

MSI Self Assessment - NAVAREA VIII
Submitted by INDIA

SUMMARY

Executive Summary: NAVAREA VIII provides the paper of MSI Self Assessment for CPRNW 10

Action to be taken: NIL

Related documents: NIL

1. Background: The Radio Navigational Warnings broadcast in NAVAREA VIII is as follows:

a) SafetyNET Service

i) The NAVAREA and Coastal Warnings are broadcast by SafetyNET, in English, with routine messages transmitted daily, at 1000 UTC, by Pune (India) Land Earth Station - IOR satellite and Urgent Messages transmitted anytime. Mauritius Nav and Met warnings are transmitted via Aussaguel at a scheduled broadcast at 0130 1330 UTC and 0000 0600 1200 1800 UTC in case of cyclone warnings.

ii) The Coastal Warnings are transmitted by Indian NAVTEX services from Mumbai and Chennai and the same are presently under maintenance, whilst the Mauritius NAVTEX broadcasts Weather and Navigational warnings at 0020 0420 0820 1220 1620 2020 UTC are operational. Indian NAVTEX when operational, will be informed.

iii) The limits of NAVAREA VIII are placed at Annexure.

b) **Internet** All NAVAREA Warnings in English are available at the National Hydrographic Office website, www.hydrobharat.nic.in. The list of Navigational Warning are updated daily.

c) Notice to Mariners

i) Every Warning is repeated daily in all schedules for three days from the date of promulgation. The warning is repeated again on the 5th and 8th day from date of promulgation. Thereafter the warning is repeated every 4th day for 42 days or date of cancellation of the warning whichever is earlier.

ii) The NAVAREA messages pertaining to seismic surveys are repeated daily for 07 days, and thereafter once a week for 42 days, or till cancellation of NAVAREA message, whichever is earlier.

iii) Weekly summary of all NAVAREA's in force is promulgated every Monday by National Hydrographic Office for transmission. The same is also issued to all concerned NAVAREA coordinators.

d) The Meteorological Warnings and the Weather and Sea Bulletins details are as follows:

i) **SafetyNET Service** (Pune Land Earth Station (LES) - IOR satellite). Weather and Sea Bulletins (in English), twice a day, in programmed schedules 0630 and 1830 for Bay of Bengal and 0900 and 2100 for Arabian Sea; Meteorological Warnings (in English and Indian Local languages) are broadcast immediately, whenever necessary.

ii) **Radio (VHF/HF) Services** Indian Meteorological Department (IMD) has installed 250 specially designed receivers within the vulnerable coastal areas for direct transmission of warnings to the officials and people using broadcast capability of INSAT satellite. These are broadcasted in English and local languages. A Cyclone Warning Dissemination System (CWDS) for direct dissemination of cyclone warning to the users through INSAT Satellite has been installed along the east and west coast of India. This is entirely an Indian concept and is implemented indigenously. It enables the direct addressing of designated receiving stations in the coastal areas in local languages via satellite passing on vital warnings without any loss of time. The other advantages are: high reliability – when all land line communications fail and power break down occurs, this system works; selective addressing system – warning meant for a concerned district is given directly; warning message reaches instantaneously giving latest information regarding cyclone and associated expected weather; and dewarning messages for concerned areas are also communicated. In all, there are 250 CWDS receivers installed, in phases, along the east and west coast of India

iii) **Internet:**INSAT satellite processed Global and Sector images (IR, Visible, WV) are provided through IMD Internet web www.imd.ernet.in every three hours, and every hour during the cyclone period in real-time.

2. Comments:

The number of NAVAREA VIII Warnings issued are tabulated below:-

<u>YEAR</u>	2005	2006	2007	2008 (31July)
<u>NAVAREA VIII</u>	775	813	701	309

3. **NAVTEX Coverage:** Indian NAVTEX services are presently under maintenance, however Mauritius NAVTEX station is operating within NAVAREA VIII.

4. **Operational Issues:** A state-of-the-art early warning centre is established at Indian National Centre for Ocean Information Services(INCOIS) with all the necessary computational and communication infrastructure that enables reception of real-time data from all the sensors, analysis of the data, generation and dissemination of tsunami advisories following a standard operating procedure. Seismic and sea-level data are continuously monitored in the Early Warning Centre using a custom-built software application that generates alarms/alerts in the warning centre whenever a pre-set threshold is crossed. Tsunami warnings/watches are then generated based on pre-set decision support rules and disseminated to the concerned authorities for action, following a Standard Operating Procedure. The efficiency of the end-to-end system was proved during the large under-sea earthquake of 8.4 M that occurred on September 12, 2007 in the Indian Ocean.

5. **Capacity Building:** Nil

6. **Other Activities:** The NIOHC(North Indian Ocean Hydrographic Commission) meeting was conducted at Goa from 15 - 17 Apr 2008. Various hydrographic issues concerning the Indian Ocean region were discussed. During the meeting Mauritius was added to the Commission which will be formalized in the next meeting. Further, India has again been elected as the Chairman of the Commission.

7. **NAVAREA Websites:** NAVAREA VIII warnings in force can be found at National Hydrographic Office website www.hydrobharat.nic.in The site is updated every day. The site also contains links to Notices to Mariners and services offered by Indian Hydrographic Office.

8. **NAVAREA VIII Contact Info: INDIA (NAVAREA VIII)**

1. The Chief Hydrographer to the Govt of India,
Joint Director (Maritime Safety Services)
National Hydrographic Office
107-A Rajpur Road, Post Box No. 75
Dehra Dun, Uttarakhand
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Tel : **+91 135 2747368**
Fax : **+91 135 2748373**
Web : www.hydrobharat.nic.in
Email: incho@dataone.in,
incho_marinesafety@dataone.in

2. The Officer-in-Charge
Naval Chart Depot
SBS Road, Mumbai, India
Phone 91-22-22634604
Fax 91-22-22687049
3. The Indian Meteorological Department
Mausam Bhavan
Lodhi Road
New Delhi – 110 003
Web : www.imd.gov.in
www.imd.ernet.in
4. Indian National Centre for Ocean
Information Service(INCOIS)
Ministry of Earth Sciences, Government of India
Ocean Valley, Near Pragathi Nagar, Opp JNTU
Road, Kukatpally, Hyderabad -500 055. INDIA
Tel 91-40-23895000,23886000
Fax 91-40-2389500
Email : director@incois.gov.in
Web: www.incois.gov.in

10. **Recommendations :** India has 236 ENC's as on July 08 and is issuing ENC updates for all Permanent notices however Temporary notices and Preliminary notices are not being issued to be used with ENC's. This leads to lack of consistency between paper and ENC chart. IHO may recommend some procedures to remove this discrepancy.

11. **Actions Required:** NIL

Annexure

Coverage area of NAVAREA VIII

LIMITS OF NAVAREA VII

