

**MSI Self-Assessment 01 August 2020 to 31 July 2021 – NAVAREA VII**

**Submitted by: South Africa to WVNWS13, August 2021**

**SUMMARY**

Executive Summary: This document provides MSI information related to NAVAREA VII for the period 01 August 2020 to 31 July 2021, as submitted by South Africa to WVNWS13, August 2021

Action to be taken: Report to be noted by the SAIHC 18 Meeting.

Related documents: None.

1. **Background.** The South African Navy Hydrographic Office (SANHO), Coordinator of NAVAREA VII, in conjunction with the South African Meteorological Service, promulgates and disseminates shipping safety messages and weather information. Cape Town Radio, via Telkom Radio services, is the GMDSS service provider and as such, transmits all MSI on behalf of the Coordinator.

**SafetyNET**

MSI transmission is to Indian Ocean Region (IOR) and to Atlantic Ocean Region East (AOR-E).

Meteorological Forecasts and NAVAREA VII Warnings: 0940 and 1940 UTC.

Land Earth Station 12 Burum; Service Provider: Stratos Mobile Networks.

**SafetyCAST**

SafetyCAST satellite broadcast service provider: Iridium.

Meteorological Forecasts and NAVAREA VII Warnings: 0940 and 1940 UTC.

These broadcasts form part of NAVAREA VII and Iridium test and evaluation operations.

**NAVTEX**

NAVTEX coverage out to 200 nm from the Namibian and South African Coasts is passed from the Coast Radio Stations at Cape Town (**C**), Port Elizabeth (**I**) Durban (**O**) and Cape Columbine (**U**). The Coast Radio Station at Walvis Bay, Namibia (**B**) NAVTEX service is operational since 28 June 2019. Cape Town Radio includes Namibian Maritime Safety Information with its scheduled NAVTEX and SafetyNET MSI broadcasts.

**Radio Telephony**

**South Africa**

For the benefit of non-GMDSS adapted vessels, the Cape Town, Port Elizabeth and Durban Radio Coastal Weather Bulletins and Navigational Warnings in force are combined and presented as one single-voice broadcast from Cape Town Radio at 1015 and 1815 UTC daily. The coastal weather report as at 1200 UTC is broadcast at 1333 UTC. Transmission is on HF on 4375, 8740 and on 13146 kHz and on 29 VHF traffic channels sited around the South African coast from Alexander Bay in the West to Kosi Bay in the East.

## Namibia

All RT MSI broadcasts are on VHF LZ Ch23; WVS Ch26 & 27 and on HF: 4357 & 8719 kHz

0903 UTC: Navigational Warnings

0935 UTC: Weather Forecasts and Traffic List

1235 UTC: Coastal Weather Reports

1635 UTC: Weather Forecasts and Traffic List

*Newly received navigational warnings are broadcast on receipt and thereafter are included in the once daily navigational warning broadcast at 0903 UTC.*

## Geographical Limits of NAVAREA VII:

Southern Africa – South Atlantic Ocean (AOR-E):

6° 00'S, 020° 00'W (Angola international border with The Democratic Republic of the Congo (DRC), (West Coast) to the coast of Antarctica

*and*

Southern Africa – Indian Ocean (IOR):

10° 30'S, 055° 00'E (Mozambique international border with Tanzania, (East Coast) to

30° 00'S, 055° 00'E to

30° 00'S, 080° 00'E to the coast of Antarctica.

Operational Point of Contact for the National Coordinator within NAVAREA VII is:

| Country      | Institution                               | Telephone                          | Facsimile       | Email                |
|--------------|---|------------------------------------|-----------------|----------------------|
| South Africa | South African Navy<br>Hydrographic Office | +27 21 787 2445<br>+27 21 787 2408 | +27 21 787 2233 | hydrosan@iafrica.com |

Port Control Vessel Traffic Services in South African hub ports provide information necessary for safe navigation within VTS routes and port approaches. However, a concerted effort is to be made to promote the dissemination of local warnings regarding hazards inside of the fairway buoy of any harbours by local port authorities within NAVAREA VII for safe navigation within VTS routes and port approaches. This would reduce the requirement to disseminate this information via Voice or NAVTEX or SafetyNET broadcasts via Cape Town Radio. SafetyNET coverage is available through the NAVAREA VII Coordinator for Angola, Namibia, Mozambique and Madagascar.

Progress with regards to MSI reports from **Angola** was made, complimenting the **Oil and Gas Industry** which regularly reports on the movements of rigs, as well as other industry related matters. The rig information is published as a NAVAREA VII warning in the form of a rig list. Although limited MSI reports from Angola were received, progress was made and Angola is encouraged to further and continuously report on MSI related matters in terms of events taking place on its coastal areas and ports. Vessels transiting NAVAREA VII report MSI via coast radio stations or directly to SANHO.

The **Namibian Port Authority (NAMPORT)** is in regular contact with the NAVAREA VII Coordinator and as such, both SafetyNET and NAVTEX MSI concerning the Namibian coast are provided for promulgation by the SANHO. MSI reports mainly consist of gunnery exercise warnings, port construction operations and the status of Aids to Navigation.

The **Mozambique Institute of Hydrography and Navigation (INAHINA)** promulgate monthly Notices to Mariners. Relevant MSI is passed to the NAVAREA VII Coordinator for transmission on SafetyNET. MSI reports mainly consist of Aids to Navigation being out of order, and the concern still exists that no other information regarding maritime safety is generated and communicated to South Africa.

Few MSI reports are received from **Madagascar** and mainly consist of the deployment of Aids to Navigation and related equipment being out of order.

There remains a lack of communication from **Iles Comores**.

**La Reunion** does not fall within NAVAREA VII, however, due to the island's location being relatively close to the eastern limit of the NAVAREA VII, regular MSI reports are received. This mainly consists of gunnery exercise warnings and reports regarding objects reported adrift ie small vessels, buoys, etc. This remains an important part of the service as mariners proceeding from NAVAREA VII to NAVAREA VIII are warned timeously of events taking place around the island of La Reunion.

Copies of NAVAREA Messages are received from the Coordinators of NAVAREAS II, VI, VIII and XI. Where necessary, MSI relevant to an adjacent area is retransmitted for the benefit of transiting traffic.

There is a lack of NAVTEX transmitting stations north of the South African international borders and there is still no apparent acquisition of MSI transmitting apparatus or implementation of MSI dissemination by States in the Great Rift Valley in the Southern African region.

## 2. Comments.

The GMDSS Master Plan entries for NAVAREA VII remain current, with the last update made on 25 March 2021. The master plan does not include Iridium SafetyCAST.

| Equipment Type                         | Software Version                               | Date of Up-date |
|--|--|-----------------|
| SafetyNET II MSI via E-mail (SATCOM C) | Outlook 2016                                   | June 2017       |
| Navtex 518 kHz NBDP                    | Frequentis Tracking and Tracing Message Centre | 2019            |
| MSI via VHF and HF voice broadcast     | Frequentis PC Dispatcher                       | 2019            |

The following table shows the quantity and means of receipt of MSI data:

| 2018   |     |        |     | 2019   |     |        |     | 2020   |     |       |      |
|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|-------|------|
| E-mail | Fax | E-mail | Fax | E-mail | Fax | E-mail | Fax | E-mail | Fax | Phone | Text |
| 154    | 270 | 154    | 270 | 154    | 270 | 154    | 270 | 213    | 153 | Nil   | Nil  |

IHO Member States within NAVAREA VII which have not provided MSI - NAVAREA or Coastal - for 2019 and 2020:

| Member State   | 2019 | 2020 |
|----------------|------|------|
| United Kingdom | 0    | 3    |
| Norway         | 0    | 0    |
| Comoros        | 0    | 0    |
| Australia      | 0    | 0    |

**Note:** St Helena Island (United Kingdom) has established communication with the SANHO in July 2021, requesting assistance in setting up a NAVAREA VII MSI capability.

The following table shows the number of SafetyNET II and SafetyCAST messages that were transmitted within NAVAREA VII (from WWNWS13 Self-Assessment 01 August 2020 to 31 July 2021, **bold red** indicates number of messages from end of WWNWS13 reporting period to 31 March 2022):

|                               | 2018 | 2019 | 2020                           | 2021       |
|-------------------------------|------|------|--------------------------------|------------|
| SafetyNET II                  | 424  | 376  | 366                            | <b>362</b> |
| SafetyCAST                    | n/a  | n/a  | 98 (excluding test broadcasts) | <b>362</b> |
| Coastal Navigational Warnings | 754  | 643  | 752                            | <b>487</b> |

SafetyNET II MSI transmission is to Indian Ocean Region (IOR) and to Atlantic Ocean Region East (AOR-E), Land Earth Station 12 Burum; Service Provider: Stratos Mobile Networks.

The following table shows the number of NAVAREA VII warnings identified as immediate priority (requiring transmission within 30 minutes) and the average time between receipt of the data and transmission of the message (NOTE: transmission time for SafetyNET II and SafetyCAST is the same):

| 2018  |                      | 2019  |                      | 2020  |                      |
|-------|----------------------|-------|----------------------|-------|----------------------|
| Total | Average elapsed time | Total | Average elapsed time | Total | Average elapsed time |
| 424   | 30 minutes           | 376   | 30 minutes           | 366   | 30 minutes           |

**All MSI messages are promulgated with Immediate Priority.** Average time elapsed between receipt of the message request by the SANHO and promulgation of the message by Cape Town radio is 30 minutes.

**Iridium.** South Africa has participated in Iridium training in June 2020, and again refresher training in April 2021. No agreement between South Africa (represented by Telkom Radio Services) and Iridium has been signed yet. Despite not having an agreement in place, South Africa commenced with broadcast trials in April 2021, with Telkom Radio Services broadcasting all NAVAREA VII messages as well as METAREA messages, and the SANHO broadcasting test messages while monitoring Telkom Radio Services' broadcasts. There has been no issues of note, and Iridium has reported that the system is functioning as designed, with periodic remote checks on NAVAREA/METAREA VII broadcasts. There has also been several commercial vessels that has confirmed receipt of Iridium broadcasts within NAVAREA VII as promulgated. South Africa will consider IMO and IHO directives regarding the implementation of Iridium as a GMDSS provider.

**COVID-19.** There has been a marked reduction of SafetyNET Messages and Coastal Navigational Warning Messages Promulgated from the 2019/20 reporting period compared to 2018 and 2017, which both showed an upward trend. This reduction is due to the global effects the COVID-19 pandemic has had on international shipping and maritime operations. The first half of the reporting period was on par with the previous year in terms of messages promulgated, but drastically reduced from February 2020 as the effects of COVID-19 took hold globally as well as locally. Message traffic is currently gradually increasing with global and local shipping and operations returning to normal.

The following table shows the number of requests to NAVAREA VII for a list of navigational warnings in force:

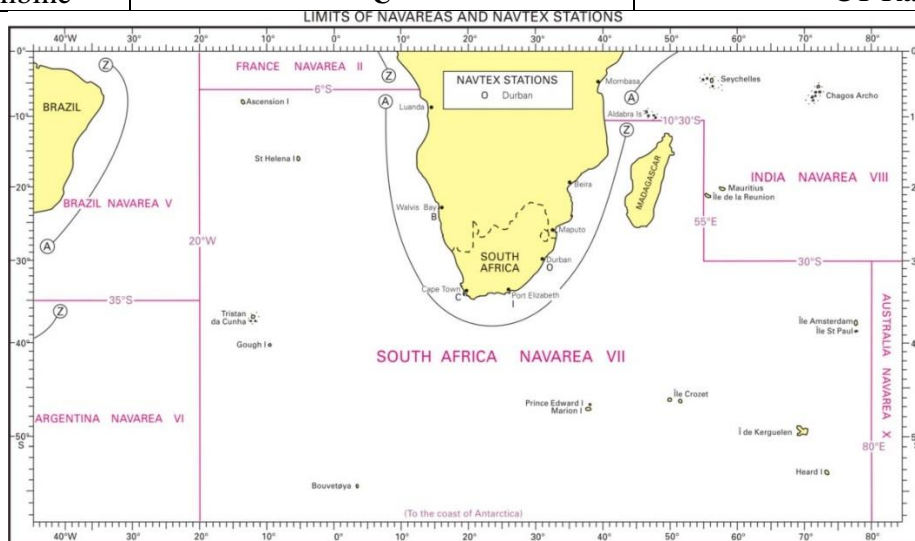
### Requests for list of in-force navigational warnings

| 2018        | 2019        | 2020        |
|-------------|-------------|-------------|
| 270 approx. | 303 approx. | 208 approx. |

### 3. NAVTEX Coverage.

#### Contact details for NAVTEX Stations (Operational status is confirmed)

| Station                   | Transmitter Identification Character (T.I.C) – B1 Character | Contact No   |
|---------------------------|---|--|
| Walvis Bay Maritime Radio | <b>B</b>  | +264 64 203581 (24H)<br>Mobile: +264 811242697   |
| Cape Town                 | <b>C</b>  | +27 21 551 0700<br>Port Elizabeth, Cape Columbine and Durban is remotely controlled from CT Radio. |
| Port Elizabeth            | <b>I</b>  |  |
| Durban                    | <b>O</b>  |  |
| Cape Columbine            | <b>U</b>  |  |



NAVTEX coverage out to 200nm from the South African Coast is passed from the Coast Radio Stations at Cape Town (**C**), Port Elizabeth (**I**), Durban (**O**) and Cape Columbine (**U**). The Coast Radio Station at Walvis Bay, Namibia (**B**) NAVTEX, is operational since June 2019. These Coastal Navigation Warning messages are also transmitted by voice twice a day for the benefit of fishing vessels and leisure craft. See diagram attached at end of document.

#### 4. Operational Issues.

Angola and Iles Comores has been encouraged to communicate with the NAVAREA VII Coordinator and to adapt to the GMDSS and to implement MSI measures accordingly so that, where the degrees of hazard are known, that this information may be disseminated to warn mariners operating in the relevant area. Although Angola has improved its communication with South Africa, further growth in the promulgation of MSI with Angola is encouraged.

For the safety of life, MSI awareness must be improved and the installation of radio communication equipment and the associated operator training is imperative. The lack of NAVTEX Stations north of South African borders, namely Angola, Mozambique and Madagascar, is a persistent challenge. The installation of radio communication network equipment, and operator training, are the two most important components that need to be addressed.

The current state of MSI in the SAIHC Region is listed in the GMDSS table below:

**STATUS OF SHORE BASED FACILITIES FOR GMDSS**

| Country      | A1 Area | A2 Area | A3/A4 Area | NAVTEX | SafetyNET | Notes                           |
|--------------|---------|---------|------------|--------|-----------|---------------------------------|
| Angola       | P       | P       | P          | No     | Yes       | warnings broadcast by SafetyNET |
| Madagascar   | P       | P       | NI         | No     | Yes       | warnings broadcast by SafetyNET |
| La Reunion   | No      | No      | Yes        | No     | Yes       | warnings broadcast by SafetyNET |
| Comores      | NI      | NI      | NI         | NI     | Yes       |                                 |
| Mozambique   | P       | Yes     | P          | No     | Yes       | warnings broadcast by SafetyNET |
| Namibia      | P       | P       | P          | No     | Yes       | warnings broadcast by SafetyNET |
| South Africa | P       | NI      | Yes        | Yes    | Yes       |                                 |

P = Planned or to be decided

NI = No Information

**Note:** South Africa Area A2 not planned. Ultimately, DSC on 2187.5 kHz will not be introduced. DSCVHF Ch70 is operational and vessels in the vicinity are requested to test with the Coastal Radio Station. MSI information transmitted pertains to the West Coast. NAVTEX service will consequently provide 1 broadcast every hour of the day, i.e. TIC C, I, O and U will have 24 transmission time slots at: 0020, 0120, 0220, 0320, 0420, 0520, 0620, 0720, 0820, 0920, 1020, 1120, 1220, 1320, 1420, 1520, 1620, 1720, 1820, 1920, 2020, 2120, 2220, 2320 (all times SAST) respectively.

All “In Force warnings” are published on the SANHO website in summary and full text bulletin format.

#### 5. Quality Management Survey.

| NAVAREA | ISO 9001 -2008 | Promulgate “In-Force” Bulletins | Promulgate “No-Warning” Messages | Monitor Broadcast | 24/7 contact information provided | Promulgate two scheduled broadcasts | Certificates for all recognized service providers | IMO Master Plan updated |
|---------|----------------|---------------------------------|----------------------------------|-------------------|-----------------------------------|-------------------------------------|---|-------------------------|
| VII     | NO             | YES                             | YES                              | NO                | YES                               | YES                                 | YES   | YES                     |

6. **Contingency Planning.**

- a. NAVAREA VII. To ensure the continuous operational capability of MSI dissemination via SATCOM C SafetyNET II, a contingency plan exists between South Africa, France and Australia.
- b. COVID-19. As far as capacity is concerned, both the SANHO, Telkom Radio Services and all associated MSI role-players in South Africa maintained operational functions throughout the South African COVID-19 Lockdown period. Watches were instituted and closely monitored, and in cases where staff was placed in quarantine or isolation, duties and functions were transferred off site in order to maintain operability and functionality.

7. **Capacity Building.** SAIHC have identified Capacity Building initiatives with MSI as a very important first phase component. The IHO Capacity Building Sub-Committee (CBSC) has established a capacity building fund (CBF) to facilitate seed-corn activities such as technical workshops, visits and training courses within the region. As part of the SAIHC16 meeting in September 2019 in Cape Town, MSI responsibilities and capacity building initiatives was on the agenda for discussion.

The possible hosting of capacity building initiatives at the SANHO Training Facility was discussed, as well as an eLearning initiative hosted by the SANHO, in order to facilitate capacity building initiatives into the future. The eLearning package, which focuses on MSI, has been developed, gone through internal and external verification and rolled out to SAIHC members for comment and testing. This initiative was strongly supported by both Chairpersons of the WWNWS and SAIHC. South Africa has also joined the Capacity Building eLearning Project Team to share information and knowledge.

Capacity building within the SA Navy structures is an ongoing process to ensure radio operators at NAVCOMCEN CAPE, the node for MSI distribution between the SANHO and Telkom Radio Services, are kept up to date and qualified.

8. **Other Activities.** MSI awareness must be improved and the installation of radio communication equipment and associated operator training is imperative. The continuous efforts of SAIHC through courses, technical visits and discussions at conferences are aimed to achieve this objective.

9. **NAVAREA Website. ([http://www.sanho.co.za/navarea7\\_bulletins/bulletin.htm](http://www.sanho.co.za/navarea7_bulletins/bulletin.htm)).**

SafetyNET and NAVTEX messages are published on both the website and internal SA Navy website (Intranet) and updated daily during office hours from Mon to Fri (07:30 – 16:00 SAST). The date and time is displayed at the very top of the messages in force. Outside normal office hours, MSI is monitored by Cape Naval Radio who provides a 24H watch-keeping service and is in constant telephone contact with the MSI Officer. Cape Town Radio is the primary 24H service operator responsible for the dissemination of MSI messages. All navigational warnings in force are published and displayed on the SA Navy Intranet, as well as the Internet. These include messages older than 42 days.

10. **Contact details.**

***Urgent navigation information (24 Hour Service):***

Fax : +27 21 787 2228

E-mail : [ncc@sanavy.co.za](mailto:ncc@sanavy.co.za)

***Other navigation information (0730 - 1600 SAST Mon - Fri):***

Fax : +27 21 787 2233  
 Phone : +27 21 787 2445/2444  
 E-mail : hydrosan@iafrica.com

***General information (0730 - 1600 SAST Mon - Fri):***

Phone : +27 21 787 2408

11. **Recommendations.** Angola, Madagascar and Iles Comores should be encouraged to communicate with the NAVAREA VII Coordinator, adapt to the GMDSS and implement MSI measures accordingly so that, where the degrees of hazard are known, that this information may be disseminated to warn mariners operating in the relevant area.

The lack of NAVTEX Stations north of South African borders, namely Angola, Mozambique and Madagascar, is a persistent challenge. The installation of radio communication network equipment, and operator training, are the two most important components that need to be addressed. This requirement is constantly communicated to the delegates of these countries at SAIHC Conferences.

12. **Action requested.** Report to be noted by the SAIHC 18 Meeting.

13. **Summary.**

- a. The lack of NAVTEX Stations north of South African borders, namely Angola, Mozambique and Madagascar, is a persistent challenge. The installation of radio communication network equipment, and operator training, are the two most important components that need to be addressed.
- b. The slow progress and the lack of adequate MSI implementation by States in the Great Rift Valley in the Southern African region remains a persistent matter of concern.
- c. South Africa continues to assist and cooperate with Iridium SafetyCAST testing within NAVAREA VII, broadcasting both MSI as well as meteorology warnings and broadcasts via the South African Weather Service.
- d. Despite the challenges of COVID-19, South Africa maintained full operational status, implementing robust internal contingency plans when and where appropriate.
- e. All navigational warnings in force at are published and available at **[http://www.sanho.co.za/navarea7\\_bulletins/bulletin.htm](http://www.sanho.co.za/navarea7_bulletins/bulletin.htm)**. These include messages older than 42 days.