

SHORE FACILITIES

The regulation IV/5 of SOLAS requires each Contracting Government undertakes to make available, as it deems practical and necessary, either individually or in cooperation with other Contracting Governments, appropriate **shore-based facilities** for *satellite and terrestrial radio communication services*.

The shore-based facilities in the GMDSS include the following services:

1. Coast station with VHF/DSC
2. Coast station with MF/DSC
3. Coast station with HF/DSC
4. Transmitters for NAVTEX service
5. Transmitters for MSI on HF
6. Inmarsat CES
7. COSPAS-SARSAT LUT

BASIC PRINCIPLES FOR ESTABLISHING SEA AREA A1

The selection of VHF DSC coast stations for sea area A1 should be based on the following principles:

1. each sea area designated as A1 requires a continuous VHF guard and should have the minimum number of stations necessary to provide VHF coverage in the coastal area of the Government concerned; and
2. in certain areas, several Governments may collectively provide complete coverage along their coasts (e.g. the North Sea).



CRITERIA FOR THE PROVISION OF VHF DSC STATIONS

Stations participating in VHF DSC watchkeeping in the GMDSS should:

1. be affiliated to an RCC and have reliable communications by telephone and telex;
2. have short-range VHF capability;
3. provide as complete a coverage of their immediate sea area as possible; and
4. be in continuous operation.



BASIC PRINCIPLES FOR ESTABLISHING MF COAST STATION FOR SEA AREA A2

The selection of MF DSC coast stations for sea area A2 should be based on the following principles:

1. each sea area designated as A2 requires a continuous MF guard on the distress frequencies and a sufficient number of coast stations to provide MF coverage in the coastal area of the Government concerned; and
2. in certain areas, several Governments may collectively provide complete coverage (e.g., the North Sea).



CRITERIA FOR PROVISION OF MF DSC STATIONS

Stations participating in MF DSC watchkeeping in the GMDSS should:

1. be affiliated to an RCC and have reliable communications by telephone and telex;
2. have medium-range MF capability;
3. provide as complete a coverage of their immediate sea area as possible; and
4. be in continuous operation.



BASIC PRINCIPLES FOR ESTABLISHING HF DSC COAST STATIONS FOR SEA AREAS A3 AND A4

The selection of HF DSC coast stations for sea areas A3 and A4 should be based on the following principles:

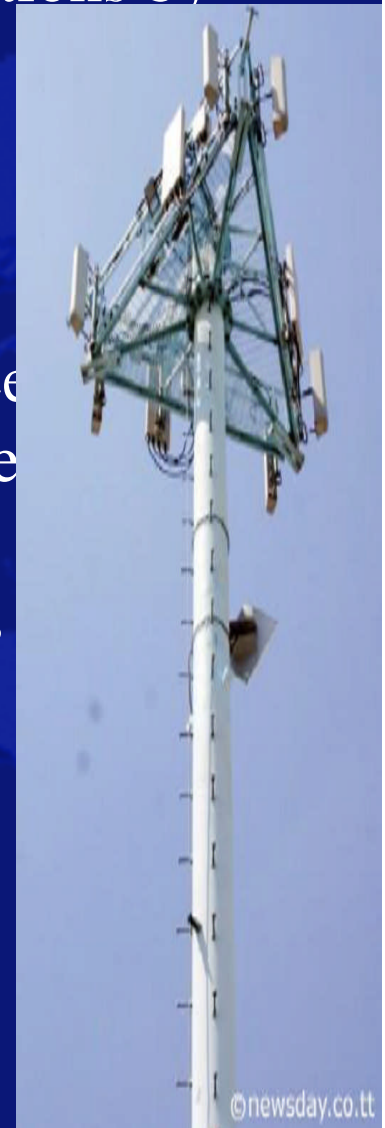
1. each ocean area requiring HF guard should have a minimum of two stations to provide the required HF cover;
2. where practicable, stations should be selected on opposite sides of an ocean area; and
3. in ocean areas of high traffic density e.g. the North Atlantic, more than two stations should be provided.



CRITERIA FOR THE SELECTION OF HF DSC STATIONS

Stations participating in HF DSC watchkeeping in the GMDSS should:

1. be affiliated to an RCC and have reliable communications by telephone and telex;
2. have long-range HF communication capability in all HF bands;
3. monitor all HF DSC distress frequencies in order to avoid the multiplication of communications links between RCCs which would be required if several stations divided the watchkeeping on different frequencies;
4. provide as complete a coverage of their ocean area as possible;
5. be in continuous operation; and
6. be able to relay communications under a common procedure.



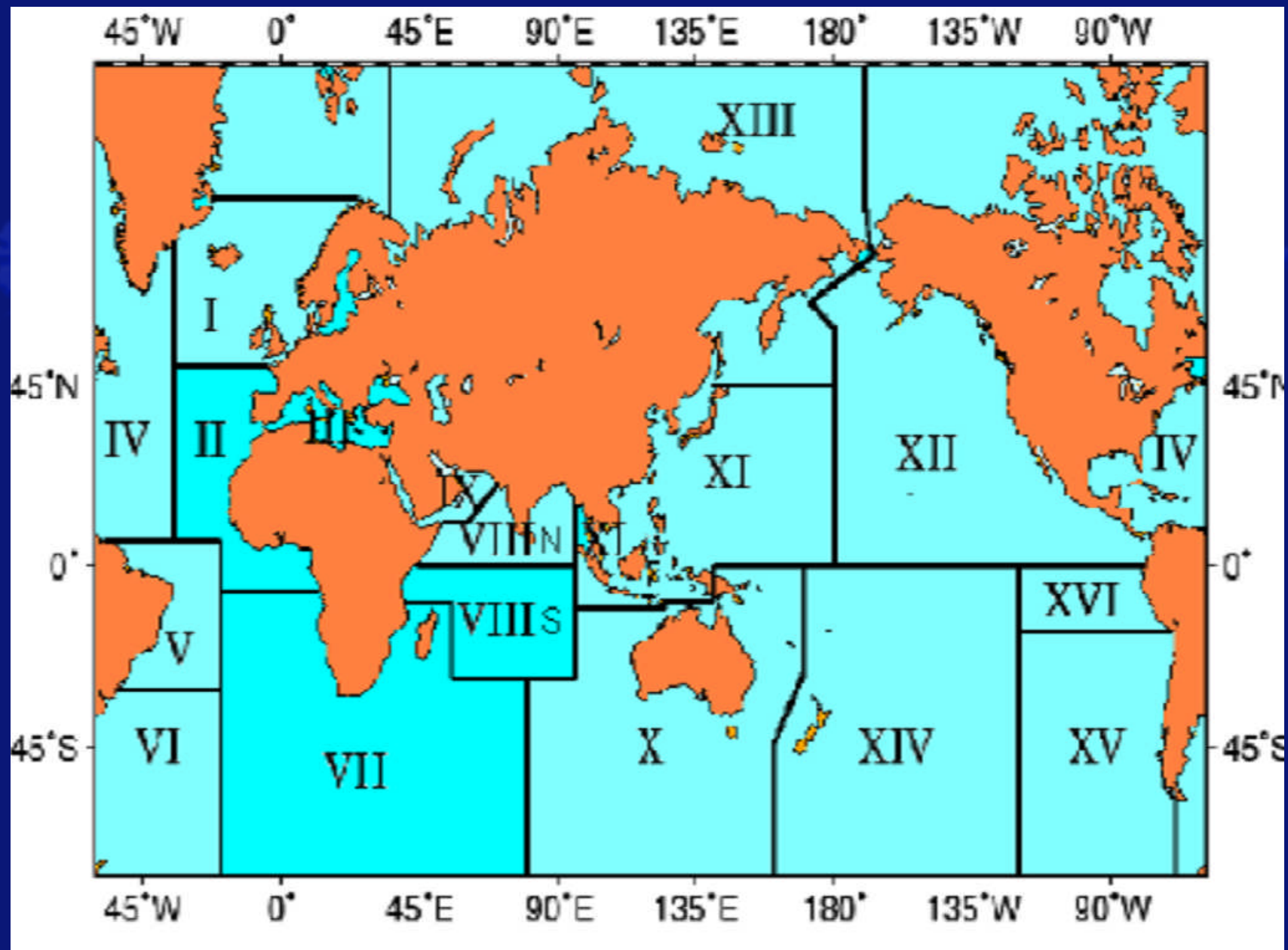
CRITERIA FOR USE WHEN PROVIDING A NAVTEX SERVICE

Coverage area: An area defined by an arc of a circle having a radius from the transmitter calculated.

Service area: A unique and precisely defined sea area, wholly contained within the coverage area, for which MSI is provided from a particular NAVTEX transmitter. It is normally defined by a line which takes

full account of local propagation conditions and the character and volume of information and maritime traffic patterns in the region.

The range of a NAVTEX transmitter depends on the transmitter power and local propagation conditions. The actual range achieved should be adjusted to the minimum required for adequate reception in the NAVTEX area served (**required range 250-400 nm.**), taking into account the needs of ships approaching from other areas.



Inmarsat Shore-based stations (CESs) must be able to support the following GMDSS communications functions:

1. ship-to-RCC distress alerting preferably by a dedicated link;
2. RCC-to-ship(s) distress alert relay preferably by a dedicated link;
3. RCC-to-RCC co-ordinating communications by using SES terminals;
4. transmit maritime safety information (Inmarsat-C only); and
5. receiving maritime safety information.



COSPAS-SARSAT LUT and MCC



- Search And Rescue (SAR) Support
- 24h/365d Operations
- Mission Control Centre (MCC) and Local User Terminal (LUT)

