# REQUEST FOR INFORMATION (RFI) (To be uploaded on MoD and ICG website) PROCUREMENT OF 28 GMDSS CONSOLE FOR MRSCs

- 1. The Indian Coast Guard (ICG), Ministry of Defence, Government of India, intends to procure Twenty Eight (28) compact Global Maritime Distress Safety Systems(GMDSS) console for fitment onboard Maritime Rescue Sub Centres(MRSCs) in India.
- 2. This request for information (RFI) consists of two parts as indicated below:-
  - (a) Part I The first part of the RFI incorporates operational characteristics and features that should be met by the equipment. Few important technical parameters of the proposed equipment are also mentioned.
  - (b) <u>Part II</u> The second part of the RFI states the methodology of seeking response of vendors. Submission of incomplete response format will render the vendor liable for rejection.

### PART I

- 3. <u>Intended Use of Equipment (Operational Requirement)</u>. The GMDSS Console are required to be installed at Maritime Rescue Sub Centres (MRSCs) for Maritime Search and Rescue communication with Seafarers.
- 4. <u>Important Technical Parameters</u>. The OSRs/Questionnaires are placed at **Appendix 'C'** of this document
- 5. Vendor should confirm following conditions are acceptable:-
  - (a) The solicitations of offer will be as per "Single Stage-Two Bid System". It would imply that a 'Request for Proposal' would be issued soliciting the technical and commercial offers together, but in two separate sealed envelopes. The validity of commercial offers would be at least 18 months from the date of submitting of offers.
  - (b) The technical offers would be evaluated by a Technical Evaluation Committee (TEC) to check its compliance with RFP.
  - (c) The equipment of all TEC cleared vendors would be put through a trial evaluation in India on a 'No Cost No Commitment' basis. A staff evaluation would be carried out by the SHQ to analyse the result of field evaluation and shortlist the equipment for introduction in to service.
  - (d) Amongst the vendors cleared by GS evaluation, a Contract Negotiation Committee (CNC) would decide the lowest bidder (L1) and conclude the appropriate contract.
  - (e) Vendor would be bound to provide product for time period specified in the RFP, which includes spares and maintenance tools/jigs/fixtures for field and component level repairs.
  - (f) The vendor would be required to accept the general conditions of contract given in standard contract document at Chapter VI of DAP 2020.

(g) A **Performance-cum-Warranty Bond** both equal **5%** value of the contract inclusive of taxes and duties is required to be submitted after signing of contract.

### PART-II

### 6. **Procedure for Response**.

- (a) The vendor must fill the forms of response as placed at **Appendix 'B'** to this RFI. Apart from filling details about the company, details about the exact product meeting others generic technical specifications should also be carefully filled. Additional literature on the product can also be attached with the form.
- (b) The filled form should be dispatched to the under mentioned address:-

### **User Directorate**

The Director General
{for Principal Director(COM & SAR}
Coast Guard Headquarters
National Stadium Complex
Purana Quila Road
New Delhi-110001

TEL: +91 011-23386700

FAX: +91 011- 23073529

E Mail Id: dte.com@indiancoastquard.nic.in

- (c) Last date of acceptance of filled form is **13 Dec 21**. The vendors shortlisted for issue of RFP would be intimated.
- 7. The Government of India invites response to this request only from Original Equipment Manufacturers (OEMs)/Authorised Vendors/Government Sponsored Export Agencies (applicable in the case of countries where domestic law do not permit direct export by OEMs). The end user of the equipment is Indian Coast Guard.
- 8. This information is being issued with no financial commitment and Ministry of Defence reserves the right to change or vary any part thereof at any stage. The Government of India also reserves the right to withdraw it should it be so necessary at any stage. The acquisition process would be carried out under the provisions of DAP.

### REQUEST FOR INFORMATION: PROCEDURE FOR RESPONSE

# Request for Information for Procurement of 28 Global Maritime Distress Safety System (GMDSS) Console

- 1. The Indian Coast Guard is planning to procure <u>28 Global Maritime</u> <u>Distress Safety System (GMDSS) console</u> with the view to identify probable vendors who can undertake the said project, OEMs/Authorised Vendors are requested to forward information on the product which they can offer. The parameters/broad specifications of the items are mentioned in the questionnaire attached as per **Appendix 'C'**. In addition the vendors are required to furnish details as per proforma at **Appendix 'B'**
- 2. Apart from the information as per the Appendices the vendors may also forward technical details/product brochures/literature etc pertaining to the items in question.
- 3. The required information/details may please be forwarded at following address by **13 Dec 21**

### (a) User Directorate

The Director General {for Principal Director(Com & SAR} Coast Guard Headquarters National Stadium Complex Purana Quila Road New Delhi-110001

TEL: +91 011-23386700

FAX: +91 011- 23073529

E Mail Id: <a href="mailto:dte.com@indiancoastguard.nic.in">dte.com@indiancoastguard.nic.in</a>

### (b) ADG Acquisition Technical

The ADG (Acquisition-Technical)
Maritime & System
Defence Procurement Board
Room No-05, D-2 Wing
Ministry of Defence
New Delhi-110011

Tel:

+91 011-21411712

Telefax:

+91 011-21411710

E Mail Id:

tmms-modacq@navy.gov.in

### **VENDOR INFORMATION PROFORMA**

1. Name of the	e Vendor/Company/	/Firm.	
(Company profile in	cluding share Holding	pattern, in brief, to be	attached)
2. <b>Type (Tick</b>	the relevant categor	y).	
Original Equipment	Manufacturer (OEM)	Yes	s/No
Authorised Vendor	of foreign Firm	Yes	s/No (attach details, if yes)
Others (give specific	c details)		
3. <u>Contact De</u>	tails.		
Postal Address:			
City:Pin Code:	State : _ Tele : _ URL/We		
4. <u>Local Branc</u>	h/Liaison Office/Ag	<u>ent</u>	
Name & Address: _ Pin code : E Mail:		Fax :	
5. <b>Financial D</b> e	etails.		
Category of I	ndustry (Large/mediur	n/Small Scale):	
6. <u>Certification</u>	n by Quality Assurar	nce Organisation.	
Name of Agency	Certification	Applicable from (Date & Year)	Valid Till (Date & Year)

Agency

### 7. <u>Details of Registration</u>.

changes will be intimated at the earliest.

Agency	Registration No.	Validity (Date)	Equipment
GeM			
DGQA/DGAQA/DGNAI			
OFB			
DRDO			
Classification Society			
Any other Government			
Agency			4

8. <u>Membership of FICCI/ASSOCHAM/CII or other Industrial Associations.</u>

Name of Organisation	Membership Number

9.	<b>Equipment/Product</b>	<b>Profile</b>	(to	be	submitted	for	each	product
separ	rately)							

	(a) Name of Product:
	(IDDM Capability be indicated against the product)
	(Should be given category wise for e.g. all products under GMDSS Console to
	be mentioned together)
	(b) Description (attach technical literature):
	(c) Whether OEM or Integrator:
	(d) Name and address of Foreign collaborator(if any):
	(e) Industrial Licence Number:
	(f) Indigenous component of the product (in percentage):
	(g) Status (in service /design & development stage):
	(h) Production capacity per annum:
	(j) Countries/agencies where equipment supplied earlier(give details of
	quantity supplied):
	<u> </u>
	(k) Estimated price of the equipment
10.	Alternatives for meeting the objectives of the equipment set forth in the RFI
11.	Any other relevant information:
12.	<u>Declaration.</u> It is certified that the above information is true and any

### Appendix 'C'

(Refer to para 4)

### **REQUEST FOR INFORMATION: QUESTIONNAIRE**

Ser No	Specifications/Parameter	Reply	Remarks
1.	Objectives of RFI. The aim of this RFI is to obtain Operational/Technical/Financial details for procurement of 28 Global Maritime Distress Safety System (GMDSS) compact console for fitment in Maritime Rescue Sub Centres (MRSCs) of Indian Coast Guard.		
2.	<u>System Requirement</u> . The equipment should be GMDSS compliant in accordance with IMO, ITU-R regulations and SOLAS conventions and capable of operating in saturated electromagnetic environment with the following capability to provide unhindered:-		
	(a) Maritime distress rescue coordination communication system.		
	(b) Shore-to-ship and shore-to-shore communication including terrestrial and satellite communication system.		
3.	Operational Requirements. The system should be capable of operating in VHF, MF and HF bands and should be designed for high performance, perfect reliability, ease of operation, efficiency of service in accordance with international regulations for maritime telecommunication such as radio regulations, ITU-R and SOLAS. The GMDSS console and the associated equipment should be capable of following functions:-		
	(a) Relaying ship-to-shore distress alerts by at least two separate and independent means, each using a different radio communication service.		
	(b) Receiving ship to shore distress alerts.		
	(c) Transmitting and receiving VHF, MF/HF Distress Alerts.		
	(d) Transmitting and receiving search and rescue co-ordinating communication.		
	(e) Transmitting and receiving locating signals.		
	(f) Transmitting/Receiving Maritime Safety Information.		

- (g) Transmitting and receiving general radio communication relating to the management and operation of the ship.
- (h) Transmitting and receiving shore to ship communication.
- 4. <u>Composition of GMDSS Console</u>. The GMDSS Console must comprise of following equipment:-

### (a) Two VHF set with following features:-

- (i) Voice and automated distress alerting via Digital Selective Calling (DSC).
- (ii) Simplex/Duplex communication.
- (iii) Capable of transmitting DSC on Channel 70 and radio telephony on Channel 16.
- (iv) Channel 70 watch receiver.

# (b) <u>Two MF/HF sets with following</u> features:-

- (i) Voice and DSC facility.
- (ii) Capable of transmitting and receiving general radio communication using radio telephony or direct printing telegraphy on working frequencies in the (marine) bands between 1,605 KHz and 27,500 KHz.

# (c) One INMARSAT 'C' terminal with following features:-

- (i) EGC Receiver.
- (ii) Distress message handling.
- (iii) Capable of initiating distress alert by remote distress alert unit.
- (iv) Two way digital store and forward messaging including polling, data reporting etc.

# (d) One NAVTEX Receiver with following features:-

(i) Capability to store minimum 60 message identifications for upto 48 hours.

Able to verify ID of every new (ii) message received and printing only the new ones. 5. **Technical Requirement.** The **GMDSS** console comprising of VHF Tx/Rx with DSC, MF/HF Tx/Rx with DSC, INMARSAT'C' with EGC and NAVTEX receivers should be capable of operating in the prevalent electromagnetic environment. The co-locations of these equipment with its accessories like Antenna and others peripherals should not create any interference and degradation in performance of any of the existing equipment. The equipment should meet the EMI/EMC standard laid down in IEC 60945 applicable for Maritime Navigational Radio Communication equipment system. VHF Tx/Rx with DSC. VHF Radio telephone with built 6. in class A DSC and Ch 70 watch receiver to meet the GMDSS carriage requirements of SOLAS ships in accordance latest ITU-R recommendations to (ITU R M.493-15) on digital selective calling systems for use in the maritime mobile service should be as follows:-The equipment should provide for the (a) following categories of calls using both voice and digital selective calling(DSC):-Distress, Urgency and safety (i) Ship operational requirements (ii) Public correspondence (iii) (b) Communication mode- Simplex/Duplex Channels-All international channel and min (c) 20 programmable channels (d) Class of Emission -(i) Radio Telephony -G3E/F3E (ii) DSC- G2B/F2B Default RT channel-Ch 16(156.8 MHz) (e) (f) Warming up period-within 1 minute of switching on Time to switch from Tx to Rx-Should not (q) exceed 0.3s Channels to be provided with distinct marking- Ch 16 and Ch 70

### Receivers

- (j) Frequency range-156.025 MHz to 162.025 MHz
- (k) Sensitivity-Equal to or better than  $2\mu V$  emf for a signal to noise ratio 20dB

### **Transmitters**

- (I) Frequency-156.025 MHz to 157.425 Mhz
- (m) Channel spacing-12.5 Khz or 25 Khz
- (n) Power output- (i) High 50 W (ii) Low 1W
- (p) Programmable channels- Minimum 20

### **Digital Selective Calling facility**

- (q) Receiving frequency-156.525 MHz (Ch 70)
- (r) Message storage/log-Min 20 distress message to be stored
- (s) DSC class- Class A equipment conforming to ITU recommendations ITU-R M.493-15 should be provided for DSC
- (t) Ships identity-9 digit identity number(MMSI)
- (u) With a DSC modulated input signal having a level of  $1\mu V$  e.m.f to its associated VHF receiver, the DSC equipment should be capable of decoding the received messages with a maximum permissible output character error rate of  $10^{-2}$
- (v) It should be possible to interrupt and initiate distress alerts at any time.
  - (aa) DSC facility should comprise of means for following:-
    - (i) Decode and encode messages
    - (ii) Composing DSC message
    - (iii) Verify the prepared message prior transmission
    - (iv) Display the information

contained in a received call in plain language

- (v) Manual/automatic entry of the position and time information
- (ab) The equipment should have following features:-
  - (i) Replay facility
  - (ii) Display dimming
  - (iii) Red/Yellow backlight
  - (iv) Powerful Loud speaker
  - (v) Alert mute button
  - (vi) Dual watch & scanning
- (ac) Associated hardware are as follows:-
  - (i) A transmitter/receiver with antenna and other associated accessories
  - (ii) Control unit
  - (iii) A microphone with press to transmit switch, which may be combined with a telephone in a handset
  - (iv) Handset cradle
  - (v) Internal/external speaker
  - (vi) Integral DSC facility with a capability continuous watch on channel 70
- (ad) Provision should be available for a specific aural alarm and visual indication to indicate receipt of a distress or urgency call. It should not be possible to disable this alarm. Reset of the system should be possible only manually.
- 7. MF/HF Tx/Rx with DSC. Based on the IMO regulations and ITU-R recommendations, technical specifications for MF/HF radio installations capable of voice communications and Digital Selective Calling(DSC) should be as follows:-
  - (a) Communication Mode- Simplex/Semi Duplex
  - (b) The equipment should provide for the following categories of calls using both voice and digital selective calling(DSC):-
    - (i) Distress, Urgency and safety
    - (ii) Operational requirements
    - (iii) Public correspondence
    - (iv) Class of Emission-J3E,H3E, J2B/F1B
    - (v) Display-colour display

(vi) Permissible warning-01 min after switching on up period

#### Receivers

- (c) Frequency range-1605 KHz to 27,500 KHz
- (d) Frequency readily accessible to operator-(i) Voice-2182,4125,6215,8291,12290

and 16420 KHz

- (ii) DSC-2187.5, 4207.5 ,6312, 8414.5 , 12577 ,16804.5 KHz
- (e) Frequency accuracy/stability-Tx frequency should remain within 10 Hz of the required frequency at all times.
- (f) Aerial Impedance- 50 Ohm automatically matched by the aerial tuning unit
- (g) Sensitivity-For class of emission J3E and F18 the sensitivity of the receivers should be equal to or better than  $6\mu V$  e.m.f at the receiver input for a signal to noise ratio of 20dB. For DSC an output character error rate of  $10^{-2}$  or less should be obtained for a signal to noise ratio of 12 dB.
- (h) Receiver output- For the reception of voice signals, the receivers should be suitable for use with a loud speaker and telephone handset. Should be capable of providing power of atleast 2W to the loud speaker and atleast 1W to the handset.
- (j) Control- Rx should be provided with Automatic Gain Control(AGC)

#### **Transmitters**

- (k) Frequency range-1605.0 KHz to 27,500 KHz
- (I) Frequency readily accessible to operator-(i) Voice-2182,4125,6215,8291,12290
  - and 16420 KHz
  - (ii) DSC-2187.5, 4207.5, 6312, 8414.5,12577 and 16804.5 KHz
- (m) Frequency accuracy- Tx frequency should remain within 10Hz stability of the required frequency at all times.
- (n) Power Output- 150 Watts

### **Digital Selective Calling**

- (p) DSC Class- Class A
- (q) Ships Identity- DSC: 9 digit identity number(MMSI)(should not possible to change the self identification data)
- (r) Distress & Safety Frequencies-2187.5,4207.5,6312,8414.5,12577 and 16804.5 KHz
- (s) DSC facility should have means for following:-
  - (i) Decode/encode DSC message
  - (ii) Composing of DSC message
  - (iii) Verification of prepared message before transmission
  - (iv) Display info contained in a received call in plain English Language.
  - (v) Manual/automatic entry of position and time of determination of position.
- (t) Storage of distress message- capacity to storage at least 20 received distress messages.
- (u) ITU regulation compliance- Should confirm to ITU-R recommendation ITU-RM.493
- (v) The dedicated DSC watch keeping facility should maintain a continuous watch on distress channels only. The receivers should be capable of scanning the selected channels within 2s and the dwell time on each channel should be adequate to allow detection of DSC call.
- (w) The facility should confirm to the provisions of ITU-R recommendations ITU-R-M 493.15
- (x) Initiation of DSC distress calls should take precedence over any other operation of the facility.

### **Associated Hardware**

- (y) The GMDSS MF/HF radio set with DSC comprise of following associated Hardware:-
  - (i) A transmitter/receiver with antenna and other associated accessories.

(ii) Control unit A microphone with press to transmit (iii) switch, which may be combined with a telephone in a handset. Antenna coupler (iv) (v) Printer External/Internal speaker (vi) An integral or separate DSC facility (vii) Compatible PC with accessories of (viii) keyboard, Monitor, Mouse and latest windows OS with latest version of MS office Provision should be available for a specific (z) aural alarm and visual identification to indicate receipt of a distress or urgency call or a call having a distress category. It should not be possible to disable this alarm and indication. There should be provision to ensure that they can be reset only manually. INMARSAT'C' 8. INMARSAT'C'. The mobile earth station should be type approved by the INMARSAT organisation and should be capable of transmitting and receiving direct printing communications and Enhanced Group Call (EGC) services. The technical parameters of the equipment should be as follows:-(a) Frequency Tx- Between 1626.5-1646.5 MHz (i) Rx-Between 1525.0-1545.0 MHz (iii) Or **INMARSAT** As per laid down specifications (b) Modulation **BPSK** -23.7 dB/K at 5<sup>0</sup> (c) Min G/T elevation (d) Display LCD Compatible black and (e) Accessories white dot-matrix printer (f) Interfaces 2 remote distress (i) buttons (ii) 3 external buzzers **GPS** (iii) Key Board (iv) Compatible (v) Printer

(vi)

Distress message

#### controller

(g) The INMARSAT'C' facility should have provisions for automatic and manual entry of position and time information into the distress messages.

### **Enhanced Group Calling(EGC)**

- (h) The EGC equipment to be used in the GMDSS console should comply with the general requirements set out in the annex to IMO resolution A.694(17) and IEC standards IEC 61097-4/IEC 60945.
- (j) The equipment should be capable of producing a printed copy of received information. Received EGC message may be stored for later printing with an indication to the operator that the message has been received, except for the vital messages referred.
- (k) The equipment should be type approved by the INMARSAT and should comply with the environmental conditions and electromagnetic compatibility requirements specified in IEC 60945.
- (I) Means should be provided to enter the ships position and current/planned NAVAREA/METAREA codes manually so that area calls can be received.
- (m) Provision should be made for a specific aural alarm and visual indication to indicate the receipt of a distress/urgency/priority EGC message. It should not be possible to disable this alarm and should be possible to reset it manually.
- (n) The equipment should indicate when it is not correctly tuned or synchronised to the EGC carrier.
- (p) All messages should be printed regardless of the character error rate of its reception. The equipment should print a low line mark if a character is received corrupted.
- (q) Means should be provided to prevent the reprinting of a message once it has been received without error.
- (r) The printing equipment should be capable o printing standard international alphabets and numbers.

9.	<b>NAVTEX Receiver.</b> NAVTEX short for Navigational
	Telex as per IMO recommendations should be an
	automated system used to transmit navigational alerts,
	weather warning, urgent, safety, and rescue information
	as mandatory fit onboard vessels. It should provided up
	to the minute safety information on a colour display that
	is viewable during both day and night. Should be fitted
	with a tri-channel receiver, to monitor the
	messages/information. The technical parameters should
	as follows:-

- (a) Receiving frequency- 490 KHz , 518 KHz
- (b) Should be able to receive following messages:-
  - (i) A Navigational warning
  - (ii) B Meteorological warning
  - (iii) C Ice report
  - (iv) D Search and Rescue information/piracy and armed robbery
  - (v) E Meteorological forecast
  - (vi) F Pilot services messages
  - (vii) G AIS messages(formerly Decca messages)
  - (viii) H Loran-C Messages
  - (ix) I Omega messages
  - (x) J SATNAV messages(GPS or GLONASS)
  - (xi) K Other electronic NAVAID messages.
  - (xii) L Navigational warning(addnl)
  - (xiii) T test Transmissions(UK only not official)
  - (xiv) V Notice to fishermen(US only currently not used)
  - (xv) W Environmental (US only currently not used)
  - (xvi) X Special services(allocation by IMO)
  - (xvii) Y Special services(allocation by IMO)
  - (xviii) Z No message on hand
- (c) Compliance standard- IMO resolution MSC 148(77), IEC 60945, IEC 61097-6, ITU-R M.540-2, ITU-R M.625-3, MED 2011/75/EC
- (d) Display day night viewing display
- (e) Accessories Compatible printer

- 10. **GMDSS Module Requirement.** On advancement of technology and availability new version of GMDSS equipment following features may be considered and essential:-
  - (a) Chart module to present ship with AIS and location of a distress and DSCs received from multiple sources.
  - (b) Module for integration with DSC of Coastal Static Chain Network (ICG will provide IP connectivity with MRCC and protocol)
  - (c) Module for integration with Maritime Rescue Control Centres(MRCC)/Maritime Rescue Sub Centres(MRSCs)(ICG will provide IP connectivity with MRCC and protocol)
  - (d) Vessel database Module.
  - (e) Call/Initiate DSC/Acknowledge DSC directly from chart.
- 11. Two Operator Work Station (Otv 02). The operator work station should have control of the DSC and RT of MF/HF radio, VHF radio and INMARSAT 'C'. The work station must consist current generation PC, coloured Common Operator Picture Display (COPD) unit, keyboard, mouse and associated control equipment. The COPD should be 21" LED and device should be ergonomically designed. The COPD should have an electronic chart as an overlay. The user interface software must be based on windows compliant Graphical User Interface (GUI) rules. The work station should be provided with built in speakers, communications headset and/or microphone, PTT footswitch, alarm and printers. The work station should be provided with a message system which should have following operational requirement.
  - (a) System should be configured to handle Distress, Urgency, Safety and routine protocol and allow operator to create, edit and send message in accordance with the Regulations in force. A programmable independent audible alarm should be provided for all the categories. To cancel the alarm the operator must acknowledge or act upon the call.
  - (b) The system must have a capability to receive new distress signals while the operator is engaged in acknowledging a current distress signal.

- (c) The system must have the capability to allow operator to acknowledge a DSC distress signal while a radio telephony transmission is taking place.
- (d) DSC inbox must list all unanswered DSC messages in order of priority and time. Distress messages must be displayed in red, safety messages in yellow and routine messages in green. It must ensure full logging of all received and scan messages for future reference.
- (e) The system must have voice user interface which allows transmitting of voice recorded messages. The displaying must show a control panel with number keypad for channel configuration and facility keys for broadcast keys for transmission and scanning.
- (f) The system must allow the operator to make voice transmission.
- (g) The system should provide means to draw attention of the operator towards the calls requiring handling
- (h) The system should provide information regarding:-
  - (i) Received calls that have been handled.
  - (ii) Calls that have been send from the system.
  - (iii) Calls handled by a particular operator.
  - (iv) Received test calls and the acknowledgement.
- (j) Each calls must be represented by one line in any call window. Each category of call must have configurable background colours.
- (k) All calls sent and received by the system must be printable and stored on the hard drivers. The programme should maintain a data base of all DSC calls and system event. All stored calls must be available for instant viewing at the work station.

(I) The following information must be available to the operator:-

(ii) Call ID A unique data base reference  (iii) Call time Time of receipt of call  (iii) Carrier VHF/MF/HF frequency on which the call was send or received  (iv) Call Distress, Safety, Urgency or Routine  (v) Distress MMSI of the vessel in distress  (vi) EOS End of sequence symbol  (vii) Format The format specific distress, all ships individual, geographic area group etc.  (viii) Sender MMSI  (ix) Nature of Distress Board, Piracy Attack, Inclement Weather etc  (x) Operator Name of the operator who handled the calls  (xi) Parity errors errors detected within the received calls  (xii) Position The position information contained within the call  (xiii) Relayed The number of times received distress call has been relayed by the system  (xiv) Rx The VHF channel or MF/HF frequency for subsequent communication  (xv) Tx VHF channel or MF/HF frequency frequency subsequent communication  (xvi) Status A graphical indicator showing status of calls e.g. checked off,	the ope	rator:-	
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category       or Routine         (v)       Distress       MMSI of the vessel in distress         (vi)       EOS       End of sequence symbol         (vii)       Format       The format specific distress, all ships individual,I geographic area group etc.         (viii)       Sender MMSI       -         (ix)       Nature of Distress       Fire, Flooding, Man over Board, Piracy Attack, Inclement Weather etc         (x)       Operator       Name of the operator who handled the calls         (xi)       Parity errors       The number of party errors detected within the received calls         (xii)       Position       The position information contained within the call         (xiii)       Relayed       The number of times received distress call has been relayed by the system         (xiv)       Rx       The VHF channel or MF/HF frequency for subsequent communication         (xv)       Tx       VHF channel or MF/HF frequency subsequent communication         (xvi)       Status       A graphical indicator showing status of calls			VHF/MF/HF frequency on which the call was send or
(vi) EOS End of sequence symbol (vii) Format The format specific distress, all ships individual, I geographic area group etc.  (viii) Sender MMSI (ix) Nature of Distress Board, Piracy Attack, Inclement Weather etc (x) Operator Name of the operator who handled the calls  (xi) Parity errors detected within the received calls  (xii) Position The number of party errors detected within the received distress call has been relayed by the system  (xiv) Rx The VHF channel or MF/HF frequency for subsequent communication  (xv) Tx VHF channel or MF/HF frequency subsequent communication  (xvi) Status A graphical indicator showing status of calls	(iv)	254 867 0	
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frequency frequency subsequent communication  (xvi) Status A graphical indicator showing status of calls	(xiv)	10' 100' 10	frequency for subsequent
showing status of calls	(xv)	8.87.09	frequency subsequent communication
acknowledged, failed(sent calls)etc.	(xvi)		showing status of calls e.g. checked off, acknowledged, failed(sent calls)etc.
(xvii) The recipients MMSI for individual or group calls	(xvii)		ents MMSI for individual or

(m) The operator must be capable to generate calls by editing calls which have been sent previously

- (n) The system must be capable to automatically acknowledged the test calls and view the test calls and their acknowledgement
- (p) The software used to meet the requirement, above should have different level of security access.
- (q) The software must allow the operator to use only mouse and keyboard to achieve all the tasks.
- (r) It shall be possible to remote control VHF/MF/HF/INM'C'/NAVTEX receivers equipment from the workstation.
- (s) Each workstation must be provided with two high end (Dot matrix and colour printer each) for printouts of system Log, reports and NAVTEX Reception.
- (t) There should not be any single point of failure.
- (u) <u>Video Display Unit</u>. A large Video wall unit LED (Not less than 72") will be required and connected to each work station for monitoring of operation.
- (v) <u>Civil Work</u>. The Necessary civil work to be undertaken for installation including Cable/Power line routing/Radios/INMARSAT/Navtex receivers/Video wall/Work station.
- (w) <u>Furniture</u>. Suitable user friendly furniture shall be provided for the two operators of work station including chairs for the operators.
- 12. Delivery Schedule. The equipment alongwith all accessories will be required to supplied to Indian Coast Guard within six (06) months post signing of contract. Thereafter equipment will be installed and commissioned by the SELLER at various locations in India within six (06) months from date of delivery.
- 13. **Product Support.** The vendor should provide the product support at least for **12.5** yrs.
- 14. Repair and Maintenance Philosophy. The repair and maintenance philosophy of the GMDSS console will be in the form of six (06) years Comprehensive Annual Maintenance Contract post two(02) years of Warranty period on acceptance of the equipment post Installation and Commissioning.

15.	Comprehensive Annual Maintenance Contract (CAMC). After the specified warranty period a Comprehensive Annual Maintenance Contract (CAMC) for six (06) years post warranty period of two (02) years will be required for the maintenance and smooth operation of		
	the equipment.		
16.	<u>Connectors</u> . The console should have the facility for provision of necessary connectors for its operations and interfacing. The number of these connectors should be sufficient to meet all the system operational requirements.		
17.	<u>Operational Temperature</u> .		
	(a) Above Deck Units - 0°C to +55°C.		
,	(b) Below Deck Units - 0°C to +50°C.		
18.	Design and fitment. The system is to be designed in a way so that the user can handle it with comfact.		
	in a way so that the user can handle it with comfort.  Control and display of maximum components should be		
	made available to the operators at a single location.		·
19.	<u>User Interface</u> . The GMDSS console should be		
	compact with modular structure to fit all the GMDSS		
	equipment viz MF/HF Tx/Rx, VHF Tx/Rx, INMARSAT `C' and NAVTEX receivers. The console is to be configured to		
	match the GMDSS requirements utilising the limited space		
	available.		
20.	Power Supply Requirement. The equipment should		
	be working in 230V, 50 Hz single phase. In order to have uninterrupted operations, the power supply backup is		
	required to be provided for equipment and work station.		
21.	<b>UPS</b> 12 hours backup for continuous running of work		
	station and INMARSAT terminals during power		
	breakdown. The UPS should be On-Line sine wave output.		
22.	Type Approval Certificate. The vendor is to		
	provide valid type approval certificates from appropriate authorities for all the equipment specified in technical specifications.	,	
23.	Amendments to Technical Specification. In the		
۷.	<u>Amendments to Technical Specification</u> . In the event of IMO reviewing the technical specifications of the		
	GMDSS consoles, the vendor shall provide equipment		
	confirming to the amended/latest specifications up to the		
Otho	date of submission of bids.  er Information		
24.	Vendor infrastructure profile		
25.	Orders in hand		
	(a) For government agencies		
	(b) For private agencies		
26.	Orders executed		
	(a) For government agencies		

	(b) For private agencies		
27.	Countries where the equipment has been supplied		
28.	Annual production capacity		
29.	Estimated price of the offered product		
30.	Applicable key technology		
31.	Any suggestion for enhanced performance		
32.	Financial information		
	(a) Balance sheet last three financial years		
	(year wise)	_	
	(b) Profits made		
	(c) Net worth		
	(d) Debt/Equity ratio		
	(e) Quick ratio		
	(f) Attach copies of certified published annual		
	report showing turnover and financial status in		
33.	support of above information.		
33.	Whether the vendor is authorised OEM/ dealer/		
	distributor/reseller of GMDSS console for sale, Installation		
	& Commissioning and lifecycle maintenance support for equipment in India? If yes, furnish relevant supporting		
	documents		
34.	Whether Indian Vendor are capable to indigenously		
	design and develop the required solution or through ToT		
	agreement? If so, the time frame and details thereof.		
35.	Whether the vendor is capable of supplying GMDSS		
	Consoles for Maritime Rescue Sub Centres (MRSCs) of		
	ICG.		
36.	Whether the vendor is capable for providing lifetime		
	maintenance/AIAMC support at various locations in India		
	including Andaman & Nicobar and Lakshadweep & Minicoy		
	Islands. If yes, furnish locations of maintenance support		
27	centres available in India.		
37.	Whether the vendor is providing copy of the applicable		
	certification/ type approval certificates of the proposed		
38.	equipment, if applicable  What is the past experience of vendor in supplying,		
50.	installation & commissioning and providing maintenance		
	support in respect of GMDSS console or other similar		
	equipment in India? Furnish client details.		
39.	Whether any vigilance enquiry has either been		_
	undertaken in the past or contemplated on the firm		
40.	Whether the vendor would be able to comply with all		
	provisions of DAP 2020 or not. If not, para/clause of DAP		
	2020 would not be agreed to with reasons.		
41.	What is the lead time of delivery of the equipment after		
	signing of contract ?		
42.	Whether the vendor is acceptability of payment terms as		
	per DAP 2020.		
43.	Any other relevant information		