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**QUESTIONNAIRE ON SHORE-BASED FACILITIES FOR THE GLOBAL MARITIME
DISTRESS AND SAFETY SYSTEM (GMDSS)**

1 The Maritime Safety Committee, at its eighty-eighth session (24 November to 3 December 2010), approved circulation of the attached revised questionnaire on shore-based facilities in the GMDSS prepared by the Sub-Committee on Radiocommunications and Search and Rescue, at its fourteenth session.

2 The revised questionnaire contains the revision of MSC/Circ.684, taking into account changes in the provision of several services as well as the evolution of the database over the years.

3 Member Governments, including those which have submitted answers to MSC/Circ.684, are invited to provide or update, in accordance with the annexed questionnaire, the required information electronically, as far as possible, for inclusion in the GMDSS Master Plan (GMDSS.1 circular).

4 Administrations should submit information obtained, as appropriate, from national authorities responsible for shore-based facilities for the GMDSS, NAV/MET Area Coordinators and search and rescue authorities.

5 This questionnaire supersedes MSC/Circ.684.

ANNEX 1

STATUS OF SHORE-BASED FACILITIES FOR THE GMDSS

1 Indicate in brief the status of shore-based facilities for the GMDSS, using the following indicators:

- O = Operational
- T = Under trial
- P = Planned or to be decided

COUNTRY	COAST STATIONS						SES for RCC	MSI BROADCAST SERVICE					Cospas-Sarsat	
	DSC			Inmarsat LES				NAVTEX	SafetyNET			HF NBDP	MCC	LUT
	A1	A2	A3 & A4	B	C	Inmarsat Fleet F77			NAV	MET	SAR			

ANNEX 2

Sea Area A1 (Within range of shore-based VHF DSC coverage)

1 Does your Administration intend to establish Sea Area A1? YES NO Is it operational now? YES NO
If not operational now, indicate the date of operation in the following table.

2 Do they keep fulltime DSC watch on channel 70? YES NO
If not, indicate watch hours in the following table.

3 Indicate details of VHF stations

NAV/MET Area	Country	VHF DSC Coast Station								RCC Associated
		Type	Name	MMSI	Position	Range (NM)	Status of implementation	Purpose (SD/PS)	Watch hours on CH 70	

- (1) Monitored stations include remote-controlled stations.
- (2) Refer to resolution A.801(19). See appendix.
- (3) SD = "Distress and Safety" only, PS = Both "Public Correspondence" and "Safety and Distress".

4 Provide a map indicating:

- Name and location of **main** VHF stations
- Coverage of main and monitored Transmitter & Receivers
- Name and location of associated RCC(s)

APPENDIX TO ANNEX 2

IMO RESOLUTION A.801(19), annex 3, paragraph 2

Criteria for establishing GMDSS sea areas

2.3 Determination of radius A

$$A = 2.5(\sqrt{H(\text{in - metres})} + \sqrt{h(\text{in - metres})})$$

2.3.1 The following formula should be used to calculate the range A in nautical miles:
H is the height of the coast station VHF receiving antenna and h is the height of the ship's transmitting antenna which is assumed to be 4 m.

2.3.2 The following table gives the range in nautical miles (NM) for typical values of H:

<i>H</i>	50 m	100 m
<i>h</i>		
4 m	23 NM	30 NM

2.3.3 The formula given above applies to line-of-sight cases but is not considered adequate for cases where both antennae are at a low level. The VHF range in Sea Area A1 should be verified by field strength measurements.

ANNEX 3

Sea Area A2 (Within range of shore-based MF DSC coverage)

1 Does your Administration intend to establish Sea Area A2? YES NO Is it operational now? YES NO
If not operational now, indicate the date of operation in the following table.

2 Do they keep fulltime DSC watch on 2187.5 kHz? YES NO
If not, indicate watch hours in the following table.

3 Indicate details of MF stations

NAV/MET Area	Country	MF DSC Coast Station								RCC Associated
		Type	Name	MMSI	Position	Range (NM)	Status of implementation	Purpose (SD/PS)	Watch hours on 2187.5 kHz	

- (1) Monitored stations include station remote-controlled stations.
- (2) Refer to resolution A.801(19). See appendix.
- (3) SD = "Distress and Safety" only, PS = Both "Public Correspondence" and "Safety and Distress".

4 Provide a map indicating:

- Name and location of **main** MF stations
- Coverage of main and monitored Transmitter & Receivers
- Name and location of associated RCC(s)

APPENDIX TO ANNEX 3

IMO RESOLUTION A.801(19), annex 3, paragraph 3

Criteria for establishing GMDSS sea areas

3.3 Determination of radius B

The radius B may be determined for each coast station by reference to Recommendation ITU-R P.368-9 and P.372-10 for the performance of a single side band (J3E) system under the following conditions:

Frequency	-	2182 kHz
Bandwidth	-	3 kHz
Propagation	-	ground wave
Time of day & Season	-	(Administration should determine time periods and seasons appropriate to their geographic area based on prevailing noise level)
Ship's transmitter power (PEP)	-	60 W (See footnote to regulation IV/16(c)(i) of the 1981 amendments to the 1974 SOLAS Convention)
Ship's antenna efficiency	-	25%
S/N(RF)	-	9 dB (voice)
Mean transmitter power	-	8 dB below peak power
Fading margin	-	3 dB

The range of sea area A2 should be verified by field strength measurements.

ANNEX 4

Sea Areas A3 and A4 (Outside Sea Area A2)

1 Does your Administration intend to equip one or more HF DSC station? YES NO
 Is it operational now? YES NO

 If not operational now, indicate the date of operation in the following table.

2 Do they keep fulltime DSC watch on the bands? YES NO
 4 MHz (4207.5 kHz)?
 6 MHz (6312 kHz)?
 8 MHz (8414.5 kHz)?
 12 MHz (12577 kHz)?
 16 MHz (16804.5 kHz)?

If not, indicate watch hours in the following table.

3 Indicate details of HF stations

NAV/MET Area	Country	HF DSC Coast Station							RCC Associated
		Name	MMSI	Position	Status of implementation	Purpose (SD*/PS)	Frequency Band*	Watch hours	

* SD = "Distress and Safety" only, PS = Both "Public Correspondence" and "Safety and Distress".

ANNEX 5

Inmarsat facilities

1 Does your Administration operate an Inmarsat Land Earth Station (LES)? YES NO Is it operational now? YES NO
If not operational now, indicate the date of operation in the following table.

2 Indicate details of Inmarsat LES

NAV/MET Area	Country	Location	Ocean Area	Service provided (Status of Implementation [Data of operation])			RCC Associated
				Inmarsat-B	Inmarsat-C	Fleet F 77	

* AOR-E = Atlantic Ocean Region – East
AOR-W = Atlantic Ocean Region – West
IOR = Indian Ocean Region
POR = Pacific Ocean Region

ANNEX 6

Rescue Coordination Centres (RCCs) using Ship Earth Stations (SEEs)

1 Does your Administration intend to commission a ship earth station for RCC operation?

YES NO

Is it operational now?

YES NO

If not operational now, indicate the date of operation in the following table.

2 Indicate details of SES

NAV/MET Area	Country	RCC		SES DETAIL			Status of implementation
		Name	Position	ID	Type	Ocean Region Accessed	

ANNEX 7

518 kHz NAVTEX Service

- 1 Does your Administration operate NAVTEX Service on 518 kHz? YES NO Is it operational now? YES NO
If not operational now, indicate the date of operation in the following table.

2 Indicate details of NAVTEX stations

NAV/MET Area	Country	NAVTEX Coast Station	Position	Range (NM)	B1 Character	Transmission times (UTC)	Language	Status of implementation

* Refer to resolution A.801(19). See appendix.

490 kHz NAVTEX Service

- 1 Does your Administration operate NAVTEX Service on 490 kHz? YES NO Is it operational now? YES NO
If not operational now, indicate the date of operation in the following table.

2 Indicate details of NAVTEX stations

NAV/MET Area	Country	NAVTEX Coast Station	Position	Range (NM)	B1 Character	Transmission times (UTC)	Language	Status of implementation

ANNEX 7 (cont.)

4209.5 kHz NAVTEX Service

1 Does your Administration operate a 4209.5 kHz NAVTEX Service? YES NO Is it operational now? YES NO
If not operational now, indicate the date of operation in the following table.

2 Indicate details of 4209.5 kHz NAVTEX stations

NAV/MET Area	Country	NAVTEX Coast Station	Position	Range (NM)	B1 Character	Transmission times (UTC)	Language	Status of implementation

APPENDIX TO ANNEX 7

IMO RESOLUTION A.801(19), annex 4, paragraph 3

Criteria for use when providing a NAVTEX service

The ground-wave coverage may be determined for each coast station by reference to Recommendations ITU-R P.368-9 and P.372-10 for the performance of a system under the following conditions:

Frequency	-	518 kHz
Bandwidth	-	500 Hz
Propagation	-	ground wave
Time of day & Season	-	(Administration should determine time periods in accordance with NAVTEX time transmission table (NAVTEX Manual, figure 3) and seasons appropriate to their geographic area based on prevailing noise level.)

Transmitter power & Antenna efficiency

- (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, taking into account the needs of ships approaching from other areas. Experience has indicated that the required range of 250 to 400 nautical miles can generally be attained by transmitter power in the range between 100 and 1,000 W during daylight with a 60% reduction at night.)
- RF S/N in 500 Hz bandwidth - 8 dB (Bit error rate 1×10^{-2})
- Percentage of time - 90

Full coverage of NAVTEX service area should be verified by field strength measurements.

ANNEX 8

International SafetyNET Service

1 Does your Administration intend to broadcast MSI through the International SafetyNET Service? YES NO
 Is it operational now? YES NO?

 If not operational now, indicate the date of operation in the following table.

2 Indicate detail of International SafetyNET Service

NAV/MET Area	Type of MSI	Country	LES	Ocean Area	Area Covered ⁽¹⁾	Broadcast schedule (UTC)	Status of implementation
	NAV						
	MET						
	SAR						
	Coastal warning				⁽²⁾		

- (1) Service area covered in NAV/MET information
- (2) Provide a map indicating Area covered and B1 characters

ANNEX 9

HF Narrow Band Direct Printing (NBDP) MSI Broadcast Service

1 Does your Administration intend to broadcast MSI through HF NBDP? YES NO Is it operational now? YES NO
If not operational now, indicate the date of operation in the following table.

2 Indicate details of HF NBDP MSI Broadcast Service

Country	NBDP Coast Station	Position	Frequency Band*	Schedule (UTC)	Status of implementation
			4 MHz (4210 kHz)		
			6 MHz (6425 kHz)		
			8 MHz (8416.5 kHz)		
			12 MHz (12579 kHz)		
			16 MHz (16806.5 kHz)		
			19 MHz (19680.5 kHz)		
			22 MHz (22376 kHz)		
			26 MHz (26100.5 kHz)		

ANNEX 10

Cospas-Sarsat MCC and LUT

1 Does your Administration intend to operate Cospas-Sarsat ground facilities? YES NO Is it operational now? YES NO
If not operational now, indicate the date of operation in the following table.

2 Indicate details of the Cospas-Sarsat facilities

Ground Segment Operator	MCC			LEOLUT		RCC Associated
	Location	Designator	Status of implementation	Location	Status of implementation	

ANNEX 12

Maritime Mobile Service Identities (MMSI)

1 MID-Numbers (country codes) assigned to equipment other than 406 MHz EPIRBs?

2 National database for MMSI number:

- Same database as for 406 MHz EPIRBs? YES NO

If not, fill in the following information:

- Address:

Open 24 hours a day, all days of the year? YES NO

If no, specify the opening hours (UTC), days etc:

- Telephone No. for database information:

- Telefax No. for database information:

- Telex No. for database information:

- AFTN No. for database information:

- E-mail address for database information:

3 How often does your Administration update the national database?

4 How often does your Administration update the ITU database?
