF/HF) Services

b.1 - Navy's Radio Station in Rio de Janeiro (PWZ33)

NAVAREA and Coastal Navigational Warnings (in English and Portuguese languages) and Local warnings (in Portuguese) are broadcast by messages in HF band (for radio data and radio-telex) and transmitted three times a day, in programmed schedules 0400Z, 1230Z and 1430Z. Warnings in force for more than six (6) weeks also are not included in these messages, since they are issued in Notices to Mariners; and

b.2 - Coast Stations National Net (RENEC)

NAVAREA, Coastal and Local Navigational Warnings considered urgent or of great relevance are timely broadcast, by radiotelephony messages, in Portuguese, in the VHF/HF bands.

c) INTERNET

All NAVAREA and Coastal Warnings (in English and Portuguese) and Local Warnings (in Portuguese) in force are available in the INTERNET. The lists of Navigational Warnings are updated at least twice a day.

d) Notices to Mariners

NAVAREA V warnings in force for more than six (6) weeks are issued in Section II (NAVAREA, Coastal and Local, in Portuguese) and Section VII (NAVAREA and Coastal, in English) of Maritime Area and Inland Waters in General (edited fortnightly) in Notices to Mariners. More details on promulgation of NAVAREA V Warnings, as well as other Maritime Safety Information as a whole are presented at the Table 1 of the booklet, and shown at Annex B.

2. Comments:

2.1 - The following table shows the number of Radio Navigational Warnings that were promulgated as SafetyNet messages:

| Type/Year | 2007* | 2008* | 2009 (by JUN) |
|-----------|-------|-------|---------------|
| NAVAREA | 730 | 529 | 68 |
| COASTAL | 306 | 1.422 | 1.289 |

* See item 4.1.1.

2.2 - The following table shows the number of Radio Navigational Warnings that were broadcast through all services (SafetyNET, VHF/HF and Internet), considering the warnings inside each bulletin and those that were transmitted as individual messages:

| Type/Year | 2007 | 2008 | 2009(byJUN) |
|-----------|-------|-------|-------------|
| NAVAREA | 1084 | 529 | 68 |
| COASTAL | 1182 | 1.422 | 1.289 |
| LOCAL | 2028 | 2.102 | 1.077 |
| TOTAL | 4.294 | 4.153 | 2.434 |

3. NAVTEX Coverage:

There are no NAVTEX stations operating within NAVAREA/METAREA V.

4. Operational Issues:

4.1 Radio Navigational Warnings

4.1.1 Transmission by SafetyNET:

Until August 1st 2007, the Coastal Warnings were transmitted together with the NAVAREA Warnings as unique NAVAREA messages (in form of bulletins) by SafetyNET System. From that date to August 1st 2008, the warnings were put into two different messages (but still in form of bulletins), transmitted separately, one message for the NAVAREA Warnings and the other for the Coastal Warnings. From 1st August 2008 onwards, to comply with NAVAREA V SafetyNET service international rules, new criteria was adopted:

a) distances from shore:

- NAVAREA Warnings - average distance more than 250 nautical miles;
- Coastal Warnings - average distance between 3 miles and 250 nautical; and
- Local Warnings - average distance less than 3 nautical miles and inland waters (e.g. ports, rivers and lakes).

b) Messages Codes

- NAVAREA warnings are transmitted by individual messages codified as "1.1.31.05.01.00".
- Coastal warnings are transmitted by individual messages codified as "1.1.13.05B₁A.01.00" (being B₁ "I", "N", "E" or "S" according to the coastal area the warning refers to - see Annex A).

4.1.2 Contingent Plan

NAVAREA V Coordinator and the NAVAREA VI Coordinator have started an agreement to establish a common Contingent Plan. It is underway to set the procedures to be taken for a mutual support in case of a failure occurring in the SafetyNET Service of one of each NAVAREA. The purpose is to guarantee that MSI warnings from the NAVAREA affected will continue being broadcast and monitored, until such failure has been corrected.

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 |
|---------|-----------------|---------------------------------|----------------------------------|---------------------------------------|-----------------------------------|-------------------------------------|-------------------------|
| V | No | Yes | Yes | Yes | Yes | Yes | No* |

* Some items of IMO Master Plan need to be updated as:

- Annex 8 (page. 2), NAVAREA V: change the "Broadcast Schedule (UTC) to "0030" and "1230". Cancel the line about "French Guiana";
- Appendix 1 (page. 9), change the "Times (UTC)" to "0030" and "1230";
- Annex 9 (page. 1) , include in the column "Schedule (UTC)" the times "0745" and "1630" for "RS" transmission, corresponding at the "Frequency Band" column to frequencies "12 MHz" (12,665.0 kHz) and "16 MHz" (16,978.0 kHz). At the "Frequency Band" column include the "4MHz" (4,266.0 kHz) frequency, corresponding to "On demand" in the "Schedule (UTC)" column. All frequency transmit the information. This alteration is shown in the table below:

| Country | NBDP Coast Station | Position | Frequency Band* | Schedule (UTC) | Status of implementation |
|---------|--|---------------------------|---|---|--------------------------|
| Brazil | Brazilian Navy's Radio Station in Rio de Janeiro PWZ33 | 22°56'.00S 043°20'.00W | 4 MHz (4,266.0 kHz) 6 MHz (6,448.0 kHz) 8 MHz (8,580,0 kHz) 12 MHz (12,709.0 kHz) 16 MHz (16,974.0 kHz) | (on demand) 0230 (RD), 0400 (RI), 0600 (RI), 1430 (RD), 1845 (RI), 2130 (RI)* | Operational |
| | | | 12 MHz (12,665.0 kHz) 16 MHz (16,978.0 kHz) | 0745 (RS), 1630 (RS) | |

* RD - PACTOR FEC 200 bauds/Mark 1900 Hz/space 2100 Hz/with pass all in position "on"; RI - RTTY 75 bauds

6. Capacity Building:

During the 3rd SWAtHC Meeting occurred in Uruguay in April, 2009, NAVAREA V Coordinator, in agreement with NAVAREA VI Coordinator, presented to that Commission a proposal of one IMO/IHO MSI Capacity Building Course that their members should attend, and to extend the invitation to other South American countries. It started the process of organizing a practical IHO Course on how to control, process and disseminate the Maritime Safety Information (MSI). The purpose of the Course is to optimize operational proceedings taking them into the international rules. It will be a great opportunity for NAVAREA Coordinators to share their experiences too.

7. Other Activities:

xxx

8. NAVAREA Website:

NAVAREA V

a) Address: www.mar.mil.br/dhn/dhn/index.html

Links: "English" → "Notices to Mariners and Radio Navigational Warnings and SAR".

b) Frequency of update: twice a day, as a rule.

c) Number of hits: not quantified.

9. NAVAREA Contact Information:

Coordinator: Diretoria de Hidrografia e Navegação (DHN)

Barão de Jaceguay Street, S/Nº

Niterói - Rio de Janeiro, Brazil

CEP: 24048-900

NAVAREA V Contacts:

Commander Josué Alexandre **Fontainha**

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10. Recommendations:

None.

11. Actions requested:

The WNWNS is invited to note the information provided in sub item 4.1.2 and item 6 on this report.

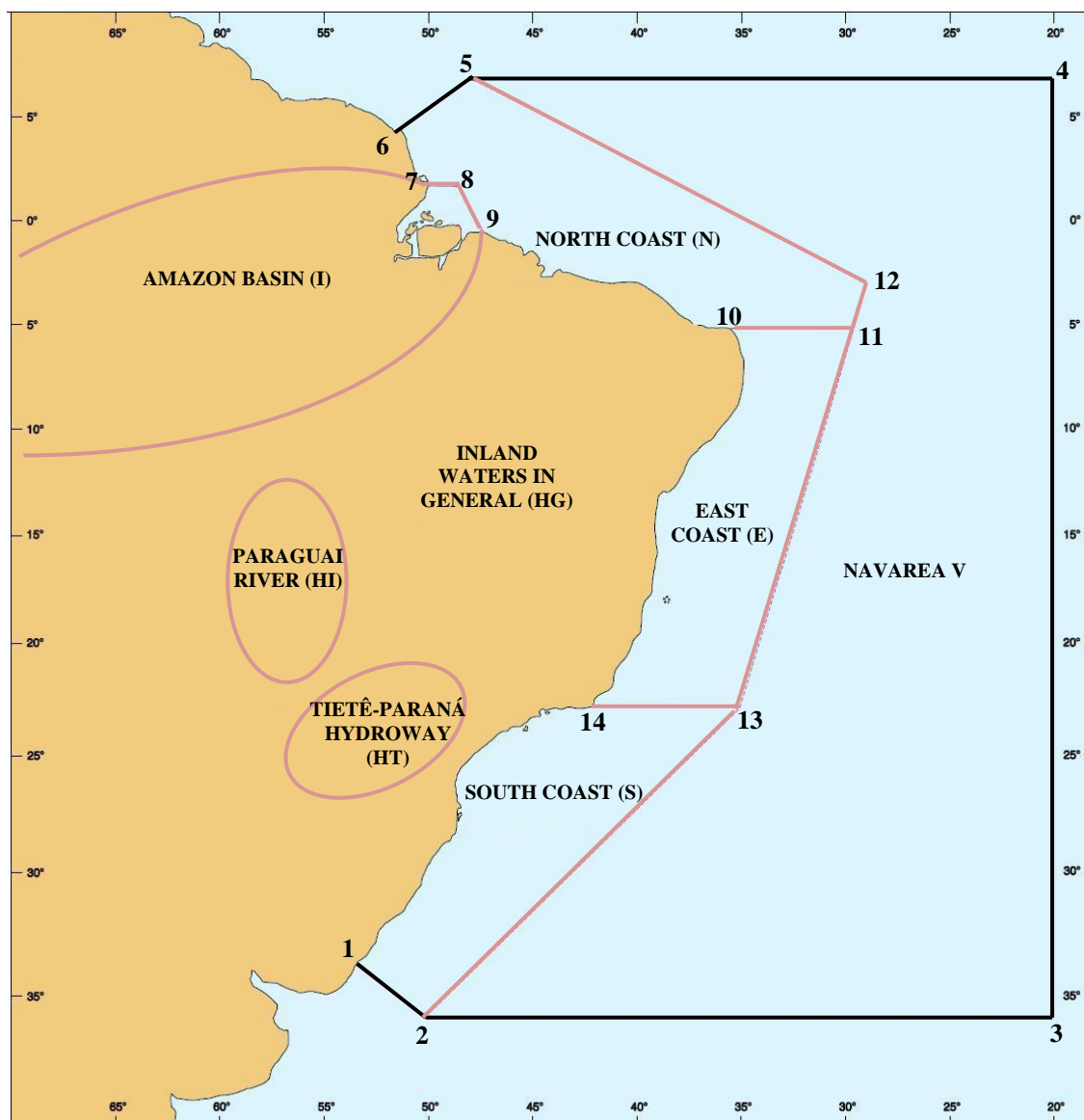
12. Synopsis:

NAVAREA V coordinator has been making efforts to comply SafetyNET service with international rules for the "World-Wide Navigational Warning Service" and make it

easier to process the information. As of 01AUG08, NAVAREA V has been making a significant change in operational procedures as the new scheduled time for transmission (0030 UTC and 1230 UTC) and the new geographic limits of the Coastal areas adopted.

NAVAREA V in agreement with NAVAREA VI has started the process to establish a common Contingent Plan. Also presented a proposal at 3rd SWAtHC, for a IMO/IHO MSI Capacity Building Course, for them and other interested South American countries.

Representation of NAVAREA V, Coastal Regions and Inland Waters, for classification and identification of Radio Navigational Warnings.



a) NAVAREA V - Is comprised of the maritime area pointed by the following coordinates:

| Point | LATITUDE | LONGITUDE |
|-------|-----------|------------|
| 1 | 33° 45' S | 053° 22' W |
| 2 | 35° 50' S | 050° 10' W |
| 3 | 35° 50' S | 020° 00' W |
| 4 | 07° 00' N | 020° 00' W |
| 5 | 07° 00' N | 049° 28' W |
| 6 | 04° 30' N | 051° 35' W |

b) COASTAL REGIONS - Is comprised of the maritime areas pointed by the geographic coordinates mentioned below, as well as bays, inlets and ports covered by them:

AMAZON BASIN (I)¹

| Point | LATITUDE | LONGITUDE |
|----------|-----------|------------|
| 7 | 01° 40' N | 049° 55' W |
| 8 | 01° 40' N | 048° 35' W |
| 9 | 00° 37' S | 047° 22' W |

NORTH COAST (N)

| Point | LATITUDE | LONGITUDE |
|-----------|-----------|------------|
| 5 | 07° 00' N | 049° 28' W |
| 6 | 04° 30' N | 051° 35' W |
| 7 | 01° 40' N | 049° 55' W |
| 8 | 01° 40' N | 048° 35' W |
| 9 | 00° 37' S | 047° 22' W |
| 10 | 05° 10' S | 035° 29' W |
| 11 | 05° 10' S | 029° 33' W |
| 12 | 03° 00' S | 028° 55' W |

EAST COAST (E)

| Point | LATITUDE | LONGITUDE |
|-----------|-----------|------------|
| 10 | 05° 10' S | 035° 29' W |
| 11 | 05° 10' S | 029° 33' W |
| 13 | 23° 01' S | 035° 00' W |
| 14 | 23° 01' S | 042° 00' W |

SOUTH COAST (S)

| Point | LATITUDE | LONGITUDE |
|-----------|-----------|------------|
| 1 | 33° 45' S | 053° 22' W |
| 2 | 35° 50' S | 050° 10' W |
| 13 | 23° 01' S | 035° 00' W |
| 14 | 23° 01' S | 042° 00' W |

¹ - comprises Amazon and Pará rivers estuaries;
 - In Amazonas river, downstream Santana Leste light;
 - In Pará river, downstream de leading line Chapéu Virado light - Coroa Grande light.

ISSUE OF MARITIME SAFETY INFORMATION

| A) TRANSMISSIONS VIA RADIO (HF BAND) – BRAZILIAN NAVY'S RADIO STATION IN RIO DE JANEIRO | | | | | |
|--|---|-----------------------|---|--|--|
| SERVICES | SCHEDULES (DAILY) | CHANNELS (*) | FREQUENCES | CONTENTS | |
| NAVIGATIONAL WARNINGS AND SAR INFORMATION | 0400-0445Z | RI | 4.266,0 KHz (on demand of mariner) 6.448,0 KHz 8.580,0 KHz 12.709,0 KHz 16.974,0 KHz | - NAVAREA, Coastal Warnings, except those already published in Notices to Mariners, and SAR Information (Portuguese/English) - Local Warnings, except those already published in Notices to Mariners, and SAR information (Portuguese). | |
| | 1430-1530Z | RD | | | |
| | 2130-2215Z | RI | | | |
| METEOROLOGICAL BULLETINS | 0230-0330Z | RD | | 4.266,0 KHz (on demand of mariner) 6.448,0 KHz 8.580,0 KHz 12.709,0 KHz 16.974,0 KHz | - Meteorological forecasts (Portuguese/English) - Meteorological warnings (Portuguese/English) |
| | 0600-0730Z | RI | | | |
| | 1845-1930Z | | | | |
| METEOROLOGICAL CHARTS | 0745-0925Z | RS | 12.665,0 KHz 16.978,0 KHz | | - Analysis of atmospheric pressure on surface - Height and direction of waves - Wind at 10m above surface - Sea surface temperature |
| | 1630-1810Z | | | | |
| B) TRANSMISSIONS VIA RÁDIO (VHF E HF BANDS) – COASTAL STATIONS NATIONAL NET (RENEC) OF EMBRATEL | | | | | |
| SERVICES | SCHEDULES | CHANNELS (*) | | FREQUENCES | CONTENTS |
| METEOROLOGICAL BULLETINS, NAVIGATIONAL WARNINGS AND SAR INFORMATION | on demand of mariner | RL | | VHF: 156,8 MHz (16) and traffic channels. | - Meteorological Forecast - Meteorological warnings - NAVAREA, Coastal and Local Warnings |
| METEOROLOGICAL WARNINGS, NAVIGATIONAL WARNINGS AND SAR INFORMATION | as necessary | | | HF: 4.125,0 KHz | - Meteorological warnings - Urgent NAVAREA, Coastal and Local Warnings |
| C) TRANSMISSIONS VIA SATÉLITE (INMARSAT-C) – TANGUÁ RADIO STATION OF EMBRATEL | | | | | |
| SERVICES | SCHEDULES (DAILY) | SATELLITE | CONTENTS | | |
| NAVIGATIONAL WARNINGS AND SAR INFORMATION | 0400Z e 1230Z or as necessary | East Atlantic (AOR-E) | - SAR Information (English) - NAVAREA and Coastal Warnings (English), except those already published in Notices to Mariners. | | |
| METEOROLOGICAL BULLETINS | 0730Z e 1930Z or as necessary | | - Meteorological forecasts (English) - Meteorological warnings (English) | | |
| D) INTERNET | | | | | |
| SERVICES | Sites and links | | CONTENTS | | |
| NAVIGATIONAL WARNINGS AND SAR INFORMATION | www.mar.mil.br/dhn/chm/avgantes/avgante.htm (choose the link of region of interest) | | NAVAREA, Coastal and Local Warnings (Portuguese) | | |
| | www.mar.mil.br/dhn/chm/avgantes/english/index.htm (choose the link of region of interest) | | NAVAREA and Coastal Warnings (English) | | |
| NOTICES TO MARINERS (**) | www.mar.mil.br/dhn/chm/avgantes/folheto/pdf.htm (choose the link of NT of interest) | | - In Section II of NT: NAVAREA, Coastal and Local Warnings (Portuguese) in force more than 6 weeks. | | |
| | www.mar.mil.br/dhn/chm/avgantes/english/pdfing.htm (choose the link of NT of interest) | | - In Section VII of NT: NAVAREA and Coastal Warnings (English) in force more than 6 weeks. | | |
| METEOROLOGICAL BULLETINS | www.mar.mil.br/dhn/chm/meteo/index.htm (choose the link "meteoromarinha" – in Portuguese) www.mar.mil.br/dhn/chm/meteo/indexing.htm (choose the link "bulletins" – in English) | | - Meteorological forecasts (Portuguese/English) - Meteorological warnings (Portuguese/English) | | |
| METEOROLOGICAL WARNINGS | www.mar.mil.br/dhn/chm/meteo/index.htm (choose the link "avisos de mau tempo" – in Portuguese) www.mar.mil.br/dhn/chm/meteo/indexing.htm (choose the link "severe weather warnings" – in English) | | - Meteorological warnings (Portuguese/English) | | |
| METEOROLOGICAL CHARTS | www.mar.mil.br/dhn/chm/meteo/index.htm (choose the link "cartas sinóticas" – in Portuguese) (choose the link "previsão numérica"- in Portuguese) www.mar.mil.br/dhn/chm/meteo/indexing.htm (choose the link "synoptic charts" – in English) (choose the link "numerical predictions" – in English) | | - Analysis of atmospheric pressure on surface and other products. | | |